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The Impact of CEO Overconfidence on Dividend Policy: Evidence from Egypt

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Abstract

This research investigates the impact of CEO overconfidence on dividend policy. CEO overconfidence is a behavioral bias that leads managers to overestimate their own abilities and the prospects of their projects. The analysis examines its impact on dividend policy through two main dimensions: the decision to distribute cash dividends and the level of dividend payouts. Furthermore, the study is based on the panel data of Egyptian firms over the period 2017-2021. The results reveal that the level of dividend payout is lower in firms managed by overconfident CEOs, as reflected in the negative association between CEO overconfidence index and dividend yield. Additionally, further insights have been provided into the different dimensions of CEO overconfidence and its influence on dividend payouts, demonstrating the indirect impact of CEO overconfidence on the decision to distribute cash dividends. Through highlighting the role of managerial beliefs in shaping dividend decisions, this research contributes to the literature on dividend policy.

Keywords

CEO characteristics, Overconfidence, Dividend Policy, Upper Echelons.

Article history

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1. Introduction

CEOs are considered among the most powerful personnel within the firm. Although leaders have a critical role in the creation of a consistent tone for the top management team, which conveys stability within the rest of the organization (Ormiston et al., 2021), there is limited comprehension of the role of CEO's personality in determining their rationality. Prior research argues that CEOs' personal behavior significantly influences their rationality, since personality characteristics can create a prevailing tendency in the way of thinking which may affect their actions. Consequently, there is a high probability that a CEO's personal characteristics will influence the manner in which a specific organization performs differently compared to others (Wincent & Westerberg, 2005).

According to the efficient market hypothesis, investors are assumed to have homogenous expectations about their agents when managing their investments, and managers are perceived as rational in all aspects without being influenced by irrational emotions (Baker & Ricciardi, 2014). However, the upper echelons theory postulates that top executives have the propensity to approach issues based on a more personalized judgment (Hambrick & Mason, 1984). This indicates that the decisions at the firm level will reflect not only external demographic factors, including professional background or education, but also internal factors, such as psychological traits like overconfidence and risk aversion (Lai et al., 2017). However, these traits have both advantages and disadvantages, since they may enable the top management to navigate difficult decisions effectively, or on the contrary may adversely affect their judgments.

Consequently, several managerial characteristics may lead to cognitive biases, jeopardizing the managers' decision-making process in investment and finance, thereby causing a significant deviation from the optimal financial models, such as overconfidence which arises from managerial hubris (Malmendier & Tate, 2005a; Marwan, 2018). Managerial overconfidence emerges when managers overestimate their own capabilities and believe they are superior to the average (Hwang et al., 2018). This bias results from their tendency toward exaggerating the precision of their acquired information and underestimating the probability of risks (Deshmukh et al., 2013), leading to excessive optimism concerning future events.

For instance, overconfidence can undermine the CEOs' rationality when making decisions concerning dividend payouts, since they prefer to accumulate internal funds for financing their projects rather than relying upon external funds (Malmendier & Tate, 2015). This tendency often leads to a reduction in the amount of dividends (Deshmukh et al., 2013; Shen, 2021). These characteristics collectively increase the CEOs' sense of entitlement, prompting them to pursue personal benefits at the expense of investors' best interests.

Based on this perspective, these CEO characteristics influence critical decisions within their authority, such as dividend distribution, which serves as a method to convey specific information about the firm's profitability and managerial performance

to the capital market (Bhattacharyya, 2007; Nguyen & Bui, 2019). Dividend payouts are considered a communication tool between shareholders and their agents (i.e. the managers), and are thus perceived as a reliable method of limiting managerial power through reducing the resources controlled by managers (Jensen, 1986).

It can be argued that within the work environment, a significant amount of power may be exerted by the CEO. Although this power can be valuable when used responsibly, it has the potential to be abused. Additionally, the expansion of influence among top decision-makers, accompanied by the development of hubristic tendencies, considerably increases the risk of encountering unforeseen challenges and vulnerabilities. As a result, rather than controlling the CEO conduct and judgments, the social environment of a company may confer excessive authority to top managers, thereby reinforcing their arrogance (Cormier et al., 2015).

Prior research provides inconclusive results concerning the impact of such personal characteristics on the CEOs' discretionary decisions, such as payout policy. Accordingly, this research aims to address the following primary questions: First, how does the CEO overconfidence affect the dividend payout decisions? Second, how does the CEO overconfidence influence the level of dividend payouts?

The results revealed that both the CEO overconfidence index and the CEO overconfidence derived from the asset growth model exhibited a significant negative association with the level of dividends distributed, as proxied by dividend yield. These empirical results are expected to contribute to the literature on corporate governance and dividend policy through exploring the impact of CEO overconfidence, particularly within emerging markets like Egypt. Moreover, the research findings can emphasize the significance of considering behavioral factors, such as CEO overconfidence, in addition to the traditional financial factors in strategic decision-making. In particular, the study will provide valuable insights for investors, managers, and policymakers regarding the impact of CEO overconfidence on dividend policy. Furthermore, the results present valuable empirical evidence relevant to the Egyptian companies, as well as to corporate governance practices and board structures.

This research is applied to the Egyptian market, since it represents an emerging market, due to several factors which make this financial market significant for analysis. First, Ismail and Shehata (2012) identified that the Egyptian business culture is characterized by a significant power distance. Consequently, members of society accept the dominance of individuals in the organizational hierarchy despite the unequal distribution of authorities. Thus, this observation implies the substantial influence of behavioral factors over financial market operations, providing a basis for this study to examine CEOs' characteristics and their hierarchical influence. Second, Shehata (2021) explored a new dimension in dividend policy through addressing the impact of corporate governance factors, especially board members' national diversity, on dividend policy. This exploration is particularly pertinent in an emerging capital market such as Egypt, which represents one of the relatively understudied Mena region countries. Therefore, this research study aims to investigate this gap through analyzing the impact of CEO overconfidence, as a characteristic of vital board members, on the

firm's dividend policy, including both the decision to distribute dividends and the amount distributed.

The remainder of this paper is organized as follows: Section 2 provides a brief theoretical background on the study variables. Section 3 reviews the prior literature to develop the research hypothesis. Section 4 includes the research methodology adopted in this study. Section 5 presents the empirical results. Section 6 offers a conclusion to the research and suggests implications for explored future exploration.

2. Background

2.1. The Behavioral Perspective of Dividend Policy

The dividend payment policy involves the distribution of a part or the entirety of the generated financial benefits to shareholders in return for their investment in the firm (Benjamin et al., 2016). Hence, it indirectly denotes the extent of funds retained for subsequent reinvestment. Balancing the persistent demands of investors for dividends with the business's requirement for free cash to sustain growth constitutes a continual dilemma for finance theories (Ibrahim, 2017).

Dividends are considered an important factor for the stock market participants, since some investors tend to perceive dividend distribution as a positive signal of adherence to the best practices and a prosperous future. Therefore, they may establish their investment decisions on the corporate dividend decisions (Ahmad et al., 2019). Consequently, the alignment of the firm's capital structure strategy, including a combination of debts, owners' equity and external funding, along with its reinvestment plans and investors' demands for dividends, is a critical task requiring crucial analysis (Rehman, 2016).

Numerous scholars have investigated the factors influencing the firm's dividend policy, which primarily depends on the firm-specific and financial market characteristics. However, few have addressed the role of managerial rationality in formulating the dividend payout strategy. Financial managers frequently encounter difficulties in optimizing the dividend policy, since they must balance establishing an optimal policy that maximizes shareholder value with differing shareholder preferences for dividend distribution, which may not always align. Thus, the impact of the dividend policy challenge on stock prices remains uncertain (Camilleri et al., 2019). Significantly, managerial psychological behavior can jeopardize rationality. For example, their biases may lead managers to withhold negative information, which could eventually be revealed when it becomes too costly to conceal, thereby increasing the risk of unexpected stock price fluctuations (Harymawan et al., 2019).

