

THE IMPACT OF INTERNAL GOVERNANCE MECHANISMS ON FINANCIAL AND STOCK MARKET PERFORMANCE OF LISTED COMPANIES: EVIDENCE FROM AN EMERGING MARKET

Houcine Berbou^{*}, Oumaima Sadqi^{**},

^{*} Management, Marketing and Communication Research Laboratory, National School of Business and Management, Hassan First University, Settat, Morocco

^{**} Corresponding author, Management, Marketing and Communication Research Laboratory, National School of Business and Management, Hassan First University, Settat, Morocco

Contact details: Management, Marketing and Communication Research Laboratory, National School of Business and Management, Hassan First University, Km 3, route de Casa BP 658, Settat, Morocco



Abstract

How to cite this paper: Berbou, H., & Sadqi, O. (2020). The impact of internal governance mechanisms on financial and stock market performance of listed companies: Evidence from an emerging market. *Journal of Governance & Regulation*, 9(4), 126-138.
<https://doi.org/10.22495/jgrv9i4art11>

Copyright © 2020 The Authors

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).
<https://creativecommons.org/licenses/by/4.0/>

ISSN Print: 2220-9352
ISSN Online: 2306-6784

Received: 15.10.2020
Accepted: 28.12.2020

JEL Classification: G30, G38, G41
DOI: 10.22495/jgrv9i4art11

The aim of this paper is to empirically test the impact of internal governance mechanisms on the financial and stock market performance of Moroccan listed companies. Board of directors' characteristics such as independence and transparency, concentration, and presence of employees in the ownership structure, as well as some cognitive aspects of governance, represent the basis for discussion. Secondary data of a sample of 44 listed companies in the Casablanca Stock Exchange was analyzed using multiple linear regression. The results of this empirical study revealed that the financial and stock market performance of the companies that are captured by the return on equity (ROE) and the market to book ratio (M to B) significantly correlate with the adoption of the hybrid corporate governance approach. The relevance of this study is to enrich researches that deal with corporate governance and its impact on business performance in the context of Moroccan listed companies.

Keywords: Cognitive Governance, Disciplinary Governance, Company's Performance, Stock Market, Morocco

Authors' individual contribution: Conceptualization - H.B. and O.S.; Methodology - O.S.; Formal Analysis - O.S.; Writing - Original Draft - O.S.; Writing - Review & Editing - H.B.; Supervision - H.B.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

The efficiency of internal corporate governance mechanisms has been analyzed in the context of the main approaches of corporate governance, according to their contribution in maximizing the company's value creation and hence performance (Madhar, 2016).

The disciplinary approach stipulates that decision delegation within companies, which is often carried out in a universe of imperfect information, generates the risk that agents no longer pursue

the objectives of maximizing shareholder profit, as a result of divergent interests on both sides.

Companies' value creation is analyzed within the framework of this vision in terms of reducing value lost due to conflicts of interest between shareholders and agents, without taking into consideration the productive dimension. This latter allows companies to capture growth opportunities through the development of a sustained and value-generating competitive advantage.

Nevertheless, the current global economic environment requires these companies to pay

particular attention to their value creation processes through optimal management of their specific internal skills and resources. Hence, the contribution of the cognitive governance approach that focuses on the impact of corporate governance practices on innovation, competency building, and growth opportunities (Arena, 2013).

Therefore, we believe that analyzing the contribution of internal corporate governance mechanisms to value creation requires adopting a hybrid vision of governance. Therefore, the objective of this study is to investigate the impact of internal corporate governance mechanisms, both disciplinary and cognitive on the financial and stock market performance of Moroccan Stock Exchange-listed companies.

Let us note that these mechanisms refer to various measures put in place intentionally and specifically by a given company in order to maximize, preserve and share its value creation, for all its stakeholders and with a view of sustainability (Charreaux, 2015).

This study is organized as follows. Section 2 reviews the related literature and develops hypotheses. Section 3 describes the research methodology. Section 4 presents descriptive statistics. Section 5 presents multivariate tests and regression results. Finally, Section 6 concludes the paper.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Morocco has carried out a series of reforms that aim at reducing the gap between its national corporate governance framework and the international principles of corporate governance provided by the Organization for Economic Co-operation and Development (OECD). The following paragraph will represent a summary of the regulatory framework and soft laws regulating corporate governance in the context of Moroccan listed companies.

Table 1. Main elements of the regulatory framework about corporate governance in Morocco

<i>Jurisdiction</i>	<i>Company law</i>	<i>Latest update</i>	<i>Securities law</i>	<i>Other relevant regulations on corporate governance</i>
Morocco	Companies Law No. 17-95	2019	<ul style="list-style-type: none"> • Stock Exchange (Bourse des Valeurs); • Law No. 19-17; • Financial Market Authority (AMMC); • Public offerings: Law No. 44-12. 	<ul style="list-style-type: none"> • Circulars of the Central Bank (BAM); • AMMC.

Source: OECD (2019).

2.2. Theoretical framework and hypotheses

The main hypothesis of this paper assumes that combining both disciplinary and cognitive internal corporate governance mechanisms can significantly impact the financial and stock market performance of Moroccan listed companies.

The scientific validity of this research hypothesis is analyzed through the mobilization of theories that concern principally the fields of finance and strategic management. These are mainly:

- Contractual theories of the firm; mainly agency theory analyzing human behavior in a decision framework and constituting a fundamental theoretical basis for a governance disciplinary approach (Jensen & Meckling, 1976);
- Resources and competence-based views which are baseline theories of the governance

2.1. Corporate governance in Moroccan listed companies

Morocco has a national regulatory framework that runs corporate governance aspects, focusing on the exercise of power and functions within administrative bodies. This mainly concerns Law No. 17-95 on limited companies, which was amended and supplemented by a series of amendments (notably No. 20-05, 78-12 and 20-19).

Morocco's awareness of the importance of corporate governance was also manifested through the creation of a National Commission on Corporate Governance (CNGE), by the General Confederation of Moroccan Businesses (CGEM) and the former Ministry of Economic and General Affairs in 2007. This commission was responsible for developing a corporate governance best practices code following the suit of many developed and emerging countries.

In 2008, the CGEM developed "the Moroccan code of corporate governance best practices" which is aligned with international benchmarks and inspired by the OECD principles of corporate governance (see Table 1).

This code provides guidelines and recommendations in terms of corporate governance that are adapted to the specificities of the Moroccan economic tissue and its regional context. It is an evolving code that has undergone a series of periodic updates (2010 code's version relating to credit institutions), drawn up by the national corporate governance commission.

Moroccan companies in the public and private sectors have demonstrated a real commitment to the implementation of the recommendations made by this Code, in order to improve governance practices of Moroccan companies and to align them as closely as possible with international standards.

cognitive approach (Penrose; Hamel Prahalad, as cited in Arena, 2013).

An overview of various empirical studies on the relationship between corporate governance and firm performance carried out in different contexts and using different performance measurement indicators was also conducted as part of this study. This has led us to develop the research hypotheses and propose a conceptual model for testing (see Appendix).

The contribution of independent directors to governance structures

The disciplinary governance perspective states that corporate performance depends on the effectiveness of management control. The latter derives largely from the presence of independent directors on boards of directors or supervisory boards.

Most theoretical research affirms the existence of a positive impact of the presence of independent directors on the boards of companies (Beasley & Petroni, 2001; Carcello, Hermanson, Neal, & Riley, 2002; Goodwin-Stewart & Kent, 2006). These actors have neutral and clear views of the firm and are often more experienced and qualified as good controllers who act in the company's interest. Their presence improves board control and thus company performance. However, Fosberg (1989) concludes that there is no link between the proportion of independent directors on boards of directors and companies' financial performance, which is measured by sales and return on equity.

