

# Corporate Governance Disclosure Quality: Signalling Theory Insights and a Related UK-Egypt Empirical Analysis and Evaluation

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A thesis submitted in partial fulfilment of the requirements of  
London South Bank University  
for the degree of Doctor of Philosophy

August 2023

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**Word count excluding bibliography and appendices ca. 86,000.**

## **Acknowledgments**

In the name of Allah, the Most Gracious, the Most Merciful, and prayer and peace be upon the Messenger of Allah. Praise be to Allah for granting me the strength I needed to complete this journey.

I would like to express my sincere gratitude and appreciation to Prof. Kenneth D'Silva and Dr. Wafaa Salah, my Super supervisors, for all their valuable comments, feedback, and guidance. I sincerely appreciate the valuable time and effort dedicated to guiding me. Without their continuous encouragement and support, I would not have been able to complete this work.

I would like to thank Prof. Aly Salama and Dr. Craig Duckworth for their valuable time and effort devoted to my examination. I am also grateful to Prof. Bruce Lloyd and Dr. Lee Rose for their valuable comments and feedback during my mock viva.

I would like to thank the management at the British University in Egypt (BUE) for their continuous support and encouragement. Their support has been invaluable and essential in completing this research, especially Prof. Hadia Fakhreldin and Dr. Rania Pasha. I would also like to thank my dear colleagues at BUE for their continuous encouragement and support.

I am extremely indebted to my dad, my siblings Attera and Amr, and their families Sherif, Belal, Mona Agamy, and Shaimaa Elgawady. I also want to thank my uncles and aunts, especially Basma, Hemmat, Karima Elnashar, and Zakia Zaki, as well as my cousins, especially Noha, Habiba Elbehery, Nada Ibrahim, Amir, and Anas Aladdin. I am also grateful to my friends, especially Mona Salah. This journey would not have been completed without their endless love, support, encouragement, and prayers.

Finally, I am extremely grateful to my dear mum Fatma Elzahraa Elnashar for her endless care, love, and support. May Allah accept all her good deeds and have mercy on her soul.

## **Abstract**

The essential background of this research lies in the domain of corporate governance (CG). The importance of CG comes fundamentally from its attempt to minimise the conflict of interest between the principal and the agent and consequently, decrease the information asymmetry through corporate disclosures. Disclosures made to, and for, the public by a corporation are corporate disclosures. Corporations disclose through regulated financial reports, including financial statements, footnotes, management discussion and analysis, and other regulatory filings.

Using Signalling Theory as the theoretical framework, this research examines the effect of three sets of characteristics, namely company characteristics set (stock exchange index, S&P ESG (Standard & Poor's Environmental, Social, and Governance) index, company age, company size, type of auditor, cross-listing, profitability, liquidity, ownership structure, and foreign institutional investors), CG characteristics set (Chief Executive Officer (CEO) duality, Board of Directors (BoD) size, BoD independence, and Audit Committee), and country-specific characteristics set (country) on the Corporate Governance Disclosure (CGD) quality within the context of the U.K. and Egyptian listed companies.

The U.K. companies are selected from the population of listed companies on the London Stock Exchange (LSE) under the Financial Times Stock Exchange (FTSE) 100 index. Regarding the sample of the Egyptian companies, it is based on listed companies on the Egyptian Exchange (EGX) EGX100 EWI index. The final testable sample comprised 65 U.K. listed companies and 70 Egyptian listed companies over the period of three years 2019-2021 across six business sectors. The dependent variable CGD quality is a numeric computed variable. For each company, its CGD score is developed using the 52 (financial and non-financial) disclosure items as identified within the 2011 United Nations Conference on Trade and Development (UNCTAD) International Standards of Accounting and Reporting (ISAR) benchmark. The Content Analysis and Evaluation Approach is used to quantify CGD quality for each company. A series of statistical analyses are conducted including correlation, multiple regression, analysis of variance, and T-test.

The correlation results for the U.K. sample reveal that only three variables emerged to be highly statistically significant and positively correlated with the CGD quality. These are the variables of company size, BoD size, and BoD independence. However, company age, profitability, liquidity, and ownership structure appear to have no significant correlation with CGD quality.

Regarding the Egyptian sample, the correlation results are slightly different. The CGD quality is highly statistically significant and positively correlated with the company size, profitability, ownership structure, and BoD size. On the other hand, the CGD quality is positively correlated and statistically significant with BoD independence. However, while the relationship between the CGD quality and the company age emerges to be highly statistically significant, it is curiously, negatively correlated. Moreover, liquidity (while negatively correlated) appears to have no significant correlation with the CGD quality.

In terms of the U.K. and Egyptian samples, both samples reveal that the CGD quality appears to be positively correlated and highly statistically significant with the company size and BoD size. Furthermore, the BoD independence is revealed to be positively correlated with the CGD quality for both samples. However, in the U.K., it was highly statistically significant, while in Egypt, it was statistically significant. Equally, both samples reveal that liquidity appears to have no significant correlation with CGD quality.

In terms of the multiple regression results themselves, the research determines that the independent variables, combining company characteristics and CG characteristics as well as the country variable, explain 88.87% of the change in the CGD quality, based on the R-squared %. The results indicate that CGD quality (1) increases with S&P ESG index listing, larger company size, auditor with Big 4 affiliation, being cross-listed, higher profitability, higher liquidity, higher free float percentage, larger BoD size, and higher BoD independence; (2) decreases in older companies, with the existence of foreign institutional investors, with CEO duality, and in companies located in Egypt.

Regarding the business sectors, there were two tests employed to explore the differences within and between the six identified business sectors as follows: Analysis of variance and T-test.

Regarding the analysis of variance, the results suggested that there is a statistically significant difference in CGD Quality across the six identified business sectors in the U.K. as well as the six identified business sectors in Egypt.

As for the T-test, the results indicate that there is a statistically significant difference between the average score of CGD quality in companies in the U.K. compared to Egypt. The U.K. companies have an average CGD quality score higher than the Egyptian companies across all the six identified business sectors.

Generally, the results of the research support the theoretical arguments that companies tend to adopt higher CGD quality in order to reduce information asymmetry and, eventually, increase investors' trust. The empirical evidence from this research contributes to knowledge in respect to CGD quality and contributes to policy recommendations for the directors of the companies, investors, and regulators. More importantly, it contributes to the CGD practices in Egypt, one of the developing countries where the financial regulators and professional bodies work hard to improve CGD quality.

**Keywords** Corporate Governance, Disclosure Quality, Corporate Governance Disclosure, Disclosure and Transparency, Company Characteristics, Corporate Governance Characteristics, Country-specific Characteristics, Signalling Theory



## List of Terms and Abbreviations

AGM	Annual General Meetings
ANOVA	Analysis of Variance
BoD	Board of Directors
CASE	Cairo and Alexandria Stock Exchange
CEO	Chief Executive Officer
CFI	Corporate Financial Institute
CG	Corporate Governance
CGD	Corporate Governance Disclosure
CIPE	Center for International Private Enterprise
CPI	Corruption Perceptions Index
CSR	Corporate Social Responsibility
ECGI	European Corporate Governance Institute
EGX	Egyptian Exchange
EIoD	Egyptian Institute of Directors
ESG	Environmental, Social, and Governance
EU	European Union
EWI	Equally Weighted Index
EY	Ernst & Young
FRA	Financial Regulatory Authority
FRC	Financial Reporting Council
FTSE	Financial Times Stock Exchange
G20	Group of Twenty countries
GAAP	Generally Accepted Accounting Principles
GCC	Gulf Cooperation Council
GCI	Global Competitiveness Index

GCR	Global Competitiveness Report
GDP	Gross Domestic Product
ICT	Information and Communications Technology
IFIAR	International Forum of Independent Audit Regulators
IOSCO	International Organization of Securities Commissions
ISAR	International Standards of Accounting and Reporting
KPMG	Klynveld Peat Marwick Goerdeler
LSE	London Stock Exchange
MENA	Middle East and North Africa
MEPI	Middle East Partnership Initiative
NCCG	National Committee on Corporate Governance
OECD	Organisation for Economic Co-Operation and Development
OLS	Ordinary Least Squares
PCSE	Panel-Corrected Standard Errors
PwC	PricewaterhouseCoopers
ROAE	Return on Average Equity
ROE	Return on Equity
S&P ESG	Standard & Poor's Environmental, Social, and Governance
TRBC	Thomson Reuters Business Classification
UNCTAD	United Nations Conference on Trade and Development
VAT	Value-Added Tax
WBG	World Bank Group
WEF	World Economic Forum

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## **Research Dissemination**

### **Conference Presentations**

- July 2017: Presented at LSBU Postgraduate Research Summer School Conference, LSBU, London, U.K.
- April 2023: Presented at the 43rd Eurasia Business and Economics Society (EBES) Conference, Faculty of Economics and Business, Universidad Complutense de Madrid, Spain.

### **Publications**

#### **Conference Proceedings**

Ahmed, Y., D'Silva, K. and Salah, W. (2023) The quality of corporate governance disclosure and its determinants within an Egyptian context, in: *43rd Eurasia Business and Economics Society (EBES) Conference*, Madrid, Spain, 12-14 April.

# **Chapter 1**

## **Research introduction, aims, and objectives**



# Chapter 1: Research introduction, aims, and objectives

## 1.1 Background

The essential **background** of this thesis lies in the domain of **Corporate Governance** (CG). In particular, the thesis empirically evaluates the quality of sets of **Corporate Governance Disclosure** (CGD) within the U.K. and Egypt. Thereupon, it primarily seeks out possible statistically enabled explanations for such quality variations within and between the companies/corporations<sup>1</sup> so considered. However, to do so, two critical issues arise – what CG is and why it is important and why it should be researched. Specific theoretical and empirical considerations and discussions grounded in these and related issues are considered within the thesis. Equally, they are very briefly highlighted within much of the immediately following paragraphs.

Given that the fundamental basis of the thesis lies in governance, first a few grounding thoughts on the matter are in order. CG arises as a consequence of the separation of ownership and control – The classical Agency Theory conflict. Berle and Means (1932) examined this phenomenon in their seminal work ‘The Modern Corporation and Private Property’. In it, they discuss in much length two then current powerful movements: the growing concentration of industry and the separation of ownership and control. They claim that the American corporation is no longer a private business device, rather it has become a major social institution. It is this inevitable conflict of interest between the owner (principal) and the manager (agent) that provokes a need for trust – primarily between these two parties, but other

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<sup>1</sup> The word “companies” is generally used throughout this research as it is common in U.K. and by the “London Stock Exchange” and the “Egyptian Exchange”. However, the words “corporations” and “firms” are sometimes used in this research as some authors use them in their literatures.

stakeholders also. This is even more true today than in the decade when Berle and Means (1932) presented these thoughts.

The reason why trust is provoked is better explained when the classic principal-agent conflict is considered. This conflict of interest originates from the likely and generally perceived desire of the principal to maximise his/her interests and profit, while not being in control of his/her own investment funds. On the other hand, the agent controls and is assumed to be looking after the investments and interests of the principal. However, the agent's interest may not necessarily be the same as the principal's interest, as the agent may attempt to maximise his/her own interest and profit as well. Hart (1995) states that it is this perceived conflict of interest that constitutes the "agency problem". He suggests that this conflict provides a useful justification for some form of performance-related pay, possibly in the nature of profit-related remuneration or stock options.

Thus, in an effort to create and uphold trust between parties, companies set up appropriate infra-structures. Indeed, in a well-accepted definition of CG, Cadbury (1992) describes CG as the mechanisms, processes and relations (i.e., the entire range of infra-structures) by which corporations are controlled and directed. The Cadbury Code (1992) contends that sound CG calls for transparency, subject only to commercial confidentiality, truthful, accurate, and full financial reporting, as well as (primarily directors) disclosing quality corporate information.

Several definitions of CG have been presented in prior literature. Increasingly and in general, most CG definitions now recognise the role that companies have towards the equitable interests of all societal stakeholders – not just shareholders. Indeed, Solomon and Solomon (2004) provide a definition for CG that invokes the creation of an internal and external system of checks and balances. They contend that this

system should help ensure that companies discharge their accountability to, and take regard for, the equitable interests of, all their stakeholders.

In doing so, companies are more likely to be socially responsible in all areas of their business activity. Crane et al. (2008) contend that current thinking often sees companies as a part of society and, not infrequently, they act as such in some countries. They act in a socially responsible manner in order to fulfill their commitments in terms of Corporate Social Responsibility (CSR). This is sometimes referred to as the “citizenship” of corporations, with them being afforded power and responsibilities by society in order that they may take into consideration their role in the community.

Thus, one observes that governance in general, and more particularly, CG is important to all stakeholders of corporations. Corporations often wield much power and render significant impact on their shareholders and on the community as a whole. Equally, in addition to other societal considerations, corporations must ensure that the shareholder value is not only preserved, but rather increased. Thus, being cognizant of the wider stakeholder interests, Mizuchi (2004) argues, rightly, that all stakeholders and investors are entitled to expect that the Board of Directors (BoD) will address their varying concerns. Accordingly, CG assumes a distinct societal nuance and responsibilities towards and for society.

To properly comprehend the role of companies, one must recognise that trust is at the core of CG. CG is fundamentally about trust. Building trust is critical for companies to operate effectively. Without trust, principals will not invest, and agents will not be in control of the principals' funds. Some support for this is offered by Farber (2005), whose research indicates that investors appear to value CG improvements, as companies that take actions to improve their governance structures and overall quality have superior stock price performance.

The importance of CG comes fundamentally from its attempt to minimise the conflict of interest between the principal and the agent. Jensen and Meckling (1976) state that some of the importance of CG arises from the principal-agent conflict and its integral relationship to modern sophisticated capitalist entities and systems. The need for sound CG is heightened by the vast amounts of equity capital provided by shareholders to companies, with the funds being effectively entrusted (in good-faith - *uberrimae fidei*) to, and managed by, company directors.

Along with the efforts to define CG, the Cadbury (1992) Report on the Financial Aspects of CG identifies several CG mechanisms. Denis and McConnell (2003) characterize CG mechanisms as being either internal or external to the corporation. Two key primary internal mechanisms are the BoD and the equity ownership structure of the corporation. The primary external mechanisms are the external market for corporate control or the takeover market and the legal or regulatory system. Important parts of these external mechanisms are the disclosures made by companies. In part, these disclosures serve to act as an element of the monitoring mechanisms of agents by principals. Indeed, Mizruchi (2004) states that corporate disclosures form part of the monitoring of management.

Disclosures made to, and for, the public by a corporation are corporate disclosures. Corporations disclose through regulated financial reports, including financial statements, footnotes, management discussion and analysis, and other regulatory filings.

According to Healy and Palepu (2001), there are other means of corporate disclosure, such as management forecasts, analysts' presentations and conference calls, press releases, internet sites, and other corporate reports. Also, information about corporations by financial analysts, industry experts, and the financial press are considered disclosures about corporations made by information intermediaries.

Many such disclosures are made via the company's annual audited financial statements and-or statutory reports, as mentioned earlier. Those disclosures that relate primarily to "governance" are considered to be CGD. As previously stated, justifications for such disclosures to be made lie in the fact that corporations are societally legitimised organisations, with such legitimisation carrying the obligation and-or duty to disclose appropriate CG information. A consideration of such CG (financial and non-financial) disclosure is examined in the United Nations Conference on Trade and Development (UNCTAD)<sup>2</sup> publication when providing guidance on good (sound) practices of CGD using 52 disclosure items (UNCTAD, 2011).

The 52 disclosure items of UNCTAD (2011)<sup>3</sup> are classified into five categories as follows:

1. Ownership Structure and Exercise of Control Rights (9 items)
2. Financial Transparency (8 items)
3. Auditing (9 items)
4. Corporate Responsibility and Compliance (7 items)
5. Board and Management Structure and Process (19 items)

Using this UNCTAD guidance, one may infer that CGD should be seen to be more a journey rather than a destination. And these guidance notes act as an evaluating basis for this research, by serving as an index of CGD quality<sup>4</sup> for each of the companies researched. After they have been appropriately identified and researched, these aspects form the base, argument, and belief that higher and

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<sup>2</sup> Since the U.K. and Egypt are the focus of this research, the UNCTAD (2011) disclosure list was used as a single point of comparison between the two countries because it is regarded as being country-neutral.

<sup>3</sup> Section 5.8.1.2 provides details of the 52 disclosure items of UNCTAD (2011).

<sup>4</sup> Table 5.12 presents the level of CGD quality index.

better quality CGD will evoke more trust in stakeholders, while lower and weaker disclosures will reduce such levels of trust. Thus, it could be argued that when disclosure quality is high, then stakeholder trust is likely to be high, and so with the converse. If so, it then becomes appropriate to determine those sets of “corporate” phenomena that tend to be more (or less) associated with and possibly drivers (signals) of high quality CGD and possible “bell weathers” of the same. Such thinking embraces the fundamental basis of the thesis.

Having considered the overall background of this research, the following section discusses its more precise context.

## **1.2 Context**

The particular **context** for this research is the U.K. and Egypt – more particularly their corporate disclosures. Thus, the population frame for the sampled/tested research cases evaluated are two particular sets of 100 companies whose registrations/listings are in either of these two countries. Regarding the U.K., the population frame is the 100 companies listed on the Financial Times Stock Exchange (FTSE) 100 index at London Stock Exchange (LSE). As for Egypt, the population frame is the set of 100 companies listed on EGX100 EWI index of the Egyptian Exchange (EGX). The reasoning behind the selection of these two countries for research is discussed in the following paragraphs.

Apart from personal interest, the U.K. and Egypt are used as the geographical focus as the two countries are at different and distinct stages of development. These development stages may be of relevance to both the quality of their corporate disclosures and their related intensity.

The U.K., a well-developed country, is making advances in its listed companies CGD practices. Doidge et al. (2007) argue that the most important determinant of a

firm's governance is its country characteristics, such as legal protections for minority investors and the level of economic and financial development.

On the other hand, Egypt, as a developing country, is exerting continuous efforts towards better CGD practices. However, the highly secretive Egyptian culture (Dahawy, 2009; Abdel-Fattah and Aboud, 2020) greatly affects the CG and related disclosure practices of its listed companies. Gray (1988) argues that the higher the degree of secrecy, the lower the extent of disclosure. Therefore, the extent of the information disclosed in annual reports is affected by the degree of secrecy desired. Accordingly, the secretive Egyptian culture is likely to not encourage good quality CGD and practices. Taking regard for the above, it would not be inappropriate to suggest that, in general, corporate disclosure quality would be qualitatively of a higher standard in the U.K. than in Egypt.

Thus, using the UNCTAD (2011) publication as a country neutral basis, the research analyses and evaluates the CGD practices of listed companies in terms of company characteristics and CG characteristics, while discussing the country-specific disclosures, between and within both the U.K. and Egypt. The identified differences between the two countries are of much benefit to the research, as sound U.K. disclosure practices could be recommended to different Egyptian stakeholders in order to promote sound Egyptian CGD and practices.

The following section discusses the problem and motivation for this research.

### **1.3 Problem and motivation**

The basic problem/motivation of the research is grounded in an attempt to consider and evaluate the argument previously stated – i.e., higher and better quality CGD will evoke more trust in stakeholders, while lower and weaker disclosures will reduce such levels of trust. CG is both intangible and non-visible. Consequently, its

existence and quality can be made evident by suitable alternative signs or “signals” that are, indeed, visible. And, on the basis that high quality CGD is likely to signal high standards of CG quality, one could regard such high quality disclosure as surrogates for CG itself. Equally, on that basis, high quality CGD is likely to suggest or “signal” high quality CG, while low quality disclosure is likely to “signal” reduced levels of CG (Abdullah and Ismail, 2008). Consequently, the **lens** through which the research background and context are considered is “**Signalling Theory**”<sup>5</sup>.

Through the prism of “Signalling Theory”, the thesis considers the CGD from an evaluative theoretical perspective. Thereafter, these pertinent disclosures are empirically considered within the two countries of particular interest – i.e., the U.K. and Egypt. In particular, it is the quality of these disclosures and their linkage, as empirically determined, to specific sets of company characteristics and CG characteristics. The thesis usefully addresses the feasibility of “Signalling Theory” to provide related helpful explanations to such corporate disclosures.

