The Association between Impression Management and Financial Performance in the Boards of Directors’ Annual Reports for Egyptian listed companies: The Moderating Effect of the CEO’s Power

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Abstract

This study extends the previous study about the disclosure narrative field through examining the bidirectional association between Disclosure Tone (DT) and Financial Performance (FP) in respect of the Egyptian EGX 100 listed companies during the period from 2013 to 2017. Further, this study seeks to explore the expected effect of the CEO’s power on the association between DT and FP in the Egyptian context. This study ran twelve Ordinary Least Square (OLS) models to test the research hypotheses. Further, it calculated the number of the statements, related to the disclosure tone in the board of directors’ annual reports, through manual analysis of their content. In addition, this study used Tobin’s Q method to measure FP. CEO power was captured by using an aggregated index which included six CEO power variables in the Egyptian environment.

The findings reveal that there is a bidirectional relationship between DT and FP. Moreover, CEO power has a significant effect on the association between DT and FP. Due to few studies having examined the bidirectional between DT and FP in the developing countries, this study contributes to the accounting field by examining such a construct in the Egyptian context.

Keywords – Disclosure Tone (DT); Egypt; Financial Performance (FP); CEO power; Narrative disclosure
1. Introduction

The disclosure of information represents an essential requirement for many stakeholders due to its crucial role in the efficient allocation of scarce resources in the capital market (Healy and Palepu, 2001). Companies seek to share the information that influences on the stakeholders’ behaviours. Stakeholders depend mainly on the disclosed information to make their rational decisions and these may be influenced if the companies disclose insufficient information.

One of the main sources for disclosing useful information is the corporate report which is used to present the past, current and future information about firm performance. Therefore, the disclosed information may impact on the companies’ performance. In this context, narrative disclosure represents a useful means that provides valuable information to various stakeholders. Accounting narratives are relatively new phenomena that constitute a key component of the annual report (Clatworthy and Jones, 2003). Both quantified and narrative information in the financial statements have the same importance and should be considered equally (AICPA, 1973). Consequently, narrative disclosure in annual reports has increased; this constitutes approximately 80% of the total annual report (Iu and Clowes, 2001; Clatworthy and Jones, 2001; Lo et al., 2017).

However, narrative disclosure is voluntary and is neither regulated nor subject to formal auditing (Henry, 2008). This has increased the concerns about the information disclosed by the companies and the usefulness of such information. Management may use narrative disclosure as a means of portraying their performance in the best light by being selective about the financial disclosure in order to influence
the images held by others and to guarantee their survival and protect their interests (Bolino and Turnley, 1999; Clatworthy and Jones, 2003).

Therefore, a company’s management seek to manipulate the text disclosed by narratives by using Impression Management (IM) strategy which helps them to achieve the required goals. IM can be used by both individuals and organizations as a strategy to manipulate their image by either hyping or depressing the company’s performance and, accordingly, to influences the perceptions and reactions of others (Osma and Saorin, 2011; Huang et al., 2013).

IM strategy is one of the reflections derived from agency problems (i.e. information asymmetry) (Osma and Saorin, 2011). Managers have better information about their company’s performance through which they seek to effect the communication with different users of their reports by conveying certain information about their performance. This creates either positive or negative feelings about the disclosed information and leads shareholders to have either a good or poor impression about the company’s performance.

With regard to the accounting context, managers can apply IM strategy through the narrative disclosure to present their self-serving attitude towards Financial Performance (FP) in order to maximize their own value (Neu et al., 1998). FP is crucial for investors and other stakeholders who depend on the disclosed report to assess the company’s true position (Lambert, 2001). Accordingly, managers can have incentives to distort the stakeholders’ perceptions by either extending the disclosure of positive news or by minimising the
consequences of negative news which is performed by IM strategy (Subramanian et al., 1993).

Consequently, managers can perform IM by using tone management in their narrative disclosure to reflect the company’s required emotions. Recently, there has been increased use of Disclosure Tone (DT) in accounting research as a tool that influences the content disclosed by the companies to their shareholders. Managers can use positive tone to give a good impression about their performance and about their companies’ FP in order to express a good and optimistic view of FP (Krische, 2005; Schrand and Walther, 2000). Further, managers can use visual methods to highlight the good performance and convey this to stakeholders especially when the company suffers from poor performance (Beattie and Jones, 2002; Bowen et al., 2005; Cheng and Courtenay, 2006).

When the company’s performance is good, the management need to signal this situation to their shareholders in order to reflect their improvements and, hence, to increase their own continuing employment. This can be done through increasing the positive disclosure tone and, in turn, this creates a satisfying situation about the company’s performance. In this regard, the company’s management may need to depend on IM strategy in their disclosure when conveying this situation to the stakeholders. This enhances the company’s image and leads to increased confidence in the management. Consequently, the company’s performance has an impact on IM.

On the other hand, when the company’s performance is poor, the management needs to hide this situation from their shareholders by
extending their narrative disclosure. This either explains the situation or puts the failure onto some external factors. In this situation, increasing the narrative disclosure increases the willingness of the company’s management to use IM to enhance the company’s image and not to depict its real situation by disclosing more positive disclosure tone. Therefore, in this situation, also the company’s performance has an impact on IM.

When we consider the other direction, previous studies discussed the use of biased language and tone in the companies’ annual reports. A company’s management can depend on IM strategy to disclose intended information to shareholders in order to influence their decisions about the situation and the company’s performance.

When management use positive DT, they may need to convey a message to their shareholders about the company being in a stable situation. This leads those shareholders to increase their investment in such companies and, hence, to increase these companies’ value and performance. In this situation, by disclosing positive DT, IM leads to the company’s increased performance. However, when the management use negative disclosure tone, they seek to present the current situation to their shareholders in order to present their efforts in dealing with the poor situation and the possibility of recovering quickly from this situation. This may lead shareholders to keep their investments or even increasing them to exploit this situation. Management may depict this poor situation to achieve certain interests such as acquiring more shares to increase their shareholding in the company. In this situation, IM may impact, also, on the company’s FP.
Based on the above discussion, this study’s first objective is to examine the bidirectional association between IM in the board of directors’ annual reports and the FP in the Egyptian context.

According to Psychological theories, the association between two variables depends often on another variable, i.e. moderator variables which are expressed statistically as the interaction variable (Cohen et al., 2003). This study investigates the moderating impact of CEO power on the bidirectional association between IM and company performance.

With regard to the emerging market, the CEO’s attitude represents a main determinant of company performance (Abbas 2010). CEO power refers to his/her ability to dominant and to influence the decisions of the other members of the board of directors in shaping the company’s desired strategy (Malekzadeh et al., 1998; Pathan, 2008). Therefore, the CEO has the power to influence the company’s strategic decisions and, hence, has a significant consequence on the company’s FP (Nanda et al., 2013).