In addition, Hermalin and Weisbach (1991) and Bhagat and Black (2002) explain the absence of correlation between the presence of external directors on boards of directors and a company's value creation, which is mainly measured by Tobin's q, the return on capital and shares. The above developments confirm that there is still neither real consensus on the effectiveness of disciplinary control practiced over executives by independent directors, nor on that exercised by inside directors (Charreaux, 1995; Lapointe, 2000; Brecht, Bolton, & Röell, 2002). Therefore, the first hypothesis is formulated as shown below:

H1: The presence of independent directors within Moroccan listed companies' governance structures has a significant positive impact on their financial and stock market performance.

Board of directors' duality

Board of directors' duality refers to combining the functions of "Chief Executive Officer (CEO)" and "Chairman of the Board of Directors". In this case, the company is chaired by a CEO who performs both management and decision-making tasks.

According to agency theory, this duality of mandate leads to an inefficient and ineffective functioning of board of directors, preventing it from exercising its prerogatives of control (Jensen & Meckling, 1976; McKnight & Mira, 2003). This is caused by the concentration of power in the managers' hands who tend to serve their own interests at the expense of those of the shareholders. This leads to an increase in conflicts of interest within the firm and negatively affects its performance (Rechner & Dalton, 1991).

Therefore, companies must separate these two functions to strengthen the independence and effectiveness of their boards and thus enable an objective assessment of executive performance (Fama & Jensen, 1983; Haniffa & Cooke, 2002).

However, some studies reveal that duality does not necessarily have a significant impact on companies' performance (Jaoua & Mim, 2018; Ciftci, Tatoglu, Wood, Demirbag, & Zaim, 2019).

In addition, other studies have confirmed that the combination of these two functions allows management and board of directors to communicate better to ensure better management of the company's activities by reducing agency costs between shareholders and managers (Brickley, Coles, & Jarral, 1997; Rechner & Dalton, 1991).

All these arguments lead us to formulate the second hypothesis as follows:

H2: The separation between management and chairmanship of board of directors has a positive

effect on the financial and stock market performance of Moroccan listed companies.

The presence of specialized committees in board of directors or supervisory boards

The objective assigned to the presence of specialized committees on boards is to improve their operation and transparency. This practice constitutes a recommendation of most international reports and codes of corporate governance. It symbolizes an extension of roles of these governance bodies and a widening of their flexibility, allowing responsiveness to decision-making.

However, to ensure this mission, these committees must be composed of directors, with specific skills. These are mainly skills related to the business sector of the company, accumulated experiences, as well as those related to the areas of risk management. These committees are mainly the audit committee, the nomination, and remuneration committee, the CSR committee, the strategy, and investment committee, etc. Hence the third hypothesis is:

H3: The presence of specialized committees on boards has a significant and positive impact on Moroccan listed companies' financial and stock market performance.

Board of directors' transparency

The audit committee is an essential component of every company's governance system. Its main objective is to control the produced financial information by the firm and to assist the board of directors in decision-making.

Empirical studies that focused on this governance mechanism conclude that the audit committee increases accounting control process efficiency, which promotes the company's transparency towards financial investors and improves its financial performance (Pincus, Rusbarsky, & Wong, 1989; Anderson, Mansi, & Reeb, 2004).

The independence of this governance mechanism is essential to guarantee the reliability of the company's financial statements, as well as its performance.

Abbott and Parker (2000) corroborate this idea by stating that the independence of an audit committee avoids the sanctions applied in the American context by the Securities Exchange Commission (SEC) due to the publication of fraudulent financial statements.

On the other hand, the Common Body of Knowledge (CBOK)¹ in a study, which was carried out in 2015 on "the internal audit analyzed by the company's stakeholders", states that the audit committee must:

- enable internal auditors to think more holistically and strategically when planning, executing and reporting their assignments;
- encourage internal audit to go beyond insurance to improve its value proposition;
- ensure an effective positioning of the head of internal audit and his department to meet

¹ The Common Body of Knowledge (CBOK) is an international study conducted by The IIA Research Foundation on Internal Audit. It includes surveys of internal audit professionals and their stakeholders (over 14,500 participants). The 2015th CBOK "Internal audit seen by its stakeholders" was interested in relationship between main companies' stakeholders and internal audit function in France, Western Europe, and the world (<https://docs.ifaci.com/wp-content/uploads/2018/03/CBOK-AI-seen-by-its-stakeholders-stakeholders.pdf>).

the audit committee and stakeholder expectations. All these arguments lead us to hypothesize that:

H4a: Strengthening governance structures transparency in Moroccan listed companies through the implementation of audit committees has a significant positive impact on their financial and stock market performance.

The executive remuneration policy is also an internal disciplinary governance mechanism, which protects these actors' interests and those of shareholders and which has attracted the attention of scientific inquiry and empirical studies. It is used as a means of incentive for managers to improve their managerial efforts and thus the company's performance. Indeed, Jensen and Murphy (1990) have shown that increasing managers' participation in the firm's capital motivates them and improves its value creation. These authors have also shown that an improvement in the CEO's remuneration of 3.25 dollars of their sampled companies increases the firm's stock price by 1000 dollars.

According to the Institute of Internal Auditors (IIA), the firm's executive remuneration policy highlights the company's interest in its corporate governance practices. In addition, the SEC requires the United States to "disclose clear, concise and understandable information on the compensation paid to CEOs, CFOs and other senior executives of public organizations" (IFACI, as cited in Bughin et al., 2009, p.20). Similarly, the SOX Act of 2002 considers that the disclosure of the elements of executive compensation must constitute a main element of control in a company.

All these laws and recommendations show that senior executives' remuneration is a major concern and a subject that often worries shareholders, as well as all of the company's stakeholders. This is explained by the fact that excessive remuneration of top executives is often an indicator of board weakness and inadequate decision-making. These developments lead us to hypothesize that:

H4b: Disclosing information related to remuneration policy for key executives has a positive and significant impact on their financial and stock market performance.

Shareholder power inside board of directors

This argument claims that shareholder activism in boards helps to discipline and criticize executives, thereby minimizing agency costs and maximizing the company's performance.

This disciplinary exercise can easily be carried out by majority shareholders, unlike the case of minority ones who do not have the required weight to carry out this control.

Most of the studies that have been carried out on the impact of shareholder power on the financial and/or stock market performance of listed companies have been carried out in the Anglo-Saxon context. This control is mainly expressed by shareholders' use of their voting rights and their ability to propose decisions to be taken at general meetings, as well as their ability to consult financial and extra-financial information any time and without restrictions. Hence, the following research hypothesis was made:

H5: The free use by shareholders of their voting rights has a significant and positive disciplinary impact on the financial and stock market performance of Moroccan listed companies.

Ownership structure

Capital concentration is a disciplinary governance mechanism that limits manager opportunism and discretionary space, by improving the efficiency of exercised shareholders' control over them. It is a means that also aligns the interests of these actors, which will make it possible to maximize the company's creation of shareholder value.

According to Ciftci et al. (2019), Bousetta (2019), Alexandre and Paquerot (2000), the presence of majority shareholders on boards contributes to corporate governance, through their investment in the firm's control, which allows them to protect their interests. This latter because of their rights has great influence in general meetings (Mtianos & Paquerot, 1999). Their presence in governance bodies also restricts the company's need for an audit (Chan, Ezzamel, & Gwilliam, 1993). However, a high concentration of capital accentuates agency conflicts between minority and majority shareholders, because of the opportunistic behavior of those latter.