Based on the dividend irrelevance theory, Miller and Modigliani (1961) introduced a controversial perspective, assuming that an ideal stock market where investors behave rationally and managers aim to maximize shareholders' interests, a fixed dividend policy would be irrelevant to stock market reactions. This perspective is consistent with the traditional perspectives in finance and accounting research. Both

neoclassical and agency theoretical frameworks are based on the assumption that management predominantly demonstrates rational behavior in decision-making processes, disregarding personal biases, errors or irrational actions, and their subsequent effects (Plöckinger et al., 2016).

In practice, however, stock market participants are not always objective and do not consistently adhere to the rational paradigm. For instance, the rationality of the CEOs during the formulation of the dividend payout policy significantly influences their decision-making process. Furthermore, since the decision-making process is susceptible to irrationality and emotions, it is necessary to consider the role of the CEOs' personality in determining this critical decision. Nevertheless, there is limited research addressing the formulation of payout strategies from a behavioral perspective.

Hambrick and Mason (1984) propose that top executives have the propensity to confront challenges through more personalized judgment. Hence, when the CEOs' behavior is jeopardized, their rationality during the development of dividend policy is at substantial risk. This notion can impact their decision-making process, which may subsequently affect the overall performance of the organization.

2.2. CEO Overconfidence

Overconfidence is a psychological bias that increases an individual's tendency to exaggerate their competencies relative to others and underestimate the associated risks (Deshmukh et al., 2013; Malmendier & Tate, 2005a). This results in a behavioral risk due to depending on unstable beliefs (Jlassi et al., 2014). Overconfidence manifests through three primary emotional characteristics. First, individuals exhibit unwarranted self-confidence in their ability to manage future outcomes despite provided objective information and evidence. Second, their unjustifiable judgment can lead to high achievements causing them to overestimate their own capabilities. Third, they may fail to accurately assess the abilities of their competitors, since they subjectively regard themselves superior to others (Gervais et al., 2002; Hribar & Yang, 2016).

In this regard, individuals with overconfidence tend to predict favorable outcomes that are not supported by actual indications, since they overestimate their own capabilities and even others' ability to influence events to their advantage (Olsen et al., 2014). Such personal states are characterized as hubris (Cormier et al., 2015; Malmendier & Tate, 2008) or optimism (Gervais et al., 2002; Huang-Meier et al., 2016). In prior research, these traits have also been described as overconfidence. Occasionally, overconfidence is confused with narcissism, which may be regarded as an extension of the distorted self-perception induced by overconfidence. Narcissistic personalities often exhibit a grandiose self-image and an excessive admiration of themselves, seek attention, and believe that their elevated status entitles them to condescend to and disregard others (Ismail et al., 2022). This frequently results in an overestimation of their performance, reflecting a high degree of overconfidence (Brunzel, 2021).

CEOs' overconfidence reveals their inclination toward the overestimation of future cash flow while underestimating the associated hazards and threats (Kim et al., 2016). This often leads them to overestimate their chances of success, which justifies their propensity toward initiating projects more rapidly, even in case of high uncertainty (Abiprayu & Wiratama, 2016; Gervais et al., 2002). For instance, overconfidence can jeopardize the CEOs' rationality during dividend payouts, as they are more inclined toward increasing reserves from internal funds to secure additional financing for their projects, thereby reducing their reliance on external funding (Malmendier & Tate, 2015). Eventually, this tendency may compel them to reduce the amount of distributed dividends (Deshmukh et al., 2013; Shen, 2021).

This perspective has led to the development of theories that incorporate human psychology within the decision-making process and its related outcomes. Behavioral Finance Theory emphasizes the psychological factors influencing investment decisions and suggests that cognitive biases cause individuals to deviate from rationality, especially in the absence of accurate information and adequate processing capabilities (Burkhard et al., 2018). This perspective is further elaborated by the Upper Echelons Theory, since it proposes that an organization's strategic decisions and outcomes are a reflection of its top managers' cognitive biases and values, including their levels of overconfidence (Hambrick, 2007; Hambrick & Mason, 1984; Lai et al., 2017). Conversely, Agency Theory highlights the potential conflict of interests arising with overconfident CEOs. Such CEOs, influenced by their hubristic perceptions, might make decisions that diverge from shareholders' preferences, potentially leading to overinvestment in projects to gain private benefits at the expense of investor interests. Subsequently, such actions result in the deviation from optimal decisions, therefore decreasing firm value (Brennan & Conroy, 2013; Malmendier & Tate, 2005b; Sutrisno & Karmudiandri, 2020).

In accordance with the Upper Echelons Theory, the executives' personal judgments are shaped by their "experiences, values, and personalities" (Hambrick, 2007,p.334). The theory posits that in complex strategic decision-making contexts, individuals are constrained by their bounded rationality due to human nature. Therefore, strategic decisions made by top executives, which influence firm performance, consider behavioral factors such as conflicting goals and aspiration levels (Ismail et al., 2022). Under these circumstances, managers, as leaders at the top of the management hierarchy, may find their technical rationality, and personal interpretations jeopardized by various stimuli and complexities that influence their actions and judgments (Hambrick & Mason, 1984). Consequently, personal interpretations of strategic matters, mainly developed according to their executives' experiences, personalities, and standards, are indirectly reflected in top management decisions and the overall organizational culture (Alqatamin et al., 2017; Qi et al., 2018). Thus, this theory underscores the prominence of both external demographic factors, such as professional background and education, and internal factors, including psychological traits like overconfidence and risk aversion (Deng et al., 2018; Lai et al., 2017).

3. Literature Review and Hypotheses Development

3.1. CEO Overconfidence and the Decision to Distribute Dividends

Based on prior literature, there has been limited debate concerning the impact of CEOs' traits on their decisions regarding a firm's dividend payout policy. However, some researchers suggest that CEOs' overconfidence may psychologically bias their decisions, including those related to dividend policy (Banerjee et al., 2018). This bias emerges from their tendency towards overestimating their projects' ability to generate returns and reverse negative outcomes (Kim et al., 2016). Consequently, this overconfidence may compel them to make impulsive decisions without thorough consideration or consultation with others (Hayward & Hambrick, 2013).

For further illustration, Malmendier et al. (2007) explain that overconfidence may lead CEOs to avoid spending internal funds and overestimate their projects' ability to generate returns. This behavior is particularly noticeable when CEOs believe their firms are valued higher than their actual worth (Malmendier et al., 2007). Subsequently, Banerjee et al. (2018) reported that overconfident CEOs tend to avoid discretionary dividend distribution in favor of share repurchases. Moreover, they decide to harness internal funds for investment projects they subjectively believe are profitable, aiming to increase their firms' stock prices, which they perceive as undervalued by the stock market. Likewise, Anilov (2019) demonstrated that overconfident CEOs are more inclined to initiate repurchases and generally prefer them over the distribution of cash dividends, driven by the belief that the stock market is undervaluing their firms' stocks. These results are attributed to the notion that these CEOs aspire to signal positive future prospects to external investors.