On the one hand, the CEO can use IM strategy to influence on the company’s FP by impacting on the board of directors’ decisions to achieve certain interests such as increasing the CEO’s position within the company’s structure due to his/her efforts in increasing the company’s FP and increasing its value in the market and, in turn, increases the CEO’s ownership of shares. Consequently, such developments are expected to have an impact on the interaction between IM and CEO power on FP.

On the other hand, CEOs can signal the good performance of their companies to reflect their successes in managing these companies.
These may increase their rewards and compensations as well as guarantee them being on the board of directors for a long time. Therefore, the CEO exploits the company’s good FP and announces this FP to investors. In turn, this leads to the increased IM strategy by increasing positive DT. As a result, this is expected to have an impact on the IM strategy based on the interaction between FP and COE power.

Accordingly, this study’s second objective is to examine the moderating impact of CEO power on the bidirectional association between IM strategy and FP in the Egyptian context.

The Egyptian environment has many characteristics which motivates the conducting this study. First, the Egyptian Government’s steps to maintain and improve the structure of preparing financial reports increased the motivation to study the narrative disclosure of such reporting (Elsayed and Hoque, 2010). In addition, the regulatory steps, undertaken to attract foreign investors, increased the importance of investigating the Egyptian environment. Second, the Egyptian environment has witnessed many economic and political changes over the last ten years which may have impacted on the accounting profession generally and, more specifically, on the narrative disclosure (Aly, 2018). Third, there are lack of narrative disclosure studies conducted in the developing countries. Further, as measured by disclosure tone, such countries have paid little attention to IM strategy and this has increased, also, the motivation to conduct this study.

This study contributes to the existing literature in many ways. First, there is a paucity in the studies that examined the IM strategy – and DT as a measure of IM- in the developing countries. Most studies,
which discussed this strategy, applied to the developed countries. Few studies explored DT in the developing countries and, more specifically, in Egypt (e.g. Aly et al. 2018). Second, the previous studies of either developed or developing countries did not consider widely the bidirectional association between IM strategy and company FP. Although Aly et al. (2018) investigated such an association, this study focuses mainly on IM strategy. In addition, this study uses different measures of company FP to those used by Aly et al. (2018). Third, unlike the previous studies, which to a large extent did not do so, this study examines the moderating effect of CEO power on the bidirectional association between IM strategy and company FP.

The rest of the paper is organized as follows. Section 2 introduces the theoretical framework; discusses briefly the previous literature and the formulation of the hypotheses. Section 3 presents the research methodology. Section 4 discusses the empirical findings and Section 5 presents the conclusions.

2. Theoretical framework, literature review and hypotheses formulation

IM strategy can be defined as “the various ways in which people seek to influence the impressions formed by others” (Oxford Dictionary, University Press, 2011). Clatworth and Jones, (2001) define IM strategy as an attempt to make an illusion of the impression received by the users of accounting information through the communication with the company. Accordingly, a company’s management can use IM strategy to influence through narrative disclosure their shareholders’ attitudes regarding the company’s FP.
This is characterised by voluntary disclosure and unaudited procedures that make it easy to shape the disclosed text.

Previous studies examined the IM strategy in the accounting field. Many studies investigated the application of different IM methods in different aspects such as: corporate governance (Osma and Saorin, 2011); dissimulation behaviour of information in discretionairy narrative disclosure (Brennan and Merkl-Davies, 2013; Leung et al., 2015); dissemination by using social media (Merkl-Davies and Brennan, 2007; Yang and Liu, 2017); narrative disclosure in the annual reports of Private Finance imitative (Edgar et al., 2018); disclosure creditability (Rahman, 2012); and creation of an overall measure to evaluate IM (Brennan et al., 2009). However, few studies examined the bidirectional association between IM and FP. Consequently, this study aims to investigate this relationship.

Through IM strategy, the company’s management can influence the impression of shareholders by either obfuscating negative company’s news in order to influence the reader’s impression through attributing to the external environment the reasons for this bad situation or, hyping the positive news to its shareholders when the company achieves good performance in order to portray the company in the best light (Carlsson and Sorenson, 2015). Consequently, a company’s performance of IM strategy may result in fallacious decisions and the misallocation of resources (Brennan & Merkl-Davies, 2013).

Different types of IM, such as reporting bias and self-serving bias, are performed in the narrative disclosure. Both reporting bias and self-serving bias are expected to have an impact on the company’s FP. With regard to the reporting bias (Economical perspective of IM), the
company’s management can use IM to influence the shareholders’ perceptions about its FP. Due to agency theory, there is a conflict between management and shareholders which results in the information asymmetry problem. Therefore, the company’s management behave opportunistically and seek to manipulate the impression embedded in the narratives through either emphasising positive DT or obfuscating negative DT to influence the company’s FP (Brennan & Merkl-Davies, 2013).

In addition, the self-serving bias, which relates to the psychological perspective, extends the scope of IM to include the social relationship. Based on self-serving bias, the management attribute the company’s good FP to the internal factors resulting from their good management and blame the poor FP on the external factors, such as community and political factors, which result from the external environment (Aerts and Cheng, 2011). Consequently, through self-serving bias, the company’s management depends on IM strategy to influence the company’s FP.

Empirical studies argue the need to extend disclosure to reduce the cost of the company’s capital and, hence, to increase its FP (Hassan et al., 2009). Managers maximise the company’s performance through increasing the level of narrative disclosure; in turn, this affects the company’s share price and value. Lev and Penman (1990) support this idea and introduce empirical evidence supporting the impact of increasing good news disclosure on reducing information asymmetry and the cost of capital. Further, good and bad news is associated with the abnormal return at the time of an earnings announcement (Francis et al., 2002)
Managers looking forward to maximise their shareholders’ wealth are more likely to use IM strategy to disclose news that increases the company’s performance. Athanasakou and Hussainey (2014) demonstrate the impact of narrative disclosure on future earnings through reducing market uncertainty which, in turn, leads to increasing the credibility of financial statements.

Ayers et al., (2011) state that the disclosure of good news leads to increased trading activities which, after the announcement, increases the company’s share price. In this vein, Ke and Ramalingegowda (2005) state that ownership increases following the disclosure of good news. However, Hirshleifer et al.’s (2008) findings show that good news results in the company’s shares being under-priced whereas bad news leads to the company’s shares being over-priced. Further, Skinner (1994) argues the implications of both good and bad news disclosure. He mentions that while good news disclosure relates to annual earnings per share, bad news disclosure is more likely related to the quarterly earnings in the current period. In addition, the results indicate that rather than good news disclosure, bad news disclosure is more likely to impact on the company’s share price.