In fact, majority shareholders tend to maximize their profits at the expense of minorities (Villalonga & Amit, 2006), due to their privileged access to the company's internal information resources, which reduces their dependence on its communicated financial information. These arguments allow us to develop the following hypothesis:

H6a: Capital concentration has a significant and positive impact on the financial and stock market performance of Moroccan listed companies.

The carried out empirical studies on the impact of employee shareholding on a company's performance show different results. Faleye (2007) affirm the negativity of the relationship between employees' share of capital ownership and its financial performance. These authors explain the ineffectiveness of this mechanism by the "implicit contracts" that can take place between managers and certain senior managers. These contracts often include benefits and promises related to job security, internal promotions, etc. (Charreaux, 2011). In this case, employee ownership-sharing is analyzed as being a practice that encourages the willingness of certain leaders to take root.

However, other researchers affirm the existence of a positive (Chang, 1990) or neutral (Blasi et al., 1996) relationship between employee shareholding and a company's performance.

According to Desbrières (2002), the presence of employee shareholders on the board of directors makes it possible to improve the effectiveness of its control and reduces managers' opportunism. This makes it possible to align employees' interests and the company's external shareholders. Hence, the following hypothesis was formulated:

H6b: Employee share ownership contributes, through the convergence of employees' and shareholders' interests, to improving business performance.

Diversified profiles of board members

The firm's cognitive theories recommend that boards of directors include representatives of all the company's stakeholders who demonstrate an interest in investing in and developing

organizational learning through organizational learning.

This theoretical stream recommends that the selection of directors by boards should be rethought, incorporating the criterion of diversity in terms of director profiles, to enrich the firm's cognitive capital. This can be done by recruiting directors with different backgrounds and considerable skills in their areas of expertise.

Similarly, Charreaux (2015) and Wirtz (2007) explain that the board of directors is a place for organizational learning, which fosters the development and improvement of production processes through debates that help managers design or revise their strategic visions and acquire new managerial assets. These interactions, collaborations, and professional exchanges between boards of directors' members enable them to acquire and use knowledge already built up, on one hand, and, on the other hand, to build new knowledge within the company by benefiting from their expertise.

Thus, collaboration among directors on boards is an opportunity for skills development and learning among directors. This suggests that:

H7: Moroccan listed companies' financial performance is significantly and positively impacted by board member diversity.

The development of internal skills specific to the company's activity

Corporate governance cognitive theories state that boards of directors should place particular emphasis on organizational learning, through skills building, as well as focusing on firms' ability to innovate and create new investment opportunities (Pralhad & Hamel, 1990). The key to corporate performance in the context of this governance perspective is manifested management ability to imagine and innovate, develop its processes, and reconfigure its activities following changes in the environment, encourage development strategies and organizational learning.

In addition, these companies must develop their human capital, which represents a real intangible strategic resource. It is an intangible capital that results from an accumulation of baggage of knowledge and skills implemented in a synchronized manner within the organization to create value.

This analysis leads us to formulate the last two research hypotheses as follows:

H8a: The implementation of research and development strategy by the company has a significant and positive impact on the financial and stock market performance of Moroccan listed companies.

H8b: The adoption of employees' learning programs significantly and positively impacts the financial and stock market performance of Moroccan listed companies.

3. RESEARCH METHODOLOGY

3.1. Sample selection and data collection

The target population of this paper is mainly composed of Moroccan listed companies in the Casablanca Stock Exchange. We have excluded:

- financial institutions that have different methods of evaluating profitability compared to other types of businesses;

- public enterprises because of their specificities;

- companies whose governance data is not disclosed.

As a result, the sample that will be used to test the hypotheses is made up of 44² listed companies in the Casablanca Stock Exchange, covering most sectors of the Moroccan economy and observed between the 2015-2018 period.

We opted for a time lag between the dependent variable and independent variables in order to perceive the impact of the studied internal corporate governance mechanisms on the sampled companies' financial and stock market performance and to discard an inverse causal effect.

The sampling method adopted is non-probabilistic, insofar as the choice of the sample constituting unit was made arbitrarily and without estimating the probability of inclusion of any component in the latter.

The use of non-probability sampling is explained by the fact that probability sampling was excessively costly as this study was not sponsored. Non-probabilistic sampling provided a viable alternative that was used in this research.

Financial performance data was mainly collected from the published summary notes on the official website of the Casablanca Stock Exchange (www.casablanca-bourse.com).

Information relating to corporate governance practices was collected from board reports and activity reports that are published on the sampled companies' websites, as well as the available issuance notes on Capital Market Authority's website.

Some financial and governance data has been supplemented from International Scientific Databases. These are mainly DataStream and Worldscope. These various crosschecks are a guarantee of the solidity of the study's empirical database.

3.2. The study's variables

The hypotheses will be tested through three different types of variables:

- Dependent variable (Table 2) relates to the company's performance. The financial one is measured by an intrinsic accounting measure of value creation (ROE) and stock market performance which is captured by a market-oriented measure (market to book ratio).

- Independent variables (Table 3) relate to internal corporate governance mechanisms. To assess these variables, we have developed a rating grid of governance system's quality for each company, based primarily on the mentioned theoretical framework, the regulatory framework regulating corporate governance in Moroccan listed companies' context, the best practices provided by soft laws (codes, reports, and recommendations of experts), the quality rating systems of corporate governance practices that are used by international credit risk rating agencies, the latest survey

² Noting that the total number of listed companies in Morocco is 75. As a result, the representativeness percentage of the sample is 58.66%.

conducted by the Moroccan Institute of Directors (IMA, 2016) on corporate governance practices of listed companies (October's 2016 issue), IMA's report on transparency and dissemination of financial information of listed companies (2015 issue) and our own reflections.

• In conclusion, we identify 14 criteria for evaluating the governance system in each company in the sample, giving us a governance score for each

one and providing an idea of the quality of adopted governance mechanisms by these companies.

• Control variables: these are variables that can influence the relationship between the dependent variable and the independent variables. Therefore, we have chosen to neutralize them to improve the external validity of these research results. These are respectively the company's business sector, its debt, and its size.

Table 2. Summary of study dependent and control variables

Variable	Associated measure
Measures of dependent variables	
Return on equity (ROE)	$\frac{\text{Net income}}{\text{Equity}}$
Market to book ratio (M to B)	$\frac{\text{Stock market capitalization}}{\text{Book value of equity capital}}$
Measures of control variables	
Company's size (Size)	LOG of total company assets
Company's business sector (Sector)	A continuous variable which assigns a score of 1 in case of belonging to the sector, otherwise, Sector = 0
Corporate debt (INDEBT)	$\frac{\text{Financial debts}}{\text{Total of assets}}$

Source: Author's elaboration.

