

The Effect of Risk Management Committee Overlap on Firm Financial Performance: The Moderating Role of Leverage

Ahmad R. Alazzam^{(1)*}

Marwan H. Altarawneh⁽²⁾

Osamah J. Alorayni⁽³⁾

Bakil S. Dhaifallah⁽⁴⁾

Ahmad M. Aldegis⁽⁵⁾

(1) Full Time Lecturer, Aqaba University College, Al-Balqa Applied University, Aqaba - Jordan.

(2) Assistant Professor, Aqaba University College, Al-Balqa Applied University, Aqaba - Jordan.

(3) Full Time Lecturer, Aqaba University College, Al-Balqa Applied University, Aqaba - Jordan.

(4) Assistant Professor, Faculty of Administrative Sciences, Thamar University, Dhamar, Yemen.

(5) Full Time Lecturer, College of International Education, Chengdu University of Technology, Chengdu, China.

Received: 27/6/2026

Accepted: 24/8/2026

Published: 30/9/2026

* **Corresponding Author:**

ahmad.riyad@bau.edu.jo

DOI:<https://doi.org/10.59759/business.v5i3.2415>

Abstract

This study examines the impact of risk management committee overlap (RMCO) on firm financial performance (FP), with leverage (FLEV) as moderator variable, relying on a sample of 66 non-financial listed Jordanian firms from 2017 to 2020. FP is measured using return on assets (ROA). Therefore, references to FP in this research should be interpreted as ROA. The analysis was applied using fixed-effects (FE) and feasible generalized least squares (FGLS) methods. The findings reveal that RMCO has a positive but insignificant effect on FP. However, the moderating effect of FLEV was positive and statistically significant, indicating that the impact of RMCO on FP becomes stronger within the Amman Stock Exchange's firms at higher levels of FLEV. The findings of this research expand the knowledge on FP by

emphasizing how FLEV shapes the relationship between RMCO and FP in the context of developing economy. These observations suggest that board of directors should consider financing by debt when setting up financial policies and providing strategic guidance on management's financial decisions, as higher levels of leverage increase the effectiveness of RMCO in improving FP. The outcomes also assist investors by clarifying the influences that contribute to enhanced FP, thereby enabling them to take more efficient investing decisions.

Keywords: Risk Management Committee Overlap, Corporate Governance, Firm Financial Performance, Leverage; Amman Stock Exchange.

تأثير تداخل لجنة إدارة المخاطر على الأداء المالي للشركة: الدور المعتدل للرافعة المالية

أحمد رياض العزام⁽¹⁾ مروان حسن الطراونة⁽²⁾ أسامة جمال العريني⁽³⁾
بكيل صالح ضيف الله⁽⁴⁾ أحمد محمد الدقس⁽⁵⁾

- (1) محاضر متفرغ، كلية العقبة الجامعية، جامعة البلقاء التطبيقية، العقبة - الأردن.
- (2) أستاذ مساعد، كلية العقبة الجامعية، جامعة البلقاء التطبيقية، العقبة - الأردن.
- (3) محاضر متفرغ، كلية العقبة الجامعية، جامعة البلقاء التطبيقية، العقبة - الأردن.
- (4) أستاذ مساعد، كلية العلوم الإدارية، جامعة ذمار، ذمار، اليمن.
- (5) محاضر بدوام كامل، كلية التعليم الدولي، جامعة تشنغدو للتكنولوجيا، تشنغدو، الصين.

ملخص

تبحث هذه الدراسة في تأثير تداخل لجنة إدارة المخاطر على الأداء المالي للشركة مع استخدام الرافعة المالية كمتغير معتدل من خلال الاعتماد على عينة مكونة من 66 شركة أردنية غير مالية مدرجة خلال الفترة الممتدة من 2017 الى 2020. يتم قياس الاداء المالي للشركة باستخدام العائد على الأصول. لذلك، يشير مصطلح الأداء المالي للشركة في هذه الدراسة اينما ذكر الى العائد على الأصول. تمت عملية تحليل بيانات هذه الدراسة باستخدام طريقتي التأثيرات الثابتة والمربعات الصغرى المعممة. تشير النتائج الى الأثر الإيجابي ولكن غير المهم من حيث دلالاته الاحصائية لتداخل لجنة إدارة المخاطر على الأداء المالي للشركة. كذلك، كان التأثير المعتدل للرافعة المالية ايجابيا وذو دلالة احصائية، مما يشير الى ان تأثير تداخل لجنة إدارة المخاطر على الأداء المالي للشركة يصبح أقوى لدى الشركات المدرجة في بورصة عمان عند المستويات الأعلى من الرافعة المالية. تعزز نتائج البحث مستوى المعرفة حول الأداء المالي للشركة من خلال التأكيد على دور الرافعة المالية في تشكيل العلاقة بين تداخل لجنة إدارة المخاطر و الأداء المالي للشركة في سياق الاقتصاد النامي. تشير هذه النتائج الى وجوب أخذ مجلس الإدارة في اعتباره خيار التمويل عن طريق الدين عند وضع السياسات المالية وتقديم التوجيه الاستراتيجي للإدارة بشأن القرارات المالية، حيث ان المستويات الأعلى من الرافعة المالية تزيد من فعالية تداخل لجنة إدارة المخاطر في تحسين الأداء المالي للشركة. أيضا، تساعد هذه النتائج المستثمرين من خلال توضيح التأثيرات التي تساهم في تعزيز الأداء المالي للشركة، وبالتالي تمكينهم من اتخاذ قرارات استثمارية أكثر كفاءة.

الكلمات الدالة: تداخل لجنة إدارة المخاطر ، حوكمة الشركات، الأداء المالي للشركة، الرافعة المالية، بورصة عمان.

1. Introduction

Maximizing profits is a fundamental goal of business firms, as profitability represents one of the core success aspects of a business organization (Aldboush et al., 2023). Therefore, management and stakeholders need to identify the key factors that contribute to financial success. Different factors contribute to a firm's distinguished performance. Empirically, Huynh et al. (2022), Chatterjee and Nag (2022), Nguyen and Huynh (2023), and Mussallam (2024) demonstrate that the efforts and characteristics of the board of directors are among the factors influencing firm financial performance. Theoretically, board of directors, as a key corporate governance mechanism, positively affects FP. That is because it monitors management behavior, alleviates agency costs, and reconciles the interests of shareholders and management's behavior (Fama & Jensen, 1983; Amran et al., 2010; Liu & Fong, 2010).

In this sense, the board of directors is responsible for overseeing risk management, which is a complex mission (Nocco & Stulz, 2006). Effective monitoring risk management systems is important for attaining business objectives (Subramaniam et al., 2009). Board of directors forms subcommittees and delegates complex tasks to them. The board follows this strategy to avoid growing responsibilities and failure handling such tasks (Fama & Jensen, 1983; Klein, 1998; Tao & Hutchinson, 2013). Monitoring and advisory task is an example of board's complex tasks (Lee, 2020). Thereby, the board of directors tend to establish RMC. According to Harrison (1987) and Jensen (1993), RMC enhances the board's oversight ability by eliminating problems such free riding and poor attention. RMC is a prominent example of a board subcommittee.

RMC improves firm performance. This is because it reduces agency costs by aligning managerial decisions with the firm's established risk boundaries (Andres & Vallelado, 2008; Jia & Bradbury, 2021). Prior research has extensively examined the impact of RMC existence and characteristics, such as committee size, members' independency, frequency of meetings, gender diversity, and members' qualifications on FP (Boudiab & Ishak, 2020; Jia & Bradbury, 2021; Malik et al., 2021; Boudiab et al., 2022; Alduneibat, 2023; Toumeh, 2023; Alqatamin et al., 2024; Awotomilusi et al., 2025; Toumeh & Ghazalat, 2026).

