

The effect of business strategy on firm value: the moderating role of board of directors' structure

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Abstract

Purpose – This study examines the effects of cost leadership and differentiation strategies on firm value and tests whether board size and board independence moderate these relationships.

Design/methodology/approach – The analysis uses 582 firm-year observations from 67 non-financial firms listed on the Amman Stock Exchange from 2014 to 2023. Panel regressions are applied, with the generalized method of moments (GMM) used for robustness.

Findings – Both cost leadership and differentiation are positively associated with firm value. However, board size and board independence do not significantly moderate these relationships, indicating that these positive effects of strategy on firm value do not vary systematically with board size or board independence.

Practical implications – The findings suggest that managers should align their strategic choices with firm capabilities and market conditions, while boards and regulators should focus more on directors' expertise, engagement, and strategic oversight than on board size and independence alone.

Originality/value – This study provides new evidence on the strategy–firm value relationship in Jordan, an emerging market characterized by concentrated ownership and evolving governance practices. It also contributes by showing that board size and board independence do not significantly moderate the value effects of competitive strategies.

Keywords Cost leadership strategy, Differentiation strategy, Firm value, Board structure, Amman stock exchange

Paper type Research article

1. Introduction

How firms compete is central to their ability to create value. Cost leadership and differentiation represent two of the most established routes to competitive advantage. Cost leadership emphasizes efficiency, economies of scale, and cost control, while differentiation relies on uniqueness, innovation, brand strength, and customer loyalty (Porter, 1980; Hill, 1988; Barney, 1991; Spanos and Lioukas, 2001). Both strategies can improve firm performance and market valuation when they are supported by the resources and capabilities needed for effective implementation (Farida and Setiawan, 2022; Ghofar *et al.*, 2024).

The effectiveness of these strategies may also depend on how firms are governed. Boards of directors contribute to strategic decision-making through monitoring, advice, access to resources, and oversight of managerial decisions (Zahra and Pearce, 1989; Hillman and Dalziel, 2003). Recent research further shows that board characteristics can influence managerial decisions and firms' ability to pursue innovation- and efficiency-oriented strategies (Abu Nassar, 2025; Chatjuthamard *et al.*, 2023; Al-Shaer *et al.*, 2024). However, governance mechanisms do not operate in the same way across institutional settings.

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Their effectiveness can be shaped by ownership structures, regulatory systems, market development, and broader institutional conditions (Petrova, 2023). This raises an important question: do formal board characteristics strengthen the value created by different business strategies?

This question is particularly relevant in Jordan. Compared with developed markets, Jordan has a relatively small capital market, concentrated ownership, evolving governance practices, and institutional constraints that may affect both strategic decisions and board effectiveness. These features provide a useful setting for examining whether competitive strategies create value under different institutional conditions and whether board structure helps firms translate those strategies into stronger market valuation.

Using 582 firm-year observations from non-financial firms listed on the Amman Stock Exchange between 2014 and 2023, this study examines the effects of cost leadership and differentiation on firm value and tests whether board size and board independence moderate these relationships. The results show that both strategies are positively associated with firm value. However, neither board size nor board independence significantly changes these relationships.

This study makes three contributions. First, it extends research on competitive strategy and firm value to the Jordanian setting. Much of the earlier evidence on cost leadership and differentiation comes from developed economies with larger capital markets and more established governance systems (e.g. Banker *et al.*, 2014; Spanos and Lioukas, 2001; Allen and Helms, 2006). By showing that both strategies are positively associated with firm value in Jordan, the study demonstrates that efficiency-based and differentiation-based capabilities can create value even where firms operate under tighter institutional and market constraints.

Second, the study extends the literature connecting business strategy, corporate governance, and firm value. Prior research has examined the effects of business strategies on firm outcomes (Spanos and Lioukas, 2001; Banker *et al.*, 2014; Chen *et al.*, 2018; Uyar *et al.*, 2022), while another stream has examined how board size and independence affect strategic decisions and firm performance (Hillman and Dalziel, 2003; Coles *et al.*, 2008; Chen, 2011). Building on this work, and on the more recent evidence provided by Al-Shaer *et al.* (2024), this study tests whether board size and board independence condition the value effects of two distinct competitive strategies.