Table 3. Summary of the study independent variables

Independent variables	Measures
Independent directors (AdIn)	Binary variable taking the value 1 when there is at least one independent director on the board, otherwise 0.
Duality (Dual)	Binary variable taking the value 1 when there is a separation between the functions of CEO and Chairman of the Board.
Specialized committees (CS)	Binary variable taking the value 1 if board of directors includes specialized committees (other than internal audit committee), otherwise 0.
Presence of audit committee (CAI)	Binary variable taking the value 1 if the company has an independent internal audit committee, otherwise 0.
Main executives' remuneration (REMD)	Binary variable taking the value 1 if there is the dissemination of information concerning the remuneration of main executives including the component in shares, otherwise 0.
Shareholder voting rights (Votes)	Binary variable which takes the value of 1 when the shareholders freely use their voting rights, otherwise 0.
Capital concentration (Conc)	Binary variable which takes the value of 1 when the company's capital is concentrated (presence of a majority shareholder), otherwise 0.
Employee share ownership (IP)	Binary variable taking the value 1 if a company deploys an employee profit-sharing procedure in its capital, otherwise 0.
Diversity of director profiles (DIV)	Binary variable taking the value 1 if administrators meet diversity criteria, otherwise 0.
Research and development strategy (DEV)	Binary variable taking the value 1 if a company sets up a research and development program relating to its skills and its "business" processes, otherwise 0.
Staff learning programs (FP)	Binary variable taking the value 1 if a company deploys staff learning programs, otherwise 0.

Source: Author' elaboration.

3.3. Research model and empirical results

Linear regression allows quantitative data analysis that links two (simple regression) or more (multiple) quantitative variables in a research model to identify possible causality between them.

The empirical validation of the formulated research hypotheses will therefore be carried out by performing multiple linear regression based on the following two regression models, which take into consideration the simultaneous effect of all the research variables:

$$ROE_i = c_0 + c_1AdIn_i + c_2Dual_i + c_3CS_i + c_4CAI_i + c_5REMD_i + c_6Votes_i + c_7Conc_i + c_8IP_i + c_9DIV_i + c_{10}DEV_i + c_{11}FP_i + c_{12}Size_i + c_{13}SEa_i + c_{14}INDEBT_i + \varepsilon_i \quad (1)$$

$$MTOB_i = c_0 + c_1AdIn_i + c_2Dual_i + c_3CS_i + c_4CAI_i + c_5REMD_i + c_6Votes_i + c_7Conc_i + c_8IP_i + c_9DIV_i + c_{10}DEV_i + c_{11}FP_i + c_{12}Size_i + c_{13}SEa_i + c_{14}INDEBT_i + \varepsilon_i \quad (2)$$

with $c_0, \dots,$ = the parameters of the model; $c_1 c_k$
 ε_i = specification error.

4. DESCRIPTIVE STATISTICS

The objective of this section is to present the descriptive statistics of the data (Table 4). This

first exploration of the dependent, independent, and control variables was carried out to interpret the evolution of average governance scores and the sampled companies' performances.

Table 4. Descriptive statistics

<i>Variables</i>	<i>Mean</i>	<i>Max</i>	<i>Min</i>	<i>Std. dev.</i>
ROE	0.26	7.29	-0.63	1.1
MTOB	3.12	20.46	-0.76	3.99
Size	9.12	10.62	7.72	0.62
INDEBT	0.42	0.98	0.15	0.2
AdIn	0.83	1	0	0.28
Dual	0.53	1	0	0.46
CS	0.71	1	0	0.39
CAI	0.63	1	0	0.37
REMd	0.59	1	0	0.31
Votes	0.94	1	0.63	0.09
Conc	0.6	0.99	0	0.39
IP	0.29	0.25	0	0.36
DIV	0.83	1	0.56	0.13
DEV	0.77	1	0.2	0.21
FP	0.74	1	0	0.27

Table 5. Firm's distribution

<i>Dichotomous variables</i>	<i>Modalities</i>	<i>Frequency</i>	<i>Percentage</i>
Activity area	Industry (1)	32.00	73%
	Others (0)	12.00	27%

Source: SPSS database.

The presented results in the table above indicate that listed companies in the Casablanca Stock Exchange have financial profitability that is between (-0.63) and (7.29), with an average that does not exceed (0.26).

Additionally, statistics show that the average *M to B* is (3.12) with a maximum value of (20.46) and a minimum value of (-0.76). This shows that the selected companies create value for their shareholders.

In addition, their governance scores are overall satisfactory. Most of the listed companies (53%) opt for a duality of functions between CEO and Chairman of the Board, either in a monistic governance structure (with a board of directors: 46%), or in a dualistic structure (with a management board and supervisory board: 7%).

Similarly, we note clear progress in the implementation of at least one independent director within the governance structures in the sampled companies, with an average score of 83%. The improvement in this practice is a concrete result of the reform of Law No. 17-95 on limited companies (SA) that was enacted in April 2019 (Amendment No. 20-19) and which introduced the mandatory inclusion of independent directors on boards of publicly traded companies, without exceeding one-third of the total number of directors.

This change in governance scores also concerns the establishment of specialized committees with an average of 71% for technical committees other than internal audit committees and 63% for the latter.

It is worth noting that following the Amendment No. 78-12 of Law No. 17-95 on limited companies, these latter must set up an audit

committee, acting under the responsibility of the board of directors or the supervisory board.

The sampled listed companies are characterized by an average concentration of capital, held by one main shareholder high, at 60%. These majority shareholders correspond to institutional investors, families, or other listed companies. This concentration of ownership ranges from a minimum of 0% to a maximum of 99%.

Descriptive statistics show that the shareholders of these companies make a free choice in the use of their voting rights (in accordance with Law No. 17-95), with an average of 94%, and that the companies communicate on the remuneration of their key executives for 59%.

However, employee profit-sharing in the company's capital remains a widespread practice among these players with an average of 29%, a minimum value of 0%, and a maximum of 25%.

Regarding the cognitive aspect of governance practices, the sampled listed companies are characterized by a satisfactory diversity of the profiles of their directors with an average of 83%. In addition, these latter develop their specific internal resources and skills by adopting research and development strategies at an average of 77% and training programs for their staff at an average of 74%.

5. MULTIVARIATE TESTS AND REGRESSION RESULTS

Pearson's matrix (see Appendix) shows that there are no variables such as $|r_i, x_i| > 0.7$. This leads us to rule out the existence of multi-collinearity between the explanatory variables.

Table 6. Regression models summary

<i>Model</i>	<i>R</i>	<i>R</i> ²	<i>R</i> ² variation	<i>Variation of F</i>	<i>Sig.</i>	<i>Durbin-Watson</i>
1 (<i>ROE</i>)	0.656	0.530	0.430	1,564	0.001	1,862
2 (<i>M to B</i>)	0.635	0.544	0.404	1,402	0.000	1,863

Source: Extract from SPSS statistics database.

Regression results (Table 6) show that both models are globally significant at alpha threshold = 5%; (probability of F-statistic less than 0.05); and with determination coefficients R^2 of 0.53 (Model 1) and 0.54 (Model 2). The null hypothesis that proposes that models are globally significant is therefore accepted.

The parametric test that is commonly used to detect a serial correlation of residuals is the one

presented by the statisticians Durbin and Watson (1950-1951) and named Durbin-Watson.

The two regression results show that Durbin-Watson values are respectively $1.862 \approx 2$ and $1.863 \approx 2$. This leads us to accept the null hypothesis, stipulating an absence of autocorrelations of order 1 errors, and we, therefore, conclude that errors are not autocorrelated.