RMCO is one of the distinctive structural characteristics of RMC. RMCO describes the interlocking membership structure between RMC and other board

committees. RMCO is when members of RMC serve on different committees simultaneously within the same board (Zheng & Cullinan, 2010). Previous studies show that RMCO improved FP (Coles et al., 2020; Sdiq & Abdullah, 2022). RMCO facilitates information flow and enhances communication channels, leading to lower agency costs and better FP (Faleye et al., 2011 & Geng et al., 2022). However, the influence of RMCO may vary across firms because they operate under different financial conditions. Particularly, firms operate under different leverage levels. Prior research demonstrated the role of leverage in improving FP (Tuan et al., 2019; Abdullah & Tursoy, 2021; Sdiq & Abdullah, 2022). Although multiple prior studies have examined the relationship between RMC's characteristics and firm performance, limited attention has been given to the influence of RMCO on firm performance. Besides, the effect of RMCO remains vague due to mixed empirical estimates. RMCO has been introduced in the literature as a core governance mechanism with the potential to improve performance. Therefore, further examination of the relationship between RMCO and firm performance is necessary to clarify the actual role of RMCO in improving firm performance. Furthermore, despite prior research examining the relationship between leverage and firm performance, none of prior studies have examined the moderating role of leverage in the relationship between RMCO and FP.

The current research analyzes panel data set. The data was collected from 66 listed industrial and services companies in ASE between 2017 and 2020. This study applies a fixed-effects method as a baseline regression analysis. Also, it uses feasible generalized least squares technique as an additional analysis to validate results. This study is situated in the Jordanian context, where industrial and services sectors represents two of the major sectors in Jordan. In December 2025, the market capitalization of industrial sector equals 10.98 billion Jordanian Dinar (JD) and 3.03 billion JD of services sector (ASE, 2025). 52.8 % of the market capitalization of listed firms in ASE belongs to these two sectors (ASE,2025). These numbers reflect the importance of listed industrial and services companies in ASE to the Jordanian economy, which going through sever challenges. Conflicts in neighboring countries have generated adverse economic impacts that Jordan has had to deal with for decades. The Iraqi war in 2003, the Arab Spring in 2011, and the Israel-Gaza conflict in 2023 are example of regional conflicts that have caused serious

economic damage, particularly to economic growth and investment. The Jordanian government's plan to confront these challenges focuses on enhancing structural reforms and developing the private sector to achieve the objectives of the cabinet's Economic Modernization Vision (International Monetary Fund, 2024).

This study contributes to existing scarce literature in different ways. First, the study expands the knowledge about the influence of RMCO on FP, especially in the light of ongoing academic debate because of empirical results' contradiction. Second, this study introduces leverage as a moderating variable in the relationship between RMCO and FP, providing new insight into how a different levels of leverage may determine the effectiveness of RMCO in raising FP. Lastley, this study demonstrates the applicability of agency theory, information processing theory, and resource dependence theory as a comprehensive theoretical framework for explaining how the influence of RMCO on FP varies across different levels of leverage. Lastly, the next parts of the paper had been placed as follows. Section 2 illustrates theoretical framework. Section 3 contains materials and methods. Section 4 discusses results. Eventually, section 5 displays the discussion.

2. Theoretical Framework

This study draws on agency theory, information processing theory (IPT), and resource dependence theory (RDT). These theories provide an integrated framework linking risk management committee overlap and leverage to firm performance. The current study develops theoretical framework and hypotheses based on these theories. In this regard, this study adopts agency theory as a primary theory and uses IPT and RDT as complementary theories.

2.1 Agency Theory

Agency theory, originally proposed by Jensen and Meckling (1976), suggests that conflicts in interest between principals (shareholders) and agents (managers) lead to higher agency costs. Agency costs are expenditures incurred by an entity to ensure that managerial behavior aligns with shareholder welfare and to monitor managerial compliance. The costs of monitoring, bonding, and residual loss constitute agency costs, which are responsible for diminishing firm's value (Jensen & Meckling, 1976).

Empirically, prior studies confirmed the negative association between agency costs and FP (Tuan et al., 2019; Ahmed et al., 2023; Kismawadi, 2025).

In this regard, firms endeavor to implement efficient governance mechanisms to alleviate agent conflicts, thereby reducing agency costs and preserving firm value. The board of directors serves as a primary governance mechanism that facilitates shareholders' oversight practice. Monitoring managerial behavior is primarily performed by board subcommittees, which are deputed to handle specialized supervision missions that exceed practical capacity of the board (Fama & Jensen, 1983; Klein, 1998). According to Reeb and Upadhyay (2010) and Sunny and Hoque (2025) delegating authority to subcommittees increases board effectiveness.

On one side of the debate, problems such as free riding and poor attention could be eliminated by subcommittees, which in turn enhances board's oversight ability (Harrison, 1987; Jensen, 1993). On the other side, subcommittees complicate communications and weaken information flow across the board (Kanapathippillai et al., 2024). Board subcommittees were established to perform various tasks, such as monitoring and advising (Lee, 2020). From the perspective of agency theory, RMC is viewed as a monitoring committee that aims to align management behavior with the board's acceptable levels of risk (Tao & Hutchinson, 2013).

The effectiveness of RMC depends on its attributes, such as size, the frequency of meetings, and independence. Another core determinant is the intensity of committee's informational connections with other board subcommittees. RMCO refers to RMC members who also serve on other board subcommittees (Musa et al., 2025). Thereby, RMCO enhances information flows within board and contributes to address issues of communication and coordination (Lipton & Lorsch, 1992; Eisenberg et al., 1998; Ding & Wei, 2023; Musa et al., 2025; Sunny & Hoque, 2025). Theoretically, RMCO can play crucial role in reducing information silos that emerge when board wide responsibilities are delegated to subcommittees (Reeb & Upadhyay, 2010).

According to agency theory, RMCO and financing by debt minimize agency problems and improve FP. Nonetheless, the association between RMCO and FLEV with FP is still controversial, and prior studies displayed different empirical findings on this relationship.

2.2 Information Processing Theory

The information processing theory was originally established by Galbraith (1974). Galbraith argued that when uncertainty surrounding a task increases, decision makers will require to process extra amount of information. Thus, when uncertainty increases, firms develop mechanisms that enable them to acquire, communicate, and process more information to make better decisions.

An example of these mechanisms is information sharing mechanism, which can be facilitated by having members who serve on multiple board committees, including the risk management committee (Musa et al., 2025). These members facilitate sharing risk-related information, communication, and integration. As a result, the decision-making process will be improved, thereby enhancing firm performance.

Later, Tushman and Nadler (1978) expanded and integrated IPT into organizational design theory. As they focused on the idea that organizational structure should fit information processing requirements. This means that organizations must develop their information processing capacities through designing structures and mechanisms that match their information processing requirements. A firm is more effective when its information processing capacity fits its information processing requirements. In this sense, excessive or insufficient information processing capacity may lead to ineffective risk-related decisions and weaken firm performance.

2.3 Resource Dependence Theory

Resource Dependence theory revolved on the idea that organizations depend on other business institutions for important resources (Pfeffer & Salancik, 1978). It means that firms need each other to provide necessary resources for their survival and performance (Casciaro & Piskorski, 2005). The uncertainty stemming from external resources dependencies urges firms to design structures and mechanisms to mitigate it (Dress & Heugens, 2013). According to Jiang et al. (2023), firms seek to reduce the risks arising from their dependence on external resources by actively managing the flow of resources, information, and expertise within and outside the firm. In this vein, RMCO is one of the mechanisms designed by the board of directors to facilitate access to information, knowledge, expertise, and resources across the governance structure.

2.4 The Relationship Between RMCO and Firm's Financial Performance

Agency theory proposes that RMCO minimizes information asymmetry and provides more capable members to perform effective oversight and advice (Brandes et al., 2016). Board members who serve in RMC and other board subcommittees have broader awareness of managerial performance (Hartzell & Starks, 2003). According to Faleye et al. (2011), RMCO can enhance the intensity of board monitoring and improves the quality of oversight, thereby enabling directors to align managers' behavior with shareholders' interests. According to Bhuiyan and Cheema (2024), board members who serve both the RMC and other board subcommittees facilitate the flow of information and improve monitoring quality. These benefits may contribute to enhance FP.

From the perspective of information processing theory, as expressed by Galbraith (1974), uncertainty in operational environment urges firms to have members who serve in different board committees, including the risk management committee. Firms follow this structural mechanism to acquire and process the information needed to improve risk-related decision-making. Taking better risk-related decisions leads to preferable firm performance. On the other hand, from the perspective of Tushman and Nadler (1978), merely adopting an information sharing mechanism by having RMC members who serve on other board committees may not be sufficient. This mechanism may not lead to effective risk-related decisions and improved firm performance unless the number of overlapping members fits the firm's information processing requirements.

