A SUGGESTED MEASURE FOR THE QUALITY OF CORPORATE GOVERNANCE IN EGYPT

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Abstract

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1. INTRODUCTION

The Organization for Economic Cooperation and Development (2001) refers to the importance of corporate governance for national development due to its growing role in helping to increase the flow of financial capital to firms in developing countries. Babic (2003) further stresses that for countries in transition corporate governance is doubly important. The scarcity of domestic savings demands that capital is directed towards the most profitable companies, which is possible only if principles of corporate governance are given publicity, transparency and monitoring. In addition, due to the imperfection of market mechanisms (underdeveloped stock and bond markets and ineffective banking system), corporate governance presents an additional mechanism for discipline and effective management control in corporations (Ararat el al., 2017). Thus, corporate governance in developing countries has wide implications and is critical not only from an economic perspective but also in terms of enhancing social well-being since it plays a vital role in 1) providing the accountability the and transparency to ensure equitable distribution of the resulting wealth, 2) attracting foreign direct investment and thus enabling domestic enterprises to move beyond their family base to tap new sources of capital on a sustainable basis and 3) protecting the environment, employees and society at large. These objectives are all crucial for corporate governance in developing countries and specifically to Egypt as an example of a developing country.

This paper aims at constructing an objective measurement tool for the quality of corporate governance practices implemented by listed companies in Egypt. Consequently, several main criteria for the inclusion and the exclusion of a corporate governance guideline were followed. The resulting "objective index and questionnaire" includes a total of 66 indicators grouped under four main internal corporate governance mechanisms: Ownership structure; Board of directors; Transparency and disclosure and Board committees. Additionally, the scoring process that can be used in the rankings of Egyptian listed companies is suggested.

Keywords: Opinion Based Research, Governance Ranking Research, Egyptian Corporate Governance Code, Corporate Governance Indexes

> It was in the late 1990's that Egypt noted the need and importance of gaining the trust of the foreign community direct international and Accordingly, investment. Egypt started implementing an economic reform program that Following whole economy. the covers the privatization program, the Egyptian government through revitalized its capital market the improvement of its reputation as well as building investors' confidence. The main targets of this development were to raise new foreign capital as well as encourage more Egyptians to invest in the domestic markets rather than investing abroad. Accordingly, the development program aimed at developing sound financial principles including the availability of reliable corporate information, and adoption of international accounting and auditing standards. the Egyptian Hence, government recognized the need for a high level of corporate governance practices to reach its aspired goals.

> As part of its economic reform program and as a response to the recommendations of the two reports on the observance of standards and codes corporate governance country assessment (2001, 2004) conducted by the World Bank, the first Egyptian corporate governance guidelines for listed companies (ECCG) were introduced in 2005 by the ministry of investment and the general authority for investment and free zones (GAFI) as well as the Egyptian Institute of directors (EIOD). The guidelines were an addition to the corporate related provisions stated under various laws mainly including companies law (CL159/1981), capital market law (CML95/1992) and capital depository law



(CDL93/2000) along with the executive regulations and decrees regarding their implementation. The Egyptian corporate governance guidelines are partially mandatory; enforced through their presence among the stock exchanges' listing rules as well as among the above-mentioned laws governing the incorporation of companies in Egypt.

It is worth mentioning stressing that the French civil law is the primary source of Egypt's corporate legal framework (companies' law 159/1981) despite the fact that the Anglo-American common law concepts exist in the capital market law as well as the central depository law. In this context, corporate governance literature argues that countries with a civil law legal system tend to provide less protection to shareholders than countries with a common-law legal system. Accordingly, this can be the reason for the initial issuance of the Egyptian corporate governance guideline in 2005. Codes of corporate governance serve to compensate for the lack of protection in the legal system and thus would be more likely to be adopted in civil law countries. From this standpoint, we highlight the important role played by Egyptian corporate governance guidelines in Egypt's corporate governance system. This role is confirmed by Shleifer and Vishny (1997), La Porta et al. (1999), Claessens et al. (2000) as well as Klapper and Love (2002).

The need for measuring the degree of the implementation of the Egyptian corporate governance guidelines and thus the quality of corporate governance practices in the Egyptian capital market context specifically stems from its important role, as mentioned above, as well as the fact that the quality of corporate governance practices in the Egypt is considered to be highly questionable as confirmed by McGee (2010) due to the following:

1) Neither the law nor the stock exchange requires listed companies to comply with the Egyptian Corporate governance code. Similarly, they do not require companies to explain any deviations from the Code. In addition, there is no case law referring to the corporate governance code (Cigna et al., 2016).

2) The presence of "Corporate failures, corruption" (Egypt's CG report, 2004)".

3) The presence of a civil legal system which provides less protection to shareholders than a common law system. Accordingly, the importance of the Egyptian CG guidelines is doubled as it serves to compensate for the lack of protection in this case (La Porta et al., 1999).

4) The existence of a large number of corporations classified as small and medium enterprises. Most of them are family-owned corporations what makes it even harder to implement governance in an appropriate way (Kenawy and Abd Elgany, 2009). In addition, as per the literature (Prowse, 1992; Rajan and Zingales, 1998; Johnson et al., 2000; Claessens et al., 2000) argues that there are problems endemic to the insider-dominated mould. The low level of separation of ownership and control can result in the abuse of power. Minority shareholders may not be able to obtain information on the company's operations. There are little transparency and frequent abuse of the company's operations. Opaque financial transactions and misuse of funds raised are typical of these systems.