In order to act responsibly towards the community, corporations must disclose information regarding different aspects of their performance. Decisions to make CGD of varying nature, quality and intensity, or to not disclose at all, might be explained by using “Signalling Theory”. Companies “signal” via a “mix” of CGD to sets of receivers, a range of individual messages or signals. Connelly et al. (2011) argue that such signalling is provoked by and highlights the problem of information asymmetry. Indeed, this may well result in corporate information not being disclosed – it being a corporate decision as to whether to disclose or not and in which particular form.

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<sup>5</sup> This theory is examined more fully within Chapter 3 of this thesis. However, in essence, Connelly et al. (2011) envisage the “signalling environment” to include companies (particularly their directors) as senders “signallers” of information, who have the choice to disclose (or not) information “signals” to stakeholders “receivers”.



Within CGD quality lies issues relating to what aspects and features of company characteristics, governance characteristics and possibly even country-specific disclosures are, in fact, empirically present and associated with robust CG and disclosure. If so, one might also argue that such disclosure might well vary between two countries.

All countries are seeking growth, but without economic activities, growth is not possible. Thus, economic activity is what all countries want, but trust must come first. When trust is limited, the potential for economic activities is also limited, but when trust is furthered and enhanced, the potential for economic activities is also furthered and enhanced. Therefore, one would expect that implicit trust results in a willingness to advance investment funds.

For this research, enhanced economic activity and growth are of special importance for Egypt. However, the culture of secrecy is quite prevalent in Egypt. In general, people have a tendency to resist change and avoid uncertainty (Dahawy, 2009; Abdel-Fattah and Aboud, 2020). The secretive culture itself fortunately or unfortunately limits trust and when trust is limited, the potential economic activities and benefits are also likely to be limited. As a result, the problem of information asymmetry in companies is expected. This research is motivated on the premise that companies gain more from adopting sound and effective CGD practices than from withholding information. Therefore, this secretive culture must be addressed and more transparency must be embraced. In a global context, more transparency will have implications and be beneficial to Egypt since it will grant access to more funds, which will eventually have an impact on economic growth.

The purpose of contrasting between the practices of companies in the U.K. and Egypt is to explore and compare the various practices in these two countries and, eventually, showcase the advantages of high level CGD quality. This is

accomplished by employing different statistical tests to reveal the fundamental differences within and between the two countries in terms of their CGD practices.

Taking regard for the preceding discussion of the background, context, problem/motivation, and theoretical positioning within which the doctoral thesis is set, the immediately following sections discuss the research questions as well as the research aims, objectives, intended outcomes, contribution to knowledge, and the structure of the thesis.

#### **1.4 Questions**

Against the preceding background and context, a fundamental research question of the intended research is “what might be the varying criteria and considerations behind and associated with, the decisions of comparable sets of U.K. and Egyptian listed companies, in terms of their varying CGD quality and practices - specifically in disclosing (or not), in an open and transparent manner?”.

Developing this fundamental research question further, other related research questions would include:

1. **What** insights does **Signalling Theory** offer and how might it serve to potentially respond to the following further questions? (A theoretical consideration)
2. **What company characteristics** are manifest in, and-or possibly influentially associated with, companies exhibiting particular levels/qualities of CGD? (An empirical consideration)
3. **What CG characteristics** are manifest in, and-or possibly influentially associated with, companies exhibiting particular levels/qualities of CGD? (An empirical consideration)

4. **What country-specific characteristics** are manifest in, and-or possibly influentially associated with, companies exhibiting particular levels/qualities of CGD? (An empirical consideration)
5. **What** insights, in terms of the nature of their CGD quality, are manifest within and between companies listed on London and Egyptian Stock Exchanges across the six (later) identified business sectors? (An empirical consideration)
6. **What policy recommendations** may emerge from the empirical determinations regarding the quality of CGD while employing Signalling Theory perspectives? (A theoretical consideration grounded in empirical evidence and considerations)

Within the context of the above stated research questions, the following section discusses the main research aim and objectives of the research.

### **1.5 Aim and objectives**

The overall aim of the research is to contribute to knowledge within the realm of CG while employing a Signalling Theory perspective. Accordingly, given the aim of the research, employing this theoretical frame, it empirically seeks out and interpretively evaluates relevant potentially “signalling” data. It does so in the context of U.K. and Egyptian corporate disclosures within particular business sectors in both countries, and as associated with particular governance features and-or characteristics. Importantly, the nature and motivation behind the potential “signals” they are intend to emit, are considered and possible/potential explanations provided using a Signalling Theory perspective.

Accordingly, after some initial evaluation of potentially helpful theories such as Agency Theory, Stakeholder Theory, Legitimacy Theory, and Signalling Theory, the research determined that using Signalling Theory, as its main theoretical

perspective (lens), serves it best in its attempt to determine knowledge by examining the empirical data and to obtain fresh insights relating to the theory.

More importantly, against the reasoned possibility that CGD (or its absence) is possibly associated with, or influenced by, each of individual company characteristics and governance characteristics, the research empirically identifies patterns/levels of CGD quality that tend to be present in conjunction with each of these two sets of characteristics. It also seeks out possible criteria provoking or associated with CGD quality.

In order to fulfill this particular aspect of the research aim, and consistent with the research questions, the following key research objectives are developed:

1. To determine and present theoretical insights relating to Signalling Theory both generally and, more particularly, within the context of CGD quality. (Chapters 3 and 6)
2. To empirically identify varying company characteristics as possibly associated with CGD quality across two meaningfully identified sets of U.K. and Egyptian companies. (Chapters 5 and 6)
3. To empirically identify varying CG characteristics as possibly associated with CGD quality across two meaningfully identified sets of U.K. and Egyptian companies. (Chapters 5 and 6)
4. To empirically examine and evaluate possible association of country-specific characteristics and the adoption of CGD quality in two sets of comparable U.K. and Egyptian companies. (Chapters 5 and 6)
5. To empirically identify and then provide possible explanatory interpretations for CGD quality differences within and between the six (later) identified business sectors across the sets of U.K. and Egyptian companies. (Chapters 5 and 6)

6. To make recommendations regarding policy contributions at country-level (U.K. and Egypt), in respect to CGD quality developed from Signalling Theory consideration while taking regard for the earlier empirical determinations. (Chapter 7)

Having outlined the key objectives of this research<sup>6</sup>, the following section goes on to discuss its intended research outcomes.

### **1.6 Intended outcomes**

Based on the identified research aim and objectives, the following are the intended research outcomes:

1. A theoretical determination of helpful insights and their related implications in terms of CGD quality using Signalling Theory. (Chapter 6)
2. An empirical determination of the main company characteristics positively or negatively associated with varying practices of CGD quality within the contexts of U.K. and Egyptian companies. (Chapter 6)
3. An empirical determination of the CG characteristics positively or negatively associated with different practices of CGD quality within the contexts of U.K. and Egyptian companies. (Chapter 6)
4. An empirical determination of the country-specific characteristics associated with different practices of CGD quality within the context of U.K. and Egyptian companies. (Chapter 6)
5. An empirical determination and possible explanatory interpretations of the main differences of varying practices of CGD quality within and between business sectors of the U.K. and Egyptian companies. (Chapter 6)

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<sup>6</sup> Table 5.21 is presented as a depiction of the research questions, objectives, and hypotheses.

6. An issuance of policy recommendations/contributions at country-level (U.K. and Egypt), in respect of CGD quality given companies' intentions to emit particular signals. (Chapter 7)

### **1.7 Contribution to knowledge and originality**

The research contributes to knowledge theoretically and empirically. The research fills the gap in the previous CG theoretical literature as it discusses CGD quality using Signalling Theory as its theoretical lens. To the best of the researcher's knowledge, no prior literature has examined CGD quality using the Signalling Timeline concepts proposed by Connelly et al. (2011).

Furthermore, the research fills the gap in the previous CG empirical literature as it examines the features of CGD quality. In particular, the derived insights in terms of Signalling Theory and how they might serve to potentially illuminate these features:

- a. Company characteristics
- b. CG characteristics
- c. Country-specific characteristics
- d. Specific business sectors within and between U.K. and Egypt

The above features enable contributions to knowledge upon completion of the research for each of the previously mentioned research questions. Using Signalling Theory as the theoretical lens, the completed research offers some light on the theory itself and, more particularly, it does so in the context of explaining varying practices of CGD quality. This knowledge is particularly relevant to U.K. and Egyptian companies – particularly in terms of company characteristics, CG characteristics, as well as the country-specific characteristics.

Using the data from sets of comparable U.K. and Egyptian listed companies across six (later) identified business sectors is another contribution to knowledge in the

empirical CG literature. Additional enlightenments as to differences in the quality of CGD practices within and between these sets also emerge and are provided.

Accordingly, this research contributes to the knowledge regarding CG literature in developed vs. developing countries by focusing on the U.K. (as a developed country) and Egypt (as a developing country). The analysis and evaluation of CG practices in these two countries enrich the literature and contribute to the knowledge in this research area.

Finally, a contribution to policy is made by offering recommendations regarding CGD quality at country-level (U.K. and Egypt). The policy contributions may benefit different stakeholders, such as the companies themselves, investors, regulators, and professional bodies.

These policy contributions or recommendations take into consideration earlier empirical reveals regarding the companies' intention of emitting particular signals. Although, these recommendations are not contributions to knowledge in themselves, they are enabled as a result of the application of knowledge acquired from this research. Therefore, the research offers contributions in terms of knowledge (theoretically and empirically) as well as policies.

The next section of this chapter discusses the structure of the thesis.

### **1.8 Thesis structure**

The thesis is structured into seven chapters in order to achieve the previously mentioned research aim and objectives. The following chapters, including this one, constitute this thesis:

- Chapter 1: Research introduction, aims, and objectives
- Chapter 2: A review of prior contextually-related research literature
- Chapter 3: A review of prior theoretically-related research literature

- Chapter 4: A review of prior empirically-related research literature and the development of the research hypotheses
- Chapter 5: The research design and methodology
- Chapter 6: The empirical results and related discussions
- Chapter 7: Research conclusions, policy contribution(s), and future research

A very brief highlighting of the contents of each of the above chapters is presented in the following paragraphs.

**Chapter 1** “Research introduction, aims, and objectives” is devoted to the provision of an explanation of an introduction to the research. It sets the background and context of this research in order to fully comprehend the environment within which the research thesis is based. Additionally, the research questions, aim, objectives, and intended outcomes are explained and discussed in this chapter. Equally, the contribution to knowledge generated by this research and the originality of its findings/results are highlighted in the chapter. Finally, the chapter concludes with a very concise overview of each chapter of the thesis and a reprise of the chapter itself.

**Chapter 2** “A review of prior contextually-related research literature” concerns itself with a review of key relevant contextually-related literature. The chapter commences with a consideration of the nature, essence, and significance of CG and consequential disclosures. Then, many of the key factors that constitute good CG are discussed. This chapter goes on to review CG principles, with an emphasis on CGD and the transparency principle. The disclosure and transparency principle is pivotal to the construction of this thesis. Indeed, in particular, the thesis investigates CGD quality and associated disclosure practices, a measure of the transparency exercised by companies.



The chapter also provides a discussion on some regulatory structural issues, where the CG codes of both the U.K. and Egypt are considered, in conjunction with the codes of other countries. This is undertaken in order to assess various CG codes in terms of their similarities and differences in an attempt to better comprehend the differences in the CGD codes and practices by different countries.

The final section of this second chapter is devoted to a consideration of Global Competitiveness. This consideration embraces competitiveness indices and their nature – in particular, their definitions and implications relating to the U.K. and Egypt. This is so because, later within the thesis, country-level competitiveness is employed to provide some insights to the empirical examination of the country-level disclosure within U.K. and Egyptian contexts. The Global Competitiveness Index (GCI) is important to this thesis as it reveals the level of individual country competitiveness – particularly the U.K. and Egypt, which are an important focus of this research. The chapter also seeks out differences and similarities between the U.K. and Egypt Codes of CG along with the level of competitiveness of both these countries. Identifying and seeking out explanations for these differences and similarities between the U.K. and Egypt provide some motivation for this research and later provide some explanatory insights to the results of the empirical analysis.

In a very similar manner, **Chapter 3** “A review of prior theoretically-related research literature” devotes itself to a review of key relevant theoretically-related literature. The chapter commences with a review of some theories that are relevant to, or potentially associated with, this research. Accordingly, Agency Theory, Stakeholder Theory, Legitimacy Theory, and finally (in some more detail) Signalling Theory are considered. In some depth, these theories are all examined and discussed in this chapter. The discussion provides the rationale for selecting Signalling Theory as the theoretical lens or frame for the research. In view of that, within this chapter, a key section of it is devoted to Signalling Theory and its relevance to CG. The chapter

concludes with a justification of the selection of Signalling Theory as the lens through which the research background and context are considered and a reprise of this chapter itself.

**Chapter 4** “A review of prior empirically-related research literature and the development of the research hypotheses” concerns itself with a reasoned consideration of the development of the research hypotheses examined within the thesis. This development is premised on a review of key relevant empirical literature, and a similar review of key prior literature that is theoretically-related to the context of this thesis, and the relevant theories related to CG identified in the previous two chapters. This review of prior empirical literature is related to CGD practices, with a focus on CG practices in the U.K. and Egypt. Light is shed in particular on the most significant prior empirical literature related to the research, in order to serve as the foundation for the evolution and reasoned development of several hypotheses of this research.

The chapter benefits from six sections. The first section serves as a lead-into and an introduction to it. The then following four sections are dedicated to the four sets of hypotheses developed for this research, which are as follows:

1. Company characteristics set
2. CG characteristics set
3. Country-specific characteristics set
4. Business sectors set

The first set of hypotheses is the company characteristics set. Under this first set, there are ten main hypotheses that are tested in the U.K. and Egypt jointly. The different company characteristics, that are tested, are the stock exchange index, the S&P ESG (Standard & Poor’s Environmental, Social, and Governance) index, the company age, the company size, the type of auditor, the cross-listing, the

profitability, the liquidity, the ownership structure, and the foreign institutional investors.

The second set of hypotheses is the CG characteristics set. It comprises four main hypotheses related to CG characteristics. Like the prior set of hypotheses, it is tested in the U.K. and Egypt jointly. The different CG characteristics, that are tested, are the Chief Executive Officer (CEO) duality, the BoD size, the BoD independence, and the Audit Committee.

The third set of hypotheses is the country-specific characteristics set. It engenders one hypothesis related to the country variable itself. Like the prior set of hypotheses, it is tested in the U.K. and Egypt jointly.

The fourth set of hypotheses are considered within and between the relevant six (later) identified business sectors, in respect to the U.K. and Egypt. First, there is one hypothesis that is examined for each country. The listed companies in the U.K. and Egypt are classified according to their business sector. Then, from the relevant samples, the emergent six comparable sectors are further investigated and evaluated in this intra-country business sectoral hypotheses. Second, there are six hypotheses that are examined for each business sector of the U.K. and Egypt. The six comparable business sectors are examined and evaluated in this inter-country business sectoral hypotheses.

The sixth and last section of Chapter 4 summarises and reprises the highlights of this chapter. Having deliberated the several hypotheses of the thesis and detailed their rationalised development, taking regard for relevant prior empirical literature within this chapter, the next (Chapter 5) goes on to consider the design and methodology of the research.

**Chapter 5** “The research design and methodology” explains the research design and methodology using a helpful structure provided by the “Research Onion”,

suggested by Saunders et al. (2023). It starts with a discussion of the philosophical assumption and the approach used in the thesis. The prime philosophy of the research is positivist with some limited interpretivist aspects. And, given its dominant positivist philosophy and numeric/quantitative bent, the research approach is essentially deductive with some limited inductive aspects. The applied research strategy is archival. Methodologically, the research is primarily quantitative and uni-methodical. Its time horizon is longitudinal, with the same set of companies being used as the research cases over the years 2019, 2020, and 2021 and their relevant audited financial statements and reports being analytically and (in some small measure) evaluatively considered.

As stated, the chapter considers the key aspects of the philosophy, approach, strategy, method, time horizon, and finally, techniques and procedures. The section of the techniques and procedures unfolds several sub-sections discussing mainly the research data collection and its analysis. First, the sample selection is discussed. Then, the research data collection and its analysis are mainly discussed.

Apart from a series of correlation analyses, the main form of analysis is multiple regression analysis with a dependent variable and appropriate independent variables. This discussion starts with the identification, definition, and rationalisation of the variables selected for consideration (both the dependent variable and the independent variables). The dependent variable is consistently CGD quality, while the independent variables are appropriate “mixes” of company characteristics, CG characteristics, and country-specific characteristics. Accordingly, each variable, either dependent or independent, is defined and its usage rationalised. Moreover, the specific nature and basis of measurement or determination are also discussed. Then, the models being tested in this research are duly identified, processed, and discussed.

This chapter also provides significant details about the data collection. The data collection section considers the sources and means of acquisition of the data. It identifies and rationalises the source of the data and its related acquisition. Thus, it clarifies where the data comes from and how the data is obtained. The data are collected from five different sources. They are as follows:

1. London Stock Exchange official website
2. Egyptian Exchange official website
3. Refinitiv Eikon financial database
4. The official websites of relevant companies within the U.K. and Egypt
5. S&P Global official website

Thus, the data itself is of a secondary nature as can be concluded from its sources, but primary in its ultimate source.

After identifying the data sources, the ethicality, reliability and validity of the data are also discussed in this chapter. All the data collected for this research are publicly available data, as this research is concerned with the quality of CGD practices of only listed companies who make such data publicly available. Therefore, there was no ethical nor confidentiality concerns during the conduct of this research<sup>7</sup>. The data collected are disclosed and accessible to different stakeholders. Since, the data for this research are secondary data, then this means that the data were already prepared by other parties, and significantly professionally audited, its overall reliability and validity is much ensured. Nevertheless, the Cronbach's alpha statistical test was used to determine the reliability of the CGD index scores (manually determined by the researcher using the previously referenced UNCTAD (2011) Disclosure Guidance).

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<sup>7</sup> Nevertheless, the researcher ensured that at all times while conducting the research, appropriate LSBU and BUE ethical codes were consistently and fully complied with.

Finally, the chapter considers the various statistical tests that are to be applied to the relevant quantitative data for each of the several sets of hypotheses. The predominant means of analysing the data are relevant sets of correlations and multiple regressions, as appropriate to the individual testable hypotheses. Accordingly, the identified sets are appropriately “fleshed” with, as necessary and appropriate, quantitative values being duly measured and given to each variable. The series of appropriate correlations and multiple regressions are then statistically computed and evaluated with, as previously stated, each computation having its unique dependent variable (CGD quality) and an appropriate or “mix” of independent variables.

After explaining the research design and methodology and running the relevant statistical tests, the next Chapter 6 goes on to present and discuss the empirical results, and offer a discussion of the associated theoretical findings.

**Chapter 6** “The empirical results and related discussions” provides the empirical results and a discussion of them. Understandably, this chapter is key to this thesis as it, significantly, displays the results of the testing of all the different hypotheses. It starts with a discussion of the descriptive results, followed by a discussion of the inferential results.

As stated, the chapter starts with the discussion of the descriptive results of the dependent variable, then the independent variables, which are classified into categorical and continuous. This is discussed in terms of the sample of the U.K. listed companies, i.e., the set of the 65 testable U.K. sample of companies over the period of three years 2019-2021, as well as the sample of the Egyptian listed companies, i.e., the set of the 70 testable companies over the same period three year of 2019-2021.

The correlation results for the U.K. and Egyptian samples are discussed to determine the strength of the association between the CGD quality and the independent variables within the contexts of the U.K. and Egyptian companies. Then, the results of the multiple regression analysis are discussed to indicate which independent variables are significantly influencing the CGD quality in the contexts of the U.K. and Egyptian companies. This is followed by a discussion of the differences within and between the identified business sectors in the U.K. sample as well as the Egyptian sample. Then, a discussion on the theoretical findings, grounded in the empirical results, is following. This discussion draws on Signalling Theory insights and evaluations regarding the quality of CGD. Then, the last section of Chapter 6 summarises and reprises the highlights of this chapter.