Additionally, resource dependence theory suggests that firms develop organizational structures and mechanisms to address uncertainty surrounding the availability of critical resources. One of the steps in this direction is having RMC members who also serve on other board committees. RMCO can enable firms to manage resources more effectively by facilitating the flow and processing of information across different governance bodies. This is, in turn, can support better decision-making in addressing uncertainty surrounding critical resources, thereby improving firm performance.

Empirical literature shows an academic debate on the association between RMCO and FP. One stream of literature argues that RMCO weakens FP, while another stream suggests that RMCO strengthens FP. On the one hand, the empirical

estimates reported by Coles et al. (2020) indicate that directors overlap is associated with lower FP in dynamic firms. The study sample included U.S. public companies, where selected firms were all from the S&P type. Additionally, Kallamu (2015) asserted the significant negative relationship between RCMO and FP. The study was conducted in the context of Malaysia, where the study sample comprised from 37 financial companies. In the same vein, the results reported by Ullaha et al. (2021) and Edacherian et al. (2024) show a negative association between board committee overlap and firm performance.

On the other hand, there is a broader consensus on the positive effect of RMCO on FP. For instance, Coles et al. (2020) empirically concluded that directors overlapping had a positive impact on FP within complex firms. In the Australian context, Tao and Hutchinson (2013) examined the relationship by analyzing collected data from 238 Australian financial firms over 2006–2008. The research found that directors who served simultaneously on two committees reduced information asymmetry, resulting in a positive association between risk and FP. Moreover, Rutledge et al. (2016) reported results that found a positive association between RMCO and FP. Finally, the findings reported by Bhuiyan and Cheema (2024) show that overlapping committee members enhance firm performance by reducing the cost of equity capital. In a nutshell, prior literature reported divergent findings on the relationship between RMCO and FP, therefore there is still indecisive evidence regarding this relationship. Thus, this study follows Tao and Hutchinson (2013), Rutledge et al. (2016) and Coles et al. (2020) and hypothesizes the following.

H1: There is a positive association between risk management committee overlap and firm's financial performance.

2.5 The Moderating Role of Leverage

Agency theory proposes that financing by debt decreases agency problems. Consistent debt payments force managers to operate with discipline and expose them to extra monitoring by investors (Jensen & Meckling, 1976). Thus, financing by debt improves board oversight and strengthens FP.

From the perspective of information processing theory, Tushman and Nadler (1978) suggest organizations follow a contingency approach by designing their

information processing capacity to fit their information processing requirements. Firms design their information processing capacity according to two criteria. First is the level of uncertainty. Second, the type and amount of information processing requirements.

RMCO is a designed mechanism to develop firm's information processing capacity. On the other hand, higher amounts of debt increase financial uncertainty and introduce new level of information processing requirements. If the imposed level of information processing requirements by leverage fits with the RMCO's capacity to process it, then leverage will strengthen the relationship between RMCO and FP. This is because the theory states that the only way for effective decision-making processes is by reaching the fitting point between firm's information processing requirements with information processing capacity. In other words, the fitting between RMCO and imposed level of information processing requirements by leverage will lead to efficient risk-related decisions and better firm performance.

Resource dependence theory represents another theoretical basis for considering leverage as a moderator variable. A firm with high level of leverage means it is highly dependent on external financial organizations. This situation exposes a firm to higher financial uncertainty. To be able to manage this financial risk, a firm needs to assess financial, strategic, risk, and audit information before making any related decisions. Under these circumstances, the role of RMCO becomes more valuable with enhancing decision-making process and firm performance.

There is contradictory empirical literature evidence on the relationship between leverage and FP. One stream of research finds a negative association between leverage and FP (Abor, 2007; Jermias, 2008; Salim & Yadav, 2012; Soumadi & Hayajneh, 2012; Sheikh & Wang, 2013; Nassar, 2016; Li et al., 2019; Pandey & Sahu, 2019; Danso et al., 2021; Gharadallou, 2023; Alabdulkarim et al., 2024; Khan & Qasem, 2024; Tulcanaza-Prieto et al., 2024; Jaiswal & Elmarzouky, 2025; Khoza, 2025; Nassim et al., 2025; Altarawneh et al., 2026; Toumeh & Ghazalat, 2026); however, an alternative stream finds that leverage improves FP (Nasimi, 2016; Tuan et al., 2019; Abdullah & Tursoy, 2021; Ayaz et al., 2021; Khan, 2022; Sdiq & Abdullah, 2022; Mansour et al., 2024). Despite protracted research on the association between leverage and FP, the moderating effect of leverage on the relationship between RMCO and FP is still underexamined. This hampers our

recognition of how leverage defines the effectiveness of RMCO. Therefore, this study proposes the second hypothesis as follows:

H2: Firm leverage positively moderates the association between risk management committee overlap and firm's financial performance.

3. Methodology

This section displays the current study's choices regarding methodological framework. In this vein, section 3.1 discusses the sample and data sources. Section 3.2 presents the measurement of variables. Finally, section 3.3 states the empirical models.

3.1 Sample and Data Sources

The sample of this study included all listed industrial and services firms in ASE in 2017. Obviously, Companies of Jordanian financial sector were dropped due to their different nature of activities. Among all firms listed in the industrial and services sectors, only those who met the predetermined criteria were included in the study sample. First, selected firm must be listed for the whole period of current study, which extended from 2017 to 2020. Second, annual reports of selected firms should be obtainable for the study period.

The total number of listed companies in ASE for the year 2017 was 191. Table 1 shows that the listed firms in ASE are classified into financial, services and industry. As stated before, financial sector's companies were excluded. Additionally, firms that did not publish annual reports during the four-years study period were excluded. Table 1 shows that final sample consists of 66 firms, which are allocated into 35 services firms and 31 industrial firms. Nineteen observations were deducted after being assigned as outliers. Ultimately, the final sample consisted of 245 firm-year observations, representing 75 % of the study's population of 352 firm-year observations.

Table 1: Sample Selection Summary

	Financial Sector	Services Sector	Industrial Sector	Total number of companies	Number of observations
Listed companies on ASE in 2017	103	46	42	191	764
Less: financial sector companies	(103)			(103)	(412)
Less: companies that were not listed during 2017-2020		(6)	(4)	(10)	(40)
Less: companies with annual reports deficient		(5)	(7)	(12)	(48)
Number of companies in the final analysis	0	35	31	66	264
Less: outliers					(19)
Observations of final analysis					245
Source: this Table prepared by author depending on issued yearly sector bulletin by Amman Stock Exchange, https://www.ase.com.jo/en/bulletins/yearly					

This study picked annual reports as source of financial information documents. Annual reports are trusted tools for sharing governance information. Eventually, the panel data set of this study was manually collected through content analysis of 245 annual reports.

3.2 Measurement of Variables

Return on assets represents the dependent variable of current study's model. Moreover, the current study used the yearly net income divided by firm's total assets as measurement of FP (Alduneibat, 2023).

The independent variable of this research is RMCO. RMCO was operationalized as the total number of directors who concurrently serve on the RMC and other board committees (Boudiab et al., 2022). Additionally, the current study employed leverage as a moderator of the association between RMCO and FP.

Leverage variable was measured by the total debt amount in relation to total assets (Alazzam et al., 2025; Altarawneh et al., 2026).

Table 2 shows the summary of dependent, independent, moderating, and control variables. For control variables, this study analyzed the impact of firm size (SIZE), firm age (FAGE), industry type (ITYPE), dividends per share (DPS), and audit firm (BIG4). Firm size was measured by the logarithm of firm's total assets (Alorayni et al., 2026; Toumeh & Ghazalat, 2026). Regarding FAGE variable, it was operationalized as the extended years from firm's establishment date till current study period (Alqatamin et al., 2024). Following Boshnak (2022), ITYPE is measured using a binary (dummy) variable equal to 1 if a firm is industrial, and 0 otherwise. Also, DPS variable was measured by the total declared dividends amount during the fiscal year to the total number of outstanding ordinary shares (Dsouza et al., 2025). Finally, current study measured BIG4 variable by using a binary variable, which had been given a value equals one when audit firm was one of the big four and zero value otherwise (Gerged, 2021).