5) The weakness of Egyptian public authorities and the general atmosphere in activating the state of law despite the fact of the issuance of the corporate governance guidelines for Egyptian public sector companies in 2006 (Kenawy and Abd Elgany, 2009). Thus, if this is the status of the supervisory and regulatory public authorities, then the status of private institutions being supervised by them cannot be expected to differ greatly.

Secondly, the need to measure corporate governance quality also originates from the existing gap in the literature (as will be demonstrated in later sections of this paper) resulting from the lack of studies that measure the quality of corporate governance practices in Egypt (and similarly Middle East and North Africa (MENA) countries as referred by Omran et al. (2008) using a comprehensive tool that is extracted from the Egyptian Corporate Governance Guidelines. Literature studies conducted in the Egyptian capital market were either before the issuance of the guideline in 2005 or after its issuance but only used ownership structure (Omran et al., 2008), CEO duality or board size (Sayed, 2007; Kholief, 2008) as a sole corporate governance proxy.

Proceeding from what has been mentioned above, the importance of this paper stems from its attempts to construct a "corporate governance index" using the Egyptian corporate governance guidelines following the governance ranking research approach which mainly involves including only the objective Egyptian corporate governance guidelines in the developed index as will be thoroughly presented in the methodology section of this paper. This contribution is vital given the lack of studies with regards to the Egyptian context (Sayed, 2007). It is increasingly important in Egypt's case, as per the World Bank's report on Egypt's corporate governance practices (2004), since "Corporate failures, privatization, corruption, and the demand for investment - both foreign and domestic - have increased the need for good corporate governance in Egypt. Accordingly, the need to design a proxy for measuring the corporate governance practices adopted by Egyptian listed companies is a necessity.

Thus, proceeding from the important role that sound corporate governance practices can generally play in an emerging capital market such as the Egyptian one, as well as the vital role that the corporate governance Egyptian guidelines specifically serves in terms of compensating for the lack of protection in a civil law system as suggested by the literature, it was found crucial that a comprehensive tool be designed to measure corporate governance quality. The necessity to design such a comprehensive measure also stems from the fact that most studies examine the concept of "corporate governance" in the Egyptian capital market using only one internal corporate governance mechanism such as ownership structure, CEO duality or board size. Accordingly, this can highlight the urgent need for a further comprehensive study "corporate governance which includes several mechanisms". We found only one study related to Egypt's listed companies by Mustafa (2006) that covered several elements of corporate governance. This study will be discussed in details later in the paper.

Consequently, this paper aims to suggest a new measure of the degree of implementation of the Egyptian corporate governance guidelines and thus corporate governance quality in Egypt. Thus, our main research question is:

How can a comprehensive measure of the quality of corporate governance among Egyptian listed companies be developed?

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Accordingly, a total of 66 objective corporate governance guidelines is extracted from the Egyptian corporate guidelines. The 66 objective guidelines constitute the suggested "corporate governance index" and are grouped under four main internal corporate governance mechanisms which are: 1) Ownership structure, 2) Board of directors, 3) Transparency and disclosure and 4) Board committees. The paper additionally suggests a binary scoring system to be used in the process of measuring the quality of corporate governance among listed companies following many existing corporate governance literature studies.

The paper is structured as follows: section 2 demonstrates the studies conducted in the Egyptian context so as to highlight the existing gap beside presenting similar international literature studies to determine the approach that is to be followed in the construction of the suggested measure of the quality of corporate governance. Section 3 reveals the methodology employed in the development of the new measure of corporate governance quality - "the corporate governance index"- besides showing the resulting 66 objective corporate governance guidelines which relate to the four main internal corporate governance mechanisms (sub-indices) earlier mentioned. This section also provides the suggested scoring process. Section 4 concludes and suggests ideas for future research.

2. RELEVANT LITERATURE

Research attempting to measure the quality of corporate governance implementation has mainly followed two main approaches which are: 1) Opinion/survey -based research; and 2) Governance-index ranking research as per HML's review (2005), Osterloh and Frey (2009) as well as Lazarides and Drimpetas (2011).

2.1. Opinion/Survey Based Research

Academic studies that used the survey-based research approach constructed a survey-based corporate governance index which included several corporate governance mechanisms to measure corporate governance quality. Criticism has been directed at the opinion/survey-based research approach in the corporate governance literature as it relies on circumstantial and inevitably subjective data which is sensitive to management/board members' opinions, points of view, personal judgment or subjective concepts and thus their findings are of limited evidentiary value. Additionally, Bozec and Bozec (2011) criticize survey-based indexes mentioning that they might be biased for two reasons. First, non-responding companies might be those with poor governance (self-selection bias). Second, responding companies might overestimate the quality of their governance (self-report bias). Additionally, Black et al. (2009) point out that the Korean corporate governance service survey changed its survey questions from relying on survey responses to reviewing firms' public disclosures, even though disclosure is not required, which confirms the aforementioned criticism to opinion/survey based research.