Table 7. Linear regression results (Model 1)

<i>M (1)</i>	<i>Non-standardized coefficients</i>		<i>Standardized coefficient</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Standard error</i>	<i>Beta</i>		
<i>Cte</i>	4,208	1.173		3.586	0.000
<i>Size</i>	0.439	0.090	0.246	4.863	0.000*
<i>INDEBT</i>	0.931	0.300	0.172	3.104	0.002*
<i>Sector</i>	-0.216	0.129	-0.088	-1.672	0.095
<i>AdIn</i>	1.923	0.197	0.485	9.759	0.000*
<i>Dual</i>	-0.488	0.142	-0.205	-3.445	0.001*
<i>CS</i>	-0.149	0.148	-0.053	-1.008	0.314
<i>REMD</i>	-0.397	0.245	-0.113	-1.622	0.106
<i>CAI</i>	0.038	0.170	0.013	0.224	0.823
<i>Votes</i>	1.065	0.709	0.089	1.503	0.134
<i>Conc</i>	0.999	0.186	0.354	5.385	0.000*
<i>IP</i>	0.096	0.185	0.032	0.520	0.603
<i>DIV</i>	1.691	0.614	0.211	2.756	0.006*
<i>DEV</i>	-0.674	0.349	-0.130	-1.933	0.054
<i>FP</i>	0.908	0.286	0.220	3.179	0.002*

Source: Extract from SPSS statistics database.

Regarding the control variables, regression results (Table 7) confirm that a company's size considerably improves its financial performance measured by *ROE*. This can be explained by the fact that larger companies achieve better financial performance because they benefit from significant economies of scale and have privileged access to financial resources.

Likewise, debt significantly and positively impacts a company's financial performance, measured by *ROE*, with a significance level of $0.002 < 0.05$ and a beta coefficient = 0.172. This is consistent with financial governance, which stipulates that debt is a disciplinary governance mechanism that improves the company's financial performance (Fama & Jensen, 1983).

As for explanatory variables, only *AdIn*, *Dual*, *Conc*, *DIV*, and *FP* show significant correlations with probabilities of (t-statistic) below the threshold of 0.05.

Indeed, we note the existence of a positive and significant relationship between the existence of an independent director within boards of directors and *ROE* (beta = 0.485 and Prob = $0.000 < 0.05$). This is in accordance with corporate governance codes and reports, as well as contributions of Fama and Jensen (1983) and Boussetta (2019), combining the effectiveness of exercised control by board of directors with the presence of independent directors.

In addition, regression results show a positive and significant relationship between the

concentration of ownership; expressed by the existence of the majority shareholders; and the company's financial performance measured by *ROE* (beta = 0.354 and Prob = $0.000 < 0.05$).

This is in line with agency theory, which considers that this disciplinary governance mechanism contributes to controlling executives by limiting their discretionary space through majority shareholder control, which is in line with the results of Boussetta (2019).

This first regression model also shows a negative and significant relationship between management and supervisory duality in boards of the sampled firms and *ROE* (beta = -0.205 and Prob = $0.001 < 0.05$). This is consistent with studies by Jaoua and Mim (2018), Ciftci et al. (2019), Chaganti, Mahajan, and Sharma (1985), Rechner and Dalton (1989), Liang and Li (1999).

Governance transparency variables, the establishment of specialized committees, free use of voting rights by shareholders, employee profit-sharing in the company's capital, and adopting research and development strategy do not significantly improve listed companies *ROE* (Prob > 0.05).

Finally, we find that both director profiles' diversity and companies' interest in developing their staff skills have a positive and significant impact on their financial performance as measured by *ROE* (beta = 0.211 and 0.220, Prob = 0.006 and $0.002 < 0.05$).

Table 8. Linear regression results (Model 2)

<i>M</i> (2)	Non-standardized coefficients		Standardized coefficient	<i>t</i>	Sig.
	<i>B</i>	Standard error	Beta		
<i>Cte</i>	-11.137	9.290		-1.199	0.234
<i>Size</i>	1.331	0.722	0.206	1.844	0.069
<i>INDEBT</i>	-3.166	2.401	-0.161	-1.319	0.191
<i>Sector</i>	2.050	1.039	0.232	1.972	0.052
<i>AdIn</i>	-2.400	1.565	-0.167	-1.534	0.129
<i>Dual</i>	2.486	1.136	0.289	2.189	0.032*
<i>CS</i>	2.513	1.163	0.246	2.161	0.034*
<i>REMd</i>	-3.521	1.983	-0.276	-1.776	0.080
<i>CAI</i>	1.174	1.373	0.109	0.855	0.396
<i>Votes</i>	2.316	5.609	0.053	0.413	0.681
<i>Conc</i>	3.035	1.466	0.297	2.070	0.042*
<i>IP</i>	0.028	1.463	0.003	0.019	0.985
<i>DIV</i>	9.983	4.986	0.381	2.002	0.049*
<i>DEV</i>	7.098	2.871	0.378	2.473	0.016*
<i>FP</i>	2.223	2.285	0.148	0.973	0.334

Source: SPSS database.

Second regression model results (Table 8) show that none of the control variables is significantly correlated with the companies' stock market performance, as measured by *M to B* ratio.

Only *Conc*, *CS*, *DEV*, *DIV*, and *Dual* variables are significant, with probabilities of (t-statistic) lower than the threshold of 0.05.

Regarding disciplinary governance variables, there are positive and significant correlations between *M to B* and the presence of specialized committees on boards (beta = 0.246 and Prob = 0.034 < 0.05), respecting duality between management and supervisory functions (beta = 0.289 and Prob = 0.032 < 0.05), as well as ownership structure concentration (beta = 0.297 and Prob = 0.042 < 0.05). This is quite satisfactory and allows us to confirm the positive effect of the explanatory variables on *M to B*, as assumed by these research hypotheses.

The empirical results also reveal that governance variables like transparency, the presence of an independent director, the free use of voting rights by shareholders, employee profit-sharing, and the adoption of a staff training strategy do not significantly improve the listed company's *M to B* (Prob > 0.05).

Moreover, concerning cognitive governance variables, the results demonstrate that this performance is positively impacted by firms' interest in diversifying their directors' profiles (beta = 0.381 and Prob = 0.049 < 0.05), adopting strategies to develop their specific internal skills (beta = 0.378

and Prob = 0.016 < 0.05), which is convergent with resources and competence-based views. Indeed, these cognitive mechanisms allow the firm in this approach to obtain sustainable rent in accordance with a dynamic growth perspective. This can be explained by the fact that the exercise of innovation and knowledge production makes it possible to improve operational efficiency, which has a positive impact on firms' financial performance.

These empirical results are consistent with studies that have shown that Moroccan listed companies with high corporate governance scores; concerning board functioning and ownership structure; achieve better financial performance (Bousetta, 2019) and reveal higher stock prices in emerging markets (Madhar, 2016).

Furthermore, the two regression model results suggest that companies with hybrid approaches of corporate governance achieve higher financial performance (*ROE*) than do those with lower levels of governance and higher capital market values (*M to B*). All these results are summarized in Table 9.

We can then validate the main hypothesis of this research, according to which internal corporate governance mechanisms, which are both disciplinary and cognitive, have a significant impact on the sampled companies' performance. This constitutes an enrichment of studies that have dealt with corporate governance in listed companies in Morocco.

Table 9. Result summary

Hypotheses	Intended effect	Obtained effect	Results
<i>H1: Presence of independent directors.</i>	+	+	Validated
<i>H2: Duality of board of directors.</i>	+	+	Validated (M 2)
<i>H3: Presence of specialized committees (other than internal audit committee).</i>	+	+	Validated (M 2)
<i>H4a: Strengthening transparency by setting up an audit committee.</i>	+	-	Rejected
<i>H4b: Strengthening transparency by communicating information on main executives' remuneration policy.</i>	+	-	Rejected
<i>H5: Free use by shareholders of their voting rights.</i>	+	-	Rejected
<i>H6a: Capital concentration.</i>	+	+	Validated
<i>H6b: Employee profit-sharing in the company's capital.</i>	+	-	Rejected
<i>H7: Board members' diverse profiles.</i>	+	+	Validated
<i>H8a: Implementing R&D strategy.</i>	+	+	Validated (M 2)
<i>H8b: Adopting of staff training programs.</i>	+	+	Validated (M 1)

Source: Author' elaboration.