Based on the agency theory, there is a conflict between the management and the shareholders results in information asymmetry problem. This can be mitigated by increasing the level of disclosure. The level of disclosure can be increased through the disclosure tone which encourages management to apply IM strategy to influence the company’s FP. The company’s management applies IM strategy through extending positive disclosure tone to avoid either the company’s shares being undervalued or to maximise the share price which, in turn, increase the value of the company’s performance. In
addition, the company’s management can apply IM strategy through disclosing negative tone to achieve certain interests such as influencing the company’s share price. This enables the management to obtain these shares at a minimum price and increase their ownership of the company.

Therefore, in this situation, IM strategy –either by disclosing positive or negative tone- influences the company’s financial performance. Accordingly, the first main hypothesis is:

**H1:** IM has a significant impact on FP.

This study investigates the two types of IM (i.e. positive and negative DT). Therefore, the first hypothesis is subdivided into the following three sub- hypotheses:

**H1a:** Positive disclosure tone has a significant impact on FP.

**H1b:** Negative disclosure tone has a significant impact on FP.

**H1c:** Net disclosure tone has a significant impact on FP.

This study seeks to investigate the bidirectional association between FP and IM. With regard to FP’s impact on IM strategy, agency theory assumes that managers of a profitable company increase its disclosure level to strengthen their success in managing the company. This represents a good indicator for the shareholders of the management’s abilities (Aly *et al.*, 2018). Managers use opportunistically the advantage of holding information and the discretionary nature of disclosure to achieve personal benefits through applying IM strategy (Schleicher and Walker, 2010). Therefore, by disclosing more positive DT a company with good FP is motivated to apply a positive impression to attract different investors. However, a
company with poor FP is more likely to disclose a less positive DT in order to conceal this poor FP.

In addition, according to signaling theory, a company’s management with good FP needs to signal this performance to its shareholders in order to keep its position and to boost their financial rewards by applying positive IM (Oyeler et al., 2003). Miller’s (2002) findings show that there is a positive association between earnings performance and disclosure of information. That study provides evidence that disclosure of information increases during the period of increased earnings performance and, also, reduces during the period of declining earnings.

Further, Clatworthy and Jones (2003) examined the chairman’s narratives of 100 UK listed firms ranked by percentage change in profits before taxation. After classifying the companies into two main groups namely, those with improving and those with declining FP, their findings demonstrate that both groups of company tend to disclose a positive tone when announcing good news about themselves while blaming external factors for the bad news. In general, companies with good FP disclose a positive tone more than a negative one.

Clarkson et al., (2008) revisited the association between environmental performance and disclosure for a sample of 191 firms from the five most polluting industries in the US. The results reveal a positive association between environmental performance and disclosure of information.

In addition, Schleicher and Walker’s (2010) findings indicate that companies with good FP want to signal their good situations by
disclosing more positive DT in order to increase their current market values. However, companies with poor FP are either silent or disclose a negative tone due to their legal liabilities and to differentiate themselves from other companies that have worse news. The results indicate that firms with poor FP bias the DT and disclose a more positive DT.

Accordingly, based on the above discussion, companies with good FP are more likely to engage in IM strategy by disclosing a more DT. On the other hand, companies with poor FP prefer to either disclose a less positive DT or to disclose a negative DT to explain the reasons for their poor FP and to blame external factors for this situation.

Therefore, in this situation, FP - either good or poor- influences IM strategy –by disclosing either a positive or a negative DT. Accordingly, this study’s second hypothesis is:

**H2: FP has a significant impact on IM.**

The second hypothesis is subdivided into the following three sub-hypotheses:

**H2a: FP has a significant impact on positive disclosure tone.**

**H2b: FP has a significant impact on negative disclosure tone.**

**H2c: FP has a significant impact on net disclosure tone.**

CEO power is expected to impact on the association between FP and IM strategy. Power refers to ‘the capacity of individuals to exert their will’ (Finkelstein 1992). According to upper echelons theory, the FP of any organisation can be affected by the characteristics of powerful actors e.g. the CEO (Carpenter *et al.*, 2004). Power enables
the CEO to have greater access to and more control of the various resources that have a significant effect on the company’s FP.

According to agency theory, the possession of power increases the CEO’s intention to be self-serving, risk averse and to take actions that are consistent with his/her personal goals to maximise his/her wealth rather than that of the shareholders. Hence, this affects the company’s FP. The CEO may influence the company’s FP through IM in order to gain some benefits such as increasing his/her ownership of the company due to the increase in the company’s FP.

Therefore, due to his/her power and controlling role of the other members of the board of directors, the CEO can use IM strategy by disclosing more positive news to influence the company’s FP and its share price. Hence, such actions increase the CEO’s ownership of the company. Consequently, such actions are expected to have an impact on the interaction between IM and CEO power on FP. Adams et al.’s (2005) findings demonstrate that the interaction between executive characteristics and organisational variables has importance consequences on firm performance.

On the other side, based on signalling theory, the CEO signals the company’s good FP to shareholders through increasing the positive DT. CEO power can influence the DT arising from the CEO’s authority to appoint directors and officers who share the same style and preferences. This guarantees their loyalty and allows the CEO to exercise more power on reporting judgement and disclosure decisions (DeBoskey et al., 2019).

CEO power can increase IM through increasing the company’s FP arising from the CEO’s impact on the board of directors in achieving
certain interests such as reflecting their good management and guaranteeing that they will sit on the board of directors for a long time. Therefore, the CEO exploits the company’s good FP and, from announcing this performance to investors, this leads to more positive DT. Consequently, this is expected to have an impact on the interaction between FP and COE power on IM.

Based on the above arguments, it is expected to have a moderating effect for CEO power in terms of the association between FP and IM strategy. Consequently, this study’s third hypothesis is:

**H₃**: CEO power has a moderating effect on the impact of IM on FP

This hypothesis is subdivided into the following three sub-hypotheses:

- **H₃ₐ**: CEO power has a moderating effect on the impact of positive disclosure tone on FP.
- **H₃ₖ**: CEO power has a moderating effect on the impact of negative disclosure tone on FP.
- **H₃ₖₖ**: CEO power has a moderating effect on the impact of net disclosure tone on FP.

Further, this study’s fourth hypothesis is:

**H₄**: CEO power has a moderating effect on the impact of FP on IM

This hypothesis is subdivided into the following three sub-hypotheses:
H_{4a}: CEO power has a moderating effect on the impact of FP on positive disclosure tone.

H_{4b}: CEO power has a moderating effect on the impact of FP on negative disclosure tone.

H_{4c}: CEO power has a moderating effect on the impact of FP on net disclosure tone.