Academic studies include Balasubramanian et al. (2010), Ehikioya (2009), Limpaphayom and Connelly (2008), Toudas and Karathanassis (2007), Beiner et al. (2006) and professional studies include only, McKinsey's global investor opinion survey (2000 – updated in 2001). Focusing on Egypt, Ebaid (2013) used this approach among post-graduate students of accounting and finance from three Egyptian Universities as a proxy for non-professional investors to measure the quality of corporate governance practices in Egypt. The author used the board of directors and audit committee only as corporate governance proxies.

Alternatively, several other studies followed the governance ranking approach which excludes corporate governance variables that are subjective and ask for management's opinion/feedback and future plans, which are ambiguous as to which answer indicates better governance as will be presented in the following sub-section.

2.2. Governance-Ranking Research

Governance-ranking research seeks to establish a link between one or more factors or standards that objectively measure a company's governance quality and its performance. Many studies conducted in both developed countries (such as Gompers et al., 2003; Drobetz and Zimmermann, 2004; Brown and Caylor, 2006, 2009; and Bebchuk et al., 2009) as well as in emerging and transitional countries (such as Black et al., 2004; Javed and Iqbal, 2007; Coleman, 2007; Sami et al., 2011; Lazarides and Drimpetas, 2011; Siagian et al., 2013; Mishra and Mohanty, 2014; and Connelly et al., 2017) used the governance- ranking research approach as will be demonstrated below in further detail.

Despite the fact that this approach to some extent measures objectively the quality of corporate governance, HML's review, (2005) argues that it can also cause problems and distortions in the findings of the research especially when using only a single governance standard which may for a number of reasons be unrelated to the performance of companies in a particular market during a given period of time. In this regard, it is worth noting to the many research studies that focus on a single standard in isolation, such as Bhagat and Black (1999 and 2002), Dalton et al. (1998), Demsetz and Villalonga (2001) and Dulewicz and Herbert (2003) suggest that there is no link between corporate governance and performance focus on a single governance standard.

Thus, the literature suggests that more complex research involving self-constructed corporate governance indexes which consider a larger range of governance standards against which the corporate governance qualities of the companies investigated are assessed is generally preferred.

Still, the HML's review (2005) points out that research involving rankings based on compliance with too many potentially insignificant governance standards may distort the corporate governance measure. Bozec and Bozec (2011) confirm that greater errors in measuring the overall quality of governance can result from using a multi-factor index due to: 1) the presence of more corporate governance provisions which means a greater risk of error in recording the value of one component, 2) the possibility of ignoring any potential interactions between governance provisions, 3) the potential substitution effect between the index and governance provisions not included in the index which will magnify the problem of endogeneity, and 4) the benefit of optimization across governance choices.

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2.3. Commenting on the Literature Review - An **International Perspective**

As discussed above, a significant difficulty with opinion-based research is its reliance on circumstantial and subjective evidence. Accordingly, Bozec and Bozec (2011) caution that the validity of commercial ratings including CLSA ratings from Credit Lyonnais Securities Asia, Institutional Shareholder Services and others are called into question since these ratings are often too subjective and thus, might lead to an incorrect assessment of a firm's governance. The authors thus favour the governance-ranking research approach within which academic self-constructed indexes are based on fewer provisions and are more directly targeted to the sample firms.

Governance-ranking studies are based on the assessment of certain governance standards in the past and thus on historical data. The standards investigated (and often the weights attached to them) vary between the studies. Moreover, as the standards assessed depend on the regulation applicable in a particular market and may vary over time, it is difficult to draw general conclusions as to which aspects of governance are the most important. It is worth noting in this context that studies which construct a composite measure for corporate governance especially those conducted in emerging markets such as Black et al. (2004), Javed and Iqbal (2007), Coleman (2007), Sami et al. (2011), Lazarides and Drimpetas (2011), Siagian et al. (2013) as well as Mishra and Mohanty (2014) mentioned earlier prefer to evaluate corporate governance considering typical indicators that is relevant to their economies and regulatory systems. This accordingly confirms the literature argues that corporate governance practices and measures defined in the Anglo-Saxon systems may be inapplicable in other markets. In fact, the HML (2005) review mention the claims of companies in emerging markets that western corporate governance standards don't apply to them. The argument may be even more valid when considering a developing market such as the Egyptian capital market.

Another point worth noting in this context is that literature studies prefer to collect data for their developed corporate governance indexes using data disclosed in companies' annual reports. If such data is insufficient, then authors prefer to develop their governance metrics using objective survey questions where responses are based on facts (yes/no answer). This is mainly to avoid subjectivity which has been the main criticism directed towards the opinionbased research. Consequently, scoring processes of the constructed indexes largely depended on selected provisions that are also equally weighted with each provision taking a value of 1 or 0 (binary scale) to note the presence or absence of a practice.

Taking into account the above points, this paper aims to measure the quality of corporate governance in Egypt following the governance ranking approach in extracting a "corporate governance index" from the Egyptian Corporate Governance Guidelines. Following this approach will cover the existing gap in the Egyptian literature as will be shown in the next section.

2.4. Egypt's Relevant Literature

Generally, there is a deficiency of research studies on corporate governance practices and mechanisms, especially among developing countries. In this regard, Shleifer and Vishny (1997) points out there has been only a little research done on corporate governance outside the United States, apart from a few developed countries such as Japan and Germany. But there is almost no empirical evidence directly comparing the quality of corporate governance in emerging markets and developing markets. In the same context, Gürbüz et al. (2010, p. 21) confirm that "the number of studies performed in developing countries has been limited mostly due to problems with data gathering and a lack of investor awareness of these practices". Additionally, Sami et al. (2011, p. 109) argue that "the importance of corporate governance in emerging markets, such as the equity markets in China, remains underexplored".