Third, the insignificant moderating effects provide an important theoretical insight. Agency theory suggests that stronger governance mechanisms should improve monitoring and strategic oversight. The findings, however, provide no evidence that board size or board independence strengthens or weakens the relationship between business strategy and firm value. This suggests that board effectiveness may depend less on formal structure and more on directors' expertise, involvement, access to information, and actual influence over strategic decisions. The study therefore highlights that formal board characteristics alone may not be sufficient to explain variation in the relationship between strategy and firm value.

The paper is organized as follows: Section 2 presents the theoretical framework. Section 3 reviews the literature and formulates the hypotheses. Section 4 outlines the methodology, including the sample selection and data sources. Section 5 presents the empirical results and discusses the findings. Section 6 presents the additional analysis, while Section 7 discusses the conclusions.

2. Theoretical framework

This study draws on the resource-based view (RBV) and agency theory. The RBV suggests that firms create competitive advantage by developing and using valuable, rare, difficult-to-imitate, and non-substitutable resources and capabilities (Barney, 1991; Wernerfelt, 1984). From this perspective, cost leadership and differentiation represent two different ways of

creating value. Cost leadership relies on capabilities such as cost control, efficient operations, supply-chain management, and effective asset use. Differentiation, by contrast, depends more on innovation, brand reputation, product quality, and skilled employees. When these capabilities are used effectively, they can improve a firm's competitive position, profitability, and market value.

Agency theory provides the basis for examining the role of board structure (Jensen and Meckling, 1976; Fama and Jensen, 1983). Managers may sometimes make decisions that do not fully serve shareholders' interests, and boards are expected to reduce this risk through monitoring and strategic oversight. Larger boards may offer a wider range of knowledge and experience, while independent directors may provide more objective advice and stronger oversight. These characteristics may therefore affect how well firms implement cost leadership and differentiation strategies and translate them into firm value.

3. Literature review

3.1 Business strategy and firm value

Business strategy shapes how firms use their resources, compete in the market, and create value that rivals may find difficult to copy. Cost leadership and differentiation are two well-established approaches through which firms can strengthen performance and market valuation (Porter, 1985). Their success, however, depends not only on choosing a strategy, but also on the firm's ability to support it with the right resources and capabilities.

Cost leadership creates value mainly through efficiency and cost control. Firms following this strategy seek to reduce production and operating costs, use assets more effectively, and benefit from economies of scale. These advantages may support lower prices, stronger margins, greater market share, and more stable cash flows. Prior evidence shows that cost-efficient firms often achieve stronger financial and market performance (Banker *et al.*, 2014; Rubio-Andrés *et al.*, 2024). However, the benefits of cost leadership may weaken when competitors can easily copy cost-saving practices or when competition shifts toward quality, innovation, and service (Lee and Roh, 2012). Cost leadership is therefore more likely to improve firm value when its efficiency advantages are sustainable.

Differentiation creates value through uniqueness. Firms may invest in innovation, product quality, branding, and customer service to offer products or services that customers value more highly. This can reduce price sensitivity, strengthen customer loyalty, support premium pricing, and improve expectations of future growth. Previous studies report positive links between differentiation and firm performance or market outcomes (Acquaah, 2007; Spencer *et al.*, 2009; Rubio-Andrés *et al.*, 2024). At the same time, differentiation can be costly. Investments in marketing, product development, or innovation may reduce value if they fail to create meaningful benefits for customers. Its success therefore depends on whether firms can turn these investments into lasting competitive advantages.

The value of both strategies may also depend on the environment in which firms operate. Industry competition, market conditions, and institutional quality can affect how easily firms translate strategic choices into performance (Fang *et al.*, 2008; Anwar, 2016). These issues are particularly relevant in emerging markets, where firms may face limited resources, market inefficiencies, and weaker institutional systems. In Jordan, market size, regulatory conditions, and governance practices may further shape the effectiveness of strategic decisions (Al Amosh and Khatib, 2024; Khalaf *et al.*, 2023).