6. CONCLUSION

The main objective of this research is to study the impact of internal corporate governance mechanisms on Moroccan listed companies' financial and stock market performance. We carried out a review of various theoretical and empirical studies that were interested in this topic to develop the research hypotheses, which were tested on a sample of 44 Moroccan listed companies on the Casablanca Stock Exchange.

The linear regression models of this study demonstrated that the sampled companies' performances significantly correlated with internal corporate governance mechanisms.

Indeed, the presence of independent directors and specialized committees on these companies' boards has a positive impact on their performance, which is measured by ROE and M to B.

Likewise, we observe that these two indicators improve with capital concentration and directors' profiles' diversity in the sampled companies.

This concentrated ownership structure with most of the family or state ownership explains the existence of a significant and positive relationship between financial and stock market performance and capital concentration. Indeed, the managers of these companies are obliged to increase the performance of their structures in the presence of influencing controllers. The majority

of shareholders are actively involved in decision-making.

In addition, over time, these executives acquire a great deal of experience and enhance their relational networks and cognitive capital specific to their companies. This gives them better access to supply resources and financing.

The empirical results also demonstrated that companies' compliance with the duality of management and supervisory functions has a negative and significant impact on their financial performance as measured by ROE.

Furthermore, ROE is positively impacted by these companies' adoption of staff training programs for developing their human capital.

The present research also demonstrates that the identification of different growth levers by these listed companies, through the implementation of research and development strategies, has a positive impact on their performance as measured by M to B.

Hence, this study confirms the existence of a significant impact of internal governance mechanisms (disciplinary and cognitive) on the financial and stock market performance of listed companies in the Moroccan context.

These empirical findings imply that Moroccan listed companies' governance systems must place special emphasis on reducing value creation loss due to conflicts of interest between shareholders and agents and productive dimension.

REFERENCES

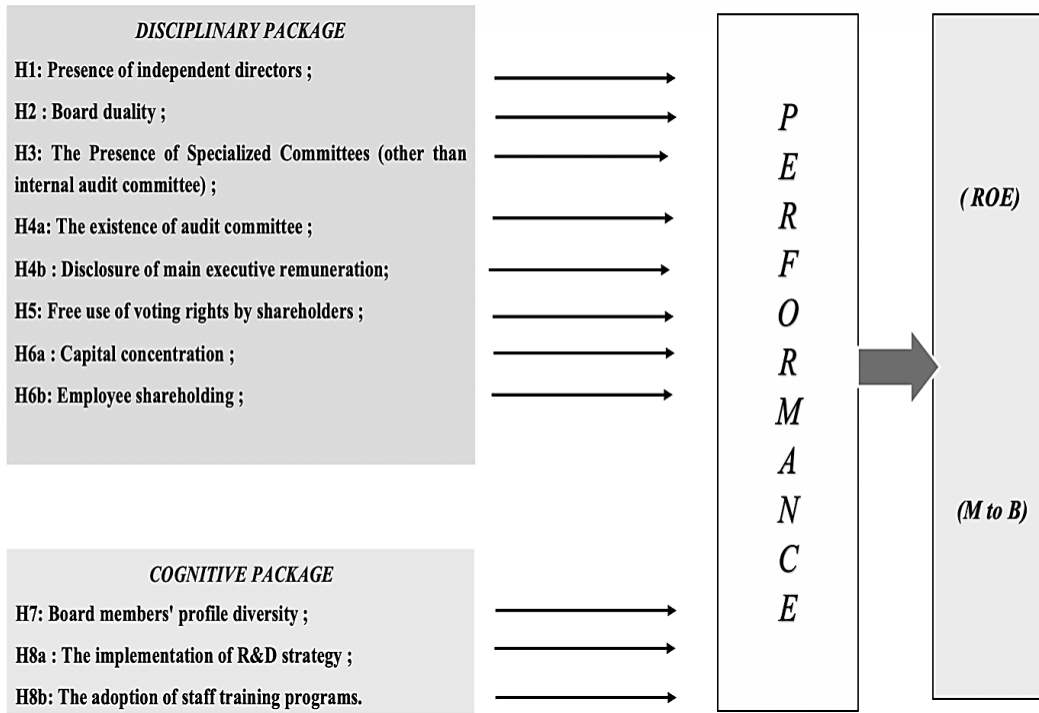
- Abbott, L. J., & Parker, S. (2000). Auditor selection and audit committee characteristics. *AUDITING: A Journal of Practice and Theory*, 19(2), 47-66. <https://doi.org/10.2308/aud.2000.19.2.47>
- Al-ahdal, W. M., Alsamhi, M. H., Tabash, M.I., & Farhan, N. H. S. (2020). The impact of corporate governance on financial performance of Indian and GCC listed firms: An empirical investigation. *Research in International Business and Finance*, 51, 101083. <https://doi.org/10.1016/j.ribaf.2019.101083>
- Alexandre, H., & Paquerot, M. (2000). Effectiveness of control structures and establishment of leaders. *Finance Control Strategy*, 3(2), 5-29. Retrieved from https://www.researchgate.net/publication/4793723_Efficacite_des_structures_de_controle_et_enracinement_des_dirigeants
- Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2004). Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics*, 37(3), 315-342. <https://doi.org/10.1016/j.jacceco.2004.01.004>
- Arena, L. (2013). *Edith Penrose and firm growth: A follow-up to Edith Penrose's limits to firm growth and size*. <https://doi.org/10.4000/books.enseditions.4155>
- Ayadi, W. M. (2013). Governance mechanisms and external audit quality: The French case. *La Revue Gestion et Organization*, 5(2), 183-195. <https://doi.org/10.1016/j.rgo.2013.12.012>
- Beasley, M. S., & Petroni, K. R. (2001). Board independence and audit firm type. *AUDITING: A Journal of Practice and Theory*, 20(1), 97-114. <https://doi.org/10.2308/aud.2001.20.1.97>
- Bédard, J., Chtourou, S. M., & Courteau, L. (2004). The effect of audit committee expertise, independence, and activity on aggressive earnings management. *AUDITING: A Journal of Practice and Theory*, 23(2), 13-35. <https://doi.org/10.2308/aud.2004.23.2.13>
- Bessière, V., & Schatt, A. (2018). Corporate governance: New results. *International Governance Conference 2017 in Lausanne*. <https://doi.org/10.4000/fcs.2607>
- Bhagat, S., & Black, B. (2002). The non-correlation between board independence and long-term firm performance. *The Journal of Corporation Law*, 27, 231-273. <https://doi.org/10.2139/SSRN.133808>
- Bhagat, S., & Bolton, B. (2019). Corporate governance and firm performance: The sequel. *Journal of Corporate Finance*, 58, 142-168. <https://doi.org/10.1016/j.jcorpfin.2019.04.006>
- Blasi, J., Conte, M., & Kruse, D. (1996). Employee stock ownership and corporate performance among public companies. *Industrial and Labor Relations Review*, 50(1), 60-79. <https://doi.org/10.2307/2524389>
- Bousetta, M. (2019). L'impact des mécanismes de gouvernance sur la performance des entreprises marocaines cotées (The impact of governance mechanisms on the performance of Moroccan listed companies). *International Journal of Business and Technology Studies and Research*, 1(2), 1-10. <https://doi.org/10.5281/zenodo.3570951>
- Braendle, U., Stiglbauer, M., Ababneh, K., & Dedousis, E. (2020). The impact of board diversity on firm performance - The case of Germany. *Corporate Ownership & Control*, 17(2), 183-193. <https://doi.org/10.22495/cocv17i2art15>
- Brecht, M., Bolton, P., & Röell, A. (2002). *Corporate governance and control* (ECGI Working Paper). <https://doi.org/10.2139/ssrn.343461>
- Brickley, J. A., Lease, R. C., & Smith, C. W. (1988). Ownership structure and voting on antitakeover amendments. *Journal of Financial Economics*, 20, 267-291. [https://doi.org/10.1016/0304-405X\(88\)90047-5](https://doi.org/10.1016/0304-405X(88)90047-5)