3. Methodology

3.1 Sample

This study depends on the board of directors’ annual report as a unit of analysis in order to obtain the positive and negative DT which are used to measure IM strategy. The initial sample consists of the EGX 100 listed companies and covers the period from 2013 to 2017. I obtained all the data, used in this study’s analysis, of from two main sources. The first is the Egypt for Information Dissemination (EGID) database which represents the official source for obtaining data in Egypt. The second is the listed companies’ websites. Some observations were unavailable and, therefore, they are excluded from the analysis. In addition, some of the sampled companies are listed after the study period and this resulted in inequality in the observations related to the study period. The final sample’s results consist of 445 observations. Table 1 presents the initial and final samples.
Table 1: The initial and final sample

<table>
<thead>
<tr>
<th>Description</th>
<th>Number of observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial sample (95 Companies *5 years)</td>
<td>475</td>
</tr>
<tr>
<td>Plus: some listed companies after the study period</td>
<td></td>
</tr>
<tr>
<td>(1 company * 4 years)</td>
<td>4</td>
</tr>
<tr>
<td>(3 companies * 3 years)</td>
<td>9</td>
</tr>
<tr>
<td>1 company * 2 years</td>
<td>2</td>
</tr>
<tr>
<td>Less: unavailable board reports</td>
<td>(45)</td>
</tr>
<tr>
<td>Final Size</td>
<td>445</td>
</tr>
</tbody>
</table>

3.2 Research design

3.2.1 Measurement of IM strategy

As a unit of analysis, this study uses the annual board of directors’ reports which are written in Arabic. In order to determine DT and to measure IM strategy, this study used the manual content analysis. It measures DT by applying the meaning oriented approach which, as units of measurement, depends on the number of statements in the board of directors’ annual reports (Rodrigue et al., 2015; Melloni et al., 2016; Aly et al., 2018). This approach guaranteed the concentration on the meaning of the statements rather than only coding the words, which helped to interpret and count the number of positive and negative statements (Clatworth and Jones, 2003).

Accordingly, this study classifies the statements in the board of directors’ annual reports as positive (optimistic) and negative (pessimistic) if they suggested good or bad news to both the company and the environment in which it operated (Gray et al., 1995; Clatworth and Jones, 2003; Rodrigue et al., 2015; Melloni et al., 2016).
Following Aly et al., (2018), this study calculates the DT index by subtracting bad news statements from good news statements.

### 3.2.2 Measurement of financial performance and control variables

This study uses Tobin’s Q measurement to capture FP (Adams et al., 2005; Emdadul et al., 2013; Veprauskaite and Adams, 2013). Tobin’s Q is a more stable measure of performance than either Return on Earnings (ROE) or Return On Assets (ROA) (Watson and Head, 2004). Tobin’s Q can be calculated as follows:

\[
\text{Tobin’s Q} = \frac{(\text{MVE} + \text{Debt})}{\text{BVE}}
\]

Where:

- **MVE** = the market value of the equity (the number of outstanding shares at the end of year times the closing price of the shares for the same period).
- **Debt** = the book value of total debt (book value of total assets less the book value of equity).
- **BVE** = the book value of total assets

Based on the previous studies, this study included the following six control variables: company size (Keusch et al., 2012; Huang et al., 2014); leverage (Davis et al., 2012; Koo, 2015); audit size (Francis, 2014; Rich et al., 2018); company age (Kim and Lu, 2011; Bebchuk et al., 2011); company growth (Wu et al., 2011; Arena et al., 2015); and industry type (Cho et al., 2010; Melloni et al., 2016).

### 3.2.3 Measurement of moderator variable

This study aims to examine the impact of CEO power as a moderator variable on the association between financial performance
and IM. Previous studies use many different proxies for CEO power. For example, these are CEO tenure (Hazarika et al., 2012; Deboskey et al., 2019), CEO duality (Osma and Saorín, 2011; Ginesti et al., 2017), CEO ownership (Wu et al., 2011; Veprauskaite and Adams 2013; Arslan-Ayaydın et al., 2016), CEO sole insider (Pathan, 2009; Liu and Jiraporn, 2010), CEO founder (Adams et al., 2005; Adams et al., 2009; Fahlenbrach, 2009), CEO family member (Mutakin et al., 2018), CEO expert and prestige (Finkelstein, 1992; Wu et al., 2011; Larcker and Tayan, 2012) and CEO remuneration (Grinstein and Hribar 2004; Florackis and Ozkan 2009; Jiraporn and Chintrakarn 2013).

No single proxy can include all the aspects of CEO power. Therefore, when measuring CEO power, this study follows the approach taken by Wu et al. (2011); Veprauskaite and Adams (2013); Koo (2015); and Mutakin et al. (2018). They depend on aggregate index for the possible components of CEO power. According to the Egyptian environment and due to the limitation of the data, this study measures CEO power by aggregated index. This includes the following six components of power:

First, CEO tenure indicates the number of years that the CEO has managed the company. A dummy variable is used to measure CEO tenure which has equal value of one if the CEO tenure is above the median value and zero otherwise.

Second, CEO duality occurs when the CEO is, also, the chairman of the board of directors. A dummy variable is used to measure CEO duality which has equal value of one if the CEO is the same person as the chairman and zero otherwise.
Third, CEO ownership refers to the number of shares held by the CEO. A dummy variable is used to measure CEO ownership which has equal value of one if the CEO ownership is above the median value of the ownership and zero otherwise.

Fourth, CEO sole insider happens when CEO is the only executive member on the board of directors. A dummy variable is used to measure CEO sole insider which has equal value of one if the CEO is the only insider on the board and zero otherwise.

Fifth, CEO founder occurs when the CEO is one of the main founders or co-founders of the company. A dummy variable is used to measure CEO founder insider which has equal value of one if the CEO is a founder or co-founder of the company and zero otherwise.

Sixth, CEO family member indicates whether or not the CEO is one of the family members on the board of directors. A dummy variable is used to measure CEO family member which has equal value of one if the CEO is a family member and zero otherwise.

Accordingly, an index of six dimensions of CEO power is calculated with a minimum value of zero and a maximum value of six. In order to calculate the final index of CEO power, this study captures the average of the six variables (Wu et al., 2011; Muttakin et al., 2018). Table 2 summarizes the proxies of all the study’s variables.

