

Board Characteristics' Influence on dividend payment policy: An empirical study in the Egyptian business environment

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Abstract

Purpose – The study examines the influence of board characteristics on dividend payment policy by drawing on multiple theoretical frameworks that express five dimensions: board size, board composition, meeting frequencies, gender diversity, and chief executive officer duality.

Design/methodology/approach – The research used a qualitative approach based on the information disclosed by listed firms on the Egyptian stock market covering seven years before COVID-19 from 2013 to 2019 using 120 non-financial firms (206 observations) covering different industries. The method used for hypothesis testing is linear regression for ordinary least squares. In addition, we used logistic regression in the additional analysis for the second proxy of the dividends variable.

Findings –The findings record a significant positive influence of board size, meetings, and the duality of the chief executive officer on the ratio of dividends. In contrast, the board composition negatively impacts the dividend ratio. No relationship is existence for the female percentage on the board of Egyptian corporations. In addition, the findings support the positive effect of size, meetings, and female portion on dividend decisions, while the board's composition is negatively associated with dividend decisions. In contrast, chief executive officer duality has an insignificant association with this decision. We obtained the same results from the robustness test.

Originality –The current study contributes to the literature as studies on board of directors and dividends in developing markets are scarce, particularly in Egypt.

Keywords: the size of the board, board composition, meeting frequencies, gender diversity, the duality of the CEO, and dividend decision.

أثر خصائص مجلس الإدارة على سياسة التوزيعات المدفوعة: دراسة تطبيقية في بيئة الأعمال المصرية

يهدف هذا البحث إلى اختبار أثر خصائص مجلس الإدارة على سياسة التوزيعات اعتماداً على الإطار النظري لخمسة خصائص أساسية هي: حجم مجلس الإدارة، ونسبة الأعضاء غير التنفيذيين في المجلس، وعدد مرات اجتماعات المجلس في العام، ونسبة تمثيل المرأة في المجلس، وازدواجية منصب رئيس مجلس الإدارة والعضو المنتدب.

تم الاعتماد على البيانات الفعلية المنشورة للشركات غير المالية المدرجة في سوق الأوراق المالية المصري لمدة سبع سنوات قبل جائحة كورونا من عام ٢٠١٣ إلى عام ٢٠١٩ باجمالي ٥٥٦ مشاهدة تمثل ١٢٠ شركة غير مالية من مختلف القطاعات الصناعية والخدمية. وتم استخدام الانحدار الخطي واللوجستي لإختبار فروض الدراسة. وأسفرت النتائج عن وجود تأثير معنوي طردي لكل من حجم مجلس الإدارة وعدد الاجتماعات وازدواجية منصب العضو المنتدب على نسبة التوزيعات المدفوعة، بينما أشارت النتائج إلى وجود تأثير معنوي عكسي لنسبة الأعضاء غير التنفيذيين على نسبة التوزيعات المدفوعة. في حين لم يوجد تأثير لنسبة تمثيل الإناث على معدل التوزيعات. كذلك أشارت النتائج إلى وجود علاقة معنوية طردية لكل من حجم مجلس الإدارة وعدد مرات الاجتماعات ونسبة تمثيل المرأة في المجلس على قرار إعلان التوزيعات. وأكدت النتائج على وجود علاقة معنوية عكسية بين نسبة الأعضاء غير التنفيذيين واتخاذ قرار التوزيعات. وكذلك بينت النتائج عدم وجود علاقة معنوية لإزدواجية منصب العضو المنتدب على قرار التوزيعات. وتم الحصول على نفس النتائج باستخدام القياسات البديلة لمتغيرات الدراسة في التحليلات الإضافية.

الكلمات المفتاحية: حجم مجلس الإدارة، ونسبة الأعضاء غير التنفيذيين، وعدد مرات اجتماعات المجلس في العام، ونسبة تمثيل المرأة في المجلس، وازدواجية منصب رئيس مجلس الإدارة والعضو المنتدب، وسياسة التوزيعات

1. Introduction

Although there is evidence suggesting that cultural variations impact corporate governance, regardless of location, the majority of corporate governance problems and difficulties exist in a evolving-fast global business context; for instance, Byrne (1996) and Byrne and Brown (1997) found that a limited number of people are consistently serving on the same boards, which results in a limited number of board meetings, and that numerous board members have conferred interests in the firms and thus are unable to give management and control issues their full attention because they call for objectivity and independence. For emerging economies like Egypt to compete on an equal footing with industrialized Western economies and play an active role in the global financial system, they will likely need more vital governance structures.

In emerging economies, institutional investors manage their companies even after being listed, and institutions play a significant role in decision-making regardless of their official status. This results in a highly concentrated ownership structure. Instead of emphasizing control, the boards of these corporations work as advising committees. Minority shareholders' expropriation seems troublesome in developing nations due to these unique ownership structures. Emerging countries are a fascinating environment to study the dividend policy conundrum due to the high ownership concentration and the specific corporate governance issue (Mehdi et al., 2017)

Most empirical studies (Michel & Shaked, 1986; Baker et al., 2001; Rozeff, 1982; Pruitt & Gitman, 1991; Stacescu, 2006; Denis, 2008; DeAngelo et al., 2006) focus on dividend programs in industrialized nations. However, there still needs to be more dividend policies in developing nations. Mitton (2004) and Glen et al. (1995) suggest that distinct corporate governance and ownership structure traits exist in emerging markets. They demonstrate how these two traits impact businesses in emerging nations with dividend programs. According to Mitton (2004), businesses operating in emerging economies offer less robust governance systems and less legal protection for investors than those in industrialized nations.

Egypt updated its Code of Corporate Governance, where standards and guidelines were established in October 2005 in response to the increased focus on corporate governance in recent years. In particular, various

provisions of this code cover the audit committee, the board of directors, an internal audit department, external auditors, the disclosure of social policies, and evading conflicts of interest.

The foremost distinction between the corporate governance environment in Egypt and other developed markets is that there are neither required nor comply-or-explain corporate governance requirements in Egypt, unlike in the UK and the US. The Egypt Code of Corporate Governance is optional, and Egyptian businesses are not required to abide by it or provide any justification if they choose not to. On the other hand, the Egyptian stock market enhances the mechanism by obliging listed companies to hire at least one female member and to separate the two positions of the chairman and the CEO (EGX, 2021).

The research problem concerns the importance of dividend decisions for all companies. The distribution of a higher dividend payout than is ideal may improve the company's reputation, but it will also result in a lower profit retention rate. The exceptionally high-profit distribution rate is exceedingly challenging to maintain over the long term and has a detrimental outcome on the company's reserves, which lowers the share price. A low-profit distribution rate, on the other hand, is indicative of poor financial management and a weak financial position for the company (Nazar, 2021)

Most previous research was conducted in European or Western nations, including Australia (Hutchinson et al., 2015), the United Kingdom (Christopher, 2004), and Canada (Stanwick & Stanwick, 2010). A limited number are in the Middle East, with Egypt in specific (e.g., Desoky and Mousa, 2013; Kholeif, 2008; Galal & Soliman, 2017). A number are in Asian nations, including China (Sami et al., 2011), Malaysia (Ghazali, 2010), and the UAE (Hassan & Halbouni, 2013).

We choose Egypt as the subject of our investigation for several reasons. Egypt has historically been a socialist nation since 1952 (Hassan, 2008); however, more recently, the country has witnessed a lot of socioeconomic changes characterized by privatization along with political repercussions. Egypt has undergone a variety of reforms funded by the World Bank (WB), the International Monetary Fund (IMF), and USAID (Desoky & Mousa, 2013). These reforms aim to improve corporate governance, boost the business sector, and give women more boardroom

power. Egypt's two-stage popular revolution has impacted the country's governance structures and business performance. Egypt is among the most alluring investment regions in the Middle East and North Africa (MENA). These socio-political aspects offer an alluring chance to investigate how corporate governance affects the dividends of listed Egyptian companies.

This paper investigates the board characteristics' impact on Egyptian firms' dividend decisions. To examine the relationship between the two variables in Egypt, the researchers use all available information for the board characteristics over seven years from 2013 to 2019 for non-financial firms listed on the Egyptian stock market.