Prior research also offers mixed views on whether firms should follow a single strategy or combine elements of cost leadership and differentiation. Some studies support a clear strategic focus (Khedmati *et al.*, 2019), while others find that hybrid strategies may also improve performance (Kim *et al.*, 2004). Greckhamer and Gur (2021) further show that a generic-strategy advantage is an important part of high-performance configurations when supported by complementary capabilities. Overall, the literature suggests that both cost leadership and

differentiation can improve firm value when they are clear, well supported, and suited to the firm's environment. Accordingly, we propose:

- H1. Following a cost leadership strategy positively affects firm value.
- H2. Following a differentiation strategy positively affects firm value.

3.2 The moderating role of board structure

Boards of directors play an important role in monitoring management and contributing to strategic decisions. Their effectiveness depends not only on their formal responsibilities but also on their composition, experience, and involvement in strategy (Castellanos and George, 2020; Kanakriyah, 2021). Prior research suggests that greater board involvement in strategic decision-making can improve firm outcomes, while the effect of board governance varies with board characteristics and the organizational context (Crow and Lockhart, 2016; Klarner *et al.*, 2023). Accordingly, board structure may influence how effectively firms translate business strategies into firm value.

3.2.1 The moderating role of board size. Board size may affect the relationship between business strategy and firm value through its influence on monitoring, advice, and decision-making. Larger boards can provide a wider range of expertise, experience, and external connections, which may improve the board's ability to evaluate strategic choices and support management (Dwivedi and Jain, 2005; Coles *et al.*, 2008; Jackling and Johl, 2009; Garcia-Torea *et al.*, 2016). These benefits may be particularly useful for differentiation strategies, where firms face complex decisions related to innovation, market positioning, and resource allocation.

At the same time, larger boards may suffer from coordination problems, slower decision-making, and weaker communication (Jensen, 1993; Lipton and Lorsch, 1992). Smaller boards may therefore be better suited to cost leadership strategies, which often require fast decisions, close monitoring, and strong cost discipline. Prior evidence on board size remains mixed, with some studies reporting benefits from larger boards in complex firms and others linking larger boards to weaker performance (Eisenberg *et al.*, 1998; Coles *et al.*, 2008; Guest, 2009).

These competing effects indicate that board size effects on performance are context-dependent and might differ based on the type of strategy adopted by firms. In other words, board size may matter less as a direct determinant of firm value and more as a factor that shapes how effectively a chosen strategy is implemented. This may be especially relevant in emerging markets such as Jordan, where firms operate under institutional constraints, evolving governance practices, and resource limitations (Al-Fayoumi *et al.*, 2010; Al-Rjoub and Nsour, 2022; Al-Msiedeen *et al.*, 2024). Under such conditions, the effectiveness of cost leadership and differentiation may depend partly on whether the board provides an appropriate balance between strategic support and decision-making efficiency. Accordingly, we propose:

- H3a. Board size moderates the relationship between cost leadership strategy and firm value.
- H3b. Board size moderates the relationship between differentiation strategy and firm value.

3.2.2 The moderating role of board independence. Board independence may also influence how effectively firms convert business strategies into firm value. Independent directors are expected to provide objective monitoring, reduce agency conflicts, and offer strategic advice based on their external experience and professional networks (Fama and Jensen, 1983; Hillman and Dalziel, 2003). These monitoring and advisory roles provide the main channels through which board independence may affect the strategy-value relationship.

For firms following cost leadership strategies, independent directors may strengthen managerial discipline and improve oversight of cost control, resource allocation, and

operational efficiency (Agrawal and Knoeber, 1996; Klein, 2002). However, greater independence may also create limitations if outside directors lack detailed knowledge of the firm's operations or industry. This can reduce their ability to support operational decisions and may limit the flexibility required to implement cost-reduction initiatives effectively (Bhagat and Black, 2002).

For differentiation strategies, independent directors may contribute external knowledge, broader perspectives, and useful networks that support innovation and market development (Hillman and Dalziel, 2003; Zahra and Pearce, 1989). However, a highly independent board may also be more cautious toward risky or uncertain investments, which could constrain innovation and slow strategic decision-making (Horváth and Spirollari, 2012; Coles *et al.*, 2008). The effect of board independence may therefore depend on the balance between stronger oversight and access to external expertise on the one hand, and information limitations or excessive caution on the other.