**Table 2: The variable definitions and their proxies**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Acronym</th>
<th>Proxy</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Dependent and independent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Disclosure Tone</td>
<td>PDT</td>
<td>No. of positive statements</td>
</tr>
<tr>
<td>Negative Disclosure Tone</td>
<td>GDT</td>
<td>No. of negative statements</td>
</tr>
<tr>
<td>Net Disclosure Tone</td>
<td>NDT</td>
<td>Net statements (positive - negative)</td>
</tr>
<tr>
<td>Financial performance</td>
<td>FP</td>
<td>Tobin’s Q (TQ) = (MVE +Debt) / BVE</td>
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<tr>
<td>-----------------------</td>
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<td>----------------------------------</td>
</tr>
<tr>
<td><strong>(B) Moderator variable</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>CEO power variables:</strong></td>
<td>CEOP</td>
<td>The average of six CEO power variables</td>
</tr>
<tr>
<td>CEO tenure</td>
<td>Tenure</td>
<td>Dummy variable equal to 1 if the tenure is above the median value, 0 otherwise</td>
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<tr>
<td>CEO Duality</td>
<td>CEO D</td>
<td>Dummy variable equal to 1 if the chairman is the same person as the CEO, 0 otherwise</td>
</tr>
<tr>
<td>CEO ownership</td>
<td>CEO Own</td>
<td>Dummy variable equal to 1 if the CEO ownership is above the median value of the ownership, 0 otherwise</td>
</tr>
<tr>
<td>CEO sole insider</td>
<td>CEO Ins</td>
<td>Dummy variable equal to 1 if the CEO is the only insider in the board, 0 otherwise</td>
</tr>
<tr>
<td>CEO founder</td>
<td>CEO Fod</td>
<td>Dummy variable equal to 1 if the CEO is a founder or co-founder of the company, 0 otherwise</td>
</tr>
<tr>
<td>CEO family</td>
<td>CEO Fam</td>
<td>Dummy variable equal to 1 if the CEO is a family member, 0 otherwise</td>
</tr>
<tr>
<td><strong>(C) Control variables:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>size</td>
<td>Natural logarithm of total assets</td>
</tr>
<tr>
<td>Risk</td>
<td>Lev</td>
<td>Total liabilities deflated by total equity</td>
</tr>
<tr>
<td>Audit Size</td>
<td>Audit</td>
<td>Dummy variable equal to 1 if the company audited by Big 4 audit firm, 0 otherwise</td>
</tr>
<tr>
<td>Company Age</td>
<td>Age</td>
<td>Number of years since listed in EGX</td>
</tr>
<tr>
<td>Company Growth</td>
<td>Growth</td>
<td>Market /Book ratio</td>
</tr>
<tr>
<td>Industry Type</td>
<td>Type</td>
<td>Dummy variable equal to 1 if the company belongs to financial and banks sectors, 0 otherwise</td>
</tr>
</tbody>
</table>
3.2.4 Research model

This study applies twelve Ordinary Least Square (OLS) models to test the hypotheses. **First**, in order to test the impact of IM on FP, the three models are as follows:

\[
TQ = \beta_0 + \beta_1 \text{PDT} + \beta_2 \text{Size} + \beta_3 \text{Lev} + \beta_4 \text{Audit} + \beta_5 \text{Age} + \beta_6 \text{Growth} \\
+ \beta_7 \text{Type} + \epsilon
\]  
(1)

\[
TQ = \beta_0 + \beta_1 \text{GDT} + \beta_2 \text{Size} + \beta_3 \text{Lev} + \beta_4 \text{Audit} + \beta_5 \text{Age} + \beta_6 \text{Growth} \\
+ \beta_7 \text{Type} + \epsilon
\]  
(2)

\[
TQ = \beta_0 + \beta_1 \text{NDT} + \beta_2 \text{Size} + \beta_3 \text{Lev} + \beta_4 \text{Audit} + \beta_5 \text{Age} + \beta_6 \text{Growth} \\
+ \beta_7 \text{Type} + \epsilon
\]  
(3)

Where:

\[
TQ = \text{Tobin’s Q}; \text{PDT} = \text{positive disclosure tone}; \text{GDT} = \text{negative disclosure tone}; \text{NDT} = \text{net disclosure tone}; \text{Size} = \text{company size}; \text{Lev} = \text{leverage}; \text{Audit} = \text{audit type}; \text{Age} = \text{company age}; \text{Growth} = \text{Company growth}; \text{Type} = \text{industry type}.
\]

**Second**, in order to test the effect of CEO power on the impact of IM on FP, this study runs the following three models:

\[
TQ = \beta_0 + \beta_1 \text{PDT} + \beta_2 \text{CEO} + \beta_3 \text{PDT} \times \text{CEO} + \beta_4 \text{Size} + \beta_5 \text{Lev} + \beta_6 \text{Audit} + \beta_7 \text{Age} + \beta_8 \text{Growth} + \beta_9 \text{Type} + \epsilon
\]  
(4)

\[
TQ = \beta_0 + \beta_1 \text{GDT} + \beta_2 \text{CEO} + \beta_3 \text{GDT} \times \text{CEO} + \beta_4 \text{Size} + \beta_5 \text{Lev} + \beta_6 \text{Audit} + \beta_7 \text{Age} + \beta_8 \text{Growth} + \beta_9 \text{Type} + \epsilon
\]  
(5)

\[
TQ = \beta_0 + \beta_1 \text{NDT} + \beta_2 \text{CEO} + \beta_3 \text{NDT} \times \text{CEO} + \beta_4 \text{Size} + \beta_5 \text{Lev} + \beta_6 \text{Audit} + \beta_7 \text{Age} + \beta_8 \text{Growth} + \beta_9 \text{Type} + \epsilon
\]  
(6)

Where:
CEOP = CEO power; PDT * CEOP = the interaction between positive disclosure tone and CEO power; GDT * CEOP = the interaction between negative disclosure tone and CEO power; NDT * CEOP = the interaction between net disclosure tone and CEO power.

Third, in order to test the impact of FP on IM, the three additional models are as follows:

\[
PDT = \beta_0 + \beta_1 TQ + \beta_2 \text{Size} + \beta_3 \text{Lev} + \beta_4 \text{Audit} + \beta_5 \text{Age} + \beta_6 \text{Growth} + \beta_7 \text{Type} + \epsilon \tag{7}
\]

\[
GDT = \beta_0 + \beta_1 TQ + \beta_2 \text{Size} + \beta_3 \text{Lev} + \beta_4 \text{Audit} + \beta_5 \text{Age} + \beta_6 \text{Growth} + \beta_7 \text{Type} + \epsilon \tag{8}
\]

\[
NDT = \beta_0 + \beta_1 TQ + \beta_2 \text{Size} + \beta_3 \text{Lev} + \beta_4 \text{Audit} + \beta_5 \text{Age} + \beta_6 \text{Growth} + \beta_7 \text{Type} + \epsilon \tag{9}
\]

Finally, in order to test the effect of CEO power on the impact FP on IM, the final three models are as follows:

\[
PDT = \beta_0 + \beta_1 TQ + \beta_2 \text{CEOP} + \beta_3 TQ \ast \text{CEOP} + \beta_4 \text{Size} + \beta_5 \text{Lev} + \beta_6 \text{Audit} + \beta_7 \text{Age} + \beta_8 \text{Growth} + \beta_9 \text{Type} + \epsilon \tag{10}
\]

\[
GDT = \beta_0 + \beta_1 TQ + \beta_2 \text{CEOP} + \beta_3 TQ \ast \text{CEOP} + \beta_4 \text{Size} + \beta_5 \text{Lev} + \beta_6 \text{Audit} + \beta_7 \text{Age} + \beta_8 \text{Growth} + \beta_9 \text{Type} + \epsilon \tag{11}
\]

\[
NDT = \beta_0 + \beta_1 TQ + \beta_2 \text{CEOP} + \beta_3 TQ \ast \text{CEOP} + \beta_4 \text{Size} + \beta_5 \text{Lev} + \beta_6 \text{Audit} + \beta_7 \text{Age} + \beta_8 \text{Growth} + \beta_9 \text{Type} + \epsilon \tag{12}
\]