17. Brickley, J. A., Coles, J. L., & Jarrell, G. (1997). Leadership structure: Separating the CEO and Chairman of the Board. *Journal of Corporate Finance*, 3(3), 189-220. [https://doi.org/10.1016/S0929-1199\(96\)00013-2](https://doi.org/10.1016/S0929-1199(96)00013-2)
18. Bughin, C., Chatelin, C., Depret, M.-H., Finet, A., Hamdouch, A., Missonier-Piera, F., & Piot, C. (2009). Gouvernance d'entreprise, nouveaux défis financiers et non financiers In *Méthodes & recherches management*. (pp. 141-164). Bruxelles, Belgium: De Boeck.
19. Carcello, J. V., Hermanson, D. R., Neal, T. L., & Riley, R. A. (2002). Board characteristics and audit fees. *Contemporary Accounting Research*, 19(3), 365-384. <https://doi.org/10.1506/CHWK-GMQ0-MLKE-K03V>
20. Chaganti, R. S., Mahajan, V., & Sharma, S. (1985). Corporate board size, composition and corporate failures in the retailing industry. *Journal of Management Studies*, 22(4), 400-417. <https://doi.org/10.1111/j.1467-6486.1985.tb00005.x>
21. Chan, P., Ezzamel, M., & Gwilliam, D. (1993). Determinants of audit fees for quoted UK companies. *Journal of Business Finance and Accounting*, 20(6), 765-786. <https://doi.org/10.1111/j.1468-5957.1993.tb00292.x>
22. Chang, S. (1990). Employee stock ownership plans and shareholder wealth: An empirical investigation. *Financial Management*, 19(1), 48-58. <https://doi.org/10.2307/3666036>
23. Charreaux, G. (1994). Conseil d'administration et pouvoirs dans l'entreprise (Board of directors and powers in the company). *Revue D'économie Financière (Financial Economics Review)*, 31(4), 49-79. <https://doi.org/10.3406/ecofi.1994.2103>
24. Charreaux, G. (1995). Management control methods and firm performance. *Revue d'Economie Industrielle*, 135-172.
25. Charreaux, G. (2000). *Le conseil d'administration dans les théories de la gouvernance (The board of directors in the theories of governance)*. Retrieved from https://www.researchgate.net/publication/4798775_Le_conseil_d_administration_dans_les_theories_of_governance.
26. Charreaux, G. (2011). *Quelle théorie pour la gouvernance? De la gouvernance actionnariale à la gouvernance cognitive et comportementale (Which theory for governance? From shareholder governance to cognitive and behavioral governance)*. Retrieved from https://www.researchgate.net/publication/254405956_Quelle_theorie_pour_la_gouvernance_De_la_gouvernance_actionnariale_a_cognitive_and_Behavioral_governance.
27. Charreaux, G. (2015). Pour une véritable théorie de la latitude managériale et du gouvernement des entreprises (Toward a true theory of managerial discretion and corporate governance). *Revue Française de Gestion*, 41(253), 189-212. <https://doi.org/10.3166/RFG.253.189-212>
28. Ciftci, I., Tatoglu, E., Wood, G., Demirbag, M., & Zaim, S. (2019). Corporate governance and firm performance in emerging markets: Evidence from Turkey. *International Business Review*, 28(1), 90-103. <https://doi.org/10.1016/j.ibusrev.2018.08.004>
29. Dahir No. 1-96-124 of 14 rabii II 1417 promulgating the law No. 17-95 relating to public limited companies. Retrieved from <http://www.ammc.ma/fr/reglementations/dahir-n%C2%B01-96-124-0>
30. Del Vecchio, N. (2010). Réseaux de conseils d'administration et adoption de pratiques de gouvernance d'entreprise (Board networks and adoption of corporate governance practices). *Revue Française de Gestion*, 36(202), 145-161. <https://doi.org/10.3166/rfg.202.145-161>
31. Desbrières, P. (2000). *Executive compensation in the form of shares and stock options* (Working Papers CREGO 1001102, University of Burgundy - CREGO EA7317 Center for research in management of organizations).
32. Desbrières, P. (2002). Les actionnaires salariés (Employee shareholders). *Revue Française de Gestion*, 5(141), 255-281. Retrieved from <https://www.cairn.info/revue-francaise-de-gestion-2002-5-page-255.htm>
33. El Idrissi, T. (2017). The contribution of internal control and internal audit to good corporate governance: A quantitative study on Moroccan companies. *International Review of Economics, Management and Law Research*.
34. Erickson, M., Hanlon, M., & Maydew, E. L. (2006). Is there a link between executive equity incentives and accounting fraud? *Journal of Accounting Research*, 44(1), 113-143. <https://doi.org/10.1111/j.1475-679X.2006.00194.x>
35. Faleye, O. (2007). Classified boards, firm value, and managerial entrenchment. *Journal of Financial Economics*, 83(2), 501-529. <https://doi.org/10.1016/j.jfineco.2006.01.005>
36. Fama, E., & Jensen, M. (1983). Separation of ownership and control. *The Journal of Law and Economics*, 26(2), 301-325. <https://doi.org/10.1086/467037>
37. Fauzi, F., Basyith, A., & Foo, D. (2017). Committee on board: Does it matter? A study of Indonesian Sharia-listed firms. *Cogent Economics & Finance*, 5(1), 1-12. <https://doi.org/10.1080/23322039.2017.1316547>
38. Fosberg, R. (1989). Outside directors and managerial monitoring. *Akron Business and Economic Review*, 20, 24-32.
39. Goodwin-Stewart, J., & Kent, P. (2006). Relation between external audit fees, audit committee characteristics and internal audit. *Accounting and Finance*, 46(3), 387-404. <https://doi.org/10.1111/j.1467-629X.2006.00174.x>
40. Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus*, 38(3), 317-349. <https://doi.org/10.1111/1467-6281.00112>
41. Heibatollah, S., Wang, J., & Zhou, H. (2011). Corporate governance and operating performance of Chinese listed firms. *Journal of International Accounting, Auditing and Taxation*, 20(2), 106-114. <https://doi.org/10.1016/j.intaccudtax.2011.06.005>
42. Hermalin, B. E., & Weisbach, M. S. (1991). The effects of board composition and direct incentives on firm performance. *Financial Management*, 20(4), 101-112. <https://doi.org/10.2307/3665716>
43. Hundal, S. (2017). Multiple directorships of corporate boards and firm performance in India. *Corporate Ownership & Control*, 14(4), 150-164. <https://doi.org/10.22495/cocv14i4art13>
44. Jaoua, A., & Mim, S. B. (2018). Conseil d'administration et performance financière des entreprises Françaises. *International Journal of Business & Economic Strategy (IJBES)*, 8, 28-39. Retrieved from <http://www.ipco-co.com/IJBES/vol8/152.pdf>
45. 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. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
46. Jensen, M. C., & Murphy, K. J. (1990). Performance pay and top-management incentives. *Journal of Political Economy*, 98(2). <https://doi.org/10.1086/261677>