Importantly, the effectiveness of independent directors is not uniform across institutional settings. Solarino and Boyd (2023) show that the relationship between board independence and firm performance varies with country-level informal institutions. This suggests that formal independence does not necessarily produce the same governance outcomes across countries. In emerging markets such as Jordan, where governance systems are still developing, the influence of independent directors may depend on their actual authority, access to firm-specific information, and ability to participate meaningfully in strategic decisions (Al-Rjoub and Nsour, 2022; Al-Fayoumi *et al.*, 2010). Accordingly, we propose:

- H4a.* Board independence moderates the relationship between cost leadership strategy and firm value.
- H4b.* Board independence moderates the relationship between differentiation strategy and firm value.

4. Research sample and methodology

4.1 Study sample

The research hypotheses are tested using data from publicly listed companies in the Amman Stock Exchange (ASE) over the period from 2014 to 2023. ASE consists of 138 firms listed in the first market (68 financial firms, 40 service firms and 30 manufacturing firms). We started by selecting all firms listed on ASE over the study period, then we deleted all financial firms due to their unique regulations, market trading methods and different governance codes. This left us with 70 companies, of which 3 companies were eliminated due to missing information. The final sample consists of 67 companies and 582 observations after removing outliers.

4.2 Research methodology

To test the first hypothesis, we regress firm value on the degree of cost leadership followed by the company, in addition to control variables. We measure firm value using Tobin's Q. Following prior research (Yamakawa *et al.*, 2011; Chen *et al.*, 2018; Uyar *et al.*, 2022; Al-Shaer *et al.*, 2024), we operationalize corporate strategies using accounting-based proxies that reflect firms' cost structures, resource utilization, and investment patterns, providing observable indicators of strategic positioning.

Cost Leadership Strategy is captured through two key dimensions: cost efficiency and asset parsimony. Cost efficiency, a central component of cost leadership (Porter, 1980), is measured as the ratio of cost of goods sold to total sales (COGS/SALES). Asset parsimony is represented using two complementary measures: capital intensity (total assets to total sales [ASSET/SALES]) and capital expenditure intensity (net expenditure on plant and equipment relative to total sales [P&E/SALES]), consistent with prior literature (e.g., Nair and Filer, 2003). A composite index is then constructed by combining the three measures since they all share the

same denominator (total sales), which improves comparability across the components. The index is intended to reflect the firm’s overall strategic orientation toward cost leadership rather than separate operational decisions, particularly in terms of how firms manage costs and allocate resources. To make interpretation easier, the final index is multiplied by -1 so that higher values represent a stronger cost leadership orientation. This adjustment is maintained throughout all analyses and reported tables.

While these measures may also reflect structural characteristics such as capital intensity, they are widely used as observable proxies for strategic positioning. To assess the construct validity of the cost leadership measure, we examined its association with performance indicators theoretically linked to cost efficiency, namely gross margin, operating margin, and inventory turnover. The results are shown in [section 6](#). The results show that the cost leadership index is positively and significantly associated with both gross margin and operating margin, indicating that firms with stronger cost leadership positions achieve higher profitability through cost efficiency. However, the association with inventory turnover is negative and statistically insignificant. This may reflect industry-specific operational characteristics and inventory management practices that are not directly related to strategic cost positioning. Overall, the significant associations with profitability-based measures provide supporting evidence for the validity of the cost leadership proxy.