Where:

\(TQ \ast \text{CEOP} = \) the interaction between Tobin’s Q and CEO power.
4. Results and discussion

4.1 Descriptive and univariant analysis

Table 3 presents the descriptive findings of this study’s variables. On average, listed Egyptian companies disclose good, bad and net news statements at 15.36, 4.87 and 10.51 respectively. This indicated that most of the narrative disclosed statements in the Egyptian board of directors’ annual reports are good news statements. The Tobin’s Q varies between a minimum value of 0.09 and a maximum value of 35.36 with an average of 1.41. Further, the average years that the CEOs spent in managing the boards of directors of the sampled companies is 6 years with their holding only 3% of the ownership. In addition, most of the CEOs are not insider (60%), occupying the chairman position at the same time (61%), representing one or co-founder of the company (65%) and not family members (78%). The aggregated CEO power index is valued, on average, at 0.48. With regard to the control variables, most of the sampled companies are non-financial (81%) and audited by non-big 4 audit companies (53%). They have an average age of 16 years and mean value of size 9.3. During the period of this study, the average leverage is 3 and the average growth is 2.5.

Table 3: Descriptive analysis of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs.</th>
<th>Mean</th>
<th>Min.</th>
<th>Max.</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GND</td>
<td>445</td>
<td>15.36</td>
<td>0</td>
<td>101</td>
<td>16.52</td>
</tr>
<tr>
<td>BND</td>
<td>445</td>
<td>4.87</td>
<td>0</td>
<td>46</td>
<td>6.56</td>
</tr>
<tr>
<td>NND</td>
<td>445</td>
<td>10.51</td>
<td>-26</td>
<td>78</td>
<td>14.33</td>
</tr>
<tr>
<td>TQ</td>
<td>445</td>
<td>1.41</td>
<td>0.09</td>
<td>35.36</td>
<td>2.09</td>
</tr>
<tr>
<td>Tenure</td>
<td>445</td>
<td>6.16</td>
<td>0</td>
<td>20</td>
<td>5.13</td>
</tr>
<tr>
<td>CEO own</td>
<td>445</td>
<td>0.03</td>
<td>0</td>
<td>0.56</td>
<td>0.07</td>
</tr>
<tr>
<td>CEOP</td>
<td>445</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
<td>0.21</td>
</tr>
<tr>
<td>Size</td>
<td>445</td>
<td>9.31</td>
<td>7.49</td>
<td>11.47</td>
<td>0.84</td>
</tr>
</tbody>
</table>
Table 4 shows the correlation matrix for this study’s variables. NND is correlated positively with size, audit size, industry type whereas it is correlated negatively with growth. Moreover, TQ correlates positively with growth, while it correlates negatively with industry type and audit size. The coefficient of the independent variables does not exceed 0.80. Therefore, no multicollinearity problem is considered (Gajarati, 2003, p.359).
Table 4: Pearson coefficient correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>NND</th>
<th>TQ</th>
<th>CEOP</th>
<th>Size</th>
<th>Lev</th>
<th>Audit</th>
<th>Age</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>TQ</td>
<td></td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEOP</td>
<td>.05</td>
<td>-09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>.34**</td>
<td>-09</td>
<td>-04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lev</td>
<td>-.02</td>
<td>-01</td>
<td>-.12**</td>
<td>.14**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit</td>
<td>.25**</td>
<td>-.12**</td>
<td>.03</td>
<td>.44**</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.01</td>
<td>.03</td>
<td>-.18**</td>
<td>.10**</td>
<td>.14**</td>
<td>-.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td>-.10**</td>
<td>.43**</td>
<td>-.10**</td>
<td>-.05</td>
<td>.32**</td>
<td>-.08</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>.23**</td>
<td>-.10*</td>
<td>-.09*</td>
<td>.39**</td>
<td>.16**</td>
<td>.43**</td>
<td>.06</td>
<td>-.06</td>
</tr>
</tbody>
</table>

No serious multicollinearity among the independent variables; ***Significant at 1%; **Significant at 5%; * Significant at 10%

4.2 Multivariate analysis

I ran twelve OLS models to test this study’s main hypotheses study. *First*, in order to test the impact of IM on FP, this study ran models 1 to 3. Table 5 summarizes the findings of these models.
Table 5: Regression results for the impact of IM on FP

<table>
<thead>
<tr>
<th></th>
<th>Model 1 (Dep. V. = TQ)</th>
<th>Model 2 (Dep. V. = TQ)</th>
<th>Model 3 (Dep. V. = TQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.37</td>
<td>2.23**</td>
<td>1.12</td>
</tr>
<tr>
<td>PDT</td>
<td>0.05</td>
<td>2.09**</td>
<td></td>
</tr>
<tr>
<td>GDT</td>
<td>-0.01</td>
<td>-0.32</td>
<td></td>
</tr>
<tr>
<td>NDT</td>
<td></td>
<td></td>
<td>0.06</td>
</tr>
<tr>
<td>Size</td>
<td>-0.02</td>
<td>-0.64</td>
<td>-0.01</td>
</tr>
<tr>
<td>Lev</td>
<td>-0.30</td>
<td>-12.09***</td>
<td>-0.30</td>
</tr>
<tr>
<td>Audit</td>
<td>-0.03</td>
<td>-0.99</td>
<td>-0.02</td>
</tr>
<tr>
<td>Age</td>
<td>0.04</td>
<td>1.87*</td>
<td>0.04</td>
</tr>
<tr>
<td>Growth</td>
<td>0.92</td>
<td>37.37***</td>
<td>0.92</td>
</tr>
<tr>
<td>Type</td>
<td>0.01</td>
<td>0.47</td>
<td>0.01</td>
</tr>
<tr>
<td>Other statistics</td>
<td>F-Ratio (sig.)</td>
<td>204.975***</td>
<td>201.765***</td>
</tr>
<tr>
<td></td>
<td>Adjusted R²</td>
<td>0.763</td>
<td>0.761</td>
</tr>
<tr>
<td></td>
<td>Max. IF</td>
<td>1.45</td>
<td>1.37</td>
</tr>
<tr>
<td></td>
<td>Min. Tolerance</td>
<td>0.70</td>
<td>0.71</td>
</tr>
</tbody>
</table>

***Significant at 1%; **Significant at 5%; * Significant at 10%; Tolerance values are more than 0.1 and VIF values are less than 5, which indicate non-existence of Multicollinearity problem.