The remainder of the paper is organized as follows: the following section offers the literature review and hypotheses development, followed by the research methodology is provided in section three, followed by the findings and analysis in section four and finally, conclusion are provided in section six.

2. Literature review and hypotheses development

The Egyptian law specifies that boards of directors for businesses shall be accountable for strictly monitoring the overall condition of the business without delegating this responsibility to others (Rule 3-7). The code specifies that the board shall comprise mostly non-executive directors with an adequate balance of abilities and analytical and technical experience. Non-executive directors should all give their duties the time and attention required and should not undertake tasks that might be viewed as a conflict of interest (Rule 3-4). Rule 3-17 stipulates that the board of directors must convene at once every three months at least, but non-executive directors are free to speak with management at any time regarding any of its functions whether or not executive directors are present (Rule 3-18) (El- Sayed Ebaid, 2013).

There is a well-established theoretical literature that uses outcome and substitute theories to explain dividend policy. The dividend dilemma, which sees (greater) dividend-producing corporations rewarded with higher values despite the fact that investors should be agnostic between such firms and those paying no or smaller dividends, lies at the heart of this issue. The outcome and substitution theories, which have been used by previous studies to explain the relationship between corporate governance mechanisms and

dividend payouts (Al-Najjar and Hussainey, 2009; La-Porta et al., 2000; Sawicki, 2009), are the two main theoretical perspectives.

According to outcome theory, the payment of dividends is a result of the corporate governance system. As a result, managers of poorly governed businesses maximize their own wealth by paying no or little dividends (La-Porta et al., 2000). In contrast, managers in companies with sound governance operate in the best interests of shareholders by pursuing wealth-maximizing strategies and increasing dividend payments (DeAngelo and DeAngelo, 2006). Therefore, dividend payments will be positively correlated with the effectiveness of corporate governance.

The outcome hypothesis presupposes that the corporate governance rule—according to which managers in poorly governed firms are frequently motivated to maximize their own personal wealth by paying no or low dividends to shareholders (Al-Taleb, 2012; La-Porta et al., 2000-b; Chen and Steiner, 1999)—is what causes dividend payments to occur.

Even in the absence of initiatives with a positive NPV, such managers will be able to invest and grow the company's size (for example, through empire-building mergers and acquisitions) because of the availability of "free excess cash flow" (Jensen, 1986, 1993; Shapiro, 2005). In contrast, managers of well-run businesses are expected to behave in the shareholders' best interests by pursuing wealth-maximizing strategies, such as increasing dividend payments (Ntim, 2016). As a result, it is anticipated that corporate governance quality will favorably influence dividend pay-out policy, in accordance with the outcome hypothesis.

On the other hand, According to the substitute hypothesis, companies with inadequate governance structures often pay higher dividends to build a better reputation among shareholders (La-Porta et al., 2000), effectively serving as a substitute governance mechanism to reduce any potential conflicts of interest (Sawicki, 2009). Management of poorly governed companies being urged to increase dividend payments in order to build trust with shareholders. Firms with subpar governance frameworks will be able to raise money from investors in the future for less money than it would normally cost them to do so by building a good reputation with shareholders (La-Porta et al., 2000). According to this theory, poorly managed companies can use dividend payouts as an alternative governance

method to reduce any conflicts of interest between managers and shareholders (Sawicki, 2009).

The substitution hypothesis predicts that corporations with weak corporate governance mechanisms will therefore have a higher need to build a solid reputation by handing out significant dividends. As a result, and in contrast to the expectations of the outcome hypothesis, the substitution hypothesis anticipates a negative correlation between corporate governance quality and dividend pay-out policy.

The following discussion of the theoretical framework used to develop the hypotheses related to the association between board characteristics and dividend policy. To provide a more comprehensive understanding of the research questions by explaining the theoretical foundations of the research, by reviewing relevant literature on corporate governance, dividend policy and the outcome and substitution theories which guided the research design and analysis to provide a more compelling rationale for their hypotheses.

2-1 Board size

The results of prior research on the association between board size and dividend payout policy are noticeably contradictory, and different perspectives supported by agency theory and resource dependency theories are given (Khan, 2022; Kiel & Nicholson, 2003; Mancinelli & Ozkan, 2006; Chen et al., 2011; Shahid et al., 2016; Emamgholipour et al., 2013; Boshnak, 2021; Sani & Musa, 2017).

Emamgholipour et al. (2013) found an association between board size and dividend payout practices. Additionally, a sample of Australian firms showed that the size of the board had a positive result on dividend payout, according to Kiel and Nicholson (2003). Shahid et al. (2016) discovered that the agency cost theory of dividend policy is supported by the fact that size has a significant positive impact on the dividend payout of Australian corporations.

Likewise, Khan (2022); Shehu (2015); Thompson & Manu (2021) stated that board size is positively correlated with the likelihood of dividend declaration. Moreover, Chen et al. (2011) found that data from 1,056 A-share-listed companies during seven years (2001-2008) on the Shanghai and

Shenzhen stock markets are positively correlated with dividend payout policies.

In contrast, several researchers have found that the board's size negatively impacts the dividend payment strategy. For instance, Sani & Musa (2017) analyzed the effect of corporate board characteristics on the dividend policy of Nigeria's listed deposit money banks. According to the findings, the board size significantly negatively influences the dividend policy of listed DMBs in Nigeria. Moreover, Boshnak (2021) supported the negative correlation with dividend distribution policies. Despite this, our initial supposition is that: Given the strong evidence that board size positively impacts dividend payout policy. Thus, the following hypothesis will be examined:

H_{1-a}: For non-financial companies listed on the Egyptian stock market, board size significantly positively impacts the dividend ratio.

H_{1-b}: For non-financial companies listed on the Egyptian stock market, the size of the board has a significant positive effect on dividend decisions.

2-1 Board composition

Non-executive members on the board are crucial for overseeing corporate actions, according to research studies, and current research demonstrates that good cohesive boards have more independent members than inside company board members (Li & Zhang, 2019). Chintrakan et al. (2022) found a positive impact for board non-executive members on dividends in American companies. At the same context, Tahir et al. (2020) reached to positive impact between the two variables in Malaysia. On contrast, Nazar (2021) reached to negative relationship between non-executive members and dividend in Siri Lanka. The same results are obtained in the study of Thompson and Manu (2021).

Emamgholipour et al. (2013) investigated Tehran Stock Exchange-listed businesses and discovered no connection between board independence and dividend policy. Payout policy returns were unaffected by the board's independence (Batool & Javid, 2014). However, board compositions and dividend payment ratios were found to be significantly positively correlated by Abor and Fiador (2013). Abdelsalam et al. (2008) found no significant correlation between board composition and dividend decisions or ratios in

Egypt. It was discovered that greater dividend payments were deemed required to interest capital during this intermediate time despite the enterprises' strong institutional ownership and strictly held character, which suggest reduced agency costs.

Boshnak (2021) found that Due to new regulations on corporate governance and the use of IFRS, Saudi companies' corporate social and environmental voluntary disclosure (CSEVD) has improved over time compared to earlier studies to an average of 68% disclosure. However, he reaffirmed that the detrimental driver of CSEVD is family ownership.

To this aim, the Egyptian code of governance powerfully highlights the requirement that a majority of non-executives with a suitable combination of skills, technical knowledge, and analytical experience make up the board of directors of Egyptian enterprises. Thus, we assume a negative association between board composition and dividend distribution. Based on the preceding debate, this investigation came up with the following conclusion:

H_{2-a}: For non-financial companies listed on the Egyptian stock market, board composition significantly negatively impacts the dividend ratio.

H_{2-b}: For non-financial companies listed on the Egyptian stock market, the board's composition significantly negatively impacts dividend decisions.

2-3 frequency of board meetings

The argument has been made that regular meetings give directors more time to converse, create a strategy, and assess managerial performance. (Vafeas 1999). Thus, the directors could be better positioned to appropriately handle emerging critical problems by informing them about significant company events (Mangena & Tauringana, 2008).

Board oversight should rise with board meeting frequency, while infrequent meetings should result in less oversight and inspection of management goals, objectives, and strategic matters like dividend policy (Grinstein & Michaely, 2005). According to La Porta et al. (2000-b), who drew on the substitution theory, board meeting frequency, and dividends may be substituted for one another to address agency difficulties, resulting in reduced dividends for more meetings. Moreover, the larger dividend

payouts make up for the poor governance brought on by frequent board meetings. At the same time, the outcome theory implies a positive relationship because the dividend payment is the product of good governance.