The final chapter is **Chapter 7** “Research conclusions, policy contribution(s), and future research”. It discusses conclusions initially drawn from the results of the empirical analysis. It then also suggests some appropriate policy contributions to policy makers so that their actions could make a practical difference to the phenomenon of trust within the CG arena. Thereafter, some important research limitations are discussed, in the light of the results of the analyses undertaken. Equally, in order to alleviate these research limitations, some suggested possible future research ideas are offered. Finally, the chapter takes the opportunity to highlight the knowledge contributions made through the research and present some possibilities as to how future researchers may extend and expand upon it.

### **1.9 Chapter summary**

This first chapter of the thesis has discussed the background, context, and problem of this research. It has outlined the questions, aim, objectives, and intended outcomes of the research. It gave an indication of the potential contribution to

knowledge and originality of the research. Finally, it outlined the structure of this thesis on a summarised chapter by chapter basis.

Having set the overall context of the research within this chapter, the following chapter goes on to review and consider prior contextually-related literature. This is done in order to assist the reader to benefit from a literary appreciation and positioning of the thesis research.

Accordingly, the next chapter is a review of prior contextually-related literature. It considers the significance of CG and what might be judged to be good CG. The chapter also discusses the CG principles, particularly those related to CGD and transparency. Finally, the chapter considers carefully different codes of CG and the GCI and its implications on U.K. and Egypt.



## **Chapter 2**

### **A review of prior contextually-related research literature**

## **Chapter 2: A review of prior contextually-related research literature**

### **2.1 Introductory comments**

The previous chapter outlined the overall background (CG) of this research, and precise context (particular listed companies in the U.K. and Egypt, with special focus on the quality of their individually relevant CGD). Thus, in order to better appreciate the research, this chapter highlights and exposes some contextually-related literature. The chapter also serves to “ground” further theoretically-related (Chapter 3) and empirically-related (Chapters 4, 5, and 6) offerings and developments. In doing so, the literature reviewed in this chapter pays special regard to generally expected CGD as stated in codes and statute, and an evaluation of their quality. Accordingly, while generally taking special regard for CGD aspects, this chapter has five substantive sections (in addition to this section).

Having set out the generalised context of the research in the previous chapter and after some chapter introductory comments to this one, its second section examines some essential aspects relating to the nature and significance of sound CG. In particular, this section considers how companies could and do benefit from a robust application of sound underlying CG Principles.

The third section of this chapter concerns itself with an examination of key principles underlying CGD – particularly the practices suggested by the Organisation for Economic Co-Operation and Development (OECD) (OECD,2015).

As the primary geographic-political context of the research is the U.K. and Egypt, the fourth section of this chapter devotes itself to an expose of some of their legal and professional regulatory aspects relating to CG generally and, more particularly, CGD.

Against that backdrop, this fourth section firstly undertakes a more legal (de jure) consideration within these two countries. It then goes on to a closer, more practical (de facto) consideration of the CG Codes in the two countries. More specifically, these are undertaken in terms of the 2018 U.K. CG Code (FRC, 2018) and the 2016 Egyptian CG Code (EIoD, 2016). The section goes on to conclude with an overview of some of the more important CG Codes from other countries (global) and professional bodies.

As indicated earlier, while undertaking this consideration, this section of the chapter identifies and discusses, in some detail, the disclosure aspects of the referenced U.K. and Egyptian CG Codes. Understandably, because of the very nature of this section of the chapter, significant parts of it require re-statement and re-expression of material already in the public domain and this is duly recognised in advance.

Within context, the thesis presents (inter alia) the possibility that Global Competitiveness is one possible feature that also influences CGD quality. Thus, the section following within the chapter consider the nature, description, and key ingredients of Global Competitiveness, together with some discussion of an appropriate Index developed to assess the same; while the implications associated with this feature in terms of the U.K. and Egypt are then assessed.

The final terminating section of the chapter concludes with a summary of its contents. It enables the reader to synoptically re-visit key literatures that are contextually-related to the research conducted. Accordingly, on an individual sectional basis, this concluding section of the chapter refreshes and reprises each of its earlier sections. Further, while doing so, the section sets out the basis for the next chapter (potentially helpful theories) and starts to illuminate how these theories (particularly “Signalling Theory”) assume relevance to the research.

## **2.2 CG – nature and beneficial significance**

This first substantive section of the chapter explores key components of what sound CG is, and why and how important and significant it is. This section, in particular, explores how companies might benefit from adopting and implementing healthy CG practices.

Accordingly, the following discusses aspects of sound CG, while detailing elements that constitute the same.

### **2.2.1 Sound CG nature**

CG has become increasingly important to all businesses, regardless of their industry. The phenomenon of CG has many aspects (D'Silva and Khan, 2010). It might imply many different things to different stakeholders. Accordingly, while companies tend to generally have a strong focus on profit, the CG debate has grown louder and more focused on the societal impact of corporations. This focus examines issues such as the purpose of business, the role of board members, and shareholder rights. Against such a focus, one may start to appreciate why/how sound CG is essential. Such governance fosters and includes strong healthy investor relations and positive shareholder engagement.

Implementing good CG might be difficult to do in its entirety immediately. From a professional point of view, there are some key factors to consider when adopting CG in a company.

Taking regard for the preceding, the following paragraphs discuss key success factors for good CG practices in three different companies. The business sectors of these companies are different. However, to a great extent they share the same factors for adopting good CG. One company provides financial services “Interac Corp.” (World Finance, 2020), another provides modern software “Aprio” (Warner,

2020), and the third is the second-largest professional services network in the world and one of the Big 4 auditing firms – i.e., “PwC” PricewaterhouseCoopers (PwC, 2020).

The CG teams in the above companies set out the factors how to have a robust CG model. These factors are categorised into features internal and external to the company.

In terms of internal features, five important ones are identified in relation to the BoD are its role/responsibility, diversity, accountability, conflict of interest, and finally, the chairperson. Each of these features are considered briefly within the following paragraphs.

In addition to all the above, sound and effective CG requires CG compliance in spirit to all relevant regulations and codes. The BoD should ensure adherence to the requirements of all relevant legislation, financial regulation, and practice codes. Further, compliance needs to be balanced by the board through the development of strategies that support corporate policies. In addition, this calls for clear definitions of the roles of the management teams. Moreover, transparent disclosures of the way in which they function is also important. These are briefly considered within the immediately following paragraphs.

### **1. Board role/responsibility**

Sound governance is also much concerned with the clarity of the role of the board, especially in terms of risk management and strategy (both development and execution). The role of the board in strategy development is inter-linked within the risk management process. Accordingly, it is the responsibility of the board to ensure long-term performance. This is because the contribution to the development and adoption of the company is a core responsibility of the board. Further, risk governance is an important part and a system is therefore important to be developed

for managing the risk. Better decisions are made if the risk management is effective (PwC, 2020; Warner, 2020; World Finance, 2020).

## **2. Board diversity**

Having a diverse board is considered to be among the practices of sound CG. This is as important as building a skill-based board with a variety of skills. Developing the corporate board has a great influence on the culture of the company. It also helps in the diversity of performance (PwC, 2020; Warner, 2020; World Finance, 2020).

## **3. Board accountability**

Building a strong infrastructure of governance is another required practice for sound CG. Companies adopt and adhere to certain policies in order to ensure guidance for, and the behaviour of the company. This guidance aids to shape up the decisions and actions within the company. It also ensures that accountability between the management and the members of the board is well defined (PwC, 2020; Warner, 2020; World Finance, 2020).

## **4. Board conflict of interest**

In addition to the accountability of the management and the board members, conflict of interest is an important issue that sound governance declares should be clearly and thoroughly defined. To that end, the board must ensure that appropriate declarations and disclosures are made. This applies to both, public declaration of all activities between possibly related-parties, as well as several other related-party activities of all directors. This is because, understandably, a director's judgement can be influenced when they have economic issues and interests outside of the company. In such cases, there will likely be a conflict of interest which must be avoided at all costs. Equally, if present, they must be fully and fairly discussed (PwC, 2020; Warner, 2020; World Finance, 2020).

## **5. Board chair**

The chairperson is the last insider factor to be discussed. The chairperson of the board is the one who establishes the culture of the board. A crucial aspect for the board culture is trust. Trust must be developed for sound CG. The chairperson is supposed to have effective leadership traits and must develop a strong professional bond with the CEO and must possess the technical skills for conducting meetings effectively. He must be an effective and competent chairperson to be able to carry out his duties (PwC, 2020; Warner, 2020; World Finance, 2020).

Sound governance also calls for a chairperson that is effective and competent who will support equality for all board members. This gives all the members of the board an equal and fair platform. It is a practice that also ensures the development of a sense of equal ownership among all the board members. This would help minimise situations where board decisions tend to be those of the member who is the loudest talker. This also plays a role in supporting and making good decisions. Here, the role of the chairperson of the board is the one who plays the most important role in helping to ensure equality and discipline so as to ensure decisions are made properly. The individual coordination before the board meeting begins is likely to lead to a healthy meeting and have positive outcomes (PwC, 2020; Warner, 2020; World Finance, 2020).

The preceding paragraphs provide insights into sound governance practices in relation to features internal to the company. Furthermore, it has been asserted that moral courage at companies promotes a more effective application of regulatory principles and guidelines. It is argued that a company, which has the moral courage to follow moral code, can strengthen CG practices and enable more sustainable companies as well as more economic stability (Duckworth, 2022).

The paragraphs that follow do discuss the shareholders of a company, which are considered to be external features to have a sound CG model. However, all stakeholders are to be treated with respect in an equal and equitable manner. For instance, this includes respecting the privileges of the shareholders and, as far as ethically possible, satisfying their wishes by changing strategy. This would be accompanied by proper format for corporate reporting, so that all duly appropriate matters are duly disclosed/reported. This should help more stringent monitoring of the performance of the company. Once the basic drivers of the performance of the company are identified, then it is likely that the appropriate measures are established for the determination of success and failure. Indeed, in time, to enhance trust and integrity, these drivers themselves must also be reported and fairly disclosed.

Trust and integrity are of equal importance and significance when adopting sound CG practices. Integrity should be emphasised in its entirety. Standards of integrity should not end with reporting. When the reputation of a company is at stake, total clarity and the pursuit of responsible informing/disclosing behaviour in terms of disparate and differing stakeholders, taking regard for their stated preferences and needs, must be of a major concern (PwC, 2020; Warner, 2020; World Finance, 2020).

Therefore, the importance of building and maintaining trust is immense. Sound governance requires that companies provide reliable and balanced knowledge on a timely basis in order to maintain trust among all stakeholders. Clarity of important decisions is critical, and this can only be achieved by constant high standards of transparency, in both good and poor times. Such high standards increase confidence and trust within stakeholders and other persons associated with the company and decrease their potential to distrust the company (PwC, 2020; Warner, 2020; World Finance, 2020).



This section of the chapter discussed several key features relating to the adoption of sound CG practices both internal and external to the company. The next section discusses the significance of sound CG and how organisations/companies benefit from the same.

### **2.2.2 Sound CG benefit**

This research is not seeking an assessment of the quality of CGD as an end in itself, but to use it as a sort of proxy for sound CG. When there is sound CG, it will almost certainly involve high quality CGD. It will be difficult to argue that there could be high quality CGD and bad CG. It is potentially possible, but unlikely.

CG is growing to be a need for every country to prosper both economically and socially. The beneficial results that arise as risks are regulated and operational processes are standardised and compatible illustrate the value of CG.

When there is sound CG, then there are many benefits as follows:

- Increase the level of trust
- Reduce the level of corruption
- Increase the accountability
- Access to investment funds
- Enable economic growth

Additionally, CG has several direct advantages for companies, at the very least, including the following factors: process efficiency, error visibility, decreased expenses, polished activities, and agreement. Each of these factors contributes to the advantages of CG for companies. Efficient processes are those that are repeatable and consistent. When the processes are efficient, companies make the most out of their processes (Adel et al., 2019; Maria, 2020). Moreover, the

consistent visibility of errors aids in easily identifying nonconformities in systems. Hence, this practice makes companies benefit (Adel et al., 2019).

Also, by streamlining tasks, companies can remove waste from debris, rework, and other inefficient processes. Removing waste will eventually decrease expenses for companies and maximise long-term financial performance (Adel et al., 2019; Maria, 2020). Achieving optimum long-term financial performance will eventually lead to increasing transparency and investor confidence (Samaha et al., 2012; Maria, 2020). Companies also benefit from polished activities. When operation particulars might be non-conform or conform, frequent delays from conflicting procedures are avoided. Therefore, the activities of the companies become polished (Adel et al., 2019; Maria, 2020). Business agreements and political ties, especially in emerging economies, can also be factors for the advantages of CG. CG-friendly culture and political ties help a commodity to enter the market whilst meeting its expected requirements and functioning properly (Adel et al., 2019; Chung and Zhu, 2021).

After discussing some of the several factors that advantage and benefit CG of companies, in the next section, key CG principles are discussed, with a later focus on the CGD and transparency principle.

### **2.3 Key principles (general & OECD) underlying CGD**

In order to conceptually and (in part) contextually ground the research of this thesis, the following sections provide a wide but much enable a considered discussion of the OECD principles relating to CG, in general, and the disclosure and transparency principle, in particular.

#### **2.3.1 CG general guiding principles**

Previously, the significance and importance of CG were discussed in some of the prior paragraphs. Adopting good CG practices is fundamental to companies aiming

to build and maintain trust among stakeholders. The interests of different stakeholders must be essential to the management of companies.

The corporate financial crises and scandals of Enron, WorldCom, Adelphia, and Tyco have triggered the question of whether companies are really and effectively managed for the best interests of shareholders and any other stakeholders (Farinha, 2003; Pergola and Joseph, 2011; Okaily et al., 2019). These high-profile corporate scandals were the result of unethical accounting methods and poor CG practices. Ultimately, these corporate financial scandals severely damaged stakeholders' trust (Okaily et al., 2019). Because of the great power that the boards and top managers of such companies possess, alongside with the wide ownership diffusion of companies, these individuals are necessarily the ones to blame when financial and fraudulent crises occur (Farinha, 2003; Pergola and Joseph, 2011). Stringent regulatory pressures levied on public corporations in recent years have increased the cost and complexity of controlling and handling a company's operations. They have also introduced additional financial, regulatory, and legal issues. In its simplest form, CG relates to how a company works. CG includes a company's rules, laws, procedures, and activities, as well as how the company's internal processes are managed.

Although the earlier referenced corporate financial scandals were not unique cases, Farinha (2003) argues that the public could not simply ignore them, because they affected not only shareholders, but also different stakeholders, such as workers, creditors, and the general community. The mechanisms that can effectively maximise the welfare of the stakeholders have always been the main topic of interest to the public. Lights were shed on CG, as well as corporate failures and scandals. Many stock market regulators have published, and even adopted, numerous sets of recommendations on CG since the Seminal Cadbury Report (1992) in the U.K. Given the scope of the issue, current research needs to be

continually conducted in order to measure the effectiveness of these recommendations, in terms of their increased effectiveness towards providing better CG.

The rapid changes and progress in the global markets have made it imperative to establish guiding principles of CG and later assess their effectiveness. Guiding the continual advancement of CG practices and advancing the ability of corporations to compete, create jobs, and generate economic growth should be the expected outcome of implementing these principles. CG should guarantee the implementation of effective and reasonably consistent policies and processes that respect the rights of all parties concerned. In a world where global corporations are very common, if something goes wrong, the tragedy will very likely affect many nations, some in a far more negative way than others.

The Business Roundtable (2016) contends that two purposes can be served by implementing CG principles. First, it provides corporate management and BoD with support when implementing best practices in CG. Second, it can serve as a guidepost for the public dialogue on evolving governance standards.

The CG framework should be well-prepared for the implementation of CG principles. To develop the CG framework, all the following elements (at the very least) should be considered: the impact on overall economic performance, market integrity and the incentives created for market participants, and the promotion of transparent and efficient markets.

The corporations' regulatory and legal environment affects the overall economic outcomes. Accordingly, policy makers should develop a flexible framework that meets the needs of corporations operating under various circumstances, to help them create value and achieve the optimal use of resources. Hence, policy makers should always take regard to the eventual economic outcomes, and when they

consider policy options, the impact on key variables that affect the functioning of markets should be analysed. Such variables are incentive structures, the effectiveness of self-regulatory systems, and tackling systemic conflict of interests (Business Roundtable, 2016).

The importance of developing a CG framework, that encourages transparent and effective markets to be in line with legal rule and to clearly state responsibilities' distribution among different supervisory, regulatory, and enforcement authorities, was emphasised by OECD in its OECD Principles of CG (2004). Transparency and efficiency of markets play a role in disciplining market participants and in stimulating accountability. This point is addressed in detail in later paragraphs.

Claessens (2006) highlights the fact that a good CG framework's objective would be to increase companies' contribution to the overall economy, including all stakeholders. Obviously, CG would address the relationships between shareholders, creditors, and corporations, between financial markets, institutions, and corporations, and between employees and corporations. CSR, including such aspects as the company's actions in relation to the society and the environment, should also be taken into consideration.

For the CG framework to be effective, it is important to build a proper and effective legal, regulatory, and institutional foundation that all market participants can depend upon in creating their private contractual relations. The mix between legislation, regulation, self-regulation, and voluntary standards will vary from one country to another. The reason behind this variation is mainly because the CG framework comprises elements of legislation, regulation, self-regulatory arrangements, voluntary commitments, and business actions that arise from the particular circumstances, history, and tradition of a country. Accordingly, the framework content and structure might need to be modified (Claessens, 2006).

Thirty-four democratic countries that support free-market economies established the OECD as stated earlier, with a view to discuss and develop economic and social policies. To achieve that goal, supporting free-market economies, the OECD released the OECD Principles of CG in May 1999. The Principles were revised in 2004 and then again in 2015 (OECD, 2004; OECD, 2015).

One of the recommendations of the OECD (2004) to countries that implement CG principles is to ensure CG system conforms to the regulations and listing requirements and monitor their business processes to help the market operate fairly and strengthen the economy. When implementing the CG principles, it should be taken into consideration how different elements of the framework of CG function together and how the framework as a whole contributes to developing practices that follow ethical and transparent CG practices. This should be carefully examined to develop a framework of good CG. A continuous dialogue with the public is broadly viewed as an indispensable and good practice.

While developing the CG framework, national legislators and regulators in each jurisdiction should, in due manner, take into consideration the need for, and the result of, effective international dialogue and cooperation. Meeting these conditions will help the CG system increase the probability of evading over-regulation, boost entrepreneurship exercise, and reduce the risk of damaging conflict of interests in both the private sector and public institutions (OECD, 2004).

According to the Principles of CG published by the OECD in 2004, “CG involves a set of relationships between a company’s management, its board, its shareholders, and other stakeholders. CG also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined”.

CG has two sets of mechanisms, internal or external to the company. The main internal mechanisms include board composition and equity ownership. The external mechanisms are the external market for corporate control and the legal/regulatory system. Numerous advantages of effective CG have been listed by the OECD, including the decrease in the cost of capital; hence, companies are encouraged to use resources more efficiently, leading to economic growth (OECD, 2004). The OECD Principles of CG are discussed in some detail in the following paragraphs.

Effective enforcement is crucial to the success of CG. An effective system of CG develops the framework within which the board and management address their respective responsibilities. Effective CG needs to define the respective roles of the board and of senior management and their relationships with others in the corporate structure. Honesty has to be the main characteristic of the relationships between the board and management with shareholders. Their relationships with employees should be characterized by fairness. Good citizenship is the focus of their relationships with the communities in which they operate. Finally, their relationships with the government should be characterized by a commitment to compliance (OECD, 2004; OECD, 2015).

Senior management, led by the CEO, is in charge of running the daily operations of the corporation and properly informing the board of the status of such operations. Management's responsibilities include strategic planning, risk management, and financial reporting (OECD, 2004; OECD, 2015).

The BoD is responsible for supervising management performance on behalf of shareholders. It is also responsible for selecting and supervising a well-qualified and ethical CEO who, with senior management, runs the corporation on a daily basis, and for monitoring the performance and adherence of the management to corporate

standards. Effective corporate directors are diligent monitors, but not managers, of business operations (OECD, 2004; OECD, 2015).