Table 5 illustrates that all three models are significant at $p < 0.0000$. This indicates that the three models explain the variation in the FP. The adjusted $R^2$ for the three models is 76.3%, 76.1 and 76.4 respectively. The results demonstrate that IM strategy has an impact on FP. Both positive and net DT indicate that there is a significant positive association with FP whereas negative DT has no impact on FP. This suggests that increasing the positive DT in the Egyptian companies’ boards of directors’ annual reports increases their FP. This result is in line with agency theory which provides evidence of the consequence of positive DT on FP due to information asymmetry.
problem. Management extends the positive DT to convey the positive impression to shareholders. This may affect the company’s share price and, hence, increases its FP. In addition, this result is consistent with Lev and Penman’s (1990); Ayers et al.’s (2010); and Athanasakou and Hussainey’s (2014) findings. Consequently, hypotheses $H_1$, $H_{1a}$, $H_{1c}$ are accepted.

With regard to the control variables, only three variables are associated significantly with FP at the same significant levels for the three models. In these models, leverage is negatively significant with FP at 1 per cent. In addition, in all three models, both growth and company age are associated positively with FP at significant levels of 1 per cent and 10 per cent respectively.

**Second,** in order to test the influence of CEO power on the impact of IM on FP, models 4 to 6 are run. Table 6 summarizes the findings of these models.

**Table 6: Regression results for the effect of CEO power on the impact of IM on FP**

<table>
<thead>
<tr>
<th></th>
<th>Model 4 (Dep. V. = TQ)</th>
<th>Model 5 (Dep. V. = TQ)</th>
<th>Model 6 (Dep. V. = TQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.31</td>
<td>2.08**</td>
<td>1.04</td>
</tr>
<tr>
<td>PDT</td>
<td>0.04</td>
<td>1.76*</td>
<td></td>
</tr>
<tr>
<td>GDT</td>
<td></td>
<td>-0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td>NDT</td>
<td>-0.02</td>
<td>-0.73</td>
<td>-0.01</td>
</tr>
<tr>
<td>PDT*CEOP</td>
<td>0.45</td>
<td>2.048**</td>
<td></td>
</tr>
<tr>
<td>GDT*CEOP</td>
<td>-0.42</td>
<td></td>
<td>3.12***</td>
</tr>
<tr>
<td>NDT*CEOP</td>
<td></td>
<td>.43</td>
<td>1.23</td>
</tr>
<tr>
<td>Size</td>
<td>-0.01</td>
<td>-0.36</td>
<td>.01</td>
</tr>
<tr>
<td>Lev</td>
<td>-0.31</td>
<td>-12.21***</td>
<td>-0.30</td>
</tr>
<tr>
<td>Audit</td>
<td>-0.03</td>
<td>-1.24</td>
<td>-0.03</td>
</tr>
</tbody>
</table>
Table 6 demonstrates that all the three models are significant at $p < 0.0000$. Little enhancement happened in the adjusted $R^2$ for models 4 and 5 (0.1% and 0.4% respectively). However, no enhancement occurred in model 6. The findings provide empirical evidence of the effect of CEO power on the impact of IM on FP at different levels of significance. Both interactions between positive and negative DT and CEO power have a significant influence on the relationship between IM and FP. According to model 4, the coefficient of $(PDT \times CEOP)$ variable, which denotes the interaction between positive DT and CEO power, is 0.45. This is remarkably larger than the coefficient of each PDT and CEOP. This suggests that CEO power has a magnitude effect on the relationship between IM and FP at a 5 per cent level of significance. CEOs use their power by applying IM strategy to increase the level of positive DT and achieve their personal interests as reflected from increasing FP. When FP increases the CEOs can increase their ownership of the companies and, also, their wealth. This result is consistent with Adams et al.’s (2005) findings.
In addition, model 5 indicates that the coefficient of (GDT*CEOP) variable, which denotes the interaction between negative DT and CEO power, is 0.42. Again, this is dramatically larger than the coefficient of GDT and CEOP. This suggests that CEO power has an effect on the impact of IM on FP at a 1 per cent level of significance. The CEO uses his/her power to reduce the level of negative DT in order to hide the bad news and, hence, does not convey a negative impression to shareholders. Such actions guarantee the increase in FP. In addition, increasing the negative DT may subject the company to a bad situation due to it being put at a competitive disadvantages and, hence, this reduces FP. CEOs seek to avoid such bad situations by applying IM strategy and, thereby, reducing the level of negative DT. This result is consistent with agency theory which postulates that the CEO exerts more power on the board of directors –especially when corporate governance is weak- and that some unnecessary information is given to achieve their interests. Therefore, hypotheses $H_3$, $H_3_a$, $H_3_b$ have been accepted.

Third, in order to test the influence of FP on IM, the three models from 7 to 9 are analyzed. Table 7 summarizes the findings of these models.

**Table 7: Regression results for the impact of FP on IM**

<table>
<thead>
<tr>
<th></th>
<th>Model 7 (Dep. V. = PDT)</th>
<th>Model 8 (Dep. V. = GDT)</th>
<th>Model 9 (Dep. V. = NDT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-38.91</td>
<td>-4.23***</td>
<td>-2.81</td>
</tr>
<tr>
<td>TQ</td>
<td>0.19</td>
<td>2.09**</td>
<td>-0.03</td>
</tr>
<tr>
<td>Size</td>
<td>0.28</td>
<td>5.36***</td>
<td>1.00</td>
</tr>
<tr>
<td>Lev</td>
<td>0.09</td>
<td>1.54</td>
<td>0.19</td>
</tr>
<tr>
<td>Audit</td>
<td>0.10</td>
<td>1.91*</td>
<td>0.04</td>
</tr>
<tr>
<td>Age</td>
<td>-0.02</td>
<td>-0.42</td>
<td>-0.02</td>
</tr>
<tr>
<td>Growth</td>
<td>-0.18</td>
<td>-1.83*</td>
<td>0.14</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>Type</td>
<td>0.04</td>
<td>0.74</td>
<td>-0.10</td>
</tr>
<tr>
<td>Other statistics</td>
<td>F-Ratio (sig.)</td>
<td>9.778***</td>
<td>5.290***</td>
</tr>
<tr>
<td></td>
<td>Adjusted R²</td>
<td>0.122</td>
<td>0.064</td>
</tr>
<tr>
<td></td>
<td>Max. VIF</td>
<td>4.73</td>
<td>4.73</td>
</tr>
<tr>
<td></td>
<td>Min. Tolerance</td>
<td>0.24</td>
<td>0.21</td>
</tr>
</tbody>
</table>

***Significant at 1%; **Significant at 5%; * Significant at 5%; Tolerance values are more than 0.1 and VIF values are less than 5, which indicate non-existence of Multicollinearity problem.