On the contrary, other researchers have identified a positive association between CEO overconfidence and dividend policy. For instance, Banerjee et al. (2013) concluded that increasing monitorship and governance following the implementation of the Sarbanes-Oxley Act (SOX) mitigated CEOs' overconfidence and controlled their overinvestments. Thus, there has been a surge in the dividend payouts. Similarly, Mitra et al. (2019) suggested that managerial overconfidence can enhance board oversight and monitoring, ensuring the reliability of statements required for future project planning. Based on this argument, the following hypotheses can be proposed:

Hypothesis 1: *There is a significant relationship between CEO overconfidence index and Dividend Payout Distribution (DPD).*

Hypothesis 1a: *There is a significant relationship between the individual components of CEO overconfidence index and Dividend Payout Distribution (DPD).*

3.2. CEO Overconfidence and the Level of Dividend Payout

The relationship between CEO overconfidence and the level of dividend payouts is complex, since different studies have yielded divergent results. Some studies indicate a negative association, implying that overconfident CEOs tend to pay lower dividends compared to their rational counterparts, possibly to retain cash for their investment

projects. Deshmukh et al. (2013) also suggested that CEOs' rationality is jeopardized by their overconfidence, which is reflected in lower levels of dividend distribution. They noted that CEOs' hubris leads them to prefer saving available free cash flow and redirecting them toward internal investments rather than dividend distribution. Such CEOs believe that this approach serves investors' best interest and signals the firm's promising growth prospects to the stock market. Similarly, Vinh (2020) reported a negative impact of CEO overconfidence on dividend payouts, as overconfident CEOs, anticipating success in future investments, prefer to invest more, thus retaining more earnings rather than distributing dividends.

Other studies identified a positive association, demonstrating the inclination of overconfident CEOs toward paying higher amounts of dividends compared to rational CEOs, either to signal their confidence in future earnings or alternatively reduce the cost of external financing (Wu & Liu, 2011). For instance, Hoang et al. (2020) proposed that overconfident CEOs in Vietnam's industrial sector are driven by short-term profits and optimism about the ability of their project to generate profits in the near future. As a result, they are more disposed toward paying out dividends while disregarding corporate risks. They observed that overconfident CEOs are associated with a significant increase in dividend yield, as they recognize its significance in enhancing their firm's image and signaling positive future prospects of their investment. Similarly, Nguyen et al. (2021) asserted the tendency of overconfident CEOs to distribute higher dividends, benefits shareholders' wealth in the short run, although the firm must retain some earnings for future investments.

However, Anilov (2019) revealed insufficient evidence to support the significant impact of CEO overconfidence on the level of cash dividends, suggesting instead that the amount of dividends is typically influenced by other firm-specific characteristics, such as profitability. As a result, the direction and magnitude of the association remains unclear, and may depend on factors beyond firm characteristics. Thus, the following hypotheses have been proposed:

Hypothesis 2: *There is a significant relationship between the CEO overconfidence index and the level of dividend payouts.*

Hypothesis 2a: *There is a significant relationship between the individual components of CEO overconfidence and the level of dividend payouts.*

4. Research Methodology

4.1 Sample and Data Collection

The initial sample comprised firms listed on the Egyptian Stock Exchange (EGX_{100}) index from 2017 to 2021. First, 12 banks and 5 financial firms were excluded due to the uniqueness of their activities and regulations, which are substantially different from those of their non-financial counterparts. In addition, 12 firms with incomplete data were omitted, as some of these firms were newly listed in the EGX.

Therefore, the final sample included 71 firms, resulting in a total of 355 firm-year observations.

Second, the financial data were collected using Thompson Reuters EIKON database. Meanwhile, the daily stock closing prices were obtained from Investing.com website.

Third, the data on CEO characteristics were manually gathered from the annual board meeting reports, typically acquired through browsing Google, the firms' websites, the Egyptian Stock Exchange website, as well as Mubasher.com website.

4.2. Variables Measurement

As previously explained, CEO overconfidence is the independent variable in this study, as we are investigating its effect on management's dividend policy. Therefore, the dependent variables include dividend payout and dividend yield. Meanwhile, the control variables represent the firm characteristics and consist of profitability, leverage, firm size, and Covid-19 as shown in Table (1).

4.2.1. The Independent Variable: CEO Overconfidence Index (CEO_OV)

Malmendier and Tate (2008), Schrand and Zechman, (2012), and Shah et al., (2018) measure managerial overconfidence based on managers' biases during the investment decision-making process, where this bias can be reflected in their tendency to overinvest the returns of a particular project and deviate from the planned investment goals. The CEO overconfidence index is calculated as the sum of the CEO's overinvestment in the asset growth model and capital expenditures (Khajavi & Dehghani, 2016). The CEO overconfidence index ranges between a minimum of (0) and a maximum of (2).

In addition to investment choices, there are other measures for CEO overconfidence, such as stock option exercises (Ahmed & Duellman, 2013; Banerjee et al., 2018; Malmendier et al., 2011). However, in Egypt, there is insufficient information to reflect employee stock option exercises, which have been used in the majority of the prior research to assess CEO overconfidence. Zaher (2019) recommended employing investment-based proxies in Egypt, such as overinvestment which deviates from optimal investment levels (Ahmed & Duellman, 2013; Shah et al., 2018), in addition to capital expenditure-based measures (Schrand & Zechman, 2012).

Regarding the first CEO_OV proxy, this research follows the investment-based model proposed by Ahmed and Duellman (2013), Shah et al. (2018), and Zaher (2019) of measuring CEO overconfidence through the residuals coefficient. The model reflects the CEOs' overinvestment by assessing the deviation from the optimal investment level, based on the premise that asset growth exceeding sales growth signals CEOs' overinvestment when compared to peers. Accordingly, CEO overconfidence, proxied by $AssetsGrowth_{i,t}$ is assigned the value of (1) if the residuals are positive, indicating overinvestment, and (0) otherwise.

The second proxy for CEO overconfidence, is the Capital Expenditures (CAPEX) model used by Malmendier and Tate (2008), Ishikawa and Takahashi (2010), Schrand and Zechman (2012), Ahmed and Duellman (2013), Lu (2016), Zaher (2019), and Gerayli et al. (2021). It is a dichotomous variable, where an overly confident CEO proxied, by $CAPEX_{i,t,}$ is expected to have capital expenditures deflated by lagged total assets that exceed the industry's median level for the CAPEX deflated by total assets. In this case, CEO overconfidence is assigned a value of (1), and (0) otherwise.

4.2.2. The Dependent Variable: Dividend Payout (DP)

In order to test the robustness of firm dividend payout, three different measures were employed: Dividend Payout Decision (DPD), Dividend Yield Ratio (DYR), and Dividend Payout Ratio (DPR), following Hwang et al. (2018), and James and Wang (2021). The DPD measures the decision to distribute dividends; it is a dummy variable taking the value of (1) if the firm decides to distribute dividends and (0) otherwise. Both DYR and DPR are used to measure the level of dividends distributed. The DYR is calculated as dividends per share divided by the market price per share, whereas DPR is calculated as the total amount of cash dividends paid divided by the net income (Hwang et al., 2018; James & Wang, 2021).

4.2.3 The Control Variables Include Profitability, Leverage, Firm size, and Covid-19

Profitability (ROE) is the return on equity, a proxy for firm performance, measured as net income divided by equity (Feng et al., 2007). Adjaoud and Ben-Amar (2010) found a positive association between high profitability and dividend payout.

Leverage (LEV) is calculated as total liabilities divided by total assets. Nguyen et al., 2021 noted a negative association between leverage and dividend payout, attributed to the interest payments on debt that burdened CEOs and thus reduced dividends. On the contrary, Adjaoud and Ben-Amar (2010) observed a positive association with dividend payout, suggesting that CEOs may use debt to manage their free cash flow challenges.

Firm Size (SIZE) is measured through the natural logarithm of total assets. Hoang et al. (2020) reported a positive association with dividend payout, indicating that large-scale firms have more ability to fulfill their dividend obligations, consequently attracting further investors.

Covid-19 (COVID) is a dichotomous dummy variable, equal to (1) for the years affected by Covid-19, and (0) otherwise. This control variable was included due to the significant impact of the pandemic on signaling firm growth prospects (Ali, 2022).