In addition, to mitigate potential confounding effects, we control for firm size (SIZE), asset tangibility (AT) and liquidity (LIQ). Firm size is controlled for, as larger firms often enjoy economies of scale, greater market power, and easier access to financing, all of which can independently affect firm value ([Chen and Hambrick, 1995](#)). Asset tangibility is included because tangible assets can serve as collateral and influence a firm’s financing capacity and strategic flexibility, thereby impacting valuation ([Titman and Wessels, 1988](#)). Liquidity is also controlled for, as firms with stronger liquidity positions are better able to meet short-term obligations and invest in strategic initiatives, which, in turn, may affect performance outcomes ([Opler et al., 1999](#)). To empirically test the impact of cost leadership strategy on firm value, we use the following regression model,

$$FV_{it} = \alpha + \beta 1 CL_{it} + \beta 2 SIZE_{it} + \beta 3 AT_{it} + \beta 4 LEV_{it} + \beta 5 LIQ_{it} + e_{it} \quad (1)$$

Where:

FV_{it}: Tobin’s Q for firm *i* at year *t*, measured as the company’s market value plus the book value of debt divided by total assets

CL_{it}: a reversed index, combining three ratios: cost efficiency, capital intensity, and capital expenditures for firm *i* at year *t*.

SIZE_{it}: The natural logarithm total assets of firm *i* at year *t*.

AT_{it}: property plant and equipment divided by total assets for firm *i* at year *t*.

LEV_{it}: debt to assets ratio for firm *i* at year *t*.

LIQ_{it}: current assets divided by short term liabilities for firm *i* at year *t*.

In the second hypothesis, we examine the effect of the differentiation strategy. Following [Chen et al. \(2018\)](#) we measure differentiation strategy using two components. First, the ratio of general selling and administration expenses to total sales (SG&A/SALES), which captures the firm’s investment in marketing, brand-building, and post-sale services per unit of output. Second, the ratio of R&D expenses to total sales (R&D/SALES), which reflects product differentiation through innovation ([Uyar et al., 2022](#); [Al-Shaer et al., 2024](#)). Higher values indicate a greater likelihood that the firm is pursuing differentiation either via service and brand marketing or through product innovation. Similar to the cost leadership measure, a composite differentiation index is created by summing these two ratios, as both share a

common denominator and capture distinct aspects of differentiation strategy. We acknowledge that in emerging-market contexts, particularly among ASE-listed non-financial firms, R&D is often zero or inconsistently reported, and SG&A may include non-strategic costs. Nevertheless, prior studies suggest that SG&A still reflects marketing and differentiation efforts, while R&D captures innovation activities where positive. [Supplementary](#) analyses restricting the sample to firms with non-zero R&D expenditures and incorporating alternative proxies (e.g. marketing intensity) yield qualitatively similar results, supporting the validity of the differentiation measure in this institutional context.

To test the second hypothesis, we regress firm value on the degree of differentiation followed by the company, in addition to control variables, as follows,

$$FV_{it} = \alpha + \beta_1 DIFF_{it} + \beta_2 SIZE_{it} + \beta_3 AT_{it} + \beta_4 LEV_{it} + \beta_5 LIQ_{it} + e_{it} \quad (2)$$

Where:

$DIFF_{it}$: the sum of the ratio of general selling and administration expenses over total sales and the ratio of R&D expenses over total sales for firm i at year t .

4.3 The moderating role of board structure

To test [Hypotheses 3a](#) and [3b](#), we add the board size variable to [Equations \(1\) and \(2\)](#), respectively, as follows:

$$FV_{it} = \alpha + \beta_1 CL_{it} + \beta_2 BS_{it} + \beta_3 (CL_{it} * BS_{it}) + \beta_4 SIZE_{it} + \beta_5 AT_{it} + \beta_6 LEV_{it} + \beta_7 LIQ_{it} + e_{it} \quad (3)$$

$$FV_{it} = \alpha + \beta_1 DIFF_{it} + \beta_2 BS_{it} + \beta_3 (DIFF_{it} * BS_{it}) + \beta_4 SIZE_{it} + \beta_5 AT_{it} + \beta_6 LEV_{it} + \beta_7 LIQ_{it} + e_{it} \quad (4)$$

Where:

BS_{it} : board size measured as total number of members in the board of directors for firm i at year t .