Table 7 reveals that all three models are significant at $p < 0.0000$. Therefore, all three models explain the variation in the DT. The adjusted $R^2$ for the three models is 12.2%, 6.4 and 14.2 respectively. The findings provide evidence of the impact of FP on IM. They reveal that the increase in FP causes an increase in both positive and net disclosure tone. However, FP has no significant impact on negative DT. This result is compatible with signaling theory which supports the companies’ behaviors to extend their positive disclosure tone when they have good news to signal this positive situation to their shareholders in order to maintain their position and maximize their financial rewards. Moreover, many previous studies confirm this finding (e.g. Miller, 2002; Oyeler et al., 2003; Schleicher and Walker, 2010; Aly et al., 2018). Based on the above arguments, hypotheses $H2, H2_a, H2_c$ are accepted.

With regard to the control variables, size is the only variable that has a significant impact on DT in all three models. Further, growth has a negative impact on both positive and net DT. In addition, non-financial companies disclose more negative disclosure tone than financial ones. On the other hand, financial companies disclose more
net DT than non-financial companies. Finally, leverage has only a significant positive impact on negative DT.

Finally, in order to test the influence of CEO power on the impact of FP on IM, this study tested the models 10 to 12. Table 8 summarizes the findings of these models.

**Table 8: Regression results of the effect of CEO power on the impact of FP on IM**

<table>
<thead>
<tr>
<th></th>
<th>Model 10 (Dep. V. = PDT)</th>
<th>Model 11 (Dep. V. = GDT)</th>
<th>Model 12 (Dep. V. = NDT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-40.22</td>
<td>-4.01***</td>
<td>-3.59</td>
</tr>
<tr>
<td>TQ</td>
<td>0.23</td>
<td>2.48***</td>
<td>-0.02</td>
</tr>
<tr>
<td>CEOP</td>
<td>0.04</td>
<td>0.81</td>
<td>-0.08</td>
</tr>
<tr>
<td>TQ*CEOP</td>
<td>0.37</td>
<td>3.50***</td>
<td>-0.24</td>
</tr>
<tr>
<td>Size</td>
<td>0.29</td>
<td>5.70***</td>
<td>0.11</td>
</tr>
<tr>
<td>Lev</td>
<td>-0.02</td>
<td>-0.36</td>
<td>0.11</td>
</tr>
<tr>
<td>Audit</td>
<td>0.09</td>
<td>1.75*</td>
<td>0.04</td>
</tr>
<tr>
<td>Age</td>
<td>0.01</td>
<td>-1.19</td>
<td>-0.03</td>
</tr>
<tr>
<td>Growth</td>
<td>0.15</td>
<td>1.14</td>
<td>0.35</td>
</tr>
<tr>
<td>Type</td>
<td>0.07</td>
<td>1.40</td>
<td>-0.09</td>
</tr>
</tbody>
</table>

**Other statistics**

- F-Ratio (sig.)
  - Model 10: 6.157***
  - Model 11: 5.151***
  - Model 12: 10.341***
- Adjusted R²: 0.142
- Max. VIF: 4.3
- Min. Tolerance: 0.20

***Significant at 1%; **Significant at 5%; * Significant at 5%; Tolerance values are more than 0.1 and VIF values are less than 5, which indicate non-existence of Multicollinearity problem.

Table 8 shows that all three models are significant at $p < 0.0000$. The adjusted $R^2$ is improved when adding CEO power to the models. The changes are 2%, 1.4% and 1.7% respectively. The influence of CEO power on the impact of FP on IM is significant in all three models. This suggests that CEO power has a moderating impact on the
association between FP and IM. With regard to model 10 (when positive PDT is the dependent variable), the coefficient of (TQ * CEOP) variable, which denotes the interaction between FP and CEO power is 0.37. This is remarkably larger than the coefficient of each TQ and CEOP. Further, in model 12 (when positive NDT is the dependent variable), the coefficient of (TQ * CEOP) variable is 0.32. Again, this is larger than the coefficient of each TQ and CEOP. This indicates that CEO power has a positive effect on the relationship between FP and IM at a 1 per cent level of significance. Based on signaling theory, CEOs can signal the good news to shareholders by disclosing more positive DT to reflect their good management. This enables them to sit for more years on the board of directors. This result is consistent with (DeBoskey et al., 2019).

Further, model 11 (when positive GDT is the dependent variable) demonstrates that the coefficient of (TQ * CEOP) variable is 0.24. This is extremely larger than the coefficient of each TQ and CEOP and it is associated significantly at the 5 per cent level with negative disclosure tone. CEOs have the authority to appointment directors who have the same characteristics as themselves in order to facilitate the management process. Based on agency theory, CEOs have more information than shareholders and this enable them to influence the other members on the board of directors to achieve good performance. This situation leads CEOs to reduce the level of negative disclosure tone to avoid bad signals being sent to the shareholders. Therefore, in relation to good performance, CEOs prefer to disclose less negative DT by applying IM to portray their companies in the best light. Accordingly, hypotheses $H4, H4_a, H4_b$ and $H4_c$ are accepted.
5. Conclusion

This study aimed to investigate the bidirectional between DT and FP in the context of the Egyptian environment. In addition, by using a sample of the Egyptian EGX 100 companies during the period from 2013 to 2017, this study aimed to examine whether or not CEO power influenced the association between DT and FP.

The descriptive findings indicate that most of the sampled companies disclose positive DT and, on average, they have high performance. Moreover, the regression analysis provides empirical evidence of the bidirectional relationship between DT and FP in the Egyptian environment. Further, CEO power has a significant influence on the association between DT and FP.

These results have demonstrated many aspects from which this study has derived its motivation and importance. First, this study extends the previous studies that examined IM strategy in the developed countries. Few studies examined IM strategy in developing countries. Therefore, this study motivates the academic researcher to carry out more studies in the developing countries regarding IM strategy and its causes and determinants. Second, the bidirectional relationship between DT and FP may encourage further exploration in the developing countries of such a construct with different variables context. The impact of CEO power on the association between DT and FP shed light on the crucial role played by CEOs on the Egyptian companies’ boards of directors. Therefore, it is recommend that the Egyptian regulators should give further consideration to these findings.
This study considered the EGX 100 listed companies in the period from 2013 to 2017. Future researches may use all Egyptian listed companies and examine the variances between the different sectors. Further, this study measured FP by Tobin’s Q and measured DT by the number of disclosed statements in the board of directors’ annual reports. Future researches can apply different proxies for FP, such as stock returns or earnings per share, and they can measure DT, also, by counting the number of positive and negative words in different disclosure narratives such as social responsibility reports.
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