Moreover, Velnampy (2013) argue that very few research studies on corporate governance are available in Sri Lanka and need to be directed to pay special attention to corporate governance while Yasser et al. (2011) mentions that the literature regarding corporate governance in Pakistan is enormously thin, given the lack of research in academic and institutional Pakistani areas. Moreover, Omran et al. (2008, p. 33) note that, "related studies on privatization and corporate governance have been mainly limited to those of developed economies or large emerging economies. It seems that small economies such as those in the Middle East and North Africa (MENA) are very much understudied in the literature".

Most corporate governance studies conducted in the Egyptian context measure the quality of corporate governance practices using a sole proxy (mechanism) such as Al Gizaree (1998), Omran and Fatheldin (2002), Abdel-Shahid (2003), and Omran et al. (2008). They all focused on ownership structure mainly. It is worth noting that Omran et al.'s (2008) results linking ownership characteristics with corporate performance contradict with Abdel Shahid's (2003) findings. While the latter detects a significant relationship between ownership structure and accounting performance measure (namely ROA and ROE) and an insignificant relationship with stock market indicators (measured in terms of P/E and P/BV ratios), Omran et al.'s (2008) study show an insignificant relationship between ownership structure and profitability (calculated using ROA and ROE ratios) but a significant positive relationship with Q-ratios.

Alternatively, Sayed (2007) considered only CEO duality as a sole measure of corporate governance in his study. Again, Sayed's (2007) results are found to be in contrast with Omran et al.'s (2008) findings which show that the separation of CEO and chairperson positions has no significant effect on Arab firms profitability and performance measures.

On the other hand, Kholeif (2008) re-examines the predictions of agency theory with regard to the negative association between CEO duality and corporate performance using financial statements for the year 2006 of the 50 most actively traded companies in the Egyptian stock market. He examines the role of other corporate governance mechanisms (board size, top managerial ownership and institutional ownership) as moderating variables in the relationship between CEO duality and corporate performance.

From the very few empirical studies conducted in the Egyptian context presented above, it can be observed that most studies examined the concept of "corporate governance" in the Egyptian capital

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market using only one internal corporate governance mechanism which included ownership structure, CEO duality or board size. In this context, HML's review (2005) argues that using only one single governance standard can cause problems and distortions in the findings of the research since the results may be unrelated to the performance of companies in a particular market during a given period of time. Moreover, the empirical results of the presented studies focusing on the same internal corporate governance mechanism contradict each other with regard to their impact on corporate performance. Accordingly, this can highlight the need for a further comprehensive study which includes those two corporate governance mechanisms (along with other unstudied internal mechanisms) in the Egyptian context. This research gap is clearer if we find only one study covering several mechanisms in the Egyptian literature by Mustafa (2006).

Mustafa (2006) used a few internal corporate governance mechanisms as a proxy for corporate governance practices in the Egyptian capital market. The main drawback of this study is that it utilizes the data of year (2003/2004). This is before the first official issuance of the 2005 Egyptian corporate governance guidelines directed to Egyptian listed companies. Therefore, even Mustafa's 2006 study did not measure corporate governance quality in the Egyptian capital market through using several corporate governance mechanisms extracted from the Egyptian corporate governance guidelines'. Thus the degree of the implementation of the Egyptian corporate governance code was never measured nor examined in the Egyptian literature due to the absence of any attempts towards comprehensively measuring corporate governance quality in Egypt.

Thus, this paper covers the existing gap by using the Egyptian corporate governance guidelines in the suggestion of comprehensive measurement tool "corporate governance index" that can be used to evaluate the degree of corporate governance implementation among listed companies. Consequently, the next section of this paper will focus on demonstrating the methodology used in the development of this corporate governance proxy for listed companies in the Egyptian capital market.

3. METHODOLOGY

Because of its subjectivity and intangibility with respect to several key issues, corporate governance is difficult to measure. For example, how to measure the true independence of a director. However, many aspects are factual, including the level of disclosure of compliance with a code of best practice (Abdo and Fisher, 2007).

Accordingly, following Black et al. (2004), this paper uses the Egyptian corporate governance guideline to construct an "objective index" which excludes variables that are subjective and that ask for management's opinion/feedback and future plans, which are ambiguous as to which answer indicates better governance. It is worth mentioning that the Egyptian capital market law 95/1992 does not require listed companies to publish full annual reports to their shareholders; instead, it only requires them to publish quarterly financial statements. Moreover, the Egyptian guidelines of corporate governance are voluntary which makes the availability of information difficult, especially nonfinancial information of listed companies. This can explain the deficiency in disclosed information, especially the nonfinancial data in the Egyptian market. Consequently, the Table 1 shows the Egyptian corporate governance practices that were chosen to be included in the index based on the below criteria obtained mainly from the Black et al. (2004) approach in terms of their methodology in developing their "objective" self-constructed index as well as with reference to the above presented governance ranking literature studies. Worth mentioning is that the selected criteria are most suitable to develop an index in the Egyptian context due to the reasons mentioned below:

A) Criteria followed for the Inclusion of a corporate governance guideline in the constructed "Objective index":

1) Objective guidelines i.e., (can be clearly and accurately measured and/or defined). This avoids the subjectivity embedded in several key issues in corporate governance which are crucial especially in an emerging capital market such as the Egyptian where the corporate governance concept and culture is not well known, understood, or accepted.