Although shareholders have little voice in how the company management runs its daily business, they are entitled to select directors to represent their interests, and to be regularly informed to make their investments and voting decision (OECD, 2004; OECD, 2015).

The BoD, the CEO, and senior managers need to have a proactive, focused state of mind, and must be dedicated to achieving company success with a strong code of ethics and responsibility in order to implement effective CG. A “check-the box” list of board and management duties should not constitute good governance. If not actually implemented, even the most well-considered and drafted policies are most likely to fail (OECD, 2004; OECD, 2015).

An effective CG structure comprises a system for upright goal setting, effective decision-making, and careful observation of compliance and performance. With such a dynamic and responsive structure, the BoD, the CEO, and the management are able to effectively and rapidly adapt to any changes, while maintaining strong company values, to deliver long-term value to the shareholders investing in the company (OECD, 2004; OECD, 2015).

### **2.3.2 OECD principles of CG**

OECD (2015) identifies six key principles of CG, and these are briefly discussed below:

#### ***1. Ensuring the basis for an effective CG framework***

Transparent and efficient markets should be promoted, and the CG framework should be consistent with the rule of law and it should clearly articulate the division



of responsibilities among different supervisory, regulatory, and enforcement authorities.

The more information one has, the more confident one can be. This is the motto that all of the stakeholders adhere to. Transparency pays off in the corporate world as well. Companies, who are honest with their transactions and cash flows gain the public's confidence, which is priceless. Transparency is critical at all scales of a company's operations, particularly at the high management level, where big decisions and preparations are taken. Holding the interests of the stakeholders involved helps to foster a sense of confidence and unity, which leads to higher valuations and easier access to capital.

## ***II. The rights of shareholders and key ownership functions***

Shareholders should be able to exercise their rights in a facilitated and protected manner. These rights include the right to be listed in the corporation's share register, transfer ownership, be informed on a timely manner, vote in general shareholder meetings, and elect and remove board members. Shareholders should also be entitled to profits of the corporation.

## ***III. The equitable treatment of shareholders***

The CG framework should ensure that minority and foreign shareholders are treated equally with all other shareholders. All shareholders should be able to seek appropriate compensation for any infringement of their rights. Insider trading and abusive self-dealing, which hinder the equal treatment of shareholders of the same series of a class, should be prohibited. If members of the board and key executives, directly, indirectly, or on behalf of third parties, have a material interest in any transaction affecting the company, they must disclose it to the board.

The equitable treatment of shareholders ensures that companies are ready or obligated to take responsibility for the consequences of their decisions and performances. Accountability is frequently regarded poorly and confused by those who feel it is synonymous with the conventional "Propaganda War." It must also be seen in a constructive light since it recognises achievements. Accountability provides a framework where everybody is kept responsible for their job responsibilities.

#### ***IV. The role of stakeholders in CG***

In the CG framework, the rights of stakeholders established by law or through mutual agreements should be recognised and active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises should be encouraged.

A stakeholder is someone who cares about the company, its services, or its ventures. They may be business staff, retailers, distributors, or some other associates. They are involved with the company. Stakeholders may also be owners of the company (in this case, stakeholders are shareholders), and their decisions have an impact on the efficiency of a company. Shareholders are the biggest corporate owners, and they have the right to add in or pull money out at any time. Their judgment would be based on the financial success of the company. After that, they may put the burden on management for financially excellent results and modify methods and techniques where needed. Any shareholder may also adjust the asset price of the stock by increasing or decreasing their investment.

Stakeholders play a vital part in the development of the success of the company. Stakeholders can also play a crucial role in decision-making when they are a part of the BoD. They help look after those divisions, like supporting customers, research and development, or human resources, to ensure the company's success.

They have the authority to force the company to obey civil rights and the rules of the environment. They still keep an eye on outsourcing practices and have voting rights on any corporate decision that might jeopardize the company's ultimate objectives. They have many other duties in business. They will spot potential opportunities for market expansion and revenue growth. They will be able to contribute more campaign ideas. They also draw other investors to the business. They may be a member of a review committee or a business delegate. Furthermore, they have the authority to make all big economic and environmental decisions.

By being vigilant and committed, investors and other stakeholders, such as staff, consumers, creditors, society, and providers, are vital factors in CG. The main objective of CG is to include effective frameworks for promoting shareholder capital formation while also safeguarding the rights of several other stakeholders. CG can be monitored directly by participants in the company's profitability and financial activities, or indirectly by counterparties such as stock analysts and financial institutions.

#### ***V. Disclosure and transparency***

The CG framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company.

This specific principle is discussed in more depth in the coming paragraphs as the thesis evolves around the CG practices of companies regarding this specific principle of disclosure and transparency.

## ***VI. The responsibilities of the board***

Through the CG framework, the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders should be ensured.

The next point discusses CGD and transparency thoroughly. To explore further different CG frameworks, the U.K. CG code and the Egypt Code of CG, two publications, are discussed in the next section of this chapter.

### **2.3.3 OECD CGD and transparency principle**

In response to market demand, companies often make voluntary disclosures that go beyond minimum disclosure requirements. Therefore, the OECD CG principle of disclosure and transparency is of significant importance to support mandatory as well as voluntary disclosure practices by companies (OECD, 2004; OECD, 2015). Accordingly, the next paragraphs are dedicated to having an overview on the OECD governance disclosure and transparency principle. Later, the principle itself, as stated in the OECD (2015), is explored.

#### **2.3.3.1 OECD CGD and transparency principle overview**

In most countries, a large amount of information, both mandatory and voluntary, is compiled about publicly traded companies, and subsequently disseminated to a broad range of users. Annual public disclosure is typically required, which is the minimum requirement, however, countries or even companies in the same country vary in applying this requirement (OECD, 2004; OECD, 2015).

According to the disclosure and transparency principle, companies should disclose all material developments that arise between regular reports in a timely manner. All shareholders should have the right to simultaneous reporting of material or required information in order to ensure their equitable treatment. Companies must comply

with this fundamental principle of equitable treatment to maintain the trust of investors and market participants (OECD, 2004; OECD, 2015).

Regarding disclosure, many countries follow the concept of materiality. Material information is information that would be of interest to a reasonable investor when making an investment or voting decision. However, disclosure requirements are not supposed to place unreasonable administrative or cost burdens on companies. In addition, companies should not be required to disclose information that may compromise their competitive position, except for the information needed to make informed investment decisions and to avoid misleading investors (OECD, 2004; OECD, 2015).

The shareholders' ability to exercise their rights on an informed basis is reinforced by a strong disclosure framework that promotes real transparency. Additionally, disclosure can be a powerful mechanism to influence company behaviour and safeguard investors. It could also contribute to attracting investors and strengthening their confidence in the capital markets. On the contrary, and as was evident in several financial crises, unethical behaviour and loss of market integrity, can result from weak disclosure and non-transparent practices. This loss affects not only the companies involved and their shareholders, but also the economy (OECD, 2004; OECD, 2015).

In order for shareholders and potential investors to properly assess the performance of the company management and make informed investment decisions, they need to have trust and be confident about the integrity and transparency of information related to the company. This can be advantageous in raising the public's awareness of the company's activities, organisational structure, and policies and commitment to its social and environmental responsibilities. Otherwise, it can cause the market

to function improperly and increase the cost of capital, and results in an inefficient allocation of resources (OECD, 2004; OECD, 2015).

### **2.3.3.2 OECD CGD and transparency principle discussion**

The following paragraphs enlist the disclosure and transparency principle in detail as per OECD (2015) along with some discussion after each point:

#### ***A. Disclosure should include, but not be limited to, material information on:***

##### ***1. The financial and operating results of the company.***

The most used source of information on companies are audited financial statements showing the financial performance and the financial situation of the company (most typically including the balance sheet, the profit and loss statement, the cash flow statement and notes to the financial statements). They facilitate the appropriate monitoring of companies and also help to value securities. Annual reports typically include management's discussion and analysis of operations. To maximise the benefit from such discussion, it has to be read in conjunction with the accompanying financial statements. Information that may shed light on the future performance of the company is the most important part for investors. Incomplete disclosure of the company's financial performance is often viewed to be the cause of governance failures. In order to reduce such failures, disclosing any off-balance sheet items and the transactions of an entire group of companies, including special purpose entities, in compliance with high quality and internationally recognised standards, can give the investors a comprehensive and good understanding of the company's financial performance in the future.

##### ***2. Company objectives and non-financial information.***

Certain investors and other data users may need extra information that may help them assess the interactions between companies and the communities in which they are based and the efforts these companies have made to achieve their

objectives. These disclosures include policies and performance in terms of business ethics, environmental and social responsibility and, where essential to the company, human rights and other public policy commitments. Other information includes rules and regulations of a company and efficiency that is related to any business, atmosphere, and other commitments. Non-financial goals, like consumer satisfaction, employee health, labour efficiency, and conversion efficiency, are also essential.

These aspects have a significant effect on the success of the company. The financial goals are what most investors and users think about when they think about a business. They consider the company's sales, expenses, assets, liabilities, and equity. Often, companies' ultimate aim is to maximise profit. Profits are allocated to shareholders, which is known as optimising shareholder capital. Every year, company management determines how much profit is reinvested in the company (retained earnings) and how much of it is distributed as dividends (cash or stock). This will eventually lead to further success of the company and a higher valuation of its stock price.

### ***3. Major share ownership, including beneficial owners, and voting rights.***

Investors are also entitled to be informed about the ownership structure of the enterprise and their rights in comparison with the other owners' rights. In addition, they should also be informed about the structure of a group of companies and intra-group relations. The objectives, nature, and structure of the group should also be disclosed. Whenever certain thresholds of ownership are passed, disclosure of ownership data should be provided.

Investors are entitled to receive information on major shareholders and others that, in any way, significantly have an impact on or control or may significantly have an impact on or control the company through, for example, special voting rights,

shareholder agreements, the ownership of controlling or large blocks of shares, significant cross shareholding relationships and cross guarantees. Disclosing shareholdings of directors, including non-executives, is also recommended. Information about record ownership needs to be complemented with current information about beneficial ownership, particularly for enforcement purposes, and to identify potential conflicts of interest, related-party transactions, and insider trading.

#### ***4. Remuneration of members of the board and key executives.***

Information about board and key executives' remuneration is also required by the shareholders, particularly how remuneration is associated with the company's performance in the long-term. With such information, investors can measure the costs of remuneration plans against their benefits and assess the relationship between incentive schemes, including stock option schemes, and company performance.

Disclosure on an individual basis, including termination and retirement provisions, is becoming more widely recognised as good practice, and is even now mandated in many countries. The extent of disclosure varies from one jurisdiction to another, as some require the disclosure of the highest paid executives' remuneration, while in others it is limited to specified positions.

Executive reimbursement, whether in the form of equity options, incentive schemes, or other ways, should be tied to the achievement of profit for shareholders and financial success over time. Cash incentive plans, for example, should incentivise success and be dependent on quantifiable variables over which the individual in question has control.

Benefits or rewards for tasks or jobs are often called remuneration. This covers an average pay with the addition of any compensation or other economic incentives



provided to an employee when he is on the job. Salary is made up of annual average earnings. The employer will pay an hourly wage or a certain sum on a routine basis. As a result, wages and remuneration are synonymous, with remuneration being a larger concept that encompasses salary. In a wider perspective, salary is usually fixed, but if an individual performs something extraordinary, then he or she will receive remuneration. It can also be referred to as a reward that is given to a member or employee for excellent performance.

***5. Information about board members, including their qualifications, the selection process, other company directorships, and whether they are regarded as independent by the board.***

To be able to evaluate individual board members and key executives and assess any potential conflicts of interest that might affect the decision-making process, investors require information about the experience and qualifications of the key board members and executives. It is important that investors and shareholders receive transparent information about the board members' qualifications, their share ownership in the company, membership of other boards, other executive positions, and whether they are considered by the board to be independent members. Being a member of other boards must be disclosed for many reasons; it can be an indication of experience and possible time pressures facing a member of the board, and it may as well reveal potential conflicts of interest and show the degree to which there are inter-locking boards.

***6. Related-party transactions.***

To ensure the company is managed with due consideration for the interests of all its investors, all material related-party transactions and their terms should be fully disclosed to the market individually. Related-parties should at least include entities that control or are under common control with the company in addition to significant shareholders, including members of their families and key management personnel.

All related-parties should be properly identified under the CG framework. Material transactions with consolidated subsidiaries should be disclosed if related-parties have specific interests.

In some jurisdictions, related-party transactions are categorised by their terms and materiality in order to make disclosures more useful. To attain effectual outcomes, disclosure requirements may need to be based primarily on quantitative criteria; nevertheless, splitting transactions with the same related-party in order to avoid disclosure should be prohibited.

### ***7. Foreseeable risk factors.***

It is necessary to keep users of financial information and market participants informed about significant and foreseeable risks. These may include risks associated with the industry or the geographical areas in which the company is based, dependence on commodities, risks associated with financial market, including interest rate or currency risk, risk associated with derivatives and off-balance sheet transactions, business conduct risks, and risks associated with the environment.

The Principles therefore call for disclosures to be complete and adequate to ensure the investors are fully informed of the significant and foreseeable risks of the company. Disclosure of risks has the most effect when it is made specific to the subject company and industry. Providing information about the process of risk management as well is becoming widely viewed as good practice.

### ***8. Issues regarding employees and other stakeholders.***

Companies are encouraged, and in some countries even obligated, to communicate information to employees and other stakeholders about key problems relevant to them that may significantly affect them or the company's performance. Disclosure can encompass interactions between the management and employees, including

remuneration, collective bargaining coverage, and measures for employee representation, and relationships with other stakeholders, such as suppliers, creditors, and local communities.

Additionally, some countries may require comprehensive disclosure regarding human resources. This includes the policies, such as development and training system and employee share ownership plans, which can showcase the competitive advantages of companies to market participants.

***9. Governance structures and policies, including the content of any CG code or policy and the process by which it is implemented.***

Companies should be mandated to include their CG practices in the regular reports. With mandatory reporting based on “comply or explain” or other principles, companies should also adhere to principles stipulated, or endorsed, by the regulatory or listing authority.

For the purpose of assessing a company’s governance, the governance structures and policies of the company, including, in the case of non-operating holding companies, that of significant subsidiaries, should be disclosed. This includes how company control is divided between shareholders, management, and board members. The different roles and duties of the CEO and/or Chair should be clearly outlined in company disclosure and whether both positions are held by one person and the reason for this arrangement. Disclosure of the articles of association, board charters and, if necessary, committee structures and charters is also good practice. Additionally, procedures for shareholders’ meetings should ensure votes are accurately counted and recorded, and that the outcome is announced promptly in order to increase transparency.

***B. Information should be prepared and disclosed in accordance with high quality standards of accounting and financial and non-financial reporting.***

The investors can better monitor the company when high quality accounting and disclosure standards are adopted and applicable, reliable, and comparable reports are provided along with an upgraded insight of company performance. Internationally recognised standards of financial reporting are required in most countries, which increases transparency and comparability in financial reporting between countries.

Such standards should be established through open, independent, and public collaborations between the private sector and other interested parties, such as independent experts and professional bodies. High quality domestic standards may be developed by aligning them with one of the internationally recognised accounting standards. It is a requirement in many countries for listed companies to use these standards.

***C. An annual audit should be conducted by an independent, competent, and qualified auditor in accordance with high-quality auditing standards in order to provide external and objective assurance to the board and shareholders that the financial statements fairly represent the financial position and performance of the company in all material respects.***

The audit statement should contain an opinion on how financial statements have been prepared and presented, and attest that the financial statements fairly represent the financial performance of a company. This should enhance the company's control environment. External auditors may also be required in some jurisdictions to report on the CG of the company.

Auditor independence and shareholder accountability should be a requirement. Appointing an independent audit regulator in accordance with the Core Principles of

the International Forum of Independent Audit Regulators (IFIAR) is crucial for improving audit quality.

Additionally, it is good practice for external auditors to be recommended by an independent audit committee of the board or a corresponding body, and to be selected by that committee/body or by shareholders themselves. Moreover, the International Organization of Securities Commissions (IOSCO) Principles of Auditor Independence and the Role of CG in Monitoring an Auditor's Independence states that, "standards of auditor independence should establish a framework of principles, supported by a combination of prohibitions, restrictions, other policies, procedures, and disclosures, that addresses at least the following threats to independence: self-interest, self-review, advocacy, familiarity, and intimidation".

As providing non-audit services by the external auditor to a company can significantly impair their independence and might result in them auditing their own work, it is essential that the audit committee or a corresponding body oversee the internal audit activities and the overall relationship between the company and the external auditor, including the nature of non-audit services. Additionally, payments to external auditors for non-audit services should be disclosed to address any potential inaccuracies in incentives.

Completely prohibiting or setting stringent limitations on the nature of non-audit work which can be undertaken by an auditor for their audit client, a fixed tenure for auditors, joint audits, mandatory rotation of auditors (either partners or, in some cases, the audit partnership), prohibiting the audited company from appointing an ex-auditor for a limited period of time and prohibiting auditors or their dependents from having a financial stake or management role in the companies they audit are some examples of other provisions designed to promote auditor independence. Setting a cap for the percentage of non-audit income received from a specific client

and/or the total percentage of auditor income received from one client is an even more direct regulatory mechanism adopted by some countries.

The urgent need to confirm the competence of the auditors has become an issue in some jurisdictions. Therefore, a registration process for individuals to verify their qualifications is regarded as good practice. To achieve appropriate levels of professional competence and skepticism, ongoing training and monitoring of work experience is needed.

***D. External auditors should be accountable to the shareholders and owe a duty to the company to exercise due professional care in the conduct of the audit.***

It is considered good practice that external auditors are to be recommended by an independent audit committee of the board or a corresponding body and to be selected either by that committee/body or through the shareholders' meeting directly. This establishes the external auditor's shareholder accountability and affirms their responsibility to provide due professional care to the company, rather than to any corporate managers that they may interact with while carrying out their duties.

***E. Channels for disseminating information should provide equal, timely, and cost-efficient access to relevant information by users.***

Channels for information communication can just be as crucial as the content of the information itself. Although legislation frequently provides for the disclosure of information, the filing and access to information can be time-consuming and expensive. Electronic filing and data retrieval systems have substantially improved statutory reports filing in some countries. Countries should advance by incorporating various sources of company information, including shareholder filings. Company websites also contribute to improving the communication of information, and it is

now required by some countries to have a website that presents relevant and important information about the company itself.

It is necessary to establish provisions for ongoing disclosure, which include periodic disclosure and continuous or current disclosure which must be provided as needed. With respect to continuous/current disclosure, good practice is to require immediate disclosure of material developments, whether this is defined as “as soon as possible” or as a maximum number of specified days.

The periodic reports of companies with securities admitted to trading in a regulated market where retail investors participate must conform to the IOSCO Principles for Periodic Disclosure by Listed Entities. As for ongoing disclosure and material development reporting by listed companies, they are governed by the IOSCO Principles for Ongoing Disclosure and Material Development Reporting by Listed Entities.

After reasoned discussion of key guiding principles regarding CGD. The next section details some regulatory structural issues regarding the same, in an attempt to explore the legal and professional aspects of CGD.

#### **2.4 Some legal (de jure) and professional (de facto) regulatory aspects**

A discussion of the CG framework inevitably addresses “hard law” and “soft law”. Prior studies state that the adoption of CG, in most countries, combines “hard law” (e.g. legislation, regulations, and mandatory requirements) with “soft law” (voluntary recommendations and CG codes) (Nedelchev, 2013; Duh, 2017; Lan, 2022).

This section begins by discussing the legal aspects of the U.K. and Egypt. Some of these legal aspects are considered to be “hard law”. It then moves on to a more in-depth legal examination of the two countries' CG Codes “soft law”. These are carried out in accordance with the 2018 U.K. CG Code (FRC, 2018) and the 2016 Egyptian

CG Code (EIoD, 2016). Then, the section concludes with a discussion of some of the most prominent CG Codes from other countries and professional bodies.