Table 2: Summary of Variables

Variables	Proxy	Measurement
Firm's financial performance	ROA	Return on Assets (ROA) is yearly net income divided by firm's total assets (Alduneibat, 2023)
Risk Management Committee Overlap	RMCO	The total number of directors which are concurrently serving in the RMC and other board committees (Boudiab et al., 2022).
Firm Leverage	FLEV	Total debt amount in relation to total assets (Alazzam et al., 2025; Altarawneh et al., 2026)
Firm size	SIZE	The logarithm of firm's total assets (Alorayni et al., 2026; Toumeh & Ghazalat, 2026)
Firm Age	FAGE	The extended years from firm's establishment date till current study period (Alqatamin et al., 2024)
Industry Type	ITYPE	A binary (dummy) variable equal to 1 if a firm is industrial, and 0 otherwise (Boshnak, 2022)
Dividends Per Share	DPS	The total declared dividends amount during the fiscal year to the total number of outstanding ordinary shares (Dsouza et al., 2025).
Audit Firm	BIG4	A binary variable which has a value equals one when audit firm is one of the big four and zero value otherwise (Gerged, 2021)

Source: this Table prepared by author

3.3 Empirical Models

The current research used static panel data estimation method, which is FE regression, to analyze the impact of some determinants on firm's financial performance. FE is exemplified by equations (1) and (2) to examine H1 and H2, respectively. Model 1 tests the direct effect of RMCO on ROA, controlling leverage and all other variables. Model 2 augments Model 1 through adding interaction term $RMCO \times FLEV$ to test the moderating hypothesis.

$$ROA_{it} = \beta_0 + \beta_1 RMCO_{it} + \beta_2 FLEV_{it} + \beta_3 SIZE_{it} + \beta_4 FAGE_{it} + \beta_5 ITYPE_{it} + \beta_6 DPS_{it} + \beta_7 BIG4_{it} + \alpha_i + \varepsilon_{it}$$

$$ROA_{it} = \beta_0 + \beta_1 RMCO_{it} + \beta_2 FLEV_{it} + \beta_3 (RMCO \times FLEV)_{it} + \beta_4 SIZE_{it} + \beta_5 FAGE_{it} + \beta_6 ITYPE_{it} + \beta_7 DPS_{it} + \beta_8 BIG4_{it} + \alpha_i + \varepsilon_{it}$$

Here ROA refers to firm's financial performance as measured by return on assets. β_0 is intercept. β_1 -8 are parameters of current study's variables. α represents the firm specific effect. Eventually, ε refers to error component.

4. Results

This section presents the steps undertaken in the data analysis process to examine the hypotheses of current study. The first hypothesis predicts a positive relationship between RMCO and FP, while the second hypothesis expects a positive role of leverage in moderating this relationship. This section consists of descriptive statistics, correlation analysis, regression results, and additional analysis.

4.1 Descriptive Statistics

The descriptive statistics of this study are displayed in Table 3. Current research selected the natural logarithm of total assets as measurement to firm size. Furthermore,

it winsorized data at percentile level (1%-99%) to minimize the influence of outliers. Even though, nineteen outliers were assigned and deducted by using the Cook's distance method. As a result, the final number of observations is 245.

Table 3: Descriptive Statistics.

Variables	Obs	Mean	Std. Dev.	Min	Max
ROA	245	1.937	5.657	-13.297	29.289
RMCO	245	2.245	0.994	0.000	5.000
FLEV	245	33.557	21.173	0.969	94.727
SIZE	245	7.526	0.566	5.979	9.111
FAGE	245	29.094	16.832	8.000	80.000
ITYPE	245	0.473	0.500	0.000	1.000
DPS	245	0.056	0.106	0.000	1.100
BIG4	245	0.363	0.482	0.000	1.000

Table 3 shows that ROA index has 1.937 % in average for the years 2017-2020, where the lowest and highest values are equal -13.297 % and 29.289 %, respectively. This finding surpasses the average estimation of 0.125 % reported for a sample of Iranian companies by Ahmed et al. (2023), while it falls short of the mean value of 3.971 % reported for a sample of Malaysian listed companies by (Boudiab et al., 2022). Table 3 displays an average RMCO value of 2.245, indicating that, on average, approximately two RMC members in Jordanian firms concurrently serve on other board committees. This finding is higher than the average RMCO value reported by (Boudiab et al., 2022). Table 3 shows that leverage has an average value of 33.557 %, representing the moderating variable in this study. This estimation means that Jordanian services and industrial firms rely on debt financing by this percentage. This estimated average leverage value is higher than the reported by (Alduneibat, 2023), which was 0.1826 %.

4.2 Correlation Analysis

The correlation matrix test detects the collinearity among two specific variables. Table 4 presents the Person correlation estimates for the associations

between the dependent variable, independent variable, and control variables.

Table 4: Correlation Analysis.

	ROA	RMCO	FLEV	SIZE	FAGE	ITYPE	DPS	BIG4
ROA	1.000							
RMCO	0.071	1.000						
FLEV	-0.318***	0.016	1.000					
SIZE	0.092	0.036	0.462***	1.000				
FAGE	-0.016	0.015	0.278***	0.341***	1.000			
ITYPE	-0.133**	0.021	0.038	-0.098	0.060	1.000		
DPS	0.614***	-0.050	-0.081	0.247***	0.208***	-0.101	1.000	
BIG4	0.107*	-0.118*	0.147**	0.395***	0.491***	-0.104*	0.187***	1.000

Note: Statistical significance at the 10%, 5%, and 1% levels is denoted by *, **, and ***, respectively.

The results of Pearson correlations analysis between dependent, independent, moderator, and control variables are provided in Table 4. On one hand, Table 4 shows that ROA has a positive and statistically significant correlation with dividends per share (DPS) and audit firm (BIG4). On the other hand, ROA correlates in a negative and significant way with firm FLEV and industry type (ITYPE). The p-values varies from 5 percent to 1 percent. Additionally, the upper bound observed correlation is 0.614 between ROA and DPS. This correlation value sufficiently low to avert multicollinearity issues. As shown in Table 5, the mean variance inflation factors (VIF) are 1.32 for Model 1 and 3.17 for Model 2. These values denote that the panel data are free from multicollinearity problems.

4.3 Regression Results

The current study selected FE models as a base to test hypotheses after considering significant estimates of Hausman test. As Table 5 shows, the p-values of Wald test and Wooldridge test are lower than 0.05. These values refer that data have heteroskedasticity and serial correlations issues. The current study followed two steps to address these issues. First, applying fixed effects models with a cluster

robust standard error. Second step, this study performed additional analyses using FGLS.

Table 5: Fixed Effects Regression.

	(Model1)	(Model 2)
	ROA	ROA
RMCO	0.186	-1.533**
	(0.565)	(0.578)
FLEV	-0.215***	-0.301***
	(0.039)	(0.051)
RMCO*FLEV		0.044**
		(0.019)
SIZE	18.233***	17.742***
	(5.388)	(5.239)
FAGE	-0.408**	-0.467**
	(0.201)	(0.188)
DPS	24.135***	23.965***
	(2.372)	(2.585)
BIG4	-0.403	-0.757
	(2.387)	(2.038)
Constant	-117.821***	-108.84***
	(40.762)	(39.908)
Number of Obs.	245	245
R-squared	0.4710	0.501
Breusch–Pagan Lagrange Multiplier	0.0000	0.0000
Hausman test	0.0000	0.0000
Mean VIF	1.3200	3.17
Wald test	0.0000	0.0000
Wooldridge	0.0303	0.0494
Note: Statistical significance at the 10%, 5%, and 1% levels is denoted by *, **, and ***, respectively.		

Table 5 shows the effect of RMCO, FLEV, RMCO*FLEV, and control variables on ROA. The relationships between these variables were examined using

the fixed effects models with a cluster robust standard error. ROA is used by this study to measure firm's financial performance. Obviously, Table 5 illustrates the regression estimates which reflected the moderating role of FLEV on the association between RMCO and ROA. Model 1 shows that in the absence of moderator variable, ROA is affected positively but insignificantly by RMCO with coefficient of 0.186. Although RMCO is associated with an increase in the ROA, this relationship is not statistically supported. For that reason, the first hypothesis proposed by current study, which posits a positive and significant association between RMCO and ROA, is rejected. Eventually, the estimates of model 1 in Table 5 show that FLEV has a negative and statistically significant influence on ROA.