Several previous studies (Boshnak, (2021); AbuAfifa et al. (2022); Ntim & Osei, 2011) initiate that the frequency of board meetings and dividends is positively correlated. Accordingly, we assume a positive association between the frequency of board meetings and dividend distribution. Hence, the following hypothesis will be tested:

H_{3-a}: For non-financial companies listed on the Egyptian stock market, the frequency of board meetings significantly positively impacts the dividend ratio.

H_{3-b}: For non-financial companies listed on the Egyptian stock market, the frequency of board meetings has a significant positive effect on dividend decisions.

2-4 The duality of the CEO

The findings demonstrate that diversified corporate board qualities companies have a favorable impact on dividend payouts as well as company prosperity to declare dividends. The cost to the agency goes up as a result of this. A CEO with a dual position may make decisions that interfere with adequate control and have unintended effects.

In China, there was a negative link between CEO duality and dividend payments (Benjamin & Biswas, 2019). Moreover, Khan (2022) stated that chief executive officer duality negatively correlates with dividend policy. However, Gill and Obradovich (2012), Abu Afifa et al. (2022), El Ammari (2021), and Shehu (2015), found that CEO/chairman duality has a positive and substantial impact on dividend payout.

Pieloch-B abiarz, (2019) suggested that a more significant proportion of institutional investors and the State Treasury can be found in firms that pay dividends. Such firms have a large board; the chairman holds the position for an extended time, while board members hold shares more frequently. Furthermore, if institutional ownership, board duality, and chairman entrenchment increase, there is a higher propensity to pay dividends and a higher dividend amount. Consequently, we assume a

positive association between CEO/chairman duality and dividend distribution. Hence, the following hypothesis will be evaluated:

H_{4-a}: For non-financial companies listed on the Egyptian stock market, the duality of the CEO has a significant positive impact on the dividend ratio.

H_{4-b}: For non-financial companies listed on the Egyptian stock market, the duality of the CEO has a significant positive impact on dividend decisions.

2-5 Board gender diversity

Particular argument is optimistic that a positive dividend payout policy would be related to corporate board attribution criteria, unconcerned with the likelihood of conclusions. While other research has indicated that sexuality, heterogeneity, and performance are not connected with financial decision-making as a whole, several studies have demonstrated that gender differences have a positive association with company performance and decision-making (Carter et al., 2011).

Furthermore, Hutchinson et al. (2015) discovered a positive correlation between board gender diversity and business success. Furthermore, Thompson & Manu (2021); Abu Afifa et al. (2022) found that female presence strongly impacts the likelihood of dividend declaration.

In contrast, Sanan (2019); Khan (2022) indicated that the percentage of female directors on the board had a negative impact on dividend distribution. Furthermore, McGuinness et al. (2015) confirmed no variation in the dividend distributions over the more than 9,000 firm-year data observations of Chinese companies that men and women run. Gracia- Meca et al. (2022) found an inverted U shaped relationship between the two variables in Spain.

Therefore, we expect a negative association between the percentages of female directors in the dividend distribution. Hence, the following hypothesis will be examined:

H_{5-a}: For non-financial companies listed on the Egyptian stock market, board gender diversity significantly negatively influences the dividend ratio.

H_{5-b}: For non-financial companies listed on the Egyptian stock market, board gender diversity has a significant negative impact on dividend decisions

3- Methodology of the study

3-1- Collection of data

The study population includes all available non-financial corporations operating in the Egyptian stock market from 2013 to 2019. The Egyptian listed company in 2019 includes 246 companies 1722 observations. Banks and financial institutions (50 companies) are deleted from the sample. Some sectors like utilities (one company), energy sector (includes two companies) and media sector (includes two companies) are excluded. In addition, the observations with missing data for measuring the research variables are excluded too. The financial data are gathered from the financial statements available at Mubasher Misr site¹. For the non-financial information related to board characteristics, it was collected from the board of director reports, annual reports, and websites of the listed firms. The researchers use all the available information for the board characteristics. The final sample includes 120 firms (556 observations) covering different industries. Table (1) presents the research sample.

¹ www.mubasher.info

Table (1) the study sample

Panel: A			
Total listed companies in 2019	246 companies*7 years=1722 observations		
Less financial companies	50 companies *7 years= 350		
Less utilities, energy, and media	5 companies *7= 35		
Less missing values and outliers values	781		
Final research sample	556 observations		
Panel: B			
<u>Sectors</u>	Corporations	Total observations	%
Basic resource	5	8	1.4%
Buildings and materials	17	92	16.5%
Chemicals	4	11	2.0%
Food and beverage	28	125	22.5%
Health care and pharmaceuticals	14	70	12.6%
Industrial goods	11	53	9.5%
Personal and household	9	47	8.5%
Real state	16	79	14.2%
Trade and distributors	4	10	1.8%
Travel and Leisure	12	61	11%
Total	120	556	100%

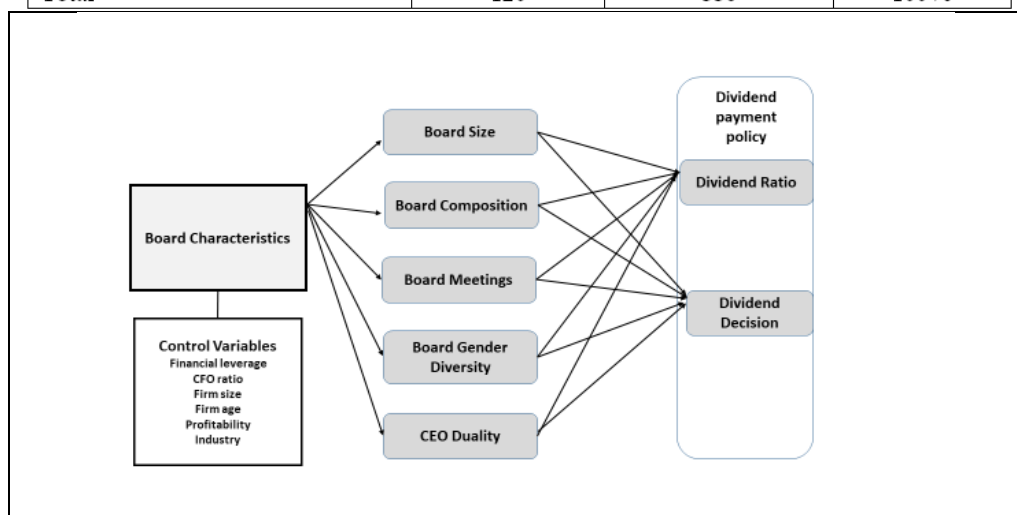


Figure (1): A research framework

3-2- measurements of research Variables

Board attributes are the independent variable; it includes five attributes of the board (size, composition, meetings, gender diversity, and CEO duality). The dividend payment policy is measured by two proxies, the first one is the dividend ratio, and the second proxy is a dummy variable for dividends decision. In addition, the control variables include financial leverage, corporate size, age, profitability, cash flow, and industry sector.

Table (2) reports the primary measurements for each variable used in the main test.