2) Guidelines that are enforced by Egyptian capital market law 95/1992 and/or Egyptian listing rules (2003). This is firstly due to our main aim to study the impact of the Egyptian corporate governance guidelines as a whole (regardless of the fact that they are forced by law or left as a voluntary practice). Secondly, corporate governance literature (Shleifer and Vishny, 1997 and La Porta et al., 1999), points out that countries with a civil law legal system (i.e. French, German and Scandinavian origin) such as Egypt, tend to provide less protection to shareholders than countries with a common-law legal system This can be the reason the Egyptian corporate governance guidelines were published in 2005 by the ministry of investment. Consequently, the Egyptian corporate governance guidelines as a whole (which includes both legally binding as well as voluntary practices) serve to compensate for the lack of protection in case of the presence of a civil law legal system. Thus, both practices should be included in the developed corporate governance index especially in the presence of the ineffective implementation of laws as in the Egyptian case.

3) Guidelines backed up with sufficient data for all listed companies. This criterion is essential in Egypt's case due to the insufficiency and inconsistency of data available in the Egyptian capital market context.

B) Criteria followed for the exclusion of a corporate governance guideline in the constructed "Objective index":

1) Subjective guidelines i.e., (guidelines requiring management/board members opinions, the point of views, personal judgment or subjective concepts).

2) Guidelines with no available information with regard to all listed companies.

3) A guideline that is repeated under two different internal mechanisms is excluded from the mechanism which is less related to it in order to avoid repetition.

4. RESULTS AND ANALYSIS

The procedure described above results in a usable set of 61 objective variables (excluding the ownership structure section variables). The corporate governance variables in the index are classified into three main corporate governance internal mechanisms sub-indices:

• Board of directors.

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- Transparency and disclosure.
- Board committees.

Besides the three corporate governance subindices mentioned above (namely board structure, transparency and disclosure and audit committee), the "objective corporate governance index" will also include a separate sub-index titled "ownership structure". This section includes 5 additional points relating to the ownership structure of Egyptian listed companies which makes the total points included in the index to be 66 points (61 extracted from the Egyptian corporate governance guidelines and five points relating to ownership structure). It is worth mentioning that the Egyptian guidelines do not provide specific recommendations on listed ownership companies' structure. However, numerous studies in developed and developing countries (including Egypt) including Brown and Caylor (2004), Black et al. (2004), Zheka (2006), Cheung et al. (2006). Kim and Yoon (2007), Bhagat and Bolton (2007), Javed and Iqbal (2007), Coleman (2007), Clacher et al. (2008), Toledo (2009), Wu et al. (2010), Grimaldi and Musserra (2017) and Abdallah and Ismail (2017) have used ownership structure as one of the main corporate governance mechanisms.

Focusing on Egypt, examples of these studies include Omran and Fatheldin (2002), Abdel Shahid (2003), Mustafa (2006) and Omran et al. (2008).

Additionally, and due to the presence of 26 objective corporate governance practices (out of the overall total 66 extracted practices) that are not disclosed in listed companies' annual reports, we recommend that the empirical study that will be conducted in Egypt involve the construction of an "objective questionnaire". The corporate governance questionnaire must be distributed among Egyptian listed companies to collect objective data on internal mechanisms that are recommended by the Egyptian guidelines but are not required to be disclosed in listed companies' annual reports.

Table 2 presents the "objective corporate governance questionnaire" which includes the remaining 26 corporate governance practices not recommended to be disclosed in companies' annual reports by the Egyptian corporate governance guidelines which makes the total overall guidelines included in both the index (40 points) and questionnaire (26 points) to be 66 guidelines (points) as previously mentioned.

Table 1. The objective corporate governance index (CGI)

Ownership structure 1) State or government does not act as a block holder (owning 5% or more). 2) The presence of private/foreign institutions/individuals acting as a block holder (owning 5% or more). 3) Free float is 15% or more. 4) GDR exists. 5) The company follows private law 159. Board of directors 6) The size of BOD is at least 5 but not more than 9 members. 7) The managing directors and chairman duties are separated (CEO duality doesn't exist). 8) Outside (non-executives) directors should constitute at least third of the BOD. 9) BOD members are prohibited to deal in the shares of the company prior to the declaration of the results of its financial activity or any other information of effective financial nature. 10) BOD ensures that the general assembly meetings are set in a manner facilitating and encouraging shareholder's attendance. Transparency and disclosure 12) An annual audit is performed by an independent, competent and qualified audit (BG 5) (Company data related disclosure). 13) Disclosure of BOD report to shareholders concerning annual operating and financial results (Board of directors related disclosure). 15) Disclosure of BOD ackground (Board of directors related disclosure). 15) Disclosure of BOD ackground (Board of directors related disclosure). 16) Disclosure of BOD ackground (Board of directors related disclosure). 17) Disclosure of BOD ackground (Board of director
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(Company data related disclosure). 29) Investor relations exist (Investors related disclosure).
29) Investor relations exist (Investors related disclosure).
30) Audit committee presence is disclosed (Board committees related disclosure).
31) Remuneration committee's presence is disclosed (Board committees related disclosure).
32) Remuneration committee's meetings, assigned functions and accomplishments are disclosed (Board committees related
disclosure).
33) Remuneration received by the non-executive board members is disclosed to the general assembly for approval (Investor
related disclosure)
34) Voting on general assembly decisions is registered in absolute accuracy and transparency (Investor related disclosure).
Biological and the second state and state an
35) Audit committee includes at least 3 members headed by a BOD member.
36) Audit committee menders have no executive responsibilities.
37) Audit committee responsibilities/activities are specified.
38) Audit committee prepares an audit committee report summarizing its activities for the period.
39) Audit committee approves any additional tasks assigned to the external auditor subject that they are not among those that
will be audited by the external auditor or be in conflict with his assignment as an auditor.
40) Audit committee exceptionally assigns the first external auditor, subject to the approval at the first general meeting. Afterwards,
the re-assignment of the external auditor and setting his/her remuneration is the responsibility of the annual general assembly.