The insignificant relationship between RMCO and FP may have several explanations. One possible explanation that managerial behavior may already be strongly committed to achieving the best in shareholders' interest. Consequently, agency conflicts may be limited, which exposed firms to less agency costs. As a result, RMCO may have a limited role in reducing agency costs and enhancing FP. Another possible explanation is that RMCO may represent limited information processing capacity compared to the volume of information processing requirements. Consequently, RMCO may have an ineffective role in enhancing firm performance

Model 2 examined the moderating influence of FLEV on the association between RMCO and ROA. The results presented in Table 5 show that FLEV positively and significantly moderates the relationship between RMCO and ROA. The interaction term has a coefficient that is statistically significant and positive ($RMCO * FLEV = 0.044$, $P < 0.05$). Therefore, the second hypothesis of this research is supported.

This result could be explained in several ways. One of these explanations is that higher leverage necessitates managers to exert greater financial commitment. More debts mean that more financial resources must be allocated to debt repayments. Consequently, managers may start avoiding any expenditures that is not in the best of shareholders' interest. Under high levels of leverage, managers are subject to greater monitoring efforts through RMCO. As leverage increased, RMCO intensified monitoring because any deviation from shareholders' interests in managerial decision making could result in higher agency costs and lower firm performance.

Another explanation could be stemmed from the perspective of information

processing theory. The theory emphasizes the need for a fit between a firm's information processing capacity and its information processing requirements to produce effective risk-related decisions. Recalling that the RMCO represents information processing capacity, the results of Model 2 suggest that lower leverage is associated with excess information processing capacity. As leverage increased, financial uncertainty also increased. This increased information processing requirements. As the requirements became more aligned with RMCO capacity, risk-related decision making improved. Consequently, firm performance also enhanced.

Figure 1 shows the interaction plots, which visually illustrates the effect of the moderating variable (FLEV) on the relationship between RMCO and ROA. The downward sloping lines suggest that higher RMCO is associated with lower firm performance. In contrast, the slope becomes gradually less negative as FLEV increases. This indicates that higher FLEV weakens the negative impact of RMCO on firm performance. In other words, the RMCO leads to better firm performance at higher levels of leverage.

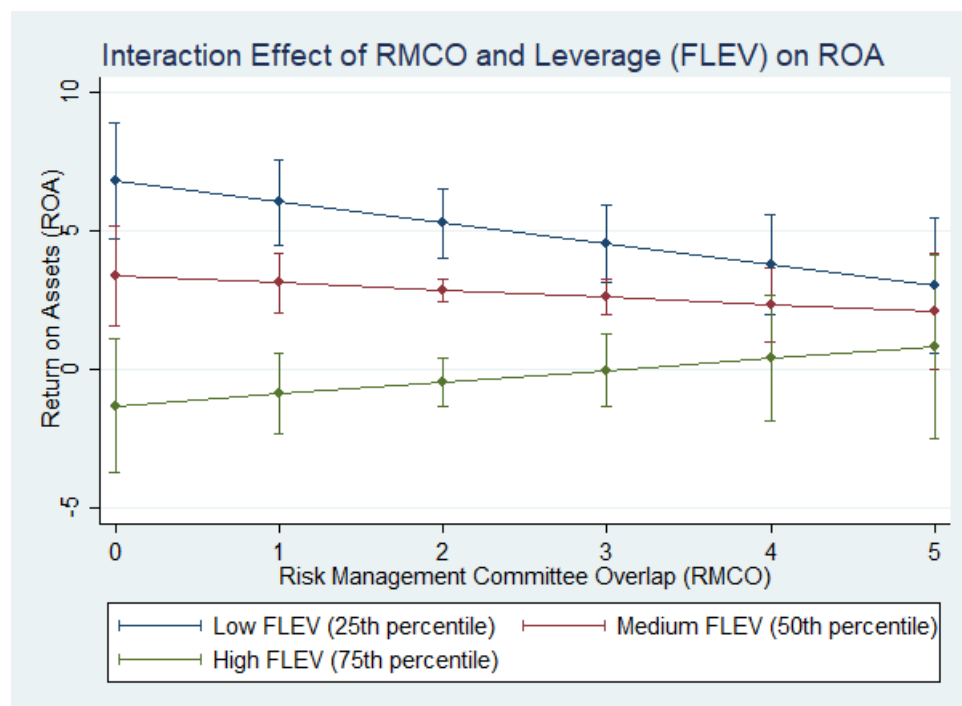


Figure 1: The Effect of The Interaction Between RMCO and FLEV on ROA

4.4 Robustness and Sensitivity analyses

This section provides several additional analyses to assess the robustness and sensitivity of the main estimates. First analysis is an alternative measurement of firm performance, where ROA was replaced with return on equity (ROE). Second, an endogeneity test was performed to check reverse causality. Third, an alternative estimation technique was applied to re-estimate baseline models, where fixed effects regression was replaced with FGLS. These analyses show whether the main results are sensitive to the performance measurement, potential causality, and the estimation techniques.

4.4.1 Alternative measurement of firm performance

This analysis assesses whether the results are sensitive to change of firm performance measurement. Therefore, the ROA was replaced with ROE, which measured by dividing net income on total equity (Aldboush et al., 2023).

Table 6 shows the re-estimated models using ROE as dependent variable. The findings are broadly consistent with the baseline results on ROA. In model 1, the RMCO still has insignificant influence on ROE. On the other side, model 2 shows that FLEV has a positive and significant effect moderating the relationship between RMCO and ROE. Table 6 Shows that the empirical estimates of current study's model remain consistent across the two alternative measurements of firm performance.

Table 6: Fixed Effects Regression.

	(Model1)	(Model 2)
	ROE	ROE
RMCO	0.737	-1.429*
	(0.466)	(0.835)
FLEV	-0.347***	-0.383***
	(0.079)	(0.082)
RMCO*FLEV		0.019*
		(0.017)
SIZE	39.670***	39.477***
	(11.1807)	(11.115)
FAGE	-0.702**	-0.709**

	(Model1)	(Model 2)
	(0.309)	(0.305)
DPS	35.216***	35.822***
	(9.282)	(9.775)
BIG4	-2.945	-3.061
	(3.122)	(3.012)
Constant	-263.030***	-260.035***
	(83.275)	(82.890)
Number of Obs.	245	245
R-squared	0.3980	0.501
Breusch–Pagan Lagrange Multiplier	0.0000	0.0000
Hausman test	0.0000	0.0000
Mean VIF	1.3400	3.2000
Wald test	0.0000	0.0000
Wooldridge	0.1078	0.0651
Note: Statistical significance at the 10%, 5%, and 1% levels is denoted by *, **, and ***, respectively.		

4.4.2 Endogeneity Analysis

Based on the baseline regression estimates, FLEV moderates the relationship between RMCO and ROA. This means that, at higher levels of leverage, the effect of RMCO on ROA becomes stronger. However, there is a concern that higher ROA may, in turn, motivate firms to establish stronger governance mechanisms, such as RMCO, and increase the reliance on debt financing. Thus, there is a concern that endogeneity might exist due to reverse causality.

To address potential reverse causality, the independent variable RMCO was lagged by one year. Table 7 shows the regression estimates of lagged model 1 and model 2. Obviously, the number of observations dropped to 177, because using one year lag omitted the first-year observations. However, the coefficient of lagged RMCO in model 1 and the coefficient of lagged interaction term in model 2 are consistent in direction and statistical significance with baseline regression results. It means that the results provide evidence supporting the hypothesis that casual direction runs from RMCO and FLEV to ROA rather than in the opposite

direction. Thereby, the results of reverse endogeneity test reduce concerns that the main findings are driven by reverse causality.

Table 7: Reverse Endogeneity Test

	(Model1)	(Model 2)
	ROA	ROA
L.RMCO	0.397	-1.568*
	(0.581)	(1.063)
FLEV	-.0266**	-0.355***
	(0.102)	(0.120)
L.RMCO*FLEV		0.046*
		(0.032)
SIZE	27.763**	26.895***
	(10.801)	(10.105)
FAGE	-0.826***	-0.87***
	(0.303)	(0.280)
DPS	16.184**	21.081**
	(7.385)	(9.901)
BIG4	-2.396***	-2.247***
	(0.805)	(0.757)
Constant	-175.078**	-163.642**
	(78.943)	(73.697)
Number of Obs.	177	177
R-squared	0.331	0.362
Note: L.RMCO: lagged risk management committee overlap. Statistical significance at the 10%, 5%, and 1% levels is denoted by *, **, and ***, respectively.		