Table (2) Variable's measurements

Variables	Symbol	Measurements	References
<i>Independent variable</i>			
Board size	B-Size	All members of the board	Elmagrhi et al., 2017 ; Abu Afifa et al., 2022 ; Boshnak, 2021 ; Mehdi et al., 2017 .
Board Composition	B-Com	No. of outsiders directors / total number of directors	Wen et al., 2002
Board meeting (intensity)	B-Meet	No. of meetings during the year	Abu Afifa et al., 2022 ; Boshnak, 2021 ; Mehdi et al., 2017
Board Gender	B-Gen	Number of females/total number of board members	Sanan, 2019 ; Abu Afifa et al., 2022 ; Tahir et al., 2020
CEO duality	B-Dual	dummy indicator takes one if the same person has the two functions of CEO and takes zero otherwise	Shafana and Safeena, 2022 Boshnak, 2021 ; Mehdi et al., 2017 ; Sener and Selcuk, 2019
<i>Dependent variable</i>			
Dividend's ratio	DIVI1	Cash dividend paid/total assets	Elmagrhi et al., 2017 ; Benjamin and Zain, 2015 ; García-Meca et al., 2022 ; Tao et al., 2022
Dividend decision	DIVI2	dummy indicator takes one if the corporate paid cash dividends & zero if the corporate did not pay dividends	Boshnak, 2021 ; Khan et al., 2022 ; Mehdi et al., 2017 ; Sener and Selcuk, 2019 ; Tao et al., 2022
<i>Control variables</i>			
Financial leverage	F-LEV	Current plus non-current liabilities divided by the ending balance of assets	Wen et al., 2002 ; Boshnak, 2021 ; Tahir et al., 2020
corporate size	C-Size	Log total assets	Shafana, 2016 ; Jarmias and Gani, 2014 ; Thompson and Manu, 2021
Age	Age	Corporate operating years in the market.	Boshnak, 2021
Profitability	Prof	Net profit after tax divided by ending assets.	Abu Afifa et al., 2022 ; Boshnak, 2021 ; Tahir et al., 2020
Cash flow ratio	CFO	operating cash flow over ending assets	Sanan, 2019 ; Benjamin and Zain, 2015 ; Thompson and Manu, 2021
Sector ²	Sec	Dummy variable =1 for each sector and 0 otherwise	Benjamin and Zain, 2015

3- 3- Regression models

3-3-1- Model one

The first regression model is related to the main measurement for the independent and the first proxy for dividends. It is delivered as follows:

$$\text{DIVI1}_{it} = \beta_0 + \beta_1 \text{B-size}_{it} + \beta_2 \text{B-Com}_{it} + \beta_3 \text{B-Meet}_{it} + \beta_4 \text{B-Gen}_{it} + \beta_5 \text{B-Dual}_{it} + \beta_6 \text{F-LEV}_{it} + \beta_7 \text{C-Size}_{it} + \beta_8 \text{Age}_{it} + \beta_9 \text{Prof}_{it} + \beta_{10} \text{CFO}_{it} + \beta_{11} \Sigma \text{Sec}_{it} + \varepsilon$$

..... (1)

3-3-2- Model two

The second regression model related to the main measurement for the independent and the dividend decision as a second proxy for the dependent variable. It is delivered as follows:

$$\text{DIVI2}_{it} = \beta_0 + \beta_1 \text{B-size}_{it} + \beta_2 \text{B-Com}_{it} + \beta_3 \text{B-Meet}_{it} + \beta_4 \text{B-Gen}_{it} + \beta_5 \text{B-Dual}_{it} + \beta_6 \text{F-LEV}_{it} + \beta_7 \text{C-Size}_{it} + \beta_8 \text{Age}_{it} + \beta_9 \text{Prof}_{it} + \beta_{10} \text{CFO}_{it} + \beta_{11} \Sigma \text{Sec}_{it} + \varepsilon$$

..... (2)

3-4-Statistical tests

The parametric test for measuring the correlation is Pearson Correlation. The linear regression for ordinary least square (OLS) is used in the main analysis for the main measurements of all variables. In addition, T-test is used in the additional analysis for the second proxy of the dividends variable. Finally, the Logistic regression is applied to test the impact of board attribute to dividend declaration

4-Research findings and discussion

4-1- Descriptive analysis

Table (3) presents the results of descriptive statistics. The minimum board size includes four members, and the most prominent board comprises 16 members. Seven directors are the mean of the board and the std. Deviation equals 2.3. The minimum percentage of non-executive directors is 16.6%, the maximum is 92.8%, and average value equals 71.5%. In addition, the average number of meetings is nine per year with minimum and maximum values of 3 and 22, respectively, and the standard division equals 4.4.

Furthermore, as shown in table (3), the average financial leverage ratio is 43.6%, with a minimum value 1.4% and a maximum 99.4%. The

high value of this ratio reflects that some companies are suffering from financial problems. The minimum age of Egyptian firms in the research sample is six years, the maximum is 85 years, and the average age is 32.9 years. Profitability and CFO ratio have a negative value for minimum values and a high positive ratio as a maximum, indicating high variations in those two variables.

Table (3) Descriptive analysis

	Observations	Min.	Max.	Mean	Std. Deviation
Board size	556	4.0	16.0	7.752	2.375
Board composition	556	0.166	0.928	0.715	0.172
Board meeting	556	3.0	22.0	9.176	4.423
Board gender	556	0.000	0.444	0.085	0.112
CEO-Duality	556	0	1.0	.642	0.479
F- LEV	556	0.014	0.994	0.436	0.218
F-Size	556	7.521	10.463	8.789	0.625
Age	556	6.0	85.0	32.924	16.295
Profitability	556	-0.278	0.401	0.050	0.085
CFO ratio	556	-0.338	0.433	0.038	1.103
Dividend ratio	556	0.000	0.259	0.027	0.044
Board size (log)	556	0.602	1.204	.869	0.132
Board Meeting (Log)	556	1.477	1.342	0.910	0.215

Regarding board gender, no female exists in Egyptian companies as a minimum value; the maximum value is 44.4% of the members. Moreover, the standard deviation of .112 is greater than the mean of .085, indicating sample heterogeneity for that variable. In addition, the frequencies represented in table (4) shows that the total observations include female members regardless of their percentage inside their board is 242 (43.5%) compared to 314 observations (56.5%) without females inside the board directors.

Table (4) Distributions Statistics for Gender, CEO, and dividend

	No. of zero (%)	No. of 1 (%)
Board gender	314 (56.5%)	242 (43.5%)
CEO Duality	199 (35.8%)	357 (64.2%)
Dividend paid	222 (39.9%)	334 (60.1%)

Similarly, for CEO-duality, the most CEOs in Egyptian companies (64.2%) merge between the two positions (CEO and the chairman of the firm) compared to 35.8% of the firms separate between the two positions. The same for the dividends paid; 60.1% of the research sample paid dividends to the shareholders compared with 39.9% of the firms that did not.

Table (5)

Results of t-test for dividends paid as dummy variable

Variables	DIVI2	N	t-tests for equality of Means			Levene's test for equality of variance	
			Mean	t-test	Sig	F	Sig
Board size	0	222	7.30	-3.684	.000	1.265	.261
	1	334	8.05	-3.709	.000		
Board composition	0	222	.725	1.131	.258	1.281	.258
	1	334	.709	1.110	.268		
Board meeting	0	222	8.43	-3.260	.001	12.064	.001
	1	334	9.67	-3.353	.001		
Board gender	0	222	.061	-4.071	.000	20.271	.000
	1	334	.100	-4.285	.000		
CEO-Duality	0	222	.610	-1.362	.174	6.670	.010
	1	334	.660	-1.353	.177		
F- LEV	0	222	.448	1.089	.277	1.997	1.158
	1	334	.428	1.064	.288		
F-Size	0	222	8.679	-3.401	.001	3.094	.079
	1	334	8.862	-3.293	.001		
Age	0	222	30.700	-2.635	.009	0.294	.588
	1	334	34.400	-2.641	.009		
Profitability	0	222	.009	-9.824	.000	0.378	.539
	1	334	.077	-9.677	.000		
CFO ratio	0	222	.002	-6.924	.000	23.141	.000
	1	334	.061	-7.453	.000		

T-test is conducted to compare the mean difference between board characteristics and companies that paid and did not pay cash dividends. Table (5) reports that board size and composition have mean values equals 8.05, .709 respectively for companies that paid dividends compared with 7.30 and .725 respectively for companies that did not pay dividends. Moreover, there is an insignificant difference between the two values of the variance (p-value =.261 and .258 respectively). In construct, there are a significant difference of variances for board meeting, and CEO duality as a dependent variables and CFO ratio as a dependent variable.

4-2: Correlation analysis

Table (6) displays the correlation coefficients for all the research variables, the main measurements, and the alternative measurements. The

correlation between the board size, meetings, and gender diversity is insignificant. The board size has been positively associated with board composition and negatively associated with CEO duality. In addition, the board size, meeting, gender diversity and CEO duality have a positive correlation with the dividends ratio. As noticed from table (6), the association between the two measurements of dividend is positive and highly significant, and it indicates that the two measurements are alternative proxies for dividends.