Similarly, to test [Hypotheses 4a](#) and [4b](#), we add the board independence to [Equations \(1\) and \(2\)](#), respectively, as follows:

$$FV_{it} = \alpha + \beta_1 CL_{it} + \beta_2 IND_{it} + \beta_3 (CL_{it} * IND_{it}) + \beta_4 SIZE_{it} + \beta_5 AT_{it} + \beta_6 LEV_{it} + \beta_7 LIQ_{it} + e_{it} \quad (5)$$

$$FV_{it} = \alpha + \beta_1 DIFF_{it} + \beta_2 IND_{it} + \beta_3 (DIFF_{it} * IND_{it}) + \beta_4 SIZE_{it} + \beta_5 AT_{it} + \beta_6 LEV_{it} + \beta_7 LIQ_{it} + e_{it} \quad (6)$$

Where:

IND_{it} : board independence measured as the number of non-executive directors divided by the total number of directors for firm i at year t .

The definition of independent board members is in align with Jordan Securities Commission definition, which defines independent members as “A member who does not belong to the Company or any of the members of the Board of Directors or the senior executive management thereof or any affiliate or subsidiary company or the external auditor of the company in any material interest or any relationship other than that related to his ownership of the shares in the company” (Jordan Securities Commission, 2017).

5. Results and discussion

5.1 Descriptives and correlation

Table 1 reports the descriptive statistics. Firm value, measured by Tobin’s Q has a mean of 1.09, indicating that the sampled firms are valued barely above book value. The cost leadership measure has a negative mean (−3.98), reflecting the measurement scale, and a substantial variation (std = 3.78), whereas differentiation exhibits a lower mean (0.19) with limited variation (std = 0.18). Board size averages 7.95 members, while board independence averages 0.91, consistent with the high level of independence reported for Jordanian listed firms by Bataineh *et al.* (2025).

Table 2 presents Pearson correlation coefficients among the variables. Firm value is positively correlated with cost leadership, differentiation, and liquidity. Board independence has a weak positive correlation with firm value, while board size is not significantly correlated with it. None of the correlations among the explanatory variables is sufficiently high to indicate a serious multicollinearity concern.

5.2 Regression analysis

5.2.1 The effect of business strategy on firm value. Table 3 reports the regression of firm value on cost leadership strategy in Panel A and on differentiation strategy in Panel B. Panel A show that cost leadership has a positive and significant effect on firm value ($\beta = 0.218, t = 5.66$), supporting H1. This finding is consistent with those of Banker *et al.* (2014), Allen and Helms (2006), and Spanos and Lioukas (2001). It supports the argument that pursuing cost efficiency is associated with stronger competitive positioning and market valuation. Panel B shows that differentiation strategy has a highly significant positive effect on firm value ($\beta = 0.157, t = 3.88$), supporting H2. This outcome indicates that innovation, customer loyalty, and perceived uniqueness can contribute to long-term value creation (Porter, 1980; Spanos and Lioukas, 2001). Liquidity and firm size are positive in both models, while the effects of the other control variables are less consistent.

Taken together, the findings support the RBV argument that firms can create value through different capability configurations, implying that both efficiency-driven capabilities and innovation-oriented capabilities can independently contribute to stronger market valuation. In the Jordanian context, both efficiency-oriented and differentiation-oriented capabilities appear

Table 1. Descriptive statistics

Variable	Mean	Min	Max	Std
FV	1.0931	0.24	3.93	0.52
CL	−3.98	−36.66	−1.27	3.78
DIFF	0.19	0.01	1.20	0.18
BS	7.95	5.00	13.00	2.36
IND	0.91	0.20	1.00	0.11
SIZE	17.51	14.24	21.49	1.27
AT	0.4	0.00	0.99	0.27
LEV	0.37	0.02	1.00	0.23
LIQ	2.21	0.04	28.50	2.61

Table 2. Correlation matrix

Variables	FV	CL	DIFF	BS	IND	SIZE	AT	LEV	LIQ
FV	1								
CL	0.23***	1							
DIFF	0.13**	−0.39**	1						
BS	−0.02	−0.04	−0.08	1					
IND	0.06*	0.08	−0.02	0.14**	1				
SIZE	−0.08**	0.02	−0.12**	0.44***	0.03	1			
AT	−0.02	−0.04	0.23***	0.05	−0.24***	−0.08**	1		
LEV	−0.05	0.02	0.14**	−0.09**	0.02	0.45***	−0.21***	1	
LIQ	0.27***	0.04	−0.05*	0.00	0.03	−0.15***	−0.29***	−0.43***	1