Table (1) Research variables

Variables	Abbreviation	Measure	References
Independent Variable:			
Overconfidence index:	CEO_OV_{it}	Ranges between minimum score (0) and maximum score (2). It is equal to the sum of: **A-AssetsGrowth** $_{i,t} = ß_0 + ß_1$**SalesGrowth** $_{i,t} + Ɛ_{i,t}$ *where:* score = (1) if the residual is positive, (0) otherwise **B- CAPEX** $_{i,t} = \frac{CE_{i,t}}{TA_{i,t}}$, *where:* score = (1) if the result is greater than the sample median, (0) otherwise	(Malmendier and Tate, 2008; Schrand and Zechman, 2012; Shah *et al.*, 2018)
Dependent Variable:			
Dividends Payout	$DP_{i,t}$	Based on three proxies: **DPD$_{i,t}$**, **DYR$_{i,t}$**, **DPR$_{i,t}$**, as follows	(Hwang *et al.*, 2018; James and Wang, 2021)
Dividends Payout Distribution	$DPD_{i,t}$	Dummy variable (1) if the firm distributed cash dividends, and (0) otherwise	
Dividends Yield Ratio	$DYR_{i,t}$	The ratio of dividends per share to the market price per share	
Dividends payout ratio	$DPR_{i,t}$	is the ratio of total cash dividends paid to the net income	
Control Variables:			
Return on Equity	$ROE_{i,t}$	Ratio of net income to total shareholders' equity	(Feng *et al.*, 2007; Adjaoud and Ben-Amar, 2010)
Leverage	$LEV_{i,t}$	Ratio of total liabilities to total assets	(Adjaoud and Ben-Amar, 2010; Park and Song, 2019)
Firm Size	$SIZE_{i,t}$	Natural logarithm of the total assets of the firm	(Hoang *et al.*, 2020)
Covid-19	$COVID_{i,t}$	Dummy variable (1) for the covid years, and (0) otherwise	(Ali, 2022)

4.3. Research Model

To examine the research hypotheses, the following two multiple regression models were developed, as shown in Equations (1) and (2). In both models, the dependent variable is the Dividend Payout ($DP_{i,t}$) policy, measured through two proxies: first, the decision to distribute dividends ($DPD_{i,t}$), and second, the payment level of cash dividends, represented by $DYR_{i,t}$ and $DPR_{i,t}$ respectively. In addition, the independent variable in Model (1) is the CEO overconfidence index ($CEO\_OV_{i,t}$), while in Model (2) it measures the separate components of the CEO overconfidence index (i.e., overconfidence in the asset growth model AssetsGrowth $_{i,t}$, and in the CAPEX model CAPEX $_{i,t}$). Finally, the control variables ($ROE_{i,t}$, $Lev_{i,t}$, $Size_{it}$, and $Covid_{it}$) are included based on their potential influence on the dividend policy decision.

$$DP_{i,t} = ß_0 + ß_1 CEO\_OV_{i,t} + ß_2\ ROE_{i,t} + ß_3\ Lev_{i,t} + ß_4\ Size_{it} + ß_5\ Covid_{it+}\ Ɛ_{i,t} \quad (1)$$

$$DP_{i,t} = ß_0 + ß_1\ AssetsGrowth_{i,t} + ß_2\ CAPEX_{i,t} + ß_3\ ROE_{i,t} + ß_4\ Lev_{i,t} + ß_5\ Size_{it} + ß_6\ Covid_{it+}\ Ɛ_{i,t} \quad (2)$$

5. Empirical Results and Discussion

5.1 Descriptive Statistics

The descriptive statistics in Table (Ⅰ) present a summary of the study variables, arranged as follows: Panel (A) and Panel (B). Panel (A) includes the continuous variables, while Panel (B) presents the descriptive statistics for the dichotomous variables utilized in the research models (1), (2), and (3). Additionally, Panel (C) provides further insights into the CEO overconfidence index components. All data regarding the continuous variables used in this research have been winsorized to mitigate the effect of outliers.

In terms of the independent variables, the descriptive statistics reveal interesting patterns concerning CEO Overconfidence ($CEO\_OV_{i,t}$) in the sample. The CEO_OV index ranged between 0, 1 and 2, with 41.97% of the sample scoring zero, 45.63% scoring one, and 12.39% scoring two. These results indicate that a considerable portion of CEOs in the sample exhibit varying degrees of overconfidence.

Further examination of the components of the $CEO\_OV_{i,t}$ index provides additional insights, as detailed in Panel (C). The first component, overinvestment in the asset growth model, reveals that 78.59% of the sample scored zero, indicating a more conservative investment approach. Conversely, 21.49% of the sample scored one, suggesting a tendency toward overinvestment. The second component, overinvestment in the CAPEX model, demonstrates a more balanced distribution, with 50.99% scoring zero and 49.01% scoring one.

The implications of these results are noteworthy. The prevalence of CEO overconfidence, as indicated by the distribution of the $CEO\_OV_{i,t}$ index observed in Panel (B) in Table (2), suggests that overconfidence did not dominate the CEOs' investment behavior; however, it remains notable among CEOs in the studied firms. The different scores in the $CEO\_OV_{i,t}$ index and its components highlight the varying levels of overconfidence exhibited by individual CEOs across different aspects of their decision-making. This variation is reflected in the separate components of the CEO overconfidence index components, as observed in Panel (C) in Table (2). The CEO overconfidence in the $AssetGrowth_{i,t}$ model represented 21.41%, while in the $CAPEX_{i,t}$ model it represented 49.01% of the whole sample. Thus, the separate dimensions of CEO overconfidence also do not demonstrate a large ratio of the sample.

In terms of the three alternative measures of the dependent variable (i.e., dividend policy), the results show that 69.96% of the firms in the sample distributed cash dividends based on the $DPD_{i,t}$ measure. This suggests that dividend distribution is a common practice among the studied firms in Egypt. The summary statistics for the

independent variable $DYR_{i,t}$ demonstrate an average dividend yield of 0.27, indicating a payout of 2.7% of the current stock price as dividends. The minimum and maximum values for $DYR_{i,t}$ were 0 and 0.091, respectively, while for $DPR_{i,t,}$, the minimum and maximum values were 0 and 0.188, with an average of 0.049. This implies a typical dividend distribution of 4.9% of total earnings by firms to their shareholders.

To meet the assumptions of ordinary least square (OLS) regression, several tests were conducted to examine normality, multicollinearity, homogeneity, and serial autocorrelation. The results of these tests are presented in the following section.

Table (2): Descriptive statistics

Panel A: *Descriptive statistics for continuous variables*

Variable	Mean	Std. Dev.	Min	Max
DYR	.027	.032	0	.091
DPR	.049	.064	0	.188
ROE	1.488	1.193	.134	3.875
LEV	1.581	1.269	.296	4.311
SIZE	9.465	.564	8.617	10.427

Panel B: *Categorical variables descriptive statistics*

Variable	Modality	Frequency	(%)
CEO_OV	0	149	41.97
	1	162	45.63
	2	44	12.39
DPD	0	107	30.14
	1	248	69.86
COVID	0	213	60.00
	1	142	40.00
Panel (C): *CEO Overconfidence Index components*			
AssetsGrowth	0	279	78.59
	1	76	21.41
CAPEX	0	181	50.99
	1	174	49.01

Note: In **Panel (A)**, *DYR* is the dividends yield ratio, *DPR* is the dividends payouts ratio, *ROE* is the return on equity, *LEV* is the firm leverage, and *SIZE* is the firm size. In **Panel (B),** *CEO_OV* is the CEO's overconfidence index, DPD is the dividends paypout decision and *COVID* is the coronavirus years. In **Panel (C),** includes the *CEO_OV* index components: 1) $\mathbf{AssetsGrowth}_{i,t}$ is the overinvestment in the assets growth model, 2) $\mathbf{CAPEX}_{i,t}$ is the overinvestment in the CAPEX model, *DPD* is the cash dividends distribution decision

5.2. Correlation Analysis Results

First, Table (3) presents the correlation matrices among the study variables using Spearman and Pearson's correlation coefficients. The correlation coefficients range from -1 to +1, with values close to -1 indicating a strong negative correlation, values close to +1 indicating a strong positive correlation, and values close to 0 indicating no correlation (Field, 2013).