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	Company Practice	Yes, it exists "Y"	No, it does not exist "N"
	Board structure and composition		
1	The board of directors of the company develops a strategy for identifying threats faced by the company and means of dealing with them <i>(represented by BS1).</i>		
2	The boards of director members of the company have different skills and experience <i>(represented by BS2).</i>		
3	The Executive board of director members' term of contract does not exceed three years <i>(represented by BS6).</i>		
4	The board of directors' remuneration is significantly determined by the company's performance (represented by BS7).		
5	Non-executive board members meet with the managers of the company without the attendance of the executive board members <i>(represented by BS8).</i>		
6	The chairman of the board evaluates the performance of board members personally or by using an external party <i>(represented by BS9).</i>		
7	The company's secretary attends all board meetings (represented by BS10).		
8	The process of forming board committees, its term of operation, authorities granted and means of its monitoring is established via the board. <i>(represented by BS15).</i>		
	Transparency and disclosure		
9	The company has written rules and regulations on the prevention of conflict of interest <i>(represented by TD3).</i>		
10	Company and staff together put down the rules governing occupational behaviour <i>(represented by TD4).</i>		
11	Company select suppliers who are at the same occupational and ethical level as that of the company <i>(represented by TD5).</i>		
12	The internal audit manager reports on a quarterly basis to the audit committee <i>(represented by TD11).</i>		
13	The internal auditor quarterly reports to the audit committee the degree of compliance of the company with the laws and rules that regulate its activity <i>(represented by TD12)</i> .		
14	The internal auditor quarterly reports to the audit committee the degree of compliance of the company with the rules that of corporate governance <i>(represented by TD13).</i>		
15	The number of board meetings and the names of the board members who failed to attend the meetings are disclosed to shareholders <i>(represented by TD14).</i>		
16	The company rewards its executive managers with financial remuneration that allows the attraction and maintenance of the best-qualified elements in the market <i>(represented by TD25)</i> .		
17	The company's annual report includes a brief presentation on each existing board committee (represented by TD26).		
	Board committees		
18	Remuneration committee recommends the rewards and financial remuneration of executive managers (<i>represented by BC16</i>).		
19	Remuneration committee comprises mostly or wholly of the non-executive board of director members (<i>represented by BC17</i>).		
20	The head of the remuneration committee attends the annual general assembly <i>(represented by BC18).</i>		
21	The remuneration committee chair is a non-executive board member (<i>represented by BC19</i>).		
22	The audit committee meets at least on a quarterly basis (<i>represented by BC20</i>).		
23	The audit committee puts the mechanisms and systems ensuring corporate respect for the laws and regulations (<i>represented by BC21</i>).		
24	The audit committee manages the company's risk in accordance with the nature of its activity size and market in which it operates (<i>represented by BC22</i>).		
25	Board committees can seek the assistance of external consultants in the performance of their functions at the company's expense (<i>represented by BC23</i>).		
26	Other committees such as the risk committee and/or the investment committee exist in the company (<i>represented by BC24</i>).		

Table 2. Th	ie objective	corporate	governance	questionnaire	(CGQ)
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Based on the previously mentioned selection criteria and as a result of the inclusion of only the objective internal corporate governance mechanisms in the index and questionnaire provided above, Table 1 and Table 2 show the final "objective corporate governance index and questionnaire" which can be used as a measurement tool for the degree of corporate governance implementation among Egyptian listed companies after including ownership structure as one of the main internal corporate governance mechanisms.

Further explanation and literature support for the aforementioned four main sub-indexes forming the above presented corporate governance index (Table 1) is provided as follows:

The first sub-index, which focuses on ownership structure as an internal corporate governance mechanism, includes five main factors, which are as follows:

1. The first and the second corporate governance indicators are based on the definition of block holder provided by the Egyptian stock exchange to an individual or institution that owns 5% or more of a listed firm. Large ownership is one of the most important internal corporate mechanisms as per Demsetz and Lehn, 1985 and Shleifer and Vishny, 1986. However, increasing the ownership stake by large shareholders beyond a specific level may result in another type of agency problem, according to which the large shareholders may expropriate the wealth of the minority shareholders.