Note(s): *** significant at 1%; ** significant at 5%; * significant at 10%

Table 3. Regression results of firm value on business strategy

Variables	Panel A Strategy = cost leadership (CL)	Panel B Strategy = differentiation (DIFF)
Strategy	0.218*** (5.66)	0.157*** (3.88)
SIZE	0.103** (2.39)	0.115*** (2.62)
AT	0.118*** (2.7)	0.085* (1.88)
LEV	0.075 (1.48)	0.097* (1.89)
LIQ	0.342*** (7.22)	0.362*** (7.54)
Adjusted $R^2\%$	13.8	11.4

relevant to market valuation, suggesting that firms in this context may be able to pursue different resource-based capabilities successfully without necessarily facing trade-offs between them which reflects a certain level of strategic flexibility and resource adaptability among firms.

5.2.2 The moderating role of board structure. Table 4 shows the results of regressing firm value on business strategy, with board size and independence as moderators. Panel A reports the regression results for the both strategies, with board size as a moderator, while Panel B reports the results for both strategies, with board independence as a moderator. Column 1 shows that the effect of cost leadership strategy on firm value is positive but insignificant. Similarly, the interaction term (CL*BS) is insignificant. Column 2 shows that the

Table 4. Regression results of firm value on business strategy and board structure

Variables	Panel A (1) Strategy = cost leadership (CL)	(2) Strategy = differentiation (DIFF)	Panel B (3) Strategy = cost leadership (CL)	(4) Strategy = differentiation (DIFF)
Strategy	0.142 (1.38)	0.27** (2.17)	-0.295 (-0.87)	0.078 (0.23)
BS	-0.055 (-0.90)	-0.039 (-0.63)		
IND			0.107** (2.00)	0.057 (1.12)
Strategy* BS	0.086 (0.76)	-0.129 (-1.02)		
Strategy* IND			0.511 (1.52)	0.077 (0.23)
SIZE	0.153*** (2.99)	0.156** (2.99)	0.110** (2.52)	0.112** (2.56)
AT	0.115*** (2.63)	0.087* (1.95)	0.131*** (2.92)	0.103** (2.22)
LEV	0.034 (0.63)	0.068 (1.25)	0.066 (1.29)	0.103** (2.00)
LIQ	0.335*** (7.08)	0.358*** (7.45)	0.340*** (7.14)	0.367*** (7.63)
Adjusted $R^2\%$	14.1	11.7	17.9	11.5

differentiation strategy has a positive significant association with firm value. However, as with cost leadership, the interaction term (DIFF*BS) is insignificant, providing no evidence that board size moderates the relationship between either cost leadership or differentiation and firm value. Accordingly, H3a and H3b are not supported.

Panel B shows the coefficients of both strategies are insignificant. Similarly, the interaction term (Strategy*IND) is insignificant under the two strategies, providing no evidence that board independence moderates the relationship between either strategy and firm value. Accordingly, H4a and H4b are not supported.

The strategy coefficients in the interaction models should be interpreted with caution. Once the interaction term is introduced, the coefficient on strategy represents its conditional effect when the moderator equals zero, rather than the unconditional effect reported in Table 3. Since a board size or board independence value of zero lies outside the observed range of our sample, these coefficients are not directly comparable with the main-effect estimates in Table 3. More importantly, the interaction terms are statistically insignificant, providing no evidence that board size or board independence systematically strengthens or weakens the relationship between business strategy and firm value. One possible explanation for the absence of significant moderation is that formal board characteristics may not fully capture boards' actual involvement in strategic decisions, particularly in firms with concentrated ownership (Al-Najjar, 2011; Abdallah and Ismail, 2017). Furthermore, the capital market is relatively small and less developed compared to advanced economies, reducing the external pressures that make governance mechanisms more critical elsewhere. Overall, these findings provide additional insight into both the resource based view and agency theory by suggesting that the effectiveness of strategic and governance mechanisms may depend heavily on the institutional and organizational environment in which firms operate.