The correlation matrix reveals a significant negative correlation of -0.652 between $CEO\_OV_{i,t}$ and dividend policy, as proxied by $DYR_{i,t}$, with a p-value less than 1%.

Additionally, it reveals an insignificant positive correlation between CEO_OV and dividend policy when proxied by $DPD_{i,t}$ and $DPR_{i,t}$.

Second, to address the multicollinearity problem, Variance Inflation Factor (VIF) analysis was conducted, with the results presented in the last column of Table (3). It can be observed that all values did not exceed the cutoff point of 10.0 (Hair et al., 2018), indicating the absence of a multicollinearity problem among the independent variables.

Table (3) Correlation coefficients matrix and variance inflation factor

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	VIF
(1) DPD	1.000	.407**	.430**	.407**	.430**	.040	.294**	.205**	-.024	
	.000	.000	.000	.000	.000	.458	.000	.000	.648	
(2) DYR	.464**	1.000	.608**	-.089	.205**	.007	-.201**	.202**	.011	
	.000	.000.	.000	.093	.000	.901	.000	.000	.835	
(3) DPR	.744**	.652**	1.000	-.030	.328	-.254	-.273	.056	.002	
	.000	.000	.000.	.575	.000	.000	.000	.294	.965	
(4) CEO_OV	.033	-.064	.009	1.000	.278	.106*	-.066	-.060	-.136*	1.11
	.532	.231	.869	.000	.000	.046	.212	.260	.010	
(5) ROA	.317**	.249**	.367**	.295**	1.000	.187	-.215	.092	-.133*	1.31
	.000	.000	.000	.000	.000	.000	.000	.083	.012	
(6) ROE	.270**	.105*	-.023	.131*	.276**	1.000	.410	.127*	-.045	1.34
	.000	.047	.660	.013	.000	.000	.000	.016	.395	
(7) LEV	-.006	-.138**	-.238**	-.054	-.146**	.388**	1.000	.358	-.003	1.58
	.918	.009	.000	.313	.006	.000	.000	.000	.951	
(8) SIZE	.272**	.253**	.165**	-.058	.127*	355	.351**	1.000	.053	1.21
	.000	.000	.002	.275	.017	.191**	.000	.000	.320	
(9) COVID	.035	.027	.004	-.135*	-.140**	.000	-.022	.056	1.000	1.04
	.510	.618	.944	.011	.008	355	.684	.291	.000	

Notes:

a- Pearson (above diagonally) and Spearman (below diagonally) correlation matrix.

b-**Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).

c-VIF (1) results are related to Model (1), and VIF (2) results are related to Model (2).

5.3. Hypotheses Testing Results

This section presents the regression analysis conducted to test the research hypotheses. First, in order to fulfill the remaining assumptions of ordinary least square (OLS) regression, homoskedasticity and serial correlation tests were performed. The Modified Wald test results were significant at ($p < 0.05$), indicating the presence of heteroskedasticity in the regression residuals. Conversely, the Wooldridge test for autocorrelation yielded insignificant results, with ($p > 0.05$), revealing no serial correlation among the residuals. Generalized least square (GLS) regression is recommended to address the heteroskedasticity problem (Gujarati & Porter, 2022), Thus, GLS regression was applied in testing Hypotheses H_2 and H_{2a}, with $DP_{i,t}$ in model (1) and (2) measured using $DYR_{i,t}$ and $DPR_{i,t}$. However, with regards to testing H_1 and H_{1a}, logistic regression was employed, since $DP_{i,t}$ in model (1) and (2) was measured using $DPD_{i,t}$. The regression results are presented in Table 4.

Table (4) details the regression analysis for the research hypotheses H_1 and H_2 using the following order of dividend policy proxies: (1) $DPD_{i,t}$, (2) $DYR_{i,t}$, and (3) $DPR_{i,t}$. The results reveal that when regressing model (1) using the $DPD_{i,t}$ measure for dividend policy, the goodness of fit of the entire model (Prob>chi2= 0.2383) is not significant at (p-value > 0.05), indicating the acceptance of the null hypothesis by the proposed model and the absence of any evidence of lack of fit. Additionally, $CEO\_OV_{i,t}$ shows an insignificant association with $DPD_{i,t}$. The logistic regression results further indicate that the coefficients of the control variables ROE (.591), LEV (-.498), and SIZE (1.276) were significant with DPD at ($p<0.01$ level). As a result, the insignificant coefficient for CEO overconfidence implies no impact on the likelihood of the company declaring cash dividend distribution. Consequently, H_1 is rejected.

Table (5) illustrates the results of examining the individual components of the CEO overconfidence index, $AssetsGrowth_{i,t}$ and $CAPEX_{i,t}$, against $DPD_{i,t}$. The goodness of fit for the entire model (Prob>chi2 =0.2126) is not significant (p-value >0.05), indicating that the proposed model does not reject the null hypothesis and shows no evidence of a lack of fit. Additionally, the regression results highlight the two proxies for CEO overconfidence: the assets growth model ($AssetsGrowth_{i,t}$) and the CAPEX model ($CAPEX_{i,t}$), which capture the tendency toward overinvestment in assets and capital expenditures, respectively. However, these proxies do not significantly predict dividend payout (DPD). Their insignificance implies that CEO overconfidence does not influence the likelihood of paying cash dividends.

Second, as observed in the GLS regression results for model (1) in Table (4), where dividend policy was proxied by $DYR_{i,t}$, $CEO\_OV_{i,t}$ exhibited a significant negative association, with a coefficient of (-.005) significant at ($p < 0.05$). The GLS regression results further indicate the significance of the coefficients of the control variables ROE (.004) at ($p<0.05$), and LEV (-.009), SIZE (.018), with $DYR_{i,t}$ at ($p<0.01$). The significant coefficient for CEO overconfidence implies that higher levels of CEO overconfidence correspond with lower dividend yield ratios. Thus, H_2 is accepted when the level of dividends distributed is measured by DPY.

In Table (5), when examining the separate components of the CEO overconfidence index: AssetsGrowth $_{i,t}$ and CAPEX $_{i,t}$, against $DYR_{i,t}$, the regression results show that the CEOs' assets growth model is the only significant predictor of dividend yield ($DYR_{i,t}$) among the independent variables. The coefficient for AssetsGrowth $_{i,t}$ is negative (-.013) and significant at the 1% level, indicating a significant negative association with the level of dividends relative to the market price, implying the influence of CEO overconfidence on the reduction of the dividend yield ratio and consequently, the level of dividend payouts. In contrast, the CAPEX model does not show significant results, indicating that CEO overconfidence does not affect the level of dividends in this proposed model.

Third, as presented in the GLS regression results in Table (4), when dividend policy was proxied by $DPR_{i,t}$, CEO_OV exhibited an insignificant negative association with $DPR_{i,t}$. In addition, the regression results demonstrate the significance of the coefficients of the control variables, ROE (-.009), LEV (-.013), and SIZE (.019), at ($p<0.01$) with DPR. The insignificant coefficient for CEO overconfidence suggests that it does not affect the dividend payout ratio. Thus, H_2 is accepted only when the level of dividend payouts are proxied by the dividend yield only.

In Table (5), when exploring the separate components of the CEO power index, AssetsGrowth $_{i,t}$ and CAPEX $_{i,t}$, against $DPR_{i,t}$, the regression results reveal that CEO's AssetsGrowth $_{i,t,}$ as well as the CAPEX $_{i,t,}$ are not significant predictors of dividend payout ratio ($DPR_{i,t}$). Both proxies exhibit insignificant coefficients, indicating insufficient evidence of the influence of CEO overconfidence on the level of dividend payouts relative to the firm's total income.