4.4.3 Alternative Estimation Technique

In this section, the baseline models were re-estimated using FGLS as an extra robust assessment. According to Bai et al. (2021), FGLS provides more efficient estimates than ordinary least squares, especially where panel data suffers heteroskedasticity and cross-sectional correlations issues. Therefore, FGLS estimator is capable of addressing these statistical issues. As a result, it provides more consistent and unbiased estimates. The existence of heteroskedasticity and

serial correlation in current study's panel data motivated the use of FGLS. Table 8 illustrates that the signs of the coefficient and levels of statistical significance do not materially change when FGLS is applied instead of FE. Thus, the estimates of FGLS model indicate that the results of baseline analysis are not sensitive to the choice of estimation technique.

Table 8: Feasible Generalized Least Squares Regression (FGLS).

	(Model1)	(Model 2)
	ROA	ROA
RMCO	0.244	-0.569**
	(0.163)	(0.280)
FLEV	-0.093***	-0.124***
	(0.015)	(0.019)
RMCO*FLEV		0.022***
		(0.007)
SIZE	2.178***	1.637***
	(0.616)	(0.591)
FAGE	-0.022	-0.022
	(0.020)	(0.017)
ITYPE	0.531	0.058
	(0.637)	(0.564)
DPS	26.604***	28.222***
	(1.536)	(1.766)
BIG4	0.085	0.037
	(0.706)	(0.633)
Constant	-13***	-7.475*
	(4.535)	(4.383)
Chi square	418.530***	372.970***
Number of Obs.	245	245
Note: Statistical significance at the 10%, 5%, and 1% levels is denoted by *, **, and ***, respectively.		

5. Discussion

The purpose of this section is to place the study's findings within the broader theoretical framework and existing literature on the relationship between RMCO, FLEV, and FP. It compares findings with prior research to identify similarities and differences and discussing their theoretical and practical implications. Finally, it discusses the limitations and future research.

Empirical estimates of current study are presented in Tables 5. Estimates of model1 in Table 5 contrast with first hypothesis. This is because RMCO had insignificant effect on FP. On the one hand, this result aligns with the findings reported by Boudiab et al. (2022), who found that RMCO was an insignificant determinant of FP in Malaysian context. Furthermore, it is consistent with the reported findings by Bhuiyan and Cheema (2024), which show that overlapping committee members enhance firm performance by reducing the cost of equity capital. On the other hand, this finding contrasts with Tao and Hutchinson (2013) and Rutledge et al. (2016), who found a significantly positive relationship between RMCO and FP. Additionally, it is in contrast with the findings provided by Ullaha et al. (2021) and Edacherian et al. (2024), who found a negative association between board's committees overlap and firm performance.

This result's lack of statistical significance may be attributed to different reasons. First, the motivations of Jordanian firms for establishing board subcommittees and having board members serve on two or more of them simultaneously remain unclear. They have been driven either by strategic intention or code obligation orientation. In case of strategic orientation, RMCO is expected to noticeably improve FP, whereas, in the case of a compliance to code, it may represent a weak practice that falls short of best practice. This argument is consistent with the findings reported by Arcot et al. (2010), who showed that firms were divided into those that genuinely obligate to governance practices and those that only comply with them.

Second, the size of board of directors could be an explanation. Directors' boards with small sizes tend to be less vulnerable to issues like information asymmetry and weaknesses in communication channels. Forbes and Milliken (1999) suggest that this is true under condition that directors have adequate expertise. Therefore, RMCO is expected to play only a secondary role, with limited enhancement to FP. Third, smaller boards of directors might assign some directors

to serve on two or more subcommittees simply to compensate for the limited number of board members. Therefore, members' expertise is not always the criteria for selecting the members of RMCO. This will reduce the efficiency of running risk management system and negatively affect FP. This justification is in line with Coles et al. (2008), who found that small board of directors could be harmful in case of business organizations that are highly leveraged, large in size, and diversified across industries. Such companies require utmost advisory support, which is more likely to be matched with large boards. Finally, the dissimilarities in firms' internal control policies may contradict with board's list of selected directors in RMCO. As a result, it may affect the quality of overlapping role and its ability to substantially improve FP. The board's choices regarding number and qualifications of RMC members who simultaneously serve on other subcommittees might be limited by internal control considerations. Avoiding excessive concentration of power among a few directors and undermining their independence are examples of such considerations. In this regard, Jensen (1993) argued that internal control frameworks may obstruct effective governance efforts, thereby leading to poor strategic adjustments and firm performance. In a nutshell, findings regarding the relationship between RMCO and FP could vary according to different contextual alternatives. Thereby, the current study aimed to clarify the impact of RMCO on FP in the Jordanian context as an emerging economy example. Also, it aims to analyze whether the effect of RMCO on FP is strengthened under high leverage. Fourth, Edacherian et al. (2024) attributed the weak influence of board committees overlap on firm performance to information overload. Directors' ability to process required information decreases when they are exposed to a wide range of information.

Table 5 shows results of model 2 which analyses the relationship between RMCO and FLEV with FP, where FLEV is a moderator variable. Consistent with hypothesis 2, the results indicate that the interaction term has a positive and significant coefficient ($\beta_3 = 0.044$, $P < 0.05$). This finding indicates that FLEV positively and significantly moderates the relationship between RMCO and FP. Specifically, as FLEV increases, the effect of RMCO on FP becomes stronger. In other words, a one percent point increase in FLEV strengthens the effect of an additional RMC member serving on two or more board subcommittees on FP by 0.044 percentage point. Compatibly with previous studies, this result proves that higher percentage of leverage drives stronger

relationship between RMCO and FP (Tuan et al., 2019; Abdullah & Tursoy, 2021; Sdiq & Abdullah, 2022; Mansour et al., 2024).

Furthermore, it substantiates the theoretical assertions of agency theory that debt has a key role in decreasing agency costs and ameliorate an organization's efficiency (Jensen & Meckling, 1976). Also, this result supports the perspective of information processing theory, where higher leverage created greater uncertainty. This raised firm's information processing requirements to a fitting limit with RMCO. Recalling that RMCO represents a firm's information processing capacity. In a different words, this finding indicates that when leverage decreased, uncertainty and information processing requirements decreased. Consequently, the RMCO's capacity exceeded information processing requirements. The excessive capacity represented extra financial load in the shape of unnecessary costs, excessive meetings, and slower decision making. On the other side, as leverage increased, it raised financial uncertainty within a firm. Thereby, firms needed to obtain, analyze, and share more information which enabled them to properly react to the uncertainty by taking effective decisions. Thus, the RMCO's role in effective information processing and decisions led to better firm performance. Finally, this result is in line with resource dependence theory. High leverage succeeded in strengthening the influence of RMCO on FP, because it put firms under greater pressure from external financial parties like creditors, lenders, and bondholders. To handle such pressure, firms ought to decide strategically how to avoid disruption in financing resources and how to reduce their dependence. Under this situation, the information, expertise, and coordination by RMCO improved the decisions made by firms. Thereby, the firms' performance thrived.

The estimates of current study provide practical and theoretical implications. At the practical level, shareholders and nomination committees in Jordanian companies may find these estimates helpful for enhancing board structure efficiency. This can be achieved by electing directors based on their expertise and deciding on an appropriate board size. These two aspects may help explain the insignificant relationship between RMCO and FP. Additionally, the estimates of this study may help investors make better investment decisions by expanding their awareness of the factors that matter when selecting profitable investments. Furthermore, board of directors in Jordanian companies are expected to gain a better understanding of the link between debt and

financial performance. This may help them establish more efficient capital structure policies and provide better strategic guidance on management's financial decisions. These estimates may also help policymakers identify the appropriate aspects of board structure that should be developed when updating legal frameworks. This may strengthen the effectiveness of RMCO.

From theoretical perspective, this research expands previous literature by highlighting the moderating role of FLEV in strengthening the influence of RMCO on FP. Also, the findings contribute to agency theory by extending its applicability and demonstrating that the impact of RMCO on FP is conditional on FLEV.