#### **2.4.1 Legal (de jure) regulatory aspects**

The OECD principles of CG are considered to be the framework and the basis for the development of CG codes in different countries. In the following paragraphs, the CG Codes of the U.K. and Egypt are discussed, as well as CG codes in other countries.

For a multitude of reasons, the economy may get out of control. On the other hand, policymakers have a variety of options for attempting to correct government policies, based on what is incorrect. When government policies are implemented in personal practices, then too much demand may cause national economic issues to be deeper and wider (Abdel-Kader, 2013). Few European countries have called for ambitious economic initiatives in response to the latest global financial and economic turmoil. The role of financial institutions is to move savings into investment. A healthy financial sector means that these funds are put to the best possible purpose, resulting in improved economic growth and integration. Governments frequently have policies in place to ensure that the disabled and other disadvantaged populations have an adequate quality of life. However, in many developed nations, some expensive schemes are being implemented.

After those macroeconomic disparities have been overcome, the systemic strategies will be enforced effectively. On the other hand, the structural policies that are implemented in the economic system of a country can increase the efficacy of certain stability initiatives. It seems rational to expect that policymakers control utilities to boost sector efficiency as opposed to no regulation. Even then, there is some disagreement about what it means to "boost sector efficiency." The term "improve sector efficiency" often refers to the government's ability to exercise market



control and/or promote competition. It could also indicate that perhaps the government needs to fix dedication concerns, in which case a regulatory body will be established to shield operators and consumers from politically motivated actions that would compromise long-term reliability for quick political opportunism. For instance, most countries adopted legislation to shield monopoly telecommunications networks from competitiveness in the twentieth century (World Bank Group, 2021).

The importance of the existence of a regulatory body is as significant as the importance of the existence of a set of clearly stated rules and regulations to follow, both must be effectively in force to lead to good CG practices eventually. The next discussion is dedicated to the efforts made by countries to regulate CG practices. One way of regulation is through the issuance of a CG code. First, the CG code of the U.K. is discussed.

#### **2.4.2 Professionally (de facto) U.K. CG Code**

The U.K. CG Code of 2018 lays out the guidelines that the executive committee should follow to further the mission of the company, ideals, and long-term performance. The Code defines planned best practices in areas such as ownership structure and organisation's intent, duties division, structure, turnover, and assessment, risk, and organisational harmony. The company should follow all of the principles of the Code, and the way in which it has done so must be recorded in the annual report of the company (FRC, 2018).

Directors should be careful to enforce the principles of the Code in a way that represents the particular situations in their company that necessitate a specific response, and they must clarify how they did so (Adel et al., 2019). Where a company considers that an alternate path to economic development is more effective than implementing the principles of the Code's rules, the amendments

should be implemented on a comply or explain basis. The company's annual report should specifically resolve the issue, in any scenario, and clarify the matter.

The U.K. has made substantial efforts to set out rules, standards, and codes to encourage better CG practices among listed companies. This is achieved through the Financial Reporting Council (FRC), which is an independent regulator in the U.K. and Ireland. The mission of the FRC is to promote transparency and integrity in business. The FRC is responsible for regulating auditors, accountants, and actuaries, as well as setting the U.K.'s CG and Stewardship Codes. The FRC also monitors and takes action to promote the quality of corporate reporting and operates independent enforcement arrangements for accountants and actuaries (FRC, 2016; FRC, 2018).

Regarding the U.K.'s efforts in the development of a CG code, it started in 1992. The first version of the U.K. CG Code was published in 1992 by the Cadbury Committee. Over the years, the U.K. CG Code has been revised and expanded to take account of the increasing demands on the U.K.'s CG framework. Recently, the FRC published the U.K. CG Code 2018, formerly known as the Combined Code, in July 2018. The Code applies to accounting periods beginning on or after 1 January 2019. Meanwhile, the prior code, which is the U.K. CG Code 2016, remains in place for those companies whose year-end occurred before 1 January 2019 (FRC, 2018).

The U.K. CG Code 2018 sets out standards of good practice for listed companies on board composition and development, remuneration, shareholder relations, accountability, and audit. It places greater emphasis on relationships between companies, shareholders, and stakeholders. It also promotes the importance of establishing a corporate culture that is aligned with the company's purpose and business strategy, as well as promotes integrity and values diversity (FRC, 2018).

All companies with a Premium Listing of equity shares in the U.K. are required under the Listing Rules to report in their annual report and accounts on how they have applied the Code. The Code focuses on the application of the principles and reporting on outcomes achieved. For the Code's provisions, companies should disclose how they have complied with them or provide an appropriate explanation to their individual circumstances. The Code comprises five main parts. Each part contains a set of principles and detailed provisions. There are eighteen principles, which are followed by forty-one detailed provisions (FRC, 2018).

The revised set of principles in the Code stresses the need of good CG for long-term sustainable success. Companies can demonstrate throughout their reporting the impact their governance system has on achieving long-term sustainable success and realising far-reaching objectives by adhering to the principles, following the more detailed provisions and using the associated guidance. How boards and companies commit to the spirit of the principles is key in achieving this. The Code does not lay out strict rules, rather it offers flexibility through the application of principles, 'comply or explain' provisions and associated guidance. Boards must employ this flexibility wisely and investors and their advisors must carefully assess the various approaches of the company (FRC, 2018).

In other words, the 2018 Code underlines the application of the principles. Therefore, companies are mandated by the Listing Rules to submit a statement of how they have applied the principles, in a manner that helps shareholders assess how they have been applied. It is important to enable shareholders to assess the company's approach to governance. The application of the principles in the context of the specific circumstances of the company should be included in the reporting, as well as how the board has defined the company's purpose and strategy, achieved objectives, and attained outcomes through the decisions it has taken (FRC, 2018).

When discussing the application of the principles, it is important to avoid boilerplate and provide relevant reporting. Furthermore, reporting should underline how the principles have been applied by stating the actions taken and the attained outcomes. Signposting and cross-referencing to those parts of the annual report that describe how the principles have been applied will improve the quality of reporting. These approaches will enable investors to evaluate company practices and eventually enhance their decision-making process (FRC, 2018).

Both the existence of the Code and the effective application of its principles and provisions are equally important. Therefore, the effective application of the principles should be complemented by high quality reporting on the provisions. Companies should avoid a 'tick-box approach' and adhere to 'comply or explain' basis. They should not simply adhere to the Code without grasping its meaning. In particular circumstances and based on a set of factors, including the size, complexity, history, and ownership structure of a company, an alternative to compliance with a provision may be justified. Background information, a clear justification for the company's action, and an explanation of the impact of the action should all be included in explanations (FRC, 2018).

Moreover, the explanation should indicate when the company expects to conform to a provision, if the company is not intending to conform with that provision for a limited time. Explanations are a positive opportunity to communicate. They are not an onerous obligation. Explanations are not supposed to be a burden on listed companies, but rather explanations should be seen by companies as a means to communicate their information to different stakeholders and eventually reducing the information asymmetry (FRC, 2018).

The main parts and their related principles in the 2018 U.K. CG Code are as follows, as per FRC (2018).

The first part is about **board leadership and company's purpose**. The principles related to this part are as follows:

A. A successful company is led by an effective and entrepreneurial board, whose role is to promote the long-term sustainable success of the company, generating value for shareholders and contributing to wider society.

B. The board should establish the company's purpose, values and strategy, and satisfy itself that these and its culture are aligned. All directors must act with integrity, lead by example and promote the desired culture.

C. The board should ensure that the necessary resources are in place for the company to meet its objectives and measure performance against them. The board should also establish a framework of prudent and effective controls, which enable risk to be assessed and managed.

D. In order for the company to meet its responsibilities to shareholders and stakeholders, the board should ensure effective engagement with, and encourage participation from, these parties.

E. The board should ensure that workforce policies and practices are consistent with the company's values and support its long-term sustainable success. The workforce should be able to raise any matters of concern.

The second part discusses **division of responsibilities**. The principles are as follows:

F. The chair leads the board and is responsible for its overall effectiveness in directing the company. They should demonstrate objective judgement throughout their tenure and promote a culture of openness and debate. In addition, the chair facilitates constructive board relations and the effective contribution of all non-executive directors, and ensures that directors receive accurate, timely, and clear information.

G. The board should include an appropriate combination of executive and non-executive (and, in particular, independent non-executive) directors, such that no one individual or small group of individuals dominates the board's decision-making. There should be a clear division of responsibilities between the leadership of the board and the executive leadership of the company's business.

H. Non-executive directors should have sufficient time to meet their board responsibilities. They should provide constructive challenge and strategic guidance, as well as offer specialist advice and hold management to account.

I. The board, supported by the company secretary, should ensure that it has the policies, processes, information, time, and resources it needs in order to function effectively and efficiently.

The third part is regarding **composition, succession, and evaluation**. The principles associated with this part are as follows:

J. Appointments to the board should be subject to a formal, rigorous, and transparent procedure, and an effective succession plan should be maintained for the board and senior management. Both appointments and succession plans should be based on merit and objective criteria and, within this context, should promote diversity of gender, social and ethnic backgrounds, and cognitive and personal strengths.

K. The board and its committees should have a combination of skills, experience, and knowledge. Consideration should be given to the length of service of the board as a whole and the membership regularly refreshed.

L. Annual evaluation of the board should consider its composition, diversity, and how effectively members work together to achieve objectives. Individual evaluation should demonstrate whether each director continues to contribute effectively.

The fourth part discusses **audit, risk, and internal control**. The principles related to this part are as follows:

M. The board should establish formal and transparent policies and procedures to ensure the independence and effectiveness of internal and external audit functions and satisfy itself on the integrity of financial and narrative statements.

N. The board should present a fair, balanced, and understandable assessment of the company's position and prospects.

O. The board should establish procedures to manage risk, oversee the internal control framework, and determine the nature and extent of the principal risks the company is willing to take in order to achieve its long-term strategic objectives.

The fifth and last part is regarding **remuneration**. The principles associated with this part are as follows:

P. Remuneration policies and practices should be designed to support strategy and promote long-term sustainable success. Executive remuneration should be aligned with the company's purpose and values and be clearly linked to the successful delivery of the company's long-term strategy.

Q. A formal and transparent procedure for developing a policy on executive remuneration and determining director and senior management remuneration should be established. No director should be involved in deciding their own remuneration outcome.

R. Directors should exercise independent judgement and discretion when authorising remuneration outcomes, taking account of company and individual performance, and wider circumstances.

As discussed in prior paragraphs, one can infer that the U.K. CG Code promotes sound CG practices. Consequently, carefully considered CG policies and practices, along with high levels of transparency, can lead to improved levels of trust. This will allow investors to take a more considered view of the governance of the company, particularly where explanations have been provided and disclosed.

This sub-section is dedicated to the U.K. CG code, while the following sub-section discusses Egyptian CG code.

### **2.4.3 Professionally (de facto) Egyptian CG code**

Egypt has come to recognise the importance of CG for economic development. In correspondence to the needed improvement of CG framework, the Center for International Private Enterprise (CIPE) and its local partners created a voluntary code of CG, meaning that companies would volunteer to adopt Egypt Code of CG without being obliged to implement it (CIPE, 2005).

Because of the imposition of debt registration and compliance laws, as well as the adoption of new registration criteria involving sustainability, the number of owners, and the lowest amount of capital following international standards, Egypt has seen tremendous growth in the area of corporate ethics and growth (Abdel-Kader, 2013). Egypt has gone and is going through tremendous efforts to enhance the long-term duration (strategic) goals, with mindful strategies, to sustain the economy. It adds value to the financial budgets and expenses by using a certain set of strategies for shareholders and stakeholders.

In 2005, the General Authority for Investment and Free Zones with the support of the Cairo and Alexandria Stock Exchange (CASE), now called the Egyptian Exchange (EGX), drafted the first version of Egypt Code of CG in Arabic. The preparation of this draft, which was made taking into consideration the CG Principles and Standards established by the OECD in addition to codes recently issued in selected countries, including South Africa, Malaysia, and the Philippines, was supported by many contributions, including the CIPE's opinion survey and the consultations of the leaders in the local accounting, auditing, and general business community. Additionally, the United States Middle East Partnership Initiative (MEPI) together with the CIPE generously supported the preparation of the Code, including



the drafting and comments processes. This draft emphasised that the most significant benefit of effective CG is the ability of the company to decrease the cost of capital and to attract foreign investments (CIPE, 2005).

In 2011, the Egyptian Institute of Directors (EIoD) amended Egypt Code of CG of 2005, with the cooperation of different entities. EIoD reviewed the Code of CG published in October 2005 in order to update it based on the latest Egyptian and International experiences. Then, a revised code was published in 2011. A few years later, precisely in 2016, the EIoD worked on upgrading and updating the previous codes, consolidating them into one single code, and naming it “Egyptian Corporate Governance Code” (ECGI, 2016; EIoD, 2016; FRA, 2016).

A considered discussion of the development of the Egyptian CG Code will be unfolded in the coming lines.

Guidelines and standards related to the principles of CG in Egypt were developed in the first code referred to as “Egypt Code of Corporate Governance”, drafted in October 2005. These principles indicate the rules, regulations, and procedures that best safeguard and balance between the interests of corporate managers, shareholders, and other stakeholders. They should be viewed as a unique complement to corporate-related provisions contained in various laws, as they are neither mandatory nor legally binding. However, they encourage a transparent and ethical conduct in company management by adhering to international best practices that balance between various party interests or stakeholders. These principles provide a thorough description of the provisions; they are not explained in the brief legislative phrasing typically found in legal documents (EIoD, 2005).

Egyptian companies and their shareholders should make an effort to abide by and implement these principles, as this would benefit not only the complying companies, but also the country's overall investment climate. Additionally, it is the responsibility

of the company's external auditors and legal advisors to promote compliance with these principles among the corporate directors and to monitor their implementation. Moreover, banks, other financing institutions, and credit rating institutions should take the articles prescribed in the code into consideration when conducting business with or evaluating companies to ascertain the extent of compliance with the provisions and content of these principles (EIoD, 2005).

All individuals in charge of managing companies, financial institutions, professional bodies, shareholders' groups, and directors should be expected to implement and promote the provisions of this code. They should be expected to view the implementation of these provisions as a signal of success (EIoD, 2005).

The Egypt Code of CG (2005) is comprised of nine provisions:

1. Scope of implementation
2. General assembly
3. BoD
4. Internal audit department
5. External auditor
6. Audit Committee
7. Disclosure of social policies
8. Avoiding conflict of interests
9. CG rules for other corporations

Next, Egypt Code of CG, published in 2011, is discussed. The 2005 Egypt Code of CG was revised and updated by the EIoD. After revision, it was published in 2011. Both codes share to a great extent the same provisions, except for the following parts. A new section has been added to explain thoroughly some selected terms, such as: chairman of the BoD, managing director, independent board member, stakeholders, shareholders, general assembly, and minority shareholders. This is

considered to be an added value, since this section was added in order to familiarise all users of the code with these different terms (EIoD, 2011).

Another valuable addition is the section of “Application or justification”. This section is to highlight the importance of abiding by this code. Companies must apply all the rules contained in this code. If the companies failed to abide by any of the rules of this code, they must justify the reasons behind failing to do so. It is also required from each company to prepare a table with all the rules of CG contained in this code and the degree of compliance with each of the rules. For the rules that will not be fully complied with, the company must explain the reasons of non-compliance and whether there is a future plan for the compliance. The company must disclose this compliance report on its official website and its annual report (EIoD, 2011).

The earliest version of Egypt Code of CG in 2005 included a section on the disclosure of the social performance. But, in the modified version of Egypt Code of CG in 2011, the section previously mentioned became a part of a new added section stating the rules of the disclosure and transparency principle (EIoD, 2011).

Egypt Code of CG in 2011 comprises eight provisions, which is one less than the first draft of 2005. In the 2011 version, the scope of implementation becomes a separate part, that is not included within the provisions. Also, the disclosure provision become dedicated for transparency and disclosure. The eight provisions are as follows: general assembly, BoD, internal audit department, external auditor, audit committee, transparency and disclosure, rules for avoiding conflicts of interest, and CG regulations for other companies (EIoD, 2011).

Later, in their continuous efforts for better CG practices adopted by companies, the EIoD published the Egyptian CG Code of 2016, which is the third release of codes concerning CG in Egypt. This code aims to support and assist all companies to understand and apply good governance as an integrated approach towards growth

and sustainability, thereby achieving EIoD's mission and strategy for the benefit of not only the companies' stakeholders, but rather the Egyptian economy (ECGI, 2016; EIoD, 2016; FRA, 2016).

The 2016 Egyptian CG Code is comprised of four chapters. Each chapter is dedicated to discussing a specific aspect of CG. The first chapter is about the general framework of CG. It starts with a discussion of the importance of the Egyptian CG Code. Then, the different roles of the state, legislative, and regulatory entities are thoroughly discussed. Also, the concept of CG itself is explained, along with the numerous objectives and benefits of implementing CG principles. The scope of application is stated afterwards. Then, the crucially important "Comply or Explain" rule is explained. The last part of the first chapter is concerned with the references used in drafting the Egyptian CG Code, along with the definitions of the different terms used in the code (ECGI, 2016; EIoD, 2016; FRA, 2016).

As for the second chapter, it discusses the four main pillars of CG. They are as follows: first, general assembly of shareholders; second, BoD; third, board committees; and fourth, control environment. Regarding the third chapter, it is for the discussion and thorough explanation of disclosure and transparency. It starts with the introduction of disclosure and transparency. Then, the material information along with the differences and definitions of financial and non-financial disclosure are explained. Later, the importance as well as the role of investor relations are discussed. Finally, the last part of this chapter discusses the different disclosure tools (ECGI, 2016; EIoD, 2016; FRA, 2016).

The fourth and last chapter of the code is titled CG codes, charters, and policies. It is divided into two parts. First, different codes and charters are explained. These are code of ethics and business conduct, BoD charter, and board committees' charters. Second, the different policies related to CG are discussed, namely succession

planning policy, disclosure policy, whistleblowing policy, conflict of interest policies, and CSR policy (ECGI, 2016; EIoD, 2016; FRA, 2016).

The tremendous effort of the EIoD in the last release of the Egyptian CG Code can only be complemented by the application of the code by Egyptian companies.

After discussing the Code of CG of both the U.K. and Egypt, the next sub-section discusses the CG codes of different countries.

#### **2.4.4 Professionally (de facto) other country CG codes**

The CG codes of different countries are discussed in the following paragraphs to highlight the global efforts exerted to establish good CG practices by various countries. Efforts are not only exerted by individual countries to issue their own CG codes, but also efforts are exerted by several group of countries, such as the Group of Twenty (G20) countries and the Gulf Cooperation Council (GCC) countries. They have all embarked on a journey to adopt good CG practices.

The first step in this journey is to issue their own CG code. Individual countries have issued their own CG code. Each country adopts the rules and principles of CG which are best suited to its laws and regulations. One of the best codes of CG is the National Code of CG for Mauritius issued in 2016, as per the National Committee on Corporate Governance (NCCG) (NCCG, 2016). The code was first developed and issued in October 2003. Later on, this first edition was revised in April 2004. The second and latest edition of the code was developed in November 2016.

An NCCG survey in 2014 and focus group meetings in 2015 identified that the Mauritian business community believed that the 2003 Code needed to be revised. The reasons for revisions to the Code included the need to align the Code with new laws and guidelines (e.g., the Bank of Mauritius Guidelines). Other reasons were the need to recognise, learn, and apply governance lessons from the British

American Insurance Co Ltd. and Bramer Bank giant collapses in 2015 because of fraudulent acts. Moreover, the governance lessons learnt from the global financial crisis that began in 2008 were needed to be applied and considered as well in the revised edition of the Code. Finally, a revised version was needed to identify and apply international best practices (NCCG, 2016).

For all the above reasons, a new Code of CG for Mauritius was launched on 13 February 2017. The Code recognises that scandals arising from poor governance that impact upon public interest entities should primarily be dealt with by laws and legislation. The code comprises a set of principles and guidance aimed at improving and guiding the governance practices of companies within Mauritius. It forms part of a larger body of existing laws, rules, regulations, principles, and best practices.