Profitability and CFO have a positive correlation equals to .454, and it is significant at the 1% level that reflects that those two variables are similar in their information content. Similarly, profitability and dividend ratio are highly correlated (.575), indicating that firms pay cash dividends when they achieve profits.

Table (6) Correlation matrix

Person Correlation	B-size	B-Com	B-Meet	B-Gen	CEO-D	F-LEV	F-Size	Age	Prof	CFO	DIVI 1	DIVI 2	Log-B-size	Log-Meet	Gen-dum.
B-size	1														
B-Com	.403**	1													
B-Meet	-.015	-.084*	1												
B-Gen	.054	.030	-.001	1											
CEO-D	-.201**	-.235**	.194**	.118**	1										
F-LEV	.001	-.085*	.123**	-.027	-.088*	1									
F-Size	.415**	.086*	.116**	.010	-.119**	.295**	1								
Age	.110**	.109**	.312**	.114**	.047	.009	.015	1							
Prof	.146**	-.015	.145**	.105**	.082	-.160**	.180**	-.021	1						
CFO	.059	-.021	.158**	.122**	.047	-.115**	.100**	.023	.454**	1					
DIVI ratio	.159**	-.050	.218**	.170**	.117**	-.133**	.137**	.040	.575**	.462**	1				
DIVI 2 dummy	.155**	-.048	.137**	.128**	.058	-.046	.143**	.111**	.385**	.282**	.479**	1			
Log-B-size	.985**	.419**	-.007	.076	.183**	-.008	.403**	.121**	.166**	.067	.158**	.157**	1		
Log-B-Meet	-.009	-.059	.972**	-.008	.175**	.108**	.111**	.303**	.160**	.144**	.201**	.126**	-.004	1	
Gen-dummy	.127**	.057	-.024	.863**	.042	-.061	.020	.052	.071	.101**	.125**	.145**	.151**	-.025	1

** 0.01 level (2-tailed).

* 0.05 level (2-tailed).

4-3- Ordinary least Square (OLS) regression findings

At the beginning of testing the relationship between the research variables, the Variance Inflation Factor (VIF) is conducted to check the

existence of a multi-collinearity problem between the selected variables. Table (7) presents the VIF values for all the research variables in the fourth column. VIF values are less than 10, which indicate no multi-collinearity problem. The significance of the regression model is less than .05 (P value =.000). The adjusted R² for the model equals 42.7%. It is considered a high percentage, meaning that the board attributes and the control variables can interpret 42.7% of the dividends' variations.

Table (7) Results of the OLS regression model one

Variables	Coefficient -B	t	Sig	VIF
Constant	-.012	-.501	.617	
Board size	.002	3.033	.003	1.530
Board composition	-.021	-2.228	.026	1.326
Board meeting	.001	3.088	.002	1.291
Board gender	.003	.229	.819	1.151
CEO-Duality	.005	1.555	.121	1.178
F-LEV	-.008	-1.025	.306	1.309
F-Size	.002	.811	.417	1.558
Age	-.000	-.687	.492	1.264
Profitability	.207	10.089	.000	1.484
CFO ratio	.093	5.785	.000	1.328
Adjusted R ²	42.7%			
Sig.	.000			
Observations	556			
F-statistic	22.781			
Sector fixed effect	yes			

Dividend ratio (dividends paid/total assets)

The size of the board ($p= 0.003$, Beta= .002) and meeting ($p= 0.002$, Beta= .001) are positively associated with the dividend ratio. The larger board size and the higher times of meetings in non-financial Egyptian companies tend to distribute more dividend payments. This findings support the first and third research hypotheses (H_{1-a}) and (H_{3-a}). For the second hypothesis, as shown in table (7), board composition significantly negatively affects the dividends ratio. It supports that the significant ratio of non-executive directors leads to decreasing the dividends paid. As the results, the

hypothesis (H_{2-a}) is supported too. On the other side, for the gender diversity and CEO duality, table (7) shows the p-value is equaled to .819, and .121 respectively. It indicates an insignificant relationship between the two characteristics and dividends payment. Thus, the fourth and fifth hypotheses (H_{4-a}) and (H_{5-a}) are not supported.

Table (8) Logistic regression output for the dividend decision

Variables	Coefficient -B	Wald	Sig
Constant	-2.307	2.312	.128
Board size	.138	7.200	.007
Board composition	-1.720	6.519	.011
Board meeting	.026	1.059	.303
Board gender	2.837	8.760	.003
CEO-Duality	.097	.196	.658
F-LEV	.044	.008	.930
F-Size	.144	.632	.427
Age	.017	6.189	.013
Profitability	10.607	39.983	.000
CFO ratio	3.919	10.608	.001
Nagelkerke R ²		38.4%	
Sig.		.000	
Observations		556	
Chi ²		13.027	
Wald		22.250	
Sector fixed effect		Yes	

Dividends decision as a dummy variable

Table (8) records the output for binary logistic regression model two; it is significant, whereas the p-value is .000 and the Nagelkerke R² equals 38.4%. At a 95% confidence level, size and gender have a significant positive association with dividends decision (Beta= .138, P- value= .007) for the board size and (Beta= 2.837, P- value= .003) for the board gender. These findings supported the two hypotheses (H_{1-b}) and (H_{4-b}). On the other hand, the board composition has a significant negative impact on dividend decision. It supports the second hypothesis (H_{2-b})

The relationship between board meetings and CEO duality are insignificant (P- value= .303, .658 respectively). That leads to reject the third and fifth hypotheses (H_{3-b}), (H_{5-b}). The findings show a significant positive impact of the age, profitability, and cash flow ratio on the dividends but no relationship between leverage and corporate size with the dividends variable.

To conclude, the size has a significant positive impact on dividend ratio and decision. At the same context, board composition has a significant

negative effect on dividend ratio and dividend decision. There is a difference in obtained results for meetings, and female ratio when using different proxies of dividends. The results showed a positive impact for board meeting with dividend ratio, and positive effect for female ratio with dividend decision. No effect for CEO duality on the two proxies for dividends.

5- The robustness test

In the robustness test, the alternative measurements for board size and board meetings are used depending on the logarithm. As well as using the dummy variable for the existence of female members in the board in the same test. Table (9) presents the alternative measurements. According to the authors' knowledge, no alternative proxies are found for board composition and CEO duality.

Table (9) the alternative proxies for the three board characteristics

Board Size (alternative proxy)	B- Size	Log the number of the total members	Mirza and Malik, 2012; Sanan, 2019; Garcia-Meca et al., 2022
Board meetings (alternative proxy)	B-Meet	The logarithm of the total meeting during the year	Ntim and Osei, 2011
Board Gender (alternative proxy)	B- Gen	dummy indicator equals one if one female at least in the board, and zero otherwise	Thompson and Manu, 2021

The regression test is reapplied. The descriptive results for proxies were presented in tables 3, 4, and 5. The correlation matrix is the same in table 6.

5-1 Model three

The third regression model expresses alternative board characteristics and dividend ratio measurements. It is as follows

$$DIVI1_{it} = \alpha_0 + \alpha_1 B\text{-size}_{it} + \alpha_2 B\text{-Com}_{it} + \alpha_3 B\text{-Meet}_{it} + \alpha_4 B\text{-Gen}_{it} + \alpha_5 B\text{-Dual}_{it} + \alpha_6 F\text{-LEV}_{it} + \alpha_7 C\text{-Size}_{it} + \alpha_8 Age_{it} + \alpha_9 Prof_{it} + \alpha_{10} CFO_{it} + \alpha_{11} \Sigma Sec_{it} + \epsilon \dots \dots \dots (3)$$

5-2- Model four

The fourth regression model is related to the alternative measurements of the attributes of the board and dividend decision. It is as follows:

$$DIVI2_{it} = \alpha_0 + \alpha_1 B\text{-size}_{it} + \alpha_2 B\text{-Com}_{it} + \alpha_3 B\text{-Meet}_{it} + \alpha_4 B\text{-Gen}_{it} + \alpha_5 B\text{-Dual}_{it} + \alpha_6 F\text{-LEV}_{it} + \alpha_7 C\text{-Size}_{it} + \alpha_8 Age_{it} + \alpha_9 Prof_{it} + \alpha_{10} CFO_{it} + \alpha_{11} \Sigma Sec_{it} + \epsilon$$

..... (4)

5-3- The OLS regression results for alternatives proxies

The regression test is reapplied using the alternative proxies for the board characteristics to test if using different proxies may get different results. Table (10) displays the results; all values of VIF are less than ten, indicating no multi-collinearity problem. Model three has a P value equal to .000, and the adjusted R² is 42.1%. There is a significant positive impact of the board size and board meeting on the dividends ratio (Beta=.033 and .019) and (P-value= .017 and .014) respectively, and a negative impact of the board composition on dividends (Beta= -.021, P-value=.030). These results confirm the previous results and support the acceptance of the first three research hypotheses. Similarly, for the remaining hypotheses, at the 95% confidence level, there is no influence of board gender and CEO duality on dividends.