This study is subject to several limitations. First, it examined the relationship between RMCO and FP by focusing on non-financial sectors only, mainly the services and industrial sectors. Second, this research selected a study period that extended from 2017 until 2020. Third, it merely examined the changes in relationship between RMCO and ROA in the presence of different debt financing intensity. Future research can study a sample of all listed firms in ASE or those in financial sector. Also, future studies may reexamine the models of this study by analyzing datasets from different time periods and comparing their results with the estimates reported in this study. Eventually, future studies may examine the association between RMCO and FP in different contextual scenarios, like board size and borders' expertise.

References

- Abdullah, H., & Tursoy, T. (2021). Capital structure and firm performance: evidence of Germany under IFRS adoption. *Review of Managerial Science*, 15(2), 379-398.
- Abor, J. (2007). Debt policy and performance of SMEs: Evidence from Ghanaian and South African firms. *The journal of risk finance*, 8(4), 364-379.
- Ahmed, A. M., Nugraha, D. P., & Hågen, I. (2023). The relationship between capital structure and firm performance: The moderating role of agency cost. *Risks*, 11(6), 102.
- Alabdulkarim, N., Kalyanaraman, L., & Alhussayen, H. (2024). The impact of firm size on the relationship between leverage and firm performance: evidence from Saudi Arabia. *Humanities and Social Sciences Communications*, 11(1),

1664.

- Alazzam, A. R., Saleh, N. M., Jaffar, R., & Hamzah, N. (2025). Moderating role of the Arab spring crisis on the association between government ownership and corporate social disclosure. *Heliyon*, 11(15), e44062.
- Aldboush, H. H., Almasria, N. A., & Ferdous, M. (2023). Determinants of firm profitability: empirical evidence from Jordan's service sector. *Business: Theory and Practice*, 24(2), 438-446.
- Alduneibat, K. A. (2023). The effect of risk management committee characteristics on a company's performance in an emerging country. *Journal of Governance and Regulation*, 12(1), 376-386.
- Alorayni, O., Alazzam, A. R., Altarawneh, M., & Alwreikat, H. (2026). Board Characteristics, Audit Committees, and Earnings Manipulation: Examining the Moderating Influence of CEO Power in Jordan's Capital Market. *Economic Studies journal*, 35(5), 152-174.
- Alqatamin, R. M., Altawalbeh, M. A., & Shbeilat, M. K. (2024). Do the attributes of a Risk Management Committee Affect Company Performance? A comparative study before and after the COVID-19 pandemic. *Corporate and Business Strategy Review*, 5(1), 410-419.
- Altarawneh, M., Farhan, N. H., & Alsamhi, M. H. (2026). The moderation effect of business environment factors on the impact of corporate governance and firm performance: empirical evidence from Middle East region. *Cogent Business & Management*, 13(1), 2604879.
- Amman Stock Exchange. (2025). Monthly statistical bulletins 2025. Available online: <https://www.exchange.jo/en/bulletins/monthly/markets> (accessed on 24 May 2026).
- Amran, A., Ishak, M. S., Zulkafli, A. H., & Nejati, M. (2010). Board structure and extent of corporate governance statement. *International Journal of Managerial and Financial Accounting*, 2(4), 383-400.
- Andres, P., & Vallelado, E. (2008). Corporate governance in banking: The role of the board of directors. *Journal of banking & finance*, 32(12), 2570-2580.
- Arcot, S., Bruno, V., & Faure-Grimaud, A. (2010). Corporate governance in the UK: Is the comply or explain approach working?. *International Review of Law and Economics*, 30(2), 193-201.

- Awotomilusi, N. S., Ajoloko, O. M., Saka, B. F., Adeniran, T. E., Owonifari, V. O., & Dagunduro, M. E. (2025). Risk management committee attributes and market performance of listed insurance firms in Nigeria. *International Journal of Economics and Financial Issues*, 15(3), 29-41.
- Ayaz, M., Mohamed Zabri, S., & Ahmad, K. (2021). An empirical investigation on the impact of capital structure on firm performance: evidence from Malaysia. *Managerial Finance*, 47(8), 1107-1127.
- Bai, J., Choi, S. H., & Liao, Y. (2021). Feasible generalized least squares for panel data with cross-sectional and serial correlations. *Empirical Economics*, 60(1), 309-326.
- Bhuiyan, M. B. U., & Cheema, M. A. (2024). Overlapping committee membership and cost of equity capital. *Pacific-Basin finance journal*, 84, 102282.
- Boshnak, H. A. (2022). Determinants of corporate social and environmental voluntary disclosure in Saudi listed firms. *Journal of Financial Reporting and Accounting*, 20(3-4), 667-692.
- Boudiab, M., & Ishak, S. (2020). The influence of risk management committee attributes on performance of non-financial listed firms in Malaysia. *Journal of critical reviews*, 7(19), 9857-9865.
- Boudiab, M., Ishak, S., & Al-Dhamari, R. A. A. (2022). The influence of risk management committees on the financial performance of non-financial companies in Malaysia. *International Journal of Trade and Global Markets*, 16(1-3), 47-58.
- Brandes, P., Dharwadkar, R., & Suh, S. (2016). I know something you don't know!: The role of linking pin directors in monitoring and incentive alignment. *Strategic Management Journal*, 37(5), 964-981.
- Casciaro, T., & Piskorski, M. J. (2005). Power imbalance, mutual dependence, and constraint absorption: A closer look at resource dependence theory. *Administrative science quarterly*, 50(2), 167-199.
- Chatterjee, C., & Nag, T. (2022). Do women on boards enhance firm performance? Evidence from top Indian companies. *International Journal of Disclosure and Governance*, 20(2), 155.
- Coles, J. L., Daniel, N. D., & Naveen, L. (2008). Boards: does one size fit all?.

- Journal of financial economics*, 87(2), 329-356.
- Coles, J. L., Daniel, N. D., & Naveen, L. (2020). Director overlap: Groupthink versus teamwork. *SSRN*, 3650609.
 - Danso, A., Lartey, T. A., Gyimah, D., & Adu-Ameyaw, E. (2021). Leverage and performance: do size and crisis matter?. *Managerial Finance*, 47(5), 635-655.
 - Ding, B. Y., & Wei, F. (2023). Overlapping membership between risk management committee and audit committee and bank risk-taking: Evidence from China. *International Review of Financial Analysis*, 86, 102501.
 - Drees, J. M., & Heugens, P. P. (2013). Synthesizing and extending resource dependence theory: A meta-analysis. *Journal of management*, 39(6), 1666-1698.
 - Dsouza, S., Nasserredine, H., Habibniya, H., & Tripathy, N. (2025). Do firm-level variables impact dividend pay-out? Examining application of two-step system GMM panel model. *Cogent Social Sciences*, 11(1), 2472915.
 - Edacherian, S., Richter, A., Karna, A., & Gopalakrishnan, B. (2024). Connecting the right knots: The impact of board committee interlocks on the performance of Indian firms. *Corporate Governance: An International Review*, 32(1), 135-155.
 - Eisenberg, T., Sundgren, S., & Wells, M. T. (1998). Larger board size and decreasing firm value in small firms. *Journal of financial economics*, 48(1), 35-54.
 - Faleye, O., Hoitash, R., & Hoitash, U. (2011). The costs of intense board monitoring. *Journal of financial economics*, 101(1), 160-181.
 - Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The journal of law and Economics*, 26(2), 301-325.
 - Forbes, D. P., & Milliken, F. J. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. *Academy of management review*, 24(3), 489-505.
 - Galbraith, J. R. (1974). Organization design: An information processing view. *Interfaces*, 4(3), 28-36.
 - Geng, H., Hau, H., Michaely, R., & Nguyen, B. (2022). Does board overlap promote coordination between firms. Available at SSRN 3887280.
 - Gerged, A. M. (2021). Factors affecting corporate environmental disclosure in emerging markets: The role of corporate governance structures. *Business strategy and the environment*, 30(1), 609-629.
 - Ghardallou, W. (2023). The heterogeneous effect of leverage on firm