The addition of “apply and explain” methodology gives companies the choice of whether to apply the practices of CG or not. If they choose not to apply, then they should explain the reasons for not applying them. The Code aims to encourage high level of CGD quality with in-built flexibility that allows companies to adapt their practices to their particular circumstances. It emphasises the need for boards to focus on the effective performance of their key tasks. It is intended that the Code will advance CG reforms in both the public and private sectors in Mauritius by creating a CG framework of principles for business leaders to apply.

The Code also encourages change amongst the Mauritian business community by focusing on improving the effectiveness of governance practices. Another intended outcome of the Code is to provide maximum flexibility through a focus on principles rather than mandatory regulations and rules (NCCG, 2016). The Code comprises eight principles as follows: Governance Structure, The Structure of the Board and Its Committees, Director Appointment Procedures, Director Duties, Remuneration

and Performance, Risk Governance and Internal Control, Reporting with Integrity, Audit, and Relations with Shareholders and Other Key Stakeholders.

Other distinguished efforts for CG codes issuance are exerted by the G20 countries along with the OECD. OECD principles of CG was first published in 1999, the Principles have since become the international benchmark. In 2015, the updated Principles were endorsed by the OECD Council and the G20 Leaders Summit as discussed earlier in this chapter. These principles are primarily directed to policy makers and regulators, helping them to shape a legal and regulatory framework that supports investment, business sector dynamics, and financial stability.

It is worth noting that the U.K. is among both OECD countries and G20 countries. Egypt, on the other hand, is among the countries of the Middle East and North Africa (MENA) region. Although the U.K. is a developed country and Egypt is a developing country, co-operation between them is taking place constantly in different aspects. CG practices and knowledge are among these co-operation efforts.

Collaboration between the OECD and MENA is an ongoing process to ensure better CG practices among most countries of the world. In 2019, a published report to G20 on the implementation of the G20/OECD Principles of CG stated that a MENA-OECD Working Group on CG has been established to support the implementation of the G20/OECD Principles in MENA. In the same year, 2019, the MENA Working Group issued the report CG in MENA: Building a Framework for Competitiveness and Growth. Upon examining closely existing practices and regulations, the report identifies reform priorities that would improve corporate access to finance; transparency and disclosure; gender balance in corporate leadership, and the CG of state owned enterprises (OECD, 2019).

The OECD, G20, and MENA and GCC countries are all exerting additional eminent efforts to ameliorate CG practices. In the GCC, efforts and initiatives are being made

to improve the CG environment and respond to international developments. Even though the majority of GCC codes are comprehensive compared to those of other MENA countries, and are comparable to international codes, they can still be further improved. Updated codes that take the particular nature of these countries into consideration could improve CG (Shehata, 2015; Grove and Clouse, 2019; Haddad et al., 2020).

In general, the codes of CG of the MENA region, including Egypt, are more recent compared to those of developed countries, such as the U.K., where the Cadbury report was first issued in 1992. This implies that there is still much to be done in MENA, to reach the current status of CG found in developed countries. However, the fact that these countries, in the MENA region, are starting to recognise the importance and significance of CG shows that they are going in the right direction towards further improvements (Samaha et. al, 2012; Shehata, 2015).

U.K. and Egypt Codes of CG contain a number of provisions and principles whose objectives are to protect the interests of all shareholders as well as other stakeholders. One of the foundations of CG is improving corporate disclosure and transparency. Both codes seek to improve the quality of publicly reported corporate information while also coordinating the relationship between shareholders, the BoD, and management. However, compliance with the codes is not mandatory in the U.K. nor in Egypt (Samaha et al., 2012; Almanie, 2021; El-Dyasty and Elamer, 2021). Despite the fact that the codes serve as guidelines for companies to adopt, failure to do so requires companies to defend their decisions. In the U.K., this is known as complying or explaining. It's known as application or justification in Egypt. It has the same meaning in both cases. The company has the choice of adopting CG practices or explaining why it is not doing so.



While national and international CG codes are becoming more similar, there is still considerable variation between countries in terms of disclosure practices and content (Bhuiyan and Biswas, 2007; Samaha, 2013). The issuance of CG codes is perceived as the first step. The second and equally important step is the implementation of the CG codes. There is no use of issuing legislations through codes unless they are implemented as will be discussed in the coming chapters.

In the following section, the GCI is discussed in detail to better capture an understanding of the level of competitiveness of countries, namely the U.K. and Egypt.

## **2.5 Global Competitiveness Index (GCI)**

The GCI is the output of the Global Competitiveness Report (GCR). The GCR is an annual report published by the World Economic Forum (WEF). In the following paragraphs, the nature, description, and key ingredients of this particular report are explored. Moreover, the most important features in the reports of each country are discussed as well.

### **2.5.1 GCI - nature/description**

Since 1979, when the first edition was published, the series of the GCR has been providing policy-makers and other stakeholders around the world with an annual assessment of the drivers of long-term growth (WEF, 2018b).

Economic growth is considered to be a core driver of human development and thus eventually competitiveness. There is a lot of evidence that growth has been the most effective way to lift people out of poverty and improve their quality of life. The level of competitiveness of each country is indicated in the GCR using the GCI. Since 2005, WEF has based its competitiveness analysis on the GCI. GCI is a

comprehensive tool that measures the microeconomic and macroeconomic foundations of national competitiveness (WEF, 2014).

In the GCR 2014-2015, competitiveness is defined as the set of institutions, policies, and factors that determine the level of productivity of a country. Then, the level of productivity can be perceived through the level of prosperity that an economy can achieve. Moreover, the level of productivity dictates the rates of return on investments in an economy, which in turn are the fundamental drivers of its growth rates. Therefore, a more competitive economy is one that is likely to grow faster over time (WEF, 2014).

The GCI, like every other measurement tool, has to cope with the surrounding events and innovations of the Fourth Industrial revolution, or simply Industry 4.0. Humanity has and still going through overwhelming changes. Starting with the First Industrial Revolution that was about mechanisation and the important invention of the steam engine, passing by the Second Industrial Revolution that discovered sources of electricity, gas, and oil, later came the Third Industrial Revolution which was about energy and specifically nuclear energy. Now, the worldwide economies are based on these industrial revolutions and the most developed economies are prospered using the Fourth Industrial Revolution's inventions, namely electronics, telecommunications, and most importantly computers.

Therefore, GCI has evolved to introduce new measures to feature the new pathways to growth and prosperity of different countries. In this context, WEF introduces the new GCI 4.0 (WEF, 2018b). It is much needed to reflect on the technological advances and new aspects of productivity in respect to the Fourth Industrial Revolution. Moreover, this new index is the product of 40 years of experience in measuring the drivers of long-term competitiveness.

According to the GCR of 2018, the GCI 4.0 offers novel and more complex perspectives on the factors that will grow in importance as the Fourth Industrial Revolution progresses, such as: human capital, innovation, resilience, and agility. In addition to the new concepts introduced, there are also new data gathering efforts along with new benchmarks (WEF, 2018b).

To emphasise on the approach that competitiveness is achievable for all countries, the GCI 4.0 introduces a new progress score ranging from 0 to 100. The goal post for each indicator is represented by the frontier (100), which is usually a policy objective. Every country should strive to improve its score on each indicator, which shows its current progress and remaining distance from the frontier.

### **2.5.2 GCI - key ingredients**

The index of the GCR includes a total of 98 indicators derived from a mix of data from international organisations and the WEF's Executive Opinion Survey. The GCI 4.0 divides these indicators into 12 pillars, representing the breadth and complexity of productivity and competitiveness ecosystem drivers. These are: Institutions, Infrastructure, Information and Communications Technology (ICT) adoption, Macroeconomic stability, Health, Skills, Product market, Labour market, Financial system, Market size, Business dynamism, and Innovation capability.

The index promotes that, rather than relying on a single factor, economies should take a systemic approach to competitiveness. A strong performance in one pillar will not compensate for a poor performance in another. Investing in technology without also investing in digital skills, for example, would not result in significant productivity gains. In essence, the index provides a level playing field for each economy to determine its own path to growth. However, no factor can be overlooked in order to improve competitiveness. It is a holistic approach to competitiveness (WEF, 2018b).

The GCR of 2018 assesses 140 economies among them the U.K. and Egypt. The GCI ranges from 1 to 100, with a higher average score indicating a higher level of competitiveness. In the following section, the implications of the GCI in terms of each country, the U.K. and Egypt are discussed.

### **2.5.3 GCI - implications in terms of U.K. and Egypt**

The following paragraphs discuss the implications of the GCI in terms of both the U.K. and Egypt.

#### **2.5.3.1 Implications in terms of U.K.**

The main highlights regarding the implications of the GCR of 2018 on the U.K. are discussed in the following paragraphs.

The U.K.'s ranking has slipped two places from 2017 to 2018. In 2017, the U.K. was ranked 6<sup>th</sup> among 135 countries. However, in 2018, the U.K. was ranked 8<sup>th</sup> among 140 countries. In 2018, the U.K. score of competitiveness is less 0.1 than prior year with a total of 82 (WEF, 2018b).

According to GCR of 2018, the U.K. economy is considered among the top ten out of 140 economies. The first place is occupied by the U.S. It is the closest economy to the frontier. This is perceived as the ideal state, where a country would obtain the perfect score on every component of the index. With an 85.6 competitiveness score, it is 14 points far from the 100-point frontier mark, meaning that even the top-ranked economy among the 140 has space for improvement. The U.S. is followed by Singapore (83.5) and Germany (82.8). Switzerland (82.6) comes in at 4<sup>th</sup> place, followed by Japan (82.5), Netherlands (82.4), Hong Kong SAR (82.3). The U.K. (82.0), Sweden (81.7) and Denmark (80.6) round out the top ten (WEF, 2018b).

As stated earlier, the U.K. is among the G20 countries. According to GCR of 2018, there are significant differences even among G20 countries. For instance, in terms of innovation capabilities the scores of Germany (87.5), the U.S. (86.5), Japan (79.3), the U.K. (79.2), and Korea (79.2) are significantly higher, as beacons of innovation, compared to other G20 countries (WEF, 2018b).

A major event affecting the economy of the U.K. is Brexit. The date Jan. 31, 2020 is a significant date in the history of the U.K. as it is marking Brexit. Brexit is a portmanteau of the words "British" and "exit", invented to refer to the U.K.'s vote to leave the European Union (EU) in a referendum on June 23, 2016 (Arnorsson and Zoega, 2018).

Regardless of the other consequences of Brexit, the event would weaken the U.K.'s markets component by definition, as integration with the EU is rolled back. Other factors would have to compensate for it. Despite having a robust innovation ecosystem and a thriving business sector, the U.K. appears to be less prepared than some of its peers to capitalise on continuing rapid technological change. In comparison to the other eleven drivers, ICT adoption is one of the lowest, with the U.K. ranking just 28<sup>th</sup> globally. Other weak indicators include fiber to the home (75<sup>th</sup>), mobile broadband subscriptions (40<sup>th</sup>), and population digital skills (32<sup>nd</sup>) (WEF, 2018b).

The U.K. economy is the fourth most competitive in Europe and the eighth most powerful globally (82.0). Traditional strengths such as very well-functioning markets (78.7, 4<sup>th</sup>), a top innovation ecosystem (79.2, 7<sup>th</sup>), and lively business dynamism (79.0, 7<sup>th</sup>) account for much of the results. Notably, the country's performance is high across the board, including in product, labour, and financial markets (WEF, 2018b).

After discussing the implications of the GCI in terms of the U.K., the next section is discussing the implications of the same on Egypt.

### **2.5.3.2 Implications in terms of Egypt**

The main highlights regarding the implications of the GCR of 2018 on Egypt are discussed in the following paragraphs.

From 2007 to 2018, Egypt's CGI score averaged 15.37 points, with a high of 53.6 points in 2018 and a low of 3.60 points in 2015. Egypt's ranking has not changed from 2017 to 2018. In both years, Egypt was ranked 94<sup>th</sup> among 135 and 140 countries, respectively. However, in 2018, Egypt's score of competitiveness increased by 0.4 to be 53.6 (WEF, 2018b).

According to the Arab World Competitiveness Report 2018, Egypt has made improvements, particularly with respect to financial market development and infrastructure. A number of transport connections have recently been restored, leading to the expansion of road and railway connectivity, in addition to the opening of the Suez Canal extension in 2015. The flexible currency regime implemented at the end of 2016 has benefited financial market conditions, while the banking sector has endured the transition well and is sufficiently stable (WEF, 2018a).

Egypt would also benefit from its aggressive fiscal reform programme, which included the implementation of the Value-Added Tax (VAT) in 2016 and the phase-out of a number of fuel and energy subsidies. However, its macroeconomic climate suffered from high inflation in the months following the Egyptian pound's stronger-than-expected depreciation. Egypt's macroeconomic environment has deteriorated the most in absolute and relative terms, and is now the country's greatest relative weakness, followed by innovation and labour market efficiency. Despite improvements in education, women's participation in the workforce remains low in

most of the MENA region, and youth unemployment is unacceptably high, especially in North Africa, with rates in Egypt far above 30% (WEF, 2018a).

Chekir and Diwan (2014) argue that under previous regimes in Egypt, poorly enforced government interventions and obstacles to entry and competition resulted in high levels of ownership concentration in significant sections of the economy. The government has recently embarked on a major programme of business environment reforms that will lower barriers to entry and competition, as well as substantially improve the investment climate.

In 2016/17, Egypt enacted legislation that expanded corporate disclosure provisions. Shareholders have more agenda-setting control under these rules, and board member practices in other companies, executive compensation, and audit reports are all disclosed. As a result, Egypt's ranking on the corporate transparency index increased (WBG, 2018). This was evident, according to World Bank Group (WBG) (2018) and (2019), as Egypt strengthened minority investors protections by increasing shareholder rights and role in major corporate decisions and subsequently positively affecting corporate transparency.

Overall, Egypt's competitiveness has improved or stayed reasonably stable in comparison to developed economies over the last decade.

## **2.6 Chapter summary**

This chapter concerned itself with a review of key relevant contextually-related literature. The chapter commenced with a consideration of the nature, essence, and significance of CG and consequential disclosures. Then, many of the key factors that constitute good CG were discussed. The chapter then went on to review CG principles, with an emphasis on CGD and the transparency principle. The disclosure and transparency principle is pivotal to the construction of this thesis. Indeed, in

particular, the thesis investigates CGD quality and associated disclosure practices, a measure of the transparency exercised by companies.

The chapter also provided a discussion on some regulatory structural issues, where the CG codes of both the U.K. and Egypt are considered, in conjunction with the codes of other countries. This is undertaken in order to assess various CG codes in terms of their similarities and differences in an attempt to better comprehend the differences in the CGD codes and practices by different countries.

The final section of this second chapter was devoted to a consideration of Global Competitiveness. This consideration embraces competitiveness indices and their nature – in particular their definitions and implications relating to the U.K. and Egypt. This is so because, later within the thesis, country-level competitiveness is employed to provide some insights to the empirical examination of the country-level disclosure within U.K. and Egyptian contexts. The GCI is important to this thesis as it reveals the level of individual country competitiveness – particularly the U.K. and Egypt, which are an important focus of this research. The chapter also sought out differences and similarities between the U.K. and Egypt Codes of CG along with the level of competitiveness of both these countries. Identifying and seeking out explanations for these differences and similarities between the U.K. and Egypt provide some motivation for this research and later provide some explanatory insights to the results of the empirical analysis.

After discussing in this chapter the legal aspects of the CG codes (*de jure*) and the implementation of these codes (*de facto*), it could be suggested that there is a discrepancy found between them. Thus, there could be potential enhancement in future efforts exerted by countries to adopt sound CG practices, which are to be discussed in next chapters. But, first, in order to shed light on the theoretical lens employed to comprehend CGD practices, the next immediate chapter addresses



important theories that are associated with CG. In particular, it elaborates upon Signalling Theory and explains how and why it connects with this particular research.

## **Chapter 3**

### **A review of prior theoretically-related research literature**

## **Chapter 3: A review of prior theoretically-related research literature**

### **3.1 Introductory comments**

The previous chapter examined the significance of CG and key factors that should/could be considered when adopting good CGD and practices. It helped reinforce the view that awareness of sound CG, is as important as its enforcement. Adopting and applying good CG practices is a matter of when, not if. Good CG practices should/must be applied at all appropriate points in time. Therefore, to some measure, the previous chapter also considered the OECD CG principles in general, and those related to CGD and transparency in particular. This was followed by a discussion of the U.K. CG Code. Equally, the Egyptian CG Code and its appropriately revised different versions were also discussed. The chapter concluded with a discussion of the GCI and its implications in terms of both the U.K. and Egypt.

In any examination of the issue of CG, it is fundamental that one first appreciate the related to CG rules and/or requirements before considering the practicality of the related rules and codes. Equally, it is also of significance and importance to appreciate some of the suitably key theories related to CG. Accordingly, this chapter conducts an appropriately limited discussion of four such relevant theories - namely Agency Theory, Stakeholder Theory, Legitimacy Theory, and Signalling Theory. In part, this is undertaken to evaluatively consider which of these theories more appropriately “connects” with the disclosures of CG and corporate phenomena<sup>8</sup>.

However, before discussing these different theories, it is appropriate to first discuss the significance of the role of theories as a frame (or in other words the theoretical frame or lens) within research. Then, the nature of Signalling Theory and how it

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<sup>8</sup> As theories overlap with different sciences, these matters can be considered from a Management Science theoretical perspective such as advanced by Porter (1979), Charles (2002), and Friedman (2007). However, very consciously, this research is only focused on the matters related to the main CG.

could serve in a more comprehensive appreciation of CG is discussed. Finally, the case for, and relevance of, Signalling Theory within CG is closely discussed, in order to more fully comprehend and appreciate the merits of Signalling Theory when compared with other theories that may be potentially relevant to CG.

### **3.2 The role of a theoretical frame or lens within research**

As discussed in Chapter 1, the context of this research is sets of listed U.K. and Egyptian companies registered within particular business sectors. Differences in the quality of the CGD practices between and within companies listed in these sectors, and two countries, call for investigation and need to be explained.

To be able to provide an explanation for such variability in CGD quality, this research first considers and evaluates a few potentially relevant explanatory theories in terms of the research questions. It does so in order to consider and so determine an appropriate theoretical framework for this research.

The theoretical framework provides a grounding base for the research literatures review, the fulfillment of the research objectives, and most importantly, the research design and methodology (Saunders et al., 2023). These authors emphasise that theory has a vital role in deciding the approach to research design. And consistent with their advice, within the research process, theory consideration has started early so that it may enlighten the research questions and objectives.

Against the background of this much positivist – focused research, it is mindful of the view of Watts and Zimmerman (1990) who state that tighter links between theory and empirical tests will improve positive research in accounting. And, one way of achieving this improvement is through developing and testing various hypotheses so as to be able to explain and possibly predict new empirical practices. This research sets out to do just that.

Saunders et al. (2023) contend that theory helps in explaining phenomena, analysing relationships, and comparing what is going on in different research settings. Moreover, theory is essential to explain and possibly predict outcomes and to generalise.

Pertinent literature does not associate one specific theory to disclosure and CG, but rather makes allusion to a set of theories. However, for the purpose of this research, only four relevant theories are examined. Other theories are not considered as they are seen to not serve, to any significant degree, in better achieving the purpose of this research.

That being said, in this research, the potentially helpful theories which are examined are Agency Theory, Stakeholder Theory, Legitimacy Theory, and Signalling Theory in order to develop a theoretical framework. Accordingly, the immediately following sections of this chapter explain how these theoretical concepts have been refined and applied within this research.

### **3.3 Relevant Theories**

In this section, each of the four previously identified different theories are duly considered and discussed. Each theory is briefly explained and its relation to CG highlighted. That accomplished, with an appropriate appreciation and understanding of all four theories, the research is then able to set out the grounds upon which one could select the theory that well accommodates the present research objectives and with which it could be based.

#### **3.3.1 Agency Theory**

The first theory to be examined is Agency Theory. Why? The thesis is fundamentally associated with and naturally lends itself to CG environment. Indeed, an obvious

construction of Agency Theory is primarily that it relates to companies and ultimately their CG.