Consequently, regarding the association between CEO overconfidence index and dividend policy, the regression results reject H_1 and H_{1a} while supporting H_2 and $H_{2a,}$ given that dividend policy is proxied by the dividend yield ratio (DYR). The results reveal a significant negative coefficient for CEO_OV of (-.005) at ($p<0.01$) on $DYR_{i,t}$, but the coefficient is insignificant with both $DPD_{i,t}$ and $DPR_{i,t}$. This suggests that CEO overconfidence significantly decreases the level of dividends represented in the dividend yield ratio, but does not affect either the decision of cash dividends distribution (DPD) or the level of dividends relative to the firm earnings ($DPR_{i,t}$). These results reveal the tendency of overconfident CEOs in Egypt toward overinvestment in internal projects due to their optimism about future prospects and confidence in their ability to achieve success, leading them to refrain from cash dividend distributions. The obtained results are consistent with the studies of Malmendier et al. (2007), Deshmukh et al. (2013), and Banerjee et al. (2014).

These results are supported by the regression results related to the individual components of the CEO overconfidence index. The independent variable is CEO overconfidence, which is an index that combines two proxies: the assets growth model (AssetsGrowth $_{i,t}$) and the CAPEX model (CAPEX $_{i,t}$.). The assets growth model evaluates the extent to which a CEO overinvests in the growth of assets relative to the industry average, while the CAPEX model assesses the extent to which a CEO overinvests in capital expenditures relative to the industry average. Both proxies are

based on the assumption that overconfident CEOs tend to overestimate the returns on their investments, leading to suboptimal investment levels. The results confirm that only the assets growth proxy exhibits a significant negative coefficient, indicating the tendency of firms with more overconfident CEOs toward experiencing lower DYRs and consequently, lower dividend payouts. This may be attributed to overconfident CEOs' preference for retaining earnings for future investments rather than distributing them to shareholders. Consistent with Anilov (2017), the interaction between CEO overconfidence and excessive risk-taking can result in reduced dividend payments. Conversely, the CAPEX model does not present a significant coefficient, implying the lack of evidence concerning the impact of overconfident CEOs' capital expenditure decisions on dividend policy.

Table (4): CEOs' Overconfidence index Regression analysis

Dependent variable	(1) DPD	(2) DYR	(3) DPR
Independent variables	***Coef. (Odds ratio)***	***Coef.* (t-value)**	***Coef.* (t-value)**
CEO_OV	.031 (1.031)	-.005 (-2.23) **	-.002 (-0.44)
ROE	.591 (1.806) ***	.004 (2.42) **	-.009 (-2.97) ***
LEV	-.498 (.608) ***	-.009 (-6.53) ***	-.013 (-4.63) ***
SIZE	1.276 (3.584) ***	.018 (5.96) ***	.019 (3.24) ***
COVID	.179 (1.196)	-.001 (-0.32)	-.002 (-0.36)
Constant	-11.266 (0) ***	-.129 (-4.62) ***	-.099 (-1.77) *
Obs.	355	355	355
Pseudo-R^2	0.118***	-	-
Goodness of fit (Prob>chi2)	363.35 (0.2383)	-	-
Industry and year effects	Yes	Yes	Yes
Wald X^2	-	62.170***	50.872***

Note: ****Significance at p-value<0.01, ** Significance at p-value<0.05, * Significance at p-value<0.1 levels*

Table (5): CEOs' Overconfidence index subcomponents Regression analysis

Dependent variable	(1) DPD	(2) DYR	(3) DPR
Independent variables	***Coef. (Odds ratio)***	***Coef.* (t-value)**	***Coef.* (t-value)**
AssetsGrowth	.293 (1.34)	-.013 (-3.39) ***	-.001 (-0.18)
CAPEX	-.166 (.847)	0 (0.11)	-.003 (-0.41)
ROE	.62 (1.859) ***	.003 (2.08) **	-.009 (-2.93) ***
LEV	-.522 (.594) ***	-.009 (-6.18) ***	-.014 (-4.61) ***
SIZE	1.262(3.534) ***	.018 (6.17) ***	.019 (3.22) ***
COVID	.212 (1.236)	-.002 (-0.53)	-.002 (-0.35)
Constant	-11.108 (0) ***	-.134 (-4.85) ***	-.098 (-1.75) *
Obs.	355	355	355
Pseudo-R^2	0.120***	-	-
Goodness of fit (Prob>chi2)	364.66 (0.2126)	-	-
Industry and year effects	Yes	Yes	Yes
Wald X^2	-	69.838***	50.888***

Note: ****Significance at p-value<0.01, ** Significance at p-value<0.05, * Significance at p-value<0.1 levels*

Finally, the control variables $ROE_{i,t}$, $LEV_{i,t}$, and $SIZE_{i,t}$ were observed to have significant coefficients in almost all regression models, highlighting the impact of profitability, leverage, and firm size on dividend payout decisions. The acquired results are in accordance with the findings of Adjaoud and Ben-Amar (2010) and Hoang et al. (2020), implying the significance of firm profitability (ROE) and company size (SIZE) as firm-specific indicators, substantially increasing the dividends distributed by ensuring sufficient cash flow for higher dividends. Conversely, conforming to the studies by Jensen and Meckling (1976), Park and Song (2019), and Yan and Ni (2019),

LEV was associated with a negative impact on the CEOs' willingness to pay out dividends, due to the pressure to repay their loans. Moreover, $COVID_{i,t}$ did not report a significant association with all three proxies of dividend policy, thus suggesting that the proposed model is not affected by the coronavirus pandemic.

6. Discussion

CEOs' personality traits, shaped by their previous experiences and personal preferences, profoundly affect the rationality, strategic decisions, and emotional intelligence. Therefore, this paper examines the relationship between CEO personal characteristics and dividend policy, using a sample of Egyptian listed firms over the last five years. According to the upper echelons theory, it is posited that CEO overconfidence can significantly impair their judgment, and hence affect their rationality while making critical decisions, such as those related to dividend distribution.

Therefore, a sample of seventy-one firms listed on EGX100 was examined over the period from 2017 to 2021. The findings indicate the significant contribution of CEO overconfidence to the reduction of cash dividends. This can be attributed to the fact that overconfident CEOs tend to overestimate their ability to select the most profitable investment projects, which are largely financed from internal sources. This is supported by the significant negative relationship between CEO overconfidence and the level of dividend payouts. These results suggest that the CEOs are more inclined to retain the available free cash within the company rather than distribute dividends to the shareholders. However, the proportion of overconfident CEOs in the examined Egyptian companies is relatively low (21.13% of the sample) and does not dominate the board structures.

Prior research depicted CEO overconfidence as a form of opportunistic behavior, reflecting CEOs' tendencies to pursue investment projects that align with their personal preferences while neglecting shareholders' requests for higher dividends.

This study presents several implications. First, regarding Egyptian regulators, the empirical results suggest that standard setters should reconsider the potential impact of CEO overconfidence on dividend policies within Egyptian companies. It may be prudent to issue guidelines or regulations to monitor the CEO's dividend-related decisions, ensuring the alignment of dividend distributions with shareholders' interest. Contrary to prior research, the results of this study indicate that CEO overconfidence in Egyptian companies does not necessarily signal negative or opportunistic behavior; conversely, the reduction in dividends is associated with an increase in new capital investments.

Second, analysing dividends yield and dividends payout ratio separately has provided more a thorough interpretation and valuable insights into the impact of CEO overconfidence on both the level of distributed dividends in relation to the stock price (yield), as well as the level of dividends distributed relative to earnings or profits (payout ratio). This approach provides better visualisation for investors who mainly

rely on dividends for income or who appreciate stable and consistent dividend payments. Therefore, further disclosures in the footnotes regarding CEO's dividend policies are essential to mitigate the CEOs' excessive overconfidence, and constrain the expropriation of shareholders' wealth. Moreover, such disclosures will benefit stakeholders who consider the potential impact of dividend policies on the overall performance of the company and its long-term sustainability.