2. The third corporate governance indicator in the index, the 15% free float, is the minimum free float percentage that is requested by a listed firm that is included in EGX30, which includes firms with the highest trading volumes. Free float is thus an indicator of ownership dispersion referred to by Berle and Means (1932), stating that it implies that management is distinguished from ownership, which, as Jensen and Meckling (1976) emphasize, may contribute to agency problems between managers and shareholders. On the other hand, Shleifer and Vishny (1986) detect the phenomenon

of ownership concentration. La Porta et al. (1999) and Claessens et al. (2000) defined firm ownership as voting rights that make controlling shareholders of listed firms predominate firms by means of the pyramid structure and cross holding, which could result in the central agency problem. The fourth corporate governance indicator, which is the presence of Global Depository Receipts (GDRs), is not a requirement of the Egyptian corporate governance guidelines. Nonetheless, it was an indicator used in prior literature. The shares of six Egyptian companies out of the 92-company sample are traded on the London stock exchange through GDRs. Theoretically, cross-listing directly or through using American Depository Receipts (ADRs) may enhance the accounting standards, the level and quality of disclosure, and the rights of minority shareholders per Klapper and Love (2000), Bebczuk (2005) and Mustafa (2006). Finally, the fifth corporate governance indicator involves a listed firm taking a value of "one" if it operates under private law 159 and "zero" if it doesn't. Empirical studies such as La Porta et al. (1999) and Klapper and Love (2002) find that (1) legal systems, especially regarding the voting rights and investor protection, are varied across countries; (2) the legal system has a significant impact on the governance system and (3) the firms in the countries that apply common law outperform those in the countries that apply civil law.

The second sub-index, which focuses on the board of director structure and composition as an internal corporate governance mechanism, includes three main factors, which are:

1. Board size previously used in the literature by Wu et al. (2010), Beiner et al. (2006), Mustafa (2006), Rashid and Islam (2013), Mishra and Mohanty (2014) and Kyriazopoulos (2017). Boards of directors have difficulty communicating with each other when the size of the board is large according to Yermack (1996), Eisenberg et al. (1998) as well as Singh and Davidson (2003). Moreover, organizational theory presupposes that larger groups take a relatively longer time to make decisions and thus, more input time (Steiner, 1972). Lipton and Lorsch (1992) suggest in this regard that an optimal board is a size between seven and nine directors. Vafeas (1999) argues that as board size increases, board activity is expected to increase to compensate for increasing process losses. Accordingly, the cost of coordination and processing problems is high on large boards and this makes decision making difficult. On the other hand, smaller boards reduce the possibility of free riding.

2. CEO duality was a corporate governance variable used in studies done by Mustafa (2006), Coleman (2007), Sayed (2007), Bhagat and Bolton (2007), and Kholief (2008) Wu et al. (2010), Lazarides and Drimpetas (2011), Rashid and Islam (2013), Mishra and Mohanty (2014) and Abdullah (2016). According to the agency theory, when a chairman assumes the role of CEO, namely acting as a decision maker and supervisor at the same time, the function of the board to minimize agency cost could be weakened tremendously. Nevertheless, according to stewardship theory, executives' responsibility may neutralize self-interest behaviours derived from CEO duality, and thus executives are much more devoted to the company.

3. Finally, the third indicator in this sub-index covers the issue of the presence of outside directors

on boards. Black et al. (2004), Beiner et al. (2006), Coleman (2007), Bhagat and Bolton (2007), Amran and Ahmad (2010), Lazarides and Drimpetas (2011) and Ndayisaba and Ahmed (2015) cover this corporate governance indicator in their studies.

The third corporate governance sub-index, "Transparency and disclosure", which includes the extensive corporate governance indexes from Black et al. (2001, 2004, 2006, 2009), Drobetz and Zimmermann (2004), Foerster and Huen (2004), Cheung et al. (2007), Javed and Iqbal (2007), Bauer et al. (2008), Garay and Gonzalez (2008) and Chen at al. (2009). It is worth stressing that all the indicators included in the sub-index are extracted from the recommendation required by the Egyptian corporate governance guidelines.

The last corporate governance sub-index covers the board committees, which was one of the main corporate governance categories in studies such as Kim and Yoon (2007), Javed and Iqbal (2007), Coleman (2007), Lazarides and Drimpetas (2011) and Grove and Clouse (2017). Accordingly, board committees represent another internal governance mechanism whose impact is to improve the quality of corporate governance practices adopted by a company.

4.1. The Scoring Process

Following Bozec and Bozec (2011) who argued that "a self-constructed index based on a binary coding should provide a better measure of corporate governance than the existing commercial ratings" the corporate governance index (CGI) and questionnaire score will be based on a binary system (0, 1), where a score of "one" is given to a corporate governance indicator that exists in a listed company and a "zero" otherwise. Following Black et al. (2004) scoring process, the four sub-indices are combined into an overall corporate governance index as follows. Each sub-index is standardized to have a value between 0 and 25. Thus, the overall CGI is constructed to have a value between 0 and 100 while the questionnaire will have a value between 0 and 75, with better-governed firms having higher index To obtain a sub-index and a subscores. questionnaire total value, a simple sum was computed over the variables in the sub-index and questionnaire then divided by the number of "nonemissing" variables. The results are multiplied by 25 so that the resulting sub-index takes a value between 0 and 25. The sum of all indicators or sub-indices represents the corporate governance score for a specific listed firm in a specific year.