To be able to discuss Agency Theory, one must necessarily make reference to the significant dispersion of shareholding which resulted in an equally significant separation of ownership and control in the U.S., as first observed by Berle and Means (1932). This was also the case in the U.K. as there was an evolution of giant firms in the U.K. from 1909 until 1970. The growing tendency of financial institutions to channel new capital funds toward large corporations, in addition to an acceleration of mergers resulting from instability of managerial control of firms in which ownership and management have been separated, were among the financial factors that have operated in the U.K. during this period (Prais, 1976; Soltow, 1977; Rowley, 1979). From the preceding, one can infer that the separation of ownership and control has been a growing phenomenon in the U.K., and consequently, the emergent CG issues must be addressed.

Jensen and Meckling (1976) see the agency relationship as “a contract under which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent”. They suggest that Agency Theory perspective of CG is predicated on the basis that firms are widely dispersed and owned. The main consequence of such dispersion is that a separation between the owners of the firm (principals who delegate the daily decision-making process to managers) and those who control the firm's daily operations and assets (agents or managers) comes about. Therefore, from the standpoint of a company, agents are represented by directors/managers, whereas principals are represented by shareholders. The agent's decisions and actions will have an impact on the principal's interests and the principal's decisions and actions will have an impact on the agent's interests. Hence, the classical principal-agent conflict of interest will very likely arise (Jensen

and Meckling, 1976; Fama and Jensen, 1983; Ben-Amar and Boujenoui, 2007). This conflict of interest is critical to Agency Theory and is of core importance to CG.

The provocation that the two parties, agents and principals, have conflicting interests is the cause of agency costs. The agency cost is the sum of the monitoring cost, the bonding cost, and the residual loss (Jensen and Meckling, 1976; Fama and Jensen, 1983; Hill and Jones, 1992; Panda and Leepsa, 2017). Monitoring costs are incurred by the principals, or shareholders, in order to keep the agents from engaging in illegal behaviour. Bonding costs are paid by the agents, or managers, to ensure that their decisions and actions do not deviate from or undermine the principal's interests. Residual loss occurs when the agents' decisions deviate from those that would maximise the principal's wealth.

Agents and principals have a conflict of interest when the agents do not make decisions in the principal's best interests. The Agency Theory's key argument is that the principle and agent interests are conflicting. The main goal of companies, according to the Finance Theory, is to maximise shareholder wealth. In practice, however, company managers strive to pursue their own personal goals, which may include earning the highest possible compensation and maximising their own interests. This might lead to a concentration on investments that generate high short-term investments (where managers' remunerations are directly tied to this variable), rather than long-term shareholder wealth maximisation, which may be done by investing in long-term investments (Jensen and Meckling, 1976; Weston, 1981).

Consequently, Shleifer and Vishny (1997), conceptualise CG around the 'problem' where principals - risk bearing shareholders, interested in maximising their investments - monitor agents who might be shirking or working towards enhancing

their individual interests. Understandably, such conflict provokes a need for trust between principals and agents and it is trust that is at the heart of all CG issues.

As a consequence of the above, Jensen and Meckling (1976) contend that the principal should ensure the conflict of interests between him and the agent is resolved or, at least, minimised. This could be done by the introduction of appropriate incentives (bonding) for the agent or the meaningful monitoring (such as audit) of him. However, such monitoring brings with it consequent monitoring costs. The purpose of these bonding costs is to ensure that the agent will not take decisions that are not in the benefit of the principal or to ensure that if he does, the principal will be compensated. Monitoring costs and bonding costs are all forms of the agency costs.

Among other ways to overcome the agency problems is establishing a connection of effective contracts between management and the company's shareholders, which aims to match the management's interests with those of the shareholders. These contracts, however, will be linked to agency costs. This is the case for all shareholders' effort to scrutinise company management, which result in agency costs (Solomon and Solomon, 2004). Furthermore, the agency problem may be reduced through disclosure. By aligning the interests of shareholders and managers and so lowering agency costs, disclosure could be seen as a potential approach of reducing information asymmetry (Healy and Palepu, 2001; Watson et al., 2002; Vitolla et al., 2020).

Nonetheless, the Agency Theory argues that shareholders will find it costly and difficult to verify what management is doing. As a consequence, agency costs come from the principal's many attempts to monitor the agents' performance. Furthermore, the agents expend fees in order to demonstrate to the shareholders that they are accountable and trustworthy, as well as that they are pursuing the previously



indicated shareholder wealth maximisation goal (Eisenhardt, 1989; Hill and Jones, 1992).

Furthermore, agency theorists aim to understand how investors get the managers to give them their money back and to minimise agency costs. They argue that legal protection of investor rights alone becomes insufficient to ensure that investors get their money back. However, legal protection is also a crucial element of CG. Shleifer and Vishny (1997) propose that the agency problem can be effectively solved by large investors, in other words concentrated ownership. However, this can be harmful to small investors, who are also referred to as minority shareholders. As a result, agent monitoring plays an important role in ensuring the protection of all shareholders.

From another perspective, as owners became more diversified and dispersed, their capacity to monitor the management decreased. At the same time, no single owner could successfully protect his property rights, an issue that persist and could only be solved via different monitoring mechanisms (Berle and Means, 1932; Farrell, 2003, Bendickson et al., 2016). Nevertheless, good CG should result in the reduction of agency costs. Accordingly, the nature of the agency problem necessitates CG mechanisms to help align risk and monitor agent behaviour. Agency Theory aims to decrease agency conflicts between principals and agents by aligning the interests of managers with those of shareholders (Bendickson et al., 2016; Issa, 2017).

It is argued in prior literature that there are agency problems between companies and their shareholders all over the world because markets are not perfectly competitive (Hart, 1995; Duh, 2017; Arslan and Alqatan, 2020). As a result, one may infer that government intervention is necessary to enhance CG and hence assist companies in raising capital (Hart, 1995). Governments, notably those in emerging

countries, can take action by establishing policy guidelines and CG best practices guidelines (Hart, 1995; Duh, 2017; Arslan and Alqatan, 2020). This could be achieved through the issuance of CG codes, as discussed in the prior chapter.

Ross (1973) and Mitnick (1973) are among the first modern scholars to devote singular attention to the theory of agency. Mitnick (2013) discusses the origin of Agency Theory and suggests that Ross and himself proposed Agency Theory independently and concurrently. However, it might be more appropriate to suggest that while the economic form of the theory of agency was put forth by Ross, its institutional form was suggested by Mitnick. Nevertheless, both approaches share similar basic concepts under different assumptions. Ross (1973) proposes that agency is an incentive problem and eventually the solution lies in compensation contracting. On the other side, Mitnick (1973) emphasises the role of the society and its institutions in dealing with the imperfection of agency relationships. Both approaches, incentives and institutional structures, are needed to comprehend agency.

Despite its dominance as a fundamental theory, Agency Theory has been subjected to a considerable amount of criticism. The most common criticism of Agency Theory discusses that the focus of the theory is too narrow and that the theory is lacking any moral grounding (Eisenhardt, 1989; Hill and Jones, 1992; Donaldson and Preston, 1995).

Agency Theory is criticised for being overly narrow and focused only on the relationship and conflict of interests between the owners and managers, whereas there are other relationships associated with and within the company, such as the non-controlling or minority shareholders, senior and new employees, and well-connected and new suppliers. Focusing only on the relationship between the principal-agent or owners-managers is exercised at the expense of all other

relationships, that are equally relevant and important to the company (Eisenhardt, 1989; Hill and Jones, 1992; Squires and Elnahla, 2020).

Agency Theory is also criticised for overlooking the moral grounding as the core of the theory is to maximise the wealth of shareholders while attempting to minimise the agency costs of monitoring the managers. The theory then focuses on its core while ignoring the fact that the relationship between the owners and the managers is similar to any type of human relationship. The economic benefit to the company is the main force behind this relationship (Carney et al., 2011; Kultys, 2016; Squires and Elnahla, 2020). However, this agency relationship could also go through and be constrained by moral grounding and principles, which may in fact be defined and derived from the market itself (Eisenhardt, 1989; Donaldson and Preston, 1995; Squires and Elnahla, 2020).

Although Ross (1973) and Mitnick (1973) were the first to mention the agency problem, Jensen and Meckling (1976) were the first to present a full theoretical explanation of the Agency Theory. As Agency Theory revolves around the relationship between the owners and the managers, employing a broad scope, this research seeks to examine particular relationships within and between all stakeholders. It is not only concerned with the **current** situation between the principal and the agent.

Cotter et al. (2011) suggest that Agency Theory is the dominant theory for explaining financial disclosures, which are used mostly for monitoring the relationship between the agent and the principal. This research has particular disclosures (or signalling) dimensions to it. So, while Agency Theory is linked at one level to this research, at another it is not. For this research is not **only** concerned with financial disclosures towards principals. Its scope is wider than the limited principal-agent relationship and matters to a whole range of stakeholders. Therefore, Agency Theory is not

considered further in terms of an appropriate theoretical lens for this research. It is possibly too limited and restrictive, and hence alternative theories are investigated.

The next theory to be considered to be the theoretical frame within this research is Stakeholder Theory. And hence, it is investigated in the coming section.

### **3.3.2 Stakeholder Theory**

To broaden the scope of the theoretical lens employed in this research and move beyond the principal-agent relationship, the next alternative theory to be investigated is Stakeholder Theory. Stakeholder Theory offers a broader approach of CG (Albassam, 2014; Bendickson et al., 2016; Issa, 2017).

Stakeholder Theory might be an appropriate theoretical framework for the research as it involves an examination of the relationships between and among various stakeholders inside and outside the organisation as per Freeman and Reed (1983). This theory claims that companies should prioritise the expectations, interests, and benefits of **all stakeholders** as stakeholder groups over the interests of shareholders to maximise wealth (Freeman and Evan, 1990; Donaldson and Preston, 1995; Mitchell et al., 1997).

Since the 1970's, Stakeholder Theory has evolved progressively. According to Freeman and Reed (1983), stakeholders include, but are not limited to, shareholders, managers, employees, creditors, suppliers, customers, and society. Stakeholders can be divided into two groups: primary and secondary. The first group is primary stakeholders, which are those who are fundamental to the company's survival, such as shareholders, creditors, managers, employees, investors, suppliers, customers, and the government. The second group is a secondary stakeholder group, which comprises individuals who are not fundamental to the company's survival but have an impact on or are influenced by the company, such

as the media, communities, and the general public (Hill and Jones, 1992; Mitchell et al., 1997; Rizk, 2006; Maessen et al., 2007; Abdel-Fattah, 2008).

Freeman (1984) suggests that the effectiveness of organisations comes from their attention to all and only those stakeholder relationships that affect or are affected by the achievement of the purposes of the organisations. His suggestion is about a general theory of the company that included corporate accountability to a broad range of stakeholders. Therefore, effective and successful companies manage those relationships that are important, no matter what the content of its purpose, as well as protect the interests of the different stakeholder groups (Hill and Jones, 1992; Mitchell et al., 1997; Issa, 2017). Then, companies should be run not just for the advantage of its shareholders, but for the benefit of all stakeholders.

According to Stakeholder Theory, a range of stakeholders are engaged in the company, and each of them is entitled to some return in exchange for their engagement (Crowther and Jatana, 2007; Abdel-Fattah, 2008). Therefore, managers of the companies are equally accountable to all stakeholders, including not only the company's shareholders but also other corporate stakeholders (Donaldson and Preston, 1995; Issa, 2017). Thus, per Stakeholder Theory, agents should “govern” themselves and the companies in their care with full regard of **all** the relevant stakeholders – current and future. And that is the essential thrust of Stakeholder Theory.

Accordingly, Mitroff (1983) suggests that Stakeholder Theory is a theory that addresses morals and values in managing organisations. Hence, Freeman and McVea (2001) argue that Stakeholder Theory is an ethical rather than a business theory. Phillips et al. (2003) contend that Stakeholder Theory is based on organisational ethics and that it is strongly connected to CSR. This classification isolates ethical issues from mainstream business theories and isolates a

stakeholder approach from mainstream business strategy. However, Heath and Norman (2004) affirm that there should be a strong convergence of the interests of shareholders and other stakeholders.

Cotter et al. (2011) suggest that Stakeholder Theory explains how managers should morally act because they have a proxy relationship to stakeholders. They discuss that companies have incentives to disclose particular information to particular stakeholders in order to convince them that they are complying with their requirements. However, these incentives are seen from a primarily “compliance with requirements” moral perspective within Stakeholder Theory.

Other criticism of Stakeholder Theory is that it has not settled on an agreed-on and common definition of stakeholder (Mitchell et al., 1997; Squires and Elnahla, 2020). Moreover, Stakeholder Theory is criticised for its inability to differentiate between various stakeholders and their relative importance to the company (Donaldson and Preston, 1995; Hill and Jones, 1992; Squires and Elnahla, 2020). Stakeholder Theory is also criticised for being imprecise in both its descriptive capacity and in its instrumental utility (Sundaram and Inkpen, 2004).

According to the arguments of Sundaram and Inkpen (2004), Stakeholder Theory could be criticised for suggesting that managers have more than one objective function as they attempt to satisfy multiple stakeholders as opposed to the shareholder. Accordingly, Stakeholder Theory makes room for confusion and inefficient decision-making.

Another point argued by Sundaram and Inkpen (2004) is that stakeholder attention distorts risk-taking by managers, as various stakeholders, such as employees, suppliers, and communities, will have different motivations to discourage managers from risk-taking activities. This will eventually lead to deviation from the ultimate shareholder welfare maximisation goal (Carney et al., 2011). As the focus on

stakeholder management leading to and affecting company performance is not as evident nor strong as the focus on the goal of maximising shareholder value in the long run, in that the latter generated better economic performance (Carney et al., 2011; Sundaram and Inkpen, 2004; Squires and Elnahla, 2020).

In an effort to offer a response to the shortcomings of Stakeholder Theory stated in Sundaram and Inkpen (2004), Freeman et al. (2004) clarify the misconceptions about Stakeholder Theory. They discuss the need to get back to management and to the understanding of how value gets created and traded. Discussing how all value must be created, or the one and only ideal method to manage value creation, or the one and only stakeholder group whose apparent rights must always prevail, are all intellectual movements that serve neither truth nor freedom. They conclude that the truth and freedom are best served by seeing business and ethics as connected.

Thus, since the emphasis of Stakeholder Theory is on morals, values, and ethical issues, it is excluded from consideration as the main theoretical background of this research. The reason for this exclusion lies in the fact that this research is an attempt to answer questions regarding CGD quality, but not only from an ethical perspective. Rather, this research attempts to explore and explain from a range of varying incentives, companies' decisions to disclose/not to disclose corporate information. Therefore, other theories are examined. The next theory to be examined is Legitimacy Theory.

### **3.3.3 Legitimacy Theory**

In an attempt to further investigate companies' incentives to make decisions regarding their CGD, Legitimacy Theory is considered as it might be employed as the theoretical lens for this research. Suchman (1995) defines legitimacy as "a generalised perception or assumption that the actions of an entity are desirable,

proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (p.574).

Legitimacy Theory is derived from the concept of organisational legitimacy discussed by Dowling and Pfeffer (1975). According to them, Legitimacy Theory suggests that corporations will act in a manner acceptable to society's values and norms, in order to continue to exist. In doing so, corporations gain legitimacy. Expressed in those terms, Legitimacy Theory may be seen as a Normative Theory. Consequently, Schiopoiu and Popa (2013) emphasise/recognise the need of companies to constantly take regard for their objectives and to survive in a fluctuating setting of societal values and norms.

An additional feature of Legitimacy Theory (Dowling and Pfeffer, 1975) is that its “legitimacy concept” is crucial when analysing the relationships between organisations and their environments. It provides a linkage between the organisational and societal level of analysis. Dowling and Pfeffer (1975) contend that legitimacy can be (and is) evaluated by an investigation and evaluation of the values and norms dominant in a society. Thus, Legitimacy Theory can provide a useful empirical focus for examining organisational behaviours taken with respect to their environments. Importantly, in this context, another focus for analysing organisational behaviours in respect to the environment is enabled from an evaluation of the reactions of the constraints imposed by social norms and values.

Often, in order to meet their “social contract”, corporations implement and develop voluntary social and environmental information disclosure. Tilling (2004) suggests that Legitimacy Theory can be used as a powerful mechanism for understanding and explaining such voluntary social and environmental disclosure made by corporations. This could be achieved upon applying some potential refinements of



the more recent developments in the management and accounting literature on the context of legitimacy and corporations.

In the same line of thought, Legitimacy Theory is associated with CSR (Jamali et al., 2008), which concerns itself with economic, social, and environmental benefits for all stakeholders. Taking regard for this, one recalls that the focus of this research is on CG, which is generally perceived as establishing a basic framework of stewardship and trusteeship (Jamali et al., 2008), while CSR is viewed more as an indication of internal CG principles and policies.

Legitimacy Theory often simply assumes that managers are motivated mainly by survival and profitability considerations, which are ultimately linked to considerations of their own self-interest. This means that the strategic focus of Legitimacy Theory embraces the simplistic assumption that managers will adopt whatever strategies are crucial to bring legitimacy to the organisation, and ultimately, this is considered to be to the self-interest of the managers. The shortcoming of such a view is that it hinders the capacity for developing better understanding of the managerial disclosure decisions. It is quite clear that not all individuals are motivated mainly by self-interest, or at least this is what is hopeful. There might be different reasons, whether cultural or normative reasons, behind specific strategic disclosure decisions. For instance, managers will or will not disclose regardless of the consequences their decisions could have for the organisational legitimacy, or organisational success, or even for their own direct self-interest (Deegan, 2014; Deegan, 2019; Mahmud, 2020). The behaviours of managers and their willingness to disclose information could not be only attributed to their self-interest.

Legitimacy Theory is the most widely used theory while interpreting managerial motivations behind publishing CSR (Deegan, 2019; Mahmud, 2020). However, this research is examining CGD practices, not only CSR.

Thus, taking regard for the preceding, one could well concur that Legitimacy Theory is not a totally appropriate theoretical framework for this research, as that theory heavily focuses on the social and environmental disclosure practices by corporations.

However, this research is more into CGD practices by corporations, which is a wider practice for disclosure that is not only related to social and environmental disclosure practices. Moreover, Legitimacy Theory is about the role of corporations as citizens and their fulfillment of their social contract. This research is concerned not only with society, but also with the range of stakeholders involved in relationships with the corporate organisations. Equally, Legitimacy Theory does not explain organisational behaviours in respect to all stakeholders as is the objective of this research. Consequently, the next theory – that is Signalling Theory – is explored.