Third, decomposing the CEO overconfidence index into two proxies, assets growth model and CAPEX model, enhances the insight into the varying effects that different dimensions of CEO overconfidence may demonstrate on dividend policy. Although using an integrated index of CEO overconfidence enables a comprehensive analysis and provides unprecedented insights, particularly in the Egyptian context, this study was limited to only these two proxies. Therefore, future research should consider expanding this index by incorporating additional measures and moderators of CEO overconfidence.

Despite the valuable perspectives concerning the relationship between CEO overconfidence and dividend policy in the context of Egypt, this study has encountered several limitations. First, the small sample size of seventy-one Egyptian firms and the limited time frame, from 2017 to 2021, may restrict the generalizability of the findings to a broader population. To improve the external validity of the results, future research should consider using a larger sample size, extending the time period, or examining multiple markets. Second, the study relies on secondary data from financial statements, which may be prone to measurement errors or biases. Utilizing primary data or conducting interviews with CEOs could provide a more comprehensive understanding of their overconfidence levels and decision-making processes. Third, although this study incorporated key control variables affecting dividend policy, namely leverage, profitability, and firm size, based on their recognized significance in prior literature, future research could explore additional controls, such as firm age, industry type, market-to-book ratio, and liquidity. Finally, the study focuses solely on the association between CEO overconfidence and dividend policy, overlooking other potential factors, such as CEO characteristics, that could influence dividend decisions. Thus, exploring the interplay between CEO characteristics, firm-specific factors, and market conditions could provide a more comprehensive analysis.

References

Abiprayu, K. and Wiratama, B. (2016) 'Does Ceo's hubris affecting dividends payout ?', *Jurnal Dinamika Manajemen*, 7(1), pp. 66–75.

Adjaoud, F. and Ben-Amar, W. (2010) 'Corporate governance and dividend policy: shareholders' protection or expropriation?', *Journal of Business Finance and Accounting*, 37(5–6), pp. 648–667.

Ahmad, L., Yasir, If., Ejaz, S., Baig, W., Nadeem, K. and Shahid, R. (2019) 'Dividend policy and share price volatility: evidence from Pakistan stock exchange of listed commercial banks', *Issues in Economics and Business*, 5(1), pp. 35–44.

Ahmed, A. and Duellman, S. (2013) 'Managerial overconfidence and accounting conservatism', *Journal of Accounting Research*, 51(1), pp. 1–30.

Ali, H. (2022) 'Corporate dividend policy in the time of COVID-19: Evidence from the G-12 countries.', *Finance Research Letters*, (46), p. 102493.

Alqatamin, R., Aribi, Z. and Arun, T. (2017) 'The effect of the CEO's characteristics on EM: Evidence from Jordan', *International Journal of Accounting and Information Management*, 25(3), pp. 356–375.

Anilov, A. (2017) 'Behavioral motives of the payout policy choice: Literature review', *Journal of Corporate Finance Research*, 11(4), pp. 93–112.

Anilov, A. (2019) 'Do Overconfident CEOs Pay More to Shareholders ? Evidence from the US Market', *Journal of Corporate Finance Research*, 13(2), pp. 25–35.

Baker, H. and Ricciardi, V. (2014) 'Traditional and behavioral finance', in *Investor Behavior: The Psychology of Financial Planning and Investing*. Wiley, pp. 25–41.

Banerjee, S., Humphery-jenner, M. and Nanda, V. (2014) 'CEO overconfidence and share repurchases', in *In 26th Australasian Finance and Banking Conference*, pp. 17–19.

Banerjee, S., Humphery-Jenner, M. and Nanda, V. (2013) 'Harnessing CEO overconfidence', *UNSW Australian School of Business Research Paper*.

Banerjee, S., Humphery-Jenner, M. and Nanda, V. (2018) 'Does CEO bias escalate repurchase activity ?', *Journal of Banking and Finance*. Elsevier B.V., 93(93), pp. 105–126.

Benjamin, S., Zain, M. and AbdulWahab, E. (2016) 'Political connections and dividend payouts in Malaysia : the influence of institutional investors', *Pacific Accounting Review*, 28(2), pp. 153–179.

Bhattacharyya, N. (2007) 'Dividend policy: a review', *Managerial Finance*, 33(1), pp. 4–13.

Brennan, N. and Conroy, J. (2013) 'Executive hubris : the case of a bank CEO', *Accounting, Auditing & Accountability Journal*, 26(2), pp. 172–195.

Brunzel, J. (2021) *Overconfidence and narcissism among the upper echelons : a systematic literature review, Management Review Quarterly*. Springer International Publishing.

Burkhard, B., Siren, C., Van Essen, M. and Grichink, D. (2018) 'A meta-analytic approach to understanding the effects of ceo overconfidence on firm performance.', in *Academy of Management Proceedings*. Briarcliff Manor, NY 10510, p. 12894.

Camilleri, S., Grima, L. and Grima, S. (2019) 'The effect of dividend policy on share price volatility : an analysis of Mediterranean banks ' stocks', *Managerial Finance*, 45(2), pp. 348–364.

Cormier, D., Lapointe-antunes, P. and Magnan, M. (2015) 'CEO power and CEO hubris : a prelude to financial misreporting ?', *Management Decision*, 54(2), pp. 522–554.

Deng, M., Ho, J. and Li, S. (2018) *Does managerial risk aversion affect earnings management? evidence from CEO political ideology*, *SSRN*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3177886 (Accessed: 7 February 2022).

Deshmukh, S., Goel, A. and Howe, K. (2013) 'CEO overconfidence and dividend policy', *Journal of Financial Intermediation*. Elsevier Inc., 22(3), pp. 440–463.

Feng, Z., Ghosh, C. and Sirmans, C. F. (2007) 'CEO involvement in director selection: Implications for REIT dividend policy', *Journal of Real Estate Finance and Economics*, 35(4), pp. 385–410.

Field, A. (2013) *Discovering statistics using IBM SPSS statistics*. Fourth.

Gerayli, M., Abdoli, M., Valiyan, H. and Damavandi, A. (2021) 'Managerial overconfidence and internal control weaknesses: evidence from Iranian firms', *Accounting Research Journal*, pp. 6–19.

Gervais, S., Odean, T. and Odean, T. (2002) *The positive role of overconfidence and optimism in investment policy*. The Wharton School, University of Pennsylvania.

Gujarati, D. and Porter, D. (2022) *Basic econometrics*. Fifth, *Introductory Econometrics: A Practical Approach*. Fifth. Prentice Hall.

Hair, J., Black, W., Babin, B. and Anderson, R. (2018) *Multivariate Data Analysis*. Eighth. Cengage.

Hambrick, D. C. (2007) 'Editor ' s forum upper echelons theory : an update', *Academy of Managment Review*, 32(2), pp. 334–343.

Hambrick, D. and Mason, P. (1984) 'Upper Echelons : the Organization as a reflection of its top managers', *The Academy of management review*, 9(2), pp. 193–206.

Harymawan, I., Lam, B., Nasih, M. and Rumayya, R. (2019) 'Political connections and stock price crash risk: Empirical evidence from the fall of Suharto', *International Journal of Financial Studies*, 7(3), pp. 1–16.

Hayward, M. L. A. and Hambrick, D. C. (2013) 'Explaining the Premiums Paid for Large Acquisitions : Evidence of CEO Hubris', 42(1), pp. 103–127.

Hoang, L., Dang, D. and Tran, T. (2020) 'The role of overconfident CEO to dividend policy in industrial enterprises', *Journal of Asian Finance, Economics and Business*, 7(7), pp. 361–367.

Hribar, P. and Yang, H. (2016) 'CEO Overconfidence and Management Forecasting', *Contemporary accounting research*, 33(1), pp. 204–227.

Huang-Meier, W., Lambertides, N. and Steeley, J. M. (2016) 'Motives for corporate cash holdings: the CEO optimism effect', *Review of Quantitative Finance and Accounting*, 47(3), pp. 699–732.