In this context, it is of utter importance to comment on the validity and reliability of the resulting corporate governance disclosure scores from the developed corporate governance index and questionnaire. Generally, few literature studies have examined the validity or reliability of corporate governance indexes (Thomas, 2007). Moreover, Bhagat et al. (2007) suggest that there is no one "best" measure of corporate governance. Rather, the most effective governance institution appears to depend on context, and on firms' specific circumstances. Accordingly, the authors conclude that governance indices are highly imperfect instruments and thus investors and policymakers should exercise caution in attempting to draw inferences regarding a firm's quality from its

ranking on any corporate governance measure. Aguilera and Desender (2012) also confirm that despite that academic indices at the county or firm level has generated considerable research, their validity is still an open question. This status is justified by Van de Walle (2006) who notes the tradeoff between reliability gained by aggregating corporate governance indicators, and precision, which is lost by aggregating these indicators. Knack and Manning, (2000) and Johnston, (2005) also note that if all these corporate governance indicators used generally in corporate governance indexes aim to measure the same thing (a general assessment of 'good governance'), then the lack of precision leaves them incapable of making important distinctions among the different sources and forms of "good" and "bad" governance.

Consequently, Bozec and Bozec (2011) propose guidelines to alleviate some of the methodological shortcomings inherent in the construction and/or use of governance scores which include the following: 1) corporate governance provisions should be equally weighted. In this regard, they prefer self-constructed indexes which alleviate any potential bias and subjectivity through using questions which have binary answers (yes/no) and thus are based on a binary coding system. This suggestion has been already taken into account in the construction of the corporate governance index in this paper; 2) Validity of the index should be tested even if a binary scale is used in the construction of a multi-factor index. In this essence, it should be noted that the validity of our developed index arises primarily from the fact that it has been extracted from the Egyptian corporate governance guidelines. Additionally, validity could be ensured by analysing the interrelation between governance identify features in order to any possible substitution effects governance between mechanisms and indicators. A co-linearity test on the corporate governance index data to mitigate the presence of an impact of one internal corporate governance mechanism on the other can also be useful in this scenario. Another way to learn more about the validity of the measure itself would be to conduct interviews with the aim of investigating the resulting governance scores. Accordingly, all the above suggestions can be taken into consideration to ensure the reliability and validity of the resulting corporate governance scores when using the proposed corporate governance index and questionnaire in this paper.

5. CONCLUSION

This paper takes the initiative of designing a measurement tool (objective index and questionnaire) for the quality of corporate governance practices implemented by listed companies in the Egyptian capital using in this Egyptian corporate context the governance guidelines. This measurement tool can be used in future studies especially those that aim to investigate the impact of the Egyptian corporate governance guidelines on the performance of listed companies. These studies can encourage listed companies to adopt the guidelines, especially if research proves the presence of a positive link between corporate governance practices and Egyptian listed companies' performance.

Additionally, the constructed index and questionnaire can be used by the Egyptian capital market authorities in ranking Egyptian listed companies based on their compliance with the Egyptian guidelines. Such practice can assist in spreading the corporate governance culture among listed companies as well as among Egyptian investors, which is crucial in an emerging capital market such as the Egyptian one. Published rankings can also be an effective way of encouraging and gradually forcing the implementation of the Egyptian corporate governance guidelines. This is necessary in Egypt's case due to the important role that the corporate governance code should play in the Egyptian capital market case, as mentioned earlier, and because neither the law nor the stock exchange requires listed companies to comply with the code nor are companies required to explain any deviations from the code.

Furthermore, we suggest that future research in this area take into consideration the following ideas.

1. Designing tools/techniques that can be used to measure the efficiency and effectiveness of subjective elements of corporate governance.

2. Designing measures that take into account external corporate governance mechanisms which Markets include: 1) (e.g., labor markets, product/services markets in which the firm operates), competition, capital markets including debt and equity markets, opinions of investment analysts, credit rating agencies, financial media and institutional investors; 2) Legal and supervisory authorities including national laws and regulations, corporate governance codes, central banks and capital market authorities; 3) Service providers independent auditors, including external accountants and investment banks; 4) Media which acts as a watchdog to capital market practices and the 5) Relationship with unions such as labor and customer unions.

Finally, it is worth referring to the main possible limitations of the developed index and questionnaire which includes the possibility of extending it to cover significant yet subjective areas of corporate governance such as 1) accuracy and adequacy of the internal control systems, policies and procedures; 2) the degree to which principle risks are identified which in return ensures that appropriate systems are implemented to manage these risks (e.g. risk management systems, policies and procedures and the relative efficiency and effectiveness of their implementation); 3) the effectiveness of remuneration policies in aligning the board of directors interest with the shareholders interest.

Additionally, the index and questionnaire could have been extended to include the external mechanisms but as previously mentioned, the guidelines current Egyptian include recommendations that relate only to internal mechanisms. Also, the implementation of the Egyptian corporate governance guidelines is partially voluntary (meaning that part of these guidelines are enforced mainly through listing rules while others left as total voluntary practices). are This consequently may to some extent decrease the important role played by external parties in enforcing corporate governance implementation in the Egyptian capital market's case.

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