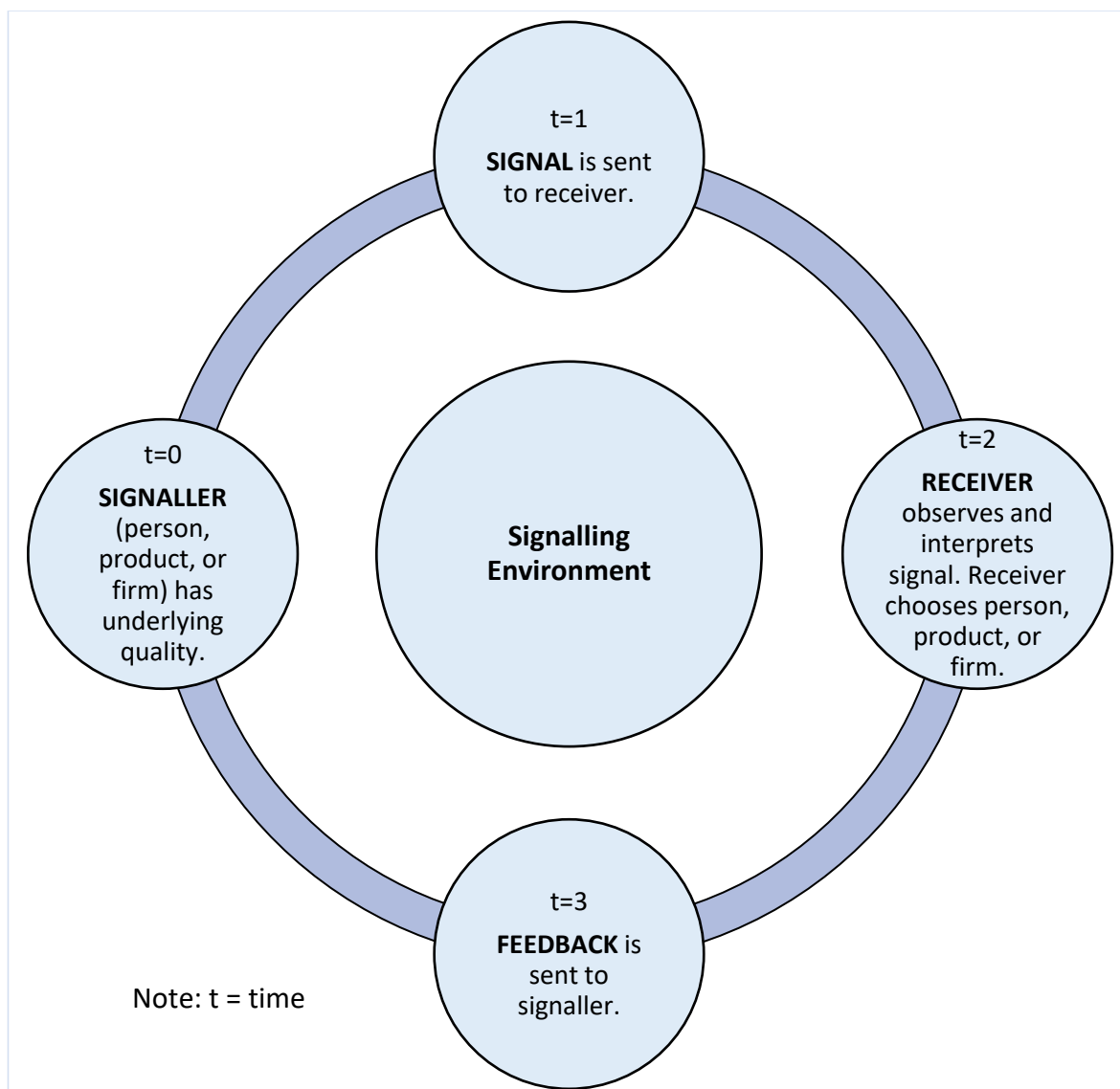
#### **3.3.4 Signalling Theory**

In an attempt to overcome the limitations of the previously mentioned theories in respect to this research, Signalling Theory is considered. In his seminal article, Spence (1973) proposes that two parties could get around the problem of asymmetric information by having one party send a “signal” that would reveal some piece of relevant information to the other party. That party would then interpret the signal and adjust consequential behaviour. Typically, one party (the sender) must choose whether and how to communicate (or signal) that information, and the other party (the receiver) must choose how to interpret that information (signal). Depending on the “signal” that the sender intends to be received by the receiver, this asymmetry of information enables the sender to selectively disclose (or not) information. However, since such intentions are of a varied nature, so also would be the disclosure (or the absence of them).

In a very similar manner, in addition to information asymmetry, Connelly et al. (2011) identifies and considers key concepts integral to Signalling Theory. These are “signals”, “signalling environment”, “signallers” (senders), and “receivers” and are depictively illustrated in Figure 3.1.

Connelly et al. (2011) itself provides an excellent servio (servant) to the literature as at that point in time, since then the papers that have contributed most are Bae et al. (2018) and Yasar et al. (2020). They employ Signalling Theory as the theoretical framework for their research, however Connelly et al. (2011) provides a thorough review and assessment of all prior literature that discussed Signalling Theory. Therefore, Connelly et al. (2011) is mainly employed in this research to discuss Signalling Theory.

**Figure 3.1 Signalling Timeline (Source: Connelly et al., 2011)**



A “signal” may be seen as a perceivable action or structure that is intended, or has evolved, to indicate an otherwise imperceptible quality about the signaller or the signaller’s environment. Connelly et al. (2011) suggest that the purpose of a signal is often to indicate a certain quality. These authors envisage the “signalling environment” to include companies (particularly their directors) as senders “signallers” of information, who have the choice to disclose (or not) information “signals” to stakeholders “receivers”.

According to Connelly et al. (2011), Signalling Theory is an attempt to describe and explain behaviour when two parties (individuals or organisations) have access to different information. This situation is called information asymmetry, which is a

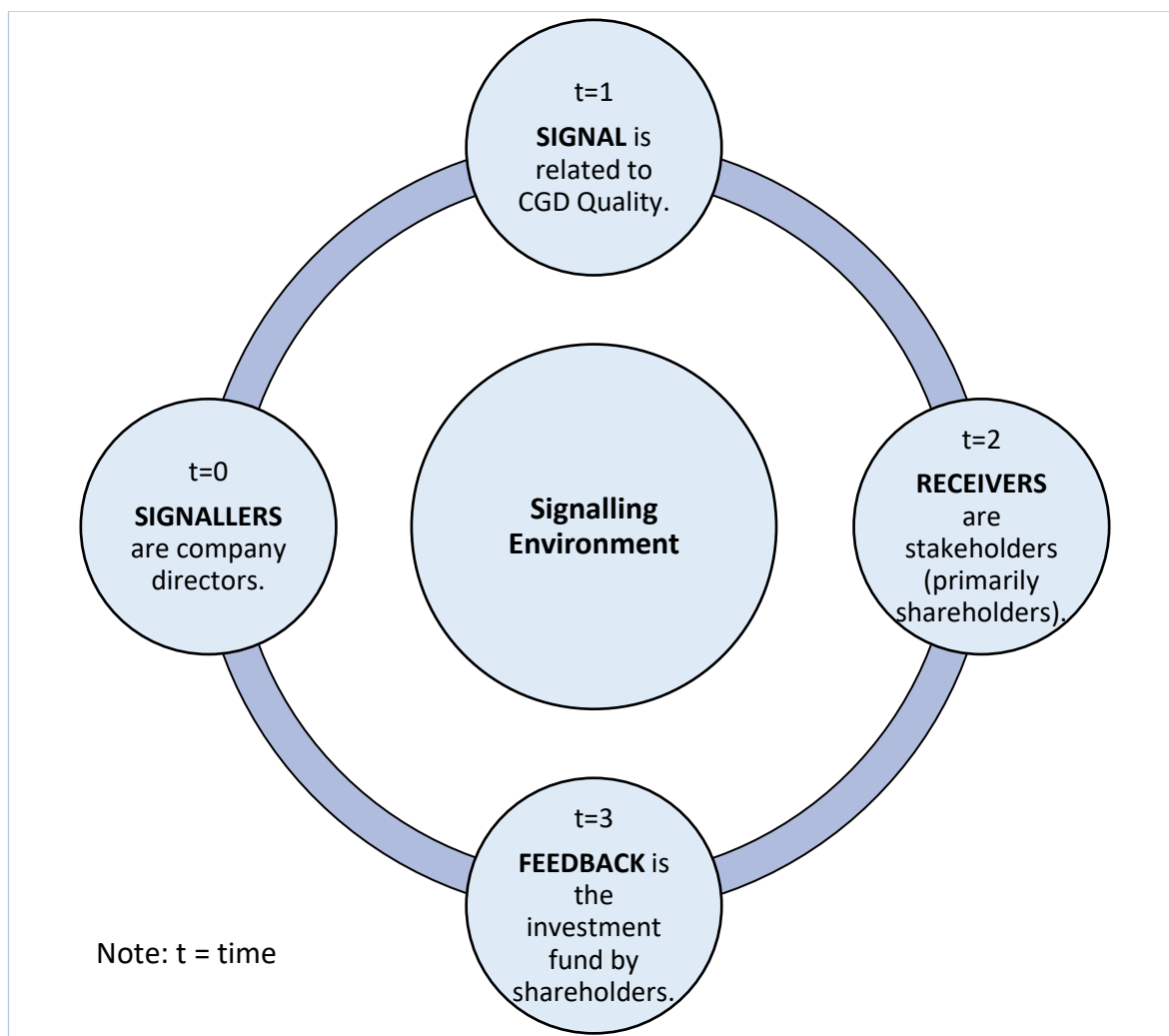
deviation from perfect information. The signaller may send signals regarding a person, product, or firm which has underlying quality. These signals are received by the receiver, who observes and interprets them. Then, the receiver chooses person (hiring a person), product (buying a product), or firm (investing in a firm). These responses from the receiver are regarded by the signaller as feedback.

Applying this same concept to the present research, one could argue that management may have information that investors do not have. If so, asymmetries could be reduced if the parties with more information signal it to others. Thus, Watson et al. (2002) suggest that signalling is seen as a reaction to informational asymmetry.

Berrill et al. (2011) discuss that managers of high-quality companies may wish to distinguish themselves from managers of lower-quality companies via voluntary disclosure. If senders consciously withhold information that may help receivers make informed and better decisions, then asymmetry increases. Equally, management that see themselves as superior and rate their abilities highly may, by voluntary disclosure, particularly wish to draw attention to “signalling” their successes and future plans.

Similarly, Connelly et al. (2011) contend that “Signalling” took root in the idea of asymmetric information, suggestive of the fact that in some economic transactions, inequalities in access to information upset “normal” markets. Figure 3.2 illustrates Signalling Environment with specific reference to, and application for, CGD Quality.

**Figure 3.2 Signalling Timeline for CGD Quality**



As illustrated in the above figure, the company directors act as signallers, sending signals regarding the CGD quality to the stakeholders in general and the shareholders in particular. These signals are received by shareholders, who observe and interpret them. The shareholders then decide to make investments funds as a form of feedback on the signals received.

Though Signalling Theory was originally developed to explain and clarify information asymmetry in the labour market, later it has also been used to explain and clarify corporate reporting disclosure practices (Spence, 1973; Ross, 1977; Al-Moataz and Hussainey, 2013). Companies signal particular information to investors as a result of the information asymmetry problem in order to emphasise that they have higher and superior quality than other companies in the market, in order to attract

investments and enhance a positive reputation. Corporate disclosure practices are among the signalling approaches, in which companies are willing to disclose more information than is needed by law or regulation or codes in order to demonstrate that they are superior and that they have good quality disclosure practices (Campbell et al., 2001; Girella et al., 2019).

Signalling could be used in various aspects by the companies. For instance, it can be used for management talent signalling. One of the drivers of a company's market value is investors' assessment of managers' capacity to forecast and respond to future changes in the company's economic environment. As a result, talented managers voluntarily disclose information regarding earnings forecasts in order to demonstrate their talents (Healy and Palepu, 2001; Graham et al., 2005; Dhaliwal et al., 2011).

From another perspective, signalling might be avoided in some situations. Managers may prevent information disclosures that might be used against them by regulators (Graham et al., 2005; Dhaliwal et al., 2011; Roychowdhury et al., 2019).

In terms of governance, it is reasonable to conclude that good quality CGD would enable all stakeholders to full information regarding their decisions. However, the reality is they often do not have access to all such information, unless disclosed by relevant companies. Decisions to practice “robust” or conversely “deficient” CGD and then appropriately disclose or not, will eventually expose and-or increase/reduce information asymmetry.

Accordingly, this research employs Signalling Theory as the instrument with which to investigate varying practices of CGD “signals” sent out by companies. Companies wishing to raise their standards of CGD may well wish to distinguish themselves by applying the UNCTAD (2011) practical instruction as a tool for doing so. And, if, not unreasonably, one holds the view that associated with high-quality CGD lies good

CG, then directors may wish to so signal by making such relevant disclosures. Therefore, studying such potential patterns of relationships and the interpretation of them is the main theoretical basis of the intended research and is achieved with the appropriately argued employ of Signalling Theory.

Signalling Theory appropriately addresses the varying constraints of the previously identified/discussed theories, in respect to this research. It provides an explanation to varying criteria and considerations regarding companies' decision to disclose their CG practices and accordingly enables to achieve the research objectives. Accordingly, Signalling Theory is selected as the tool to enlighten this research with varying disclosure decisions made by companies, especially CGD.

### **3.4 The case for and relevance of Signalling Theory within CG**

After a thorough and considerate review of prior and relevant CG literature, one can claim that Agency Theory and Stakeholder Theory are dominant theories (Squires and Elnahla, 2020). In some literature, there is also a consideration of Legitimacy Theory. However, the researcher believes that Signalling Theory needed to be examined further in relevance to CG in an attempt to overcome the criticism of the other different theories.

Nonetheless, Signalling and Agency theories appear in some literature to be competing theories (Ross, 1979; Morris, 1987). Meanwhile, in some literature, it is demonstrated that they are in fact compatible theories since one set of sufficient conditions of Signalling Theory at least conforms with one set of sufficient conditions of Agency Theory. There is, indeed, an overlap between the two theories. In other words, rational behaviour is a shared characteristic of both; information asymmetry in Signalling Theory is implied by positive monitoring costs in Agency Theory; quality in Signalling Theory can be defined in terms of Agency Theory variables; and signalling costs are implicit in some bonding devices of Agency Theory (Morris,



1987; Inchausti, 1997; Watson et al., 2002). Although these two theories do not imply one another, the sufficient conditions of both are consistent. Since there is an overlap between them, then Signalling Theory can be the theoretical framework of this research.

While Agency Theory focuses solely on the relationship between managers (agents) and shareholders (principals), Stakeholder Theory considers the relation between managers and all stakeholders, including shareholders, employees, consumers, suppliers, communities, and government (Jensen and Meckling, 1976; Freeman, 1984).

Regardless of being one of the dominant theories in respect to CG, Stakeholder Theory, second theory considered, is criticised for being too broad, thereby creating an avenue for confusion and inefficiency in decision-making (Squires and Elnahla, 2020; Olufemi, 2021).

The third theory considered in this research is Legitimacy Theory. Legitimacy is defined as an attribute that an organisation possesses or lacks. That is, legitimacy theorists often consider legitimacy as a dichotomous variable decided by society. Legitimacy theorists also avoid breaking down legitimacy into sub-components (Deegan, 2014; Deegan, 2019).

Among the several flaws previously mentioned, Agency theory is criticised for being too narrow and focused, while, Stakeholder Theory is criticised for being too broad. In addition to that, Legitimacy is commonly attributed and focused mostly on the self-interest of managers and CSR. Then, Agency Theory, Stakeholder Theory, and Legitimacy Theory do not help in better understanding and attempting to find answers for this research questions. Therefore, Signalling Theory has been chosen as the theory to be used in better understanding and seeking to provide answers to this research questions.

Financial reporting is assumed to stem from management's desire to disclose its superior performance, where good performance will enhance management's reputation and position in the market for management services and good reporting, which includes disclosing information regarding good performance (Spence, 1973; Healy and Palepu, 2001; Agyei-Mensah, 2017). Disclosing such information regarding the performance of companies, eventually is considered as one aspect of good CGD practices.

These practices of good CG could very justifiably be associated with Signalling Theory. Signalling is a way of responding to market information asymmetry, in which companies have more knowledge than investors. Because of Signalling Theory, it is suggested that corporations routinely revealed more voluntary information. As a result, managers of high-quality companies will want to set themselves and their companies apart from low-quality companies (Ross, 1977; Shleifer and Vishny, 1997; Berrill et al., 2011; Connelly et al., 2011).

Drawing on phenomena considered in preceding paragraphs, one may readily determine that there is a reasonable opportunity for Signalling Theory to play a constructive role within the arena of CG and its related disclosure.

Signalling Theory is based on the premise that the trust of investors can be upheld through companies' directors as they can send information or signals that indicate their good CG practices. In turn, this will reduce the information asymmetry between the company directors and investors (Connelly et al., 2011; Quang Trinh, 2022).

Given the separation of ownership and control, the classic agency-conflict emerges. And, as stated previously, this is further aggravated by the information asymmetry phenomenon. So, what might a diligent BoD seek to do? In order to address both these (and other) phenomena, they may well seek to send out "signals" to interested parties – with such signals acting as "surrogates" for CG Quality. If so, such "signals"

and/or “surrogates” could well be the portents of sound CG and engender (or not) trust – the fundamental phenomenon of this research. On that basis, it is easy to conclude the natural linkage between Signalling Theory, Corporate/CGD, its quality, and the consequent trust.

As deliberated earlier, Signalling Theory has been selected as the theoretical lens for this research. This is primarily because it has potential to offer distinctive insights in terms of CGD quality. And the actions of companies to disclose, or not, information can be evaluated from that perspective. Few researchers have used this theory to identify and interpret corporate behaviours in terms of their implications on CGD quality (Sanders and Boivie, 2004; Connelly et al., 2011; Al-Moataz and Hussainey, 2013).

### **3.5 Chapter summary**

This chapter devoted itself to a review of key relevant theoretically-related literature. The significant role of a theoretical framework within research was discussed. The theoretical framework is considered the lens employed to enhance understanding and explanation within research. The chapter commenced with a review of some theories that are relevant to, or potentially associated, with CGD quality in particular as CG lies within the essence of this research. Accordingly, Agency Theory, Stakeholder Theory, Legitimacy Theory, and finally (in some more detail) Signalling Theory were considered.

In some depth, these theories were all examined and discussed in this chapter. The discussion provided the rationale for selecting Signalling Theory as the theoretical lens or frame for the research. In view of that, within this chapter, a key section of it was devoted to Signalling Theory and its relevance to CG. The chapter concluded with a justification of the selection of Signalling Theory as the lens through which the research background and context are considered.

In undertaking any research, an examination to relevant empirical literature is important as it is considered a critical evaluation of the research done earlier in respect to the research problem being investigated. Accordingly, in the coming chapter, key relevant empirical literature is considered and discussed, using it as a basis for the development of the hypotheses of this research.

## **Chapter 4**

**A review of prior empirically-related  
research literature and the development  
of the research hypotheses**

## **Chapter 4: A review of prior empirically-related research literature and the development of the research hypotheses**

### **4.1 Introductory comments**

The literature relating to the research issue presents itself across a range of strands. Thus, there is not one, but a few literatures to be considered. The first of these literatures is that related to the overall context of the research – i.e., its contextual literature. As stated earlier, the overall context of the research is the arena of CG. Thus, the thesis initially devotes due attention to the literature explaining the nature of CG and the role it plays within the present research “space”. Against that backdrop the thesis considers legal issuances (primarily from U.K. and Egyptian law) and then professional issuances – most importantly CG Codes (again, primarily from the U.K. and Egyptian professional CG bodies). Further, as a particular aspect of the research involves consideration of “Global Competitiveness”, the thesis devotes some consideration to that issue and, with reasoned argumentation, suggests how the research focus - disclosure quality, may well be associated with (or a function of) such “global competitiveness”. These aspects of the contextual literature were elaborated in the second chapter of this thesis.

The second of these relevant literatures relates to that of the theory selected to be used as the theoretical lens for the research – i.e., Signalling Theory. Consequently, given its importance to the research, this theoretically-related literature is given due attention within the prior chapter. The third important strand of the literatures relating to this research is that given by previous authors to an empirical consideration of the present research issue and/or similar research exercises. Prior literature discusses varying CG practices between and within different countries. Although the codes of CG and the recommendations contained in the relevant policy documents are not mandatory, companies that are publicly traded must (or usually) disclose the

extent to their compliance with the codes. Fear of reputational harm, from the possible revelation of CG flaws, makes it difficult for publicly traded companies to refuse to comply. As indicated in the second chapter discussing various CG codes, this chapter explores the extent to which listed companies are willing to adopt good CGD practices, via an empirically-related literature review. In this chapter, one main focus is on U.K. and Egyptian companies and their CG practices. As this strand of empirically-related literature is of much help in elucidating the research issue, some reasonable devotion to this strand of the literature is made in this chapter.

Given all the preceding, there are four different sets of individual hypotheses that are appropriately developed, individually analysed, and evidentially evaluated. Using generalised Signalling Theory arguments suggested in prior chapters, there is a good case for the four sets of hypotheses to be developed.

Drawing on Signalling Theory, this research hypothesises that managers could be disclosing and sending to current and/or potential investors (and relevant others) information regarding CG quality using, at least, three main sets of signals – company characteristics, CG characteristics, and country-specific characteristics. In addition, one may also view specific business sectors as an influence when evaluating CGD Quality. On that premise, the six identified business sectors in the two countries of interest analysed in this research (U.K. and Egypt) are appropriately considered.