For control variables, profitability and CFO ratio have a significant positive association with dividend ratio. While no association between the remaining variables and dividend ratio.

Table (10) the regression results of OLS for the dividend ratio model

Variables	Coefficient -B	t	Sig	VIF
Constant	-.038	-1.654	.099	
Board size (Log)	.033	2.404	.017	1.580
Board composition (%)	-.021	-2.176	.030	1.342
Board meeting (Log)	.019	2.475	.014	1.258
Board gender (Dummy)	.003	.856	.393	1.125
CEO-Duality (Dummy)	.005	1.598	.111	1.150
F-LEV	-.007	-.938	.348	1.302
F-Size	.003	1.078	.282	1.550
Age	-.000	-.505	.614	1.261
Profitability	.207	10.008	.000	1.492
CFO ratio	.094	5.841	.000	1.325
Adjusted R ²		42.1%		
Sig.		.000		
Observations		556		
F-statistic		22.273		
Sector fixed effect		yes		

Dividend ratio (dividends paid/total assets)

Table (11) represents the results for the fourth regression; the model is significant whereas the p-value =.000 and the Negelkerke R² = 37.7%. At a 95% confidence level, board size has a significant positive impact on dividends paid (Beta= 2.870, P- value= .003). At the same level, the board

composition has a negative association with dividend decision. At a 90% Confidence level, the presence of female has a positive association with the presence of dividend (Beta= .403, P- value= .067). An insignificant association is obtained for board meeting and CEO duality. For control variables, Age, profitability, and cash flow ratio have a positive effect on the dividends, but no relationship between leverage and corporate size with the presence of dividend.

Table (11) the logistic regression findings of dividend decision

Variables	Coefficient -B	Wald	Sig
Constant	-5.312	10.738	.001
Board size (Log)	2.870	8.552	.003
Board composition	-1.519	4.392	.036
Board meeting (Ln)	.597	1.236	.266
Board gender (dummy)	.403	3.355	.067
CEO-Duality	.221	.949	.330
F- LEV	.137	.067	.796
F-Size	.213	1.188	.276
Age	.022	8.542	.003
Profitability	10.249	33.743	.000
CFO ratio	3.165	6.359	.012
Nagelkerke R ²		37.7%	
Model Significant		.000	
N		556	
Chi ²		2.957	
Wald		22.250	
Sector fixed effect		Yes	

Dividends as a dummy variable

To sum up, the same results are obtained in the main and robustness test. Three attributes of board have a significant association with dividend policy in the Egyptian market. First attribute is board size; it has a significant positive impact in dividend to asset percentage and the presence of paying dividends. This result is matching with Tahir et al. (2020) in Malaysia and Khan (2021) in Pakistan. Second attribute is board composition; it has a negative association with both proxies of dividends in Egypt, and this result is consistence with findings' Thompson and Manu (2021). For board meeting, it has a significant positive effect on dividends ratio only. In contract, the alternatives proxies for board gender diversity have a significant positive impact on dividend decision as its presence only, and no impact for that attribute on dividend ratio. The results of Khan (2021) reported no relation between female percentage and dividend payout ratio. Finally, for CEO duality has insignificant association with the two proxies of dividends (Nazar, 2021).

5. Conclusion

The study aims to investigate the impact of board attributes on dividend payment policy. This research depends on 556 observations, including 120 non-financial corporations listed on the stock market of Egypt from (2013 to 2019), representing all available information for these companies. However, financial institutions are excluded for their unique nature and regulations. The size of the board, composition, meetings, female ratio, and the duality of the CEO are the five attributes of the board. Two proxies are used to gauge the dividend payment policy.

The findings support that board size, meetings, and CEO duality all significantly improve the ratio of dividends. In contrast, a strong inverse relationship exists between dividend ratio and board composition. The percentage of women on the boards of corporations listed on the Egyptian market has no relationship. The results also indicate that board size, meetings, and gender diversity ratio positively affect dividend decisions. In contrast, board composition is negatively associated with dividend decisions. Meanwhile, the CEO duality has an insignificant association with this decision.

The big board size and the increase in meeting frequencies enhance the dividend payment policy in Egyptian companies. At the same time, the board composition mitigates this policy (because of the conflict of interest between the executive and non-executive directors. Furthermore, CEO duality increases the dividend payment percentage without relation to the dividend decision. At the construct, the female percentage enhances the dividend decision and does not affect the percentage of dividends paid.

The current study found that board size significantly positively affects dividend decisions. This result matches with Emamgholipour M et al. (2013), Kiel and Nicholson (2003); Shahid et al. (2016), Khan (2022); Shehu (2015); Thompson & Manu (2021), Chen et al. (2011) and opposite to Sani& Musa (2017), Boshnak (2021). Furthermore, the current study concluded that the frequency of board meetings has a significant positive association with dividend decisions. This result approves La Porta et al. (2000-a), (Boshnak (2021), Abu Afifa et al. (2022), and Ntim and Osei's 2011 studies. Moreover, the current study found that board gender diversity positively correlates with dividend decisions. This result contests Hutchinson et al. (2015); Thompson & Manu (2021); Abu Afifa et al. (2022) and in contrast to Sanan (2019); Khan (2022), McGuinness et al. (2015).

While our study found that board composition has a significant negative association with dividend decisions, this result contests Boshnak (2021) and is contrary to (Batool & Javid, 2014) and Abdelsalam et al. (2008). Finally, the CEO duality has an insignificant association with this decision. This result matches (Benjamin & Biswas, 2019), Khan (2022), and Gill and Obradovich (2012), Abu Afifa et al. (2022), Shehu (2015). The results of this study may be used by many stakeholders, particularly investors and other strategic decision-makers, to increase the effectiveness and efficiency of the Egyptian financial market. These results will increase policymakers' willingness to apply restrictions, perhaps improving the efficiency and performance of the Egyptian financial market. These results also assist investors in making better-informed decisions when employing board characteristics that indicate firm dividend policy.

Studies on BOD and dividends in developing markets are scarce, particularly in Egypt. Shehata (2022) focused on national diversity in Egyptian market using 50 companies from 2005 to 2014. The current study was motivated by discrepancies in past research findings, and its findings filled a gap in the literature. This study distinguishes itself from earlier investigations by developing a cutting-edge research approach. All information on BOD characteristics in Egypt from 2013 to 2019 is included in the research sample.

The present study's limitation is that the sample includes only non-financial companies listed on the Egyptian stock market, depending seven years from 2013 to 2019. The study was limited to five characteristics only, using two proxies only for dividend policy. Therefore, we urge future work to explore more attributes and proxies.

There were a number of recommendations arising from this study. First, Egyptian regulators should encourage the increase in board size, meetings, and female percentage. Second, the duality of the CEO had better be decreased to enhance the corporate governance mechanism. Thirdly, the conflict of interest between the executive and non-executive members would be organized.

Future studies can test the relationship in the financial intuitions, using a large sample and period, focusing on other board characteristics and CG mechanism, using another alternative measurement for dividends like dividend payout ratio, testing the role of BOD in sustainability, AI, entrepreneurship, and finally make a comparative study between Egypt and other emerging markets.