6. Further analysis

To assess the construct validity of the cost leadership measure, we examined its association with performance indicators theoretically linked to cost efficiency. Supplementary Table S1 shows the correlation results between the cost leadership index and the gross margin, operating margin, and inventory turnover. Gross margin is gross profit/sales, operating margin is operating income/sales, and inventory turnover is COGS/average inventory.

To address potential endogeneity issues, Equation (1)(6) are estimated using GMM. Lagged values of the dependent variable and selected explanatory variables were used as instruments, ensuring more reliable and consistent estimation results. The results for Equations (1) and (2) are shown in Supplementary Table S2. The findings confirm the ones in Table 3 where cost leadership and differentiation strategies have a significant effect on firm value.

Supplementary Table S3 shows the results of Equations (3) and (4) using the GMM. The results are comparable to the findings in Table 4 where board size has no significant moderating effect on the relationship between both strategies and firm value.

In addition, Equations 5 and 6 are run using the GMM. The results are shown in Supplementary Table S4. The findings are qualitatively similar to the results in Table 4 confirming that board independence has no significant moderating effect on the relationship between both strategies and firm value. Overall, the results are qualitatively consistent across different estimation models.

7. Conclusion

This study examines the relationship between business-level strategies, cost leadership and differentiation, and firm value, while also testing the moderating role of board characteristics, particularly board size and board independence, in the Jordanian context. Drawing on the resource-based view (RBV) and agency theory, we examine whether cost leadership and differentiation strategies affect firm value and whether board size and board independence moderate these relationships.

We find that, first, both cost leadership and differentiation strategies significantly enhance firm value, as measured by Tobin's Q. This indicates that firms in Jordan can improve their market valuation either by reducing costs and operating efficiently (Birjandi *et al.*, 2014) or by providing unique products and services that distinguish them from competitors (Giantari and Jatra, 2019). The positive and significant effects of both strategies highlight the importance of strategic orientation as a key factor in firm performance within an emerging economy. These findings align with the broader strategic management literature, which highlights the value creation of efficiency and differentiation, and they provide evidence within the Jordanian context, where empirical research is limited.

Second, we find no evidence that board size or board independence moderates the relationship between business strategy and firm value. These results are consistent with the view that the role of governance structures in strategy and performance relationships may depend on the institutional context.

The findings offer practical guidance for managers, board members, and regulators. Managers should choose a clear strategy that fits the firm's resources, market conditions, and competitive environment rather than adopting a generic approach without sufficient organizational support. For board members, the insignificant moderating effects suggest that board size and formal independence alone do not appear to strengthen the relationship between business strategy and firm value. Greater attention should therefore be given to directors' expertise, access to relevant information, active involvement in strategic decisions, and ability to monitor strategy specific risks. For regulators, the results suggest that governance requirements should go beyond formal board composition. Greater emphasis should be placed on board effectiveness, including director competence, participation, training, and the quality of strategic oversight.

While the findings provide valuable insights, this study has potential limitations. One notable limitation is that the study uses a relatively small sample size; however, it reflects the maximum number of firms for which consistent and reliable data were available during the study period. Future research could address this limitation by expanding the sample to include firms from different countries or industries. In addition, although the proxies to measure cost leadership and differentiation strategies are widely used in the literature, these accounting-based proxies may capture other factors like asset structure or industry technology. Future research can develop more refined and multidimensional measures of competitive strategy that better isolate strategic intent from structural or accounting characteristics, which would improve construct validity and enhance the precision of empirical tests. Furthermore, the study focuses on a single emerging market, which may limit the generalizability of the findings to countries with different ownership structures, governance systems, and institutional environments. Future research could use survey-based or multidimensional strategy measures and examine larger cross-country samples.

Overall, this study adds to the discussion on business strategy, firm value, and corporate governance in emerging markets. The findings provide no evidence that board size or board independence conditions the relationship between strategy and firm value. The study also provides some evidence that governance mechanisms may not operate in the same way across different institutional environments. In this regard, the results may be relevant for researchers interested in strategy and governance issues, as well as for practitioners seeking to better align governance arrangements with the strategic direction of the firm in order to support long-term value creation.

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Supplementary material

The supplementary material for this article can be found online.

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