Hwang, H., Kim, H. and Kim, T. (2018) 'The blind power : power-driven CEO overconfidence and M&A decision making', *International Review of Economics & Finance*, 58, pp. 49–64.

Ibrahim, Y. (2017) 'Review of relationship between dividend policy and price volatility', *Journal of Advanced Review on Scientific Research*, 32(1), pp. 1–12.

Ishikawa, M. and Takahashi, H. (2010) 'Overconfident managers and external financing choice', *Review of Behavioral Finance*, 2(1), pp. 37–58.

Ismail, R. A., Zaki, O. and Abou-el-sood, H. (2022) 'Executives ' narcissism and decision making: reviewing 20 years of accounting literature', *Jounral of Humanities and Applied Social Sciences*, (ahead-of-publishing).

Ismail, T. and Shehata, N. (2012) 'Disclosure Practices In Egypt: What Are Factors Beyond The Low Level?', *International Journal of Economics and Accounting*, 3(3/4), p. 264.

James, H. and Wang, H. (2021) 'Independent director tenure and dividends', *Journal of Business, Finance, and Accounting*, (November 2017), pp. 1057–1091.

Jensen, M. (1986) 'Agency costs of free cash flow, corporate finance, and takeovers', *The American economic review*, 76(2), pp. 323–329.

Jensen, M. and Meckling, W. (1976) 'Theory of the Firm: Managerial', *Journal of Financial Economics*, 3, pp. 305–360.

Jlassi, M., Naoui, K. and Mansour, W. (2014) 'Overconfidence behavior and dynamic market volatility : evidence from international data', *Procedia Economics and Finance*, 13, pp. 128–142.

Khajavi, S. and Dehghani, G. (2016) 'Board characteristics and managerial overconfidence in an emerging market', *International Journal of Economics and Financial Issues*, 6(2), pp. 529–537.

Kim, J., Wang, Z. and Zhang, L. (2016) 'CEO overconfidence and stock price crash risk', *Contemporary Accounting Research*, 33(4), pp. 1720–1749.

Lai, J., Lin, W. and Chen, L. (2017) 'The influence of CEO overconfidence on ownership choice in foreign market entry decisions', *International Business Review*, 26(4), pp. 774–785.

Lu, C.-S. (2016) 'Management ownership and dividend policy : The role of managerial overconfidence', *Zhongsan Management Review*, 32(2), pp. 591–629.

Malmendier, U. and Tate, G. (2005a) 'CEO overconfidence and corporate investment', *The journal of finance*, 60(6), pp. 2661–2700.

Malmendier, U. and Tate, G. (2005b) 'Does Overconfidence Affect Corporate Investment ? CEO Overconfidence Measures Revisited', *European Financial Management*, 11(5), pp. 649–659.

Malmendier, U. and Tate, G. (2008) 'Who makes acquisitions? CEO overconfidence and the market's reaction', *Journal of financial Economics*, 89(1), pp. 20–43.

Malmendier, U. and Tate, G. (2015) 'Behavioral CEOs: The role of managerial overconfidence', *Journal of Economic Perspectives*, 29(4), pp. 37–60.

Malmendier, U., Tate, G. A. and Yan, J. (2011) 'Overconfidence and early-life experiences: The impact of managerial traits on corporate financial policies', *The Journal of Finance*, 66(5), pp. 7-.

Malmendier, U., Tate, G. and Yan, J. (2007) 'Corporate Financial Policies With Overconfident Managers', *National Bureau of Economic Research*.

Marwan, M. (2018) 'Managerial behavior and capital structure decisions ; do overconfidence , optimism and risk aversion', *Asian Economic and Financial Review*, 8(7), pp. 925–945.

Miller, M. and Modigliani, F. (1961) 'Dividend policy, growth, and the valuation of shares', *The Journal of Business*, 34(4), pp. 411–433.

Mitra, S., Jaggi, B. and Al-Hayale, T. (2019) 'Managerial overconfidence, ability, firm-governance and audit fees', *Review of Quantitative Finance and Accounting*. Springer US, 52(3), pp. 841–870.

Nguyen, D., To, T., Nguyen, D. and Do, H. (2021) 'Managerial Overconfidence and Dividend Policy in Vietnamese Enterprises', *Cogent Economics and Finance*. Cogent, 9(1), pp. 1885195–1885208.

Nguyen, T. and Bui, P. (2019) 'Dividend policy and earnings quality in Vietnam', *Journal of Asian Business and Economic Studies*, 26(2), pp. 301–312.

Olsen, K., Dworkis, K. and Young, S. (2014) 'CEO narcissim and accounting: a picture of profits', *Journal of Management Accounting Research*, 26(2), pp. 243–267.

Ormiston, M., Wong, E. and Ha, J. (2021) 'The role of CEO emotional stability and team heterogeneity in shaping the top management team affective tone and firm performance relationship', *Leadership Quarterly*. Elsevier Inc., p. 101543.

Park, S. Y. and Song, Y. (2019) 'The effect of managerial ability on a firm's dividend policy: Evidence from Korea', *International Journal of Entrepreneurship*, 23(1).

Plöckinger, M., Aschauer, E., Hiebl, M. R. W. and Rohatschek, R. (2016) 'The influence of individual executives on corporate fi nancial reporting : A review and outlook from the perspective of upper echelons theory', *Integrative Medicine Research*, 37, pp. 55–75.

Qi, B., Lin, J., Tian, G. and Lewis, H. (2018) 'The impact of top management team characteristics on the choice of earnings management strategies: Evidence from China', *Accounting Horizons*, 32(1), pp. 143–164.

Rehman, O. U. (2016) 'Impact of capital structure and dividend policy on firm value', *Journal of Poverty, Investment and Development*, 21(2006), pp. 40–57.

Schrand, C. M. and Zechman, S. L. C. (2012) 'Executive overconfidence and the slippery slope to financial misreporting', *Journal of Accounting and Economics*. Elsevier, 53(1–2), pp. 311–329.

Shah, S., Xinping, X., Khan, M. and Harjan, S. (2018) 'Investor and manager overconfidence bias and firm value: micro-level evidence from Pakistan equity market', *International Journal of Economics and Financial Issues*, 8(5), pp. 190–199.

Shehata, N. (2021) 'Board National Diversity and Dividend Policy : Evidence from Egyptian listed companies', *Finance Research Letters*. Elsevier Inc., (February), p. 102132.

Shen, Y. (2021) 'CEO characteristics : a review of influential publications and a research agenda', *Accounting and Finance*, 61(1), pp. 361–385.

Sutrisno, P. and Karmudiandri, A. (2020) 'CEO overconfidence, founder & restatement of financial reporting', *Journal of Business, Economics, and Law*, 23(1), pp. 192–198.

Vinh, N. (2020) 'Impact of overconfident ceo on dividend policy: evidence in enterprises listed on hose of Vietnam', *Academy of Entrepreneurship Journal*, 26(1), pp. 1–8.

Wincent, J. and Westerberg, M. (2005) 'Personal traits of CEOs, inter-firm networking and entrepreneurship in their firms: investigating strategic sme network participants', *Journal of Developmental Entrepreneurship*, 10(03), pp. 271–284.

Wu, C. and Liu, V. (2011) *Payout policy and CEO overconfidence*. Available at: http://www.bm.nsysu.edu.tw/tutorial/vwliu/nsysu_img/Publish/Seminar/Payout and Overconfidence full text.pdf (Accessed: 11 November 2020).

Yan, Y. and Ni, Q. (2019) *Research on how managerial overconfidence impacts cash dividends policy: case of the US market*. School of Economics and Management, Lund University.

Zaher, A. (2019) 'The effect of managerial overconfidence on accruals-based and real-activities earnings management: Evidence from Egypt', *Academy of Accounting and Financial Studies Journal*, 23(4), pp. 1–15.