References

- Abdelsalam, O., El- Masry, A., & Elsegini, S. (2008), "Board composition, ownership structure and dividend policies in an emerging market: Further evidence from CASE 50" *Managerial finance*, Vol. 34 No. 12, pp. 953-964. <https://doi.org/10.1108/03074350810915879>
- Abor, J., & Fiador, V. (2013), "Does corporate governance explain dividend policy in Sub- Saharan Africa?", *International Journal of Law and Management*, Vol.55 No.3, pp. 201-225. <https://doi.org/10.1108/17542431311327637>
- Abu Afifa, M. A., Saleh, I., Al-shoura, A., & Van, H. V. (2022), "Nexus among board characteristics, earnings management and dividend payout: evidence from an emerging market", *International Journal of Emerging Markets*, (ahead-of-print). <https://doi.org/10.1108/IJOEM-12-2021-1907>
- Al-Najjar, B. and Hussainey, K. (2009), "The association between dividend pay-out and outside directorships", *Journal of Applied Accounting Research*, Vol. 10 No. 1, pp. 4-19.
- Al-Taleb, G. (2012), "Measurement of impact agency costs level of firms on dividend and leverage policy: an empirical study", *Interdisciplinary Journal of Contemporary Research in Business*, Vol. 3 No. 10, pp. 234-243.
- Baker, H.K., Veit, E.T. and Powell, G.E. (2001), "Factors influencing dividend policy decisions of NASDAQ firms", *The Financial Review*, Vol. 36 No. 3, pp. 19-38. <https://doi.org/10.1111/j.1540-6288.2001.tb00018.x>
- Batool, Z., & Javid, A. Y. (2014), "Dividend policy and role of corporate governance in manufacturing sector of Pakistan", *Pakistan Institute of Development Economics-PIDE working paper*, Vol, 1, No. 109, pp.1-34.
- Benjamin, S. J., & Biswas, P. (2019), "Board gender composition, dividend policy and COD: the implications of CEO duality", *Accounting Research Journal*, Vol. 32 No. 3, PP. 454-476. <https://doi.org/10.1108/ARJ-02-2018-0035>
- Boshnak, H. A. (2021), "The impact of board composition and ownership structure on dividend payout policy: evidence from Saudi

- Arabia”, *International Journal of Emerging Markets*, (ahead-of-print). <https://doi.org/10.1108/IJOEM-05-2021-0791>.
- Byrne, J. (1996), “The best and worst Boards: Our special report on corporate governance”, *Business Week*, Vol. 25, pp. 82-120.
 - Byrne, J. and Brown, L. (1997), “The best and worst boards: Our special report on corporate governance”, *Business Week*, Vol. 8, pp. 90-104.
 - Carter, D., Simkins, B., and Simpson, W. (2011), “Corporate governance, board diversity, and firm value”, *The Financial Review*, Vol. 38, pp. 33—53. <https://doi.org/10.1111/1540-6288.00034>
 - Chen, C.R. and Steiner, T.L. (1999), “Managerial ownership and agency conflicts: a nonlinear simultaneous equation analysis of managerial ownership, risk taking, debt policy, and dividend policy”, *The Financial Review*, Vol. 34 No. 1, pp. 119-136.
 - Chen, L., Lim, C., and Kim, Y. (2011), “Financial characteristics, corporate governance and the propensity to pay cash dividends of Chinese listed companies”, *International Business and Management*, Vol. 3 No. 1, pp.176-188. <https://doi.org/10.3968/J.IBM.1923842820110301.1Z0653>
 - Chintrakan, P., Jiraporn, P., Treepongkaruna, S., and Lee, S. (2022), “The effect of board independence on dividend payouts: A quasi-natural experiment”, *North American Journal of Economics and Finance*, Vol. 63 (ahead-of-print). <https://doi.org/10.1016/j.najef.2022.101836>
 - Christopher, P. (2004), “Corporate governance and the role of non-executive directors in large UK companies: an empirical study”, *Corporate Governance*, Vol. 4 No. 2, PP. 52-63. <https://doi.org/10.1108/14720700410534976>
 - DeAngelo, H., DeAngelo, L. and Stulz, R.M. (2006), “Dividend policy and the earned/contributed capital mix: a test of the life-cycle theory”, *Journal of Financial Economics*, Vol. 81, No. 2, pp. 227-254. <https://doi.org/10.1016/j.jfineco.2005.07.005>
 - Denis, D.J. (2008), “Why do firms pay dividends? International evidence on the determinants of dividend policy”, *Journal of Financial Economics*, Vol. 89, No. 1, pp. 62-82. <https://doi.org/10.1016/j.jfineco.2007.06.006>
 - Desoky, A.M. and Mousa, G.A. (2013), “An empirical investigation of the influence of ownership concentration and identity on firm

- performance of Egyptian listed companies”, *Journal of Accounting in Emerging Economies*, Vol. 3, No. 2, pp. 164-188. <https://doi.org/10.1108/20421161311320698>
- EGX. Egyptian stock market. (2021), “The main market listing guide”, Available at: https://www.egx.com.eg/getdoc/a343ca58-a20e-42c3-90e0-21a7fc7040a1/Main-Market-Listing-Guide_16-08-2021.aspx.
 - El Ammari, A. (2021), “Do CEO duality and ownership concentration impact dividend policy in emerging markets? The moderating effect of crises period”, *International Journal of Financial studies*, Vol. 6, No. 62, pp.1-21. <https://doi.org/10.3390/ijfs9040062>
 - El- Sayed Ebaid, I. (2013), “Corporate governance and investors' perceptions of earnings quality: Egyptian perspective”, *Corporate Governance: The international journal of business in society*, Vol. 13, No. 3, pp. 261-273. <https://doi.org/10.1108/CG-02-2011-0011>
 - Emamgholipour, M., Bagheri, S., Mansourinia, E., & Arabi, A. (2013), “A study on relationship between institutional investors and earnings management: Evidence from the Tehran Stock Exchange”, *Management Science Letters*, Vol. 3, No. 4, pp. 1105-1112. <https://doi.org/10.5267/j.msl.2013.03.017>
 - Galal, H.M. and Soliman, M.M. (2017), “The effect of ownership structure on firm’s financial performance: an empirical study on the most active firms in the Egyptian stock exchange”, *European Journal of Business and Management*, Vol. 9, No. 15, pp. 90-104. <https://doi.org/10.4236/oalib.1105266>
 - García-Meca, E., López-Iturriaga, L., and Santana-Martín, D. (2022), “Board gender diversity and dividend payout: The critical mass and the family ties effect”, *International Review of Financial Analysis*, Vol. 79, (ahead-of-print), pp.1-12. <https://doi.org/10.1016/j.irfa.2021.101973>
 - Ghazali, N.A.M. (2010), “Ownership structure, corporate governance and corporate performance in Malaysia”, *International Journal of Commerce and Management*, Vol. 20, No. 2, pp. 109-119. <https://doi.org/10.1108/10569211011057245>
 - Gill, A., & Obradovich, J. (2012), “The impact of corporate governance and financial leverage on the value of American firms”. *International Research Journal of Finance and*

- Economics, Vol. 91, No. 2, pp. 46-56. https://digitalcommons.liberty.edu/busi_fac_pubs/25
- Glen, J.D., Karmokolias, Y., Miller, R.R. and Shah, S. (1995), "Dividend policy and behavior in emerging markets: to pay or not to pay. IFC Discussion Paper No. 26, World Bank Group, New York, NY.
 - Grinstein, Y. and Michaely, R. (2005), "Institutional holdings and payout policy", *The Journal of Finance*, Vol. 60, No. 3, pp. 1389-1426. <https://doi.org/10.1111/j.1540-6261.2005.00765.x>
 - Hassan, M.K. (2008), "The development of accounting regulations in Egypt: legitimating the international accounting standards", *Managerial Auditing Journal*, Vol. 23, No. 5, pp. 467-484. <https://doi.org/10.1108/02686900810875299>
 - Hassan, M.K. and Halbouni, S. (2013), "Corporate governance, economic turbulence and financial performance of UAE listed firms", *Studies in Economics and Finance*, Vol. 30, No. 2, pp.118-138. <https://doi.org/10.1108/10867371311325435>.
 - Hutchinson, M., Mack, J., & Plastow, K. (2015), "Who selects the 'right' directors? An examination of the association between board selection, gender diversity and outcomes", *Accounting & Finance*, Vol. 55, No. 4, pp. 1071-1103. <https://doi.org/10.1111/acfi.12082>.
 - Jensen, M.C. (1986), "Agency cost of free cash flow, corporate finance, and takeovers", *Corporate Finance, and Takeovers. American Economic Review*, Vol. 76, No. 2, pp. 323-339.
 - Jensen, M.C. (1993), "The modern industrial revolution, exit, and the failure of internal control systems", *Journal of Finance*, Vol. 48, No. 3, pp. 831-880.
 - Khan, A. (2021). Impact of board traits on organizations' dividend payout. Evidence from Pakistan. *Financial studies*, Vol.2, pp. 21-36.
 - Khan, A. (2022), "Ownership structure, board characteristics and dividend policy: evidence from Turkey", *Corporate Governance*, Vol. 22, No. 2, pp. 340-363. <https://doi.org/10.1108/CG-04-2021-0129>
 - Kholeif, A. (2008), "CEO Duality and accounting-based performance in Egyptian listed companies: a re-examination of agency theory predication", *Research in Accounting in Emerging*