47. Khan, B., Nijhof, A., Diepeveen, R. A., & Melis, D. A. M. (2018). Does good corporate governance lead to better firm performance? Strategic lessons from a structured literature review. *Corporate Ownership & Control*, 15(4), 73-85. <https://doi.org/10.22495/cocv15i4art7>
48. Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33(3), 375-400. [https://doi.org/10.1016/S0165-4101\(02\)00059-9](https://doi.org/10.1016/S0165-4101(02)00059-9)
49. Lapointe, P. (2000). *Structure de propriété, investisseurs institutionnels et performance de l'entreprise: Le point des connaissances* (Working Paper, École de Comptabilité, Faculté des Sciences de l'Administration, Université Laval, Québec).
50. Law, P., & Yuen, D. (2019). Financial analysis and corporate governance of AA: A case study. *Corporate Ownership & Control*, 16(2), 19-24. <https://doi.org/10.22495/cocv16i2art2>
51. Liang, N., & Li, J. (1999). Board structure and firm performance: New evidence from China's private firms. *Academy of Management Annual Conference*
52. Madhar, S. (2016). *Corporate Gouvernance et Performance des Entreprises: Cas des Emetteurs Marocains (Corporate governance and business performance: Case of Moroccan issuers)* (Doctoral thesis, Management Research Laboratory (LAREM), ISCAE GROUP). Retrieved from <https://www.groupeiscae.ma/wp-content/uploads/2015/05/Th%C3%A8se-Corporate-Gouvernance-et-Performance-des-Entreprises-Smahane-MADHAR.pdf>
53. McKnight, J., & Mira, S. (2003). *Corporate governance mechanisms, agency costs and firm performance in UK firms*.
54. Moroccan Capital Market Authority. (2008). *Moroccan Code of good governance practices*. Retrieved from http://www.ammc.ma/sites/default/files/CODE_MAROCAIN.pdf.
55. Moroccan Institute of Administrators (IMA). (2016). *Enquête sur les pratiques de gouvernance des sociétés cotées*. Retrieved from <http://www.institut-administrateurs.ma/images/Rapportsocits%20cotes%20VF2016.pdf>
56. Mtanos, R., & Paquerot, M. (1999). Ownership structure and underperformance of firms: An empirical study of the cash market, monthly settlement and the secondary market. *Revue Finance Contrôle Stratégie*, 2(4), 157-179.
57. OECD. (2019). *OECD Survey on corporate governance frameworks: Middle East And North Africa*. Retrieved from <http://www.oecd.org/daf/ca/OECD-Survey-of-Corporate-Governance-Frameworks-MENA-2019.pdf>
58. Pincus, K., Rusbarsky, M., & Wong, J. (1989). Voluntary formation of corporate audit committees among NASDAQ firms. *Journal of Accounting and Public Policy*, 8(4), 239-265. [https://doi.org/10.1016/0278-4254\(89\)90014-8](https://doi.org/10.1016/0278-4254(89)90014-8)
59. Pound, J. (1988). Proxy contests and the efficiency of shareholders' oversight. *Journal of Financial Economics*, 20, 237-265. [https://doi.org/10.1016/0304-405X\(88\)90046-3](https://doi.org/10.1016/0304-405X(88)90046-3)
60. Prahalad, C. K., & Hamel, G. (1999). The core competence of the corporation. In *Knowledge and Strategy* (pp. 41-59). <https://doi.org/10.1016/B978-0-7506-7088-3.50006-1>
61. Rechner, P., & Dalton, D. R. (1989). The impact of CEO as board chairperson on corporate performance: Evidence vs. rhetoric. *Academy of Management Executive*, 3(2), 141-143. <https://doi.org/10.5465/ame.1989.4274764>
62. Rechner, P., & Dalton, D. R. (1991). CEO duality and organizational performance: A longitudinal analysis. *Strategic Management Journal*, 12(2), 155-160. <https://doi.org/10.1002/smj.4250120206>
63. The Sarbanes-Oxley Act of 2002. Retrieved from <https://www.soxlaw.com/>
64. Terchoune, M., & Soufiane, B. (2016). Convergence towards good governance practices. Theoretical and empirical findings case of listed Moroccan companies. *European Scientific Journal*, 11(28).
65. Vatteville, E. (2008). La création de valeur: De l'exclusivité actionnariale à la diversité partenariale? (Value creation: From shareholder exclusivity to partnership diversity?) *Management & Avenir*, 18(4), 88-103. <https://doi.org/10.3917/mav.018.0088>
66. Villalonga, B., & Amit, R. (2006). How do family ownership, control and management affect firm value? *Journal of Financial Economics*, 80(2), 385-417.
67. Vo, D., & Nguyen, T. (2014). The impact of corporate governance on firm performance: Empirical study in Vietnam. *International Journal of Economics and Finance*, 6(6), 1-13. <https://doi.org/10.5539/ijef.v6n6p1>
68. Wang, S. (2018). *Three essays on empirical corporate finance* (Doctoral thesis, Cergy-Pontoise, Higher School of Economic and Commercial Sciences). Retrieved from <http://www.theses.fr/2018ESEC0001>
69. Wirtz, P. (2007). Skills, conflicts and value creation: towards an integrated approach to governance. *Accounting Control Audit*, 11.

APPENDIX

Figure 1. Conceptual model



Source: Author's elaboration.

Table A.1. Pearson correlation matrix

	<i>AdIn</i>	<i>CAI</i>	<i>Conc</i>	<i>CS</i>	<i>DEV</i>	<i>DIV</i>	<i>Dual</i>	<i>INDEBT</i>	<i>FP</i>	<i>IP</i>	<i>REMd</i>	<i>Sector</i>	<i>Size</i>	<i>Votes</i>
<i>AdIn</i>	1.00													
<i>CAI</i>	0.03	1.00												
<i>Conc</i>	-0.04	-0.41	1.00											
<i>CS</i>	0.01	0.21	-0.05	1.00										
<i>DEV</i>	-0.11	-0.02	-0.09	0.04	1.00									
<i>DIV</i>	-0.23	-0.43	0.11	-0.18	0.55	1.00								
<i>Dual</i>	-0.09	-0.03	0.05	-0.32	-0.23	-0.18	1.00							
<i>INDEBT</i>	-0.02	0.21	-0.11	0.33	-0.20	-0.32	-0.24	1.00						
<i>FP</i>	-0.14	-0.01	0.20	0.15	0.31	0.39	0.13	-0.18	1.00					
<i>IP</i>	0.01	-0.22	0.31	0.04	0.08	0.12	0.12	0.08	-0.13	1.00				
<i>REMd</i>	-0.34	-0.15	-0.09	0.16	0.20	0.42	-0.02	-0.21	0.44	0.24	1.00			
<i>Sector</i>	-0.19	-0.09	0.05	-0.16	0.29	0.11	-0.06	0.12	0.03	-0.19	-0.15	1.00		
<i>Size</i>	0.01	-0.20	0.05	-0.02	-0.15	0.22	-0.15	0.13	-0.01	0.01	-0.05	-0.26	1.00	
<i>Votes</i>	0.02	-0.07	0.35	0.14	0.48	0.33	-0.39	-0.03	0.17	0.09	-0.08	0.18	-0.05	1.00

Source: Author's elaboration.