- performance: a quantile regression analysis. *International Journal of Islamic and Middle Eastern Finance and Management*, 16(1), 210-225.
- Harrison, J. R. (1987). The strategic use of corporate board committees. *California Management Review*, 30(1), 109-125.
 - Hartzell, J. C., & Starks, L. T. (2003). Institutional investors and executive compensation. *The journal of finance*, 58(6), 2351-2374.
 - Huynh, Q. L., Hoque, M. E., Susanto, P., Watto, W. A., & Ashraf, M. (2022). Does financial leverage mediate corporate governance and firm performance?. *Sustainability*, 14(20), 13545.
 - International Monetary Fund. (2024). *Jordan: First review under the extended arrangement under the Extended Fund Facility (Country Report No. 2024/197)*. <https://www.imf.org/-/media/files/publications/cr/2024/english/1jorea2024002-print-pdf.pdf>
 - Jaiswal, S., & Elmarzouky, M. (2025). Capital structure and firm performance: evidence from FTSE all-share firms during Covid-19. *Journal of Risk and Financial Management*, 18(11), 648.
 - Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, 48(3), 831-880.
 - Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
 - Jermias, J. (2008). The relative influence of competitive intensity and business strategy on the relationship between financial leverage and performance. *The British Accounting Review*, 40(1), 71-86.
 - Jia, J., & Bradbury, M. E. (2021). Risk management committees and firm performance. *Australian Journal of Management*, 46(3), 369-388.
 - Jiang, H., Luo, Y., Xia, J., Hitt, M., & Shen, J. (2023). Resource dependence theory in international business: Progress and prospects. *Global strategy journal*, 13(1), 3-57.
 - Kallamu, B. S. (2015). Risk management committee attributes and firm performance. *International Finance and Banking*, 2(2), 2374-2089.
 - Kanapathippillai, S., Puwanenthiren, P., Mihret, D., & Dang, M. (2024). Board sub-committee effectiveness, director attraction and director attrition: do

- nomination and remuneration committees matter?. *Pacific-Basin Finance Journal*, 86, 102441.
- Khan, S. (2022). The impact of capital structure on bank performance in emerging markets: Empirical evidence from GCC countries. *Financial Internet Quarterly*, 18(1), 56-65.
 - Khan, S., & Qasem, A. (2024). Are the firms' capital structure and performance related? Evidence from GCC economies. *Cogent Business & Management*, 11(1), 2344749.
 - Khoza, F. (2025). The impact of liquidity and leverage on the financial performance of the Johannesburg Stock Exchange-listed consumer goods firms. *Journal of Risk and Financial Management*, 18(9), 510.
 - Kismawadi, E. R. (2025). Improving Islamic bank performance through agency cost and dual board governance. *Journal of Islamic Accounting and Business Research*, 16(3), 461-483.
 - Klein, A. (1998). Firm performance and board committee structure. *The journal of law and Economics*, 41(1), 275-304.
 - Lee, W. M. (2020). The determinants and effects of board committees. *Journal of Corporate Finance*, 65, 101747.
 - Li, K., Niskanen, J., & Niskanen, M. (2019). Capital structure and firm performance in European SMEs: does credit risk make a difference?. *Managerial Finance*, 45(5), 582-601.
 - Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. *The business lawyer*, 48, 59-77.
 - Liu, H., & Fong, M. W. (2010). Board characteristics of medium and large Chinese companies. *Corporate Governance: The international journal of business in society*, 10(2), 163-175.
 - Malik, M., Shafie, R., & Ku Ismail, K. N. I. (2021). Do risk management committee characteristics influence the market value of firms?. *Risk Management*, 23(1), 172-191.
 - Mansour, M., Yamin, I., Saram, M., Alduwailah, A., Al-Enzi, N., AlWadi, B., & Marei, A. (2024). Capital structure and performance nexus: insights from fixed-effects and quantile analysis. *Journal of Infrastructure Policy and Development*, 8(7), 5119.

- Musa, A., Abdul Latif, R., & Abdul Majid, J. (2025). Risk management committee and earnings management: evidence from an emerging market. *Journal of Accounting in Emerging Economies*, 15(2), 273-305.
- Musallam, S. R. (2024). The effect of the board of directors on financial performance and the existence of risk management as an intervening variable. *Journal of Islamic Marketing*, 15(4), 1097-1114.
- Nasimi, A. N. (2016). Effect of capital structure on firm profitability (an empirical evidence from London, UK). *Global Journal of Management and Business Research*, 16(4), 1-13.
- Nassar, S. (2016). The impact of capital structure on Financial Performance of the firms: Evidence from Borsa Istanbul. *Journal of Business & Financial Affairs*, 5(2), 1000173.
- Nassim, I., Nassim, S., & Moussa, A. (2025). Financial leverage and firm performance in Moroccan agricultural SMEs: Evidence of nonlinear dynamics. *International Journal of Financial Studies*, 13(3), 164.
- Nguyen, V. C., & Huynh, T. N. T. (2023). Characteristics of the board of directors and corporate financial performance—empirical evidence. *Economies*, 11(2), 53.
- Nocco, B. W., & Stulz, R. M. (2006). Enterprise risk management: Theory and practice. *Journal of applied corporate finance*, 18(4), 8-20.
- Pandey, K. D., & Sahu, T. N. (2019). Debt financing, agency cost and firm performance: Evidence from India. *Vision*, 23(3), 267-274.
- Pfeffer, J., & Salancik, G. R. (2003). External control of organizations: A resource dependence perspective (pp. 100-125). Stanford: Stanford.
- Reeb, D., & Upadhyay, A. (2010). Subordinate board structures. *Journal of Corporate Finance*, 16(4), 469-486.
- Rutledge, R. W., & Karim, K. E. (2016). The Effects of Board Independence and CEO Duality on Firm Performance: Evidence from the NASDAQ-100 Index with Controls for Endogeneity. *Journal of Applied Business & Economics*, 18(2), 49-71.
- Salim, M., & Yadav, R. (2012). Capital structure and firm performance: Evidence from Malaysian listed companies. *Procedia-Social and Behavioral Sciences*, 65(3), 156-166.

- Sdiq, S. R., & Abdullah, H. A. (2022). Examining the effect of agency cost on capital structure-financial performance nexus: Empirical evidence for emerging market. *Cogent Economics & Finance*, 10(1), 2148364.
- Sheikh, N. A., Wang, Z., & Khan, S. (2013). The impact of internal attributes of corporate governance on firm performanceEvidence from Pakistan. *International Journal of Commerce and Management*, 23(1), 38-55.
- Soumadi, M. M., & Hayajneh, O. S. (2012). Capital structure and corporate performance empirical study on the public Jordanian shareholdings firms listed in the Amman stock market. *European scientific journal*, 8(22), 173-189.
- Subramaniam, N., McManus, L., & Zhang, J. (2009). Corporate governance, firm characteristics and risk management committee formation in Australian companies. *Managerial auditing journal*, 24(4), 316-339.
- Sunny, S. A., & Hoque, M. (2025). The impact of board characteristics on financial performance in an emerging economy: the moderating role of nomination and remuneration committee. *European Journal of Management and Business Economics*.
- Tao, N. B., & Hutchinson, M. (2013). Corporate governance and risk management: The role of risk management and compensation committees. *Journal of Contemporary Accounting & Economics*, 9(1), 83–99.
- Toumeh, A. A. (2023). The effect of risk management committee characteristics on firm performance: an empirical investigation. *Indian Journal of Corporate Governance*, 16(2), 323-342.
- Toumeh, A. A., & Ghazalat, A. (2026). Mandatory governance and risk management committees and firm performance: evidence from Jordan's non-financial sector. *Cogent Business & Management*, 13(1), 2618306.
- Tuan, T. M., Nha, P. V. T., & Phuong, T. T. (2019). Impact of agency costs on firm performance: Evidence from Vietnam. *Organizations and Markets in Emerging Economies*, 10(2), 294-309.
- Tulcanaza-Prieto, A. B., Lee, Y., & Anzules-Falcones, W. (2024). The moderating role of corporate governance in the relationship between leverage and firm value: evidence from the Korean market. *Risks*, 12(1), 11.
- Tushman, M. L., & Nadler, D. A. (1978). Information processing as an integrating concept in organizational design. *Academy of management review*,

3(3), 613-624.

- Ullaha, M. R., Chandb, A., Akramc, S., & Inam, A. (2021). Too Busy, Too Bad? Grey, Outside, Busy and Overlap Directors and Financial Performance in Pakistan. *Governance*, 15(5).
- Zheng, X., & Cullinan, C. P. (2010). Compensation/audit committee overlap and the design of compensation systems. *International Journal of Disclosure and governance*, 7(2), 136-152.