- Economies, Vol. 8, pp. 65-98. [https://doi.org/10.1016/S1479-3563\(08\)08003-1](https://doi.org/10.1016/S1479-3563(08)08003-1).
- Kiel, G. C., & Nicholson, G. J. (2003), "Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance", *Corporate governance: an international review*, Vol. 11, No. 3, pp. 189-205. <https://doi.org/10.1111/1467-8683.00318>.
 - La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (2000-a), "Investor protection and corporate governance", *Journal of Financial Economics*, Vol. 58, No. (1-2), pp. 3-27.
 - La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R.W. (2000-b), "Agency problems and dividend policies around the world", *The Journal of Finance*, Vol. 55, No. 1, pp. 1-33.
 - Li, Y., & Zhang, X. Y. (2019), "Impact of board gender composition on corporate debt maturity structures", *European Financial Management*, Vol. 25, No. 5, pp. 1286-1320. <https://doi.org/10.1111/eufm.12214>
 - Mancinelli, L., & Ozkan, A. (2006), "Ownership structure and dividend policy: Evidence from Italian firms", *European Journal of Finance*, Vol. 12, No. 03, pp. 265-282. <https://doi.org/10.1080/13518470500249365>.
 - Mangena, M., and Tauringana, V. (2008), "Corporate boards, ownership structure and Firm performance in an environment of severe political and economic uncertainty", *British Accounting Association Conference*, April 2008, Blackpool. <https://doi.org/10.1111/j.1467-8551.2011.00804.x>
 - McGuinness, P. B., Lam, K. C., & Vieito, J. P. (2015), "Gender and other major board characteristics in China: Explaining corporate dividend policy and governance", *Asia Pacific Journal of Management*, Vol. 32, No. 4, pp. 989-1038. <https://doi.org/10.1007/s10490-015-9443-y>
 - Mehdi, M., Sahut, J. M., & Teulon, F. (2017), "Do corporate governance and ownership structure impact dividend policy in emerging market during financial crisis?", *Journal of applied accounting research*, Vol. 18, No. 3, pp. 274-297. <https://doi.org/10.1108/JAAR-07-2014-0079>
 - Michel, A.J. and Shaked, I. (1986), "Country and industry influence on dividend policy: evidence from Japan and the USA", *Journal of*

- Business Finance and Accounting, Vol. 13, No. 3, pp. 365-382. <https://doi.org/10.1111/j.1468-5957.1986.tb00502.x>
- Mitton, T. (2004), "Corporate governance and dividend policy in emerging markets. *Emerging Markets Review*", Vol. 5, No. 4, pp. 409-426. <https://doi.org/10.1016/j.ememar.2004.05.003>.
 - Nazar, M. C. A. (2021), "The influence of corporate governance on dividend decisions of listed Firms: Evidence from Sri Lanka", *The Journal of Asian Finance, Economics and Business*, Vol. 8, No. 2, pp. 289-295.
 - Ntim, C.G. (2016), "Corporate governance, corporate health accounting and firm value: the case of HIV/ AIDS disclosures in Sub-Saharan Africa", *International Journal of Accounting*, Vol. 51, No. 2, pp. 155-216.
 - Ntim, K, and Osei, A. (2011), "The impact of corporate board meetings on corporate performance in South Africa", *African Review of Economics and Finance*, Vol. 2, No. 2, pp. 83-103.
 - Pieloch-Babiarz, A. (2019), "Ownership structure, board characteristics and dividend policy: evidence from the Warsaw Stock Exchange", *Ekonomia i Prawo. Economics and Law*, Vol.18, No.3, pp. 317-330. <https://doi.org/10.12775/EiP.2019.022>.
 - Pruitt, S. and Gitman, J. (1991), "The interactions between the investment, financing, and dividend decisions of major US firms", *Financial Review*, Vol. 26, No.3, pp. 409-430. <https://doi.org/10.1111/j.1540-6288.1991.tb00388.x>.
 - Rozeff, M.S. (1982), "Growth, beta and agency costs as determinants of dividend", *The Journal of Financial Research*, Vol. 5, No. 3, pp. 249-259. <https://doi.org/10.1111/j.1475-6803.1982.tb00299.x>.
 - Sami, H., Wang, J. and Zhou, H. (2011), "Corporate governance and operating of Chinese listed firms", *Journal of International Accounting, Auditing and Taxation*, Vol. 20, pp. 106-114. <https://doi.org/10.1016/j.intaccudtax.2011.06.005>.
 - Sanan, N. K. (2019), "Impact of board characteristics on firm dividends: Evidence from India", *Corporate Governance*, Vol. 19, No. 6, pp. 1209-1215. <https://doi.org/10.1108/CG-12-2018-0383>.
 - Sani, A. U., & Musa, A. (2017), "Corporate Board Attributes and Dividend Payout Policy of Listed Deposit Money Banks in Nigeria", *International Journal of Research in IT, Management and Engineering*, Vol. 7, No.1, pp.7-13.

-
- Sawicki, J. (2009), "Corporate governance and dividend policy in Southeast Asia pre-and post-crisis", *European Journal of Finance*, Vol. 15 No. 2, pp. 211-230.
 - Shahid, M. S., Gul, F., & Rizwan, M. (2016), "Ownership structure, board size, board composition and dividend policy: New evidence from two emerging markets", *Journal of Business Studies (JBS)*, Vol. 2, No.2, pp. 25-36.
 - Shapiro, S.P. (2005), "Agency theory", *Annual Review of Sociology*, Vol. 31, No. 1, pp. 263-284.
 - Shehata, N. (2022). Board National Diversity and Dividend Policy: Evidence from Egyptian listed companies. *Finance Research Letters*, Vol. 45,(ahead-of-print) (102132)
<https://doi.org/10.1016/j.frl.2021.102132>
 - Shehu, M. (2015), "Board characteristics and dividend payout: Evidence from Malaysian public listed companies", *Research Journal of Finance and Accounting*, Vol. 6, No.16, pp. 35-40.
 - Stacescu, B. (2006), "Dividend policy in Switzerland", *Financial Markets and Portfolio Management*, Vol. 20, No. 2, pp. 153-183.
<https://doi.org/10.1007/s11408-006-0013-7>
 - Stanwick, P.A. and Stanwick, S.D. (2010), "The relationship between governance and financial performance: an empirical study of Canadian firms", *The Business Review*, Vol. 16, No. 2, pp. 35-41.
 - Tahir, H., Masri, R. and Rahman, M. (2020), "Corporate board attributes and dividend pay-out policy: Mediating role of financial leverage", *The Journal of Asian Finance, Economics and Business*, Vol. 7, No. 1, pp. 167-181.
<https://dx.doi.org/10.13106/jafeb.2020.vol7.no1.167>.
 - Tao, Q., Wei, J., Xiang, X., and Yi, B. (2022), "Board directors' foreign experience and firm dividend payouts", *Journal of Corporate Finance*, Vol. 75, No. (ahead-of-print).
<https://doi.org/10.1016/j.jcorpfin.2022.102237>
 - Thompson, E. K., & Manu, S. A. (2021), "The impact of board composition on the dividend policy of US firms", *Corporate Governance*, Vol. 21, No. 5, pp. 737-753.
 - Vefas, N. (1999), "Board Meeting Frequency and Firm Performance", *Journal of Financial Economics*, Vol. 53, pp. 113-142. [https://doi.org/10.1016/S0304-405X\(99\)00018-5](https://doi.org/10.1016/S0304-405X(99)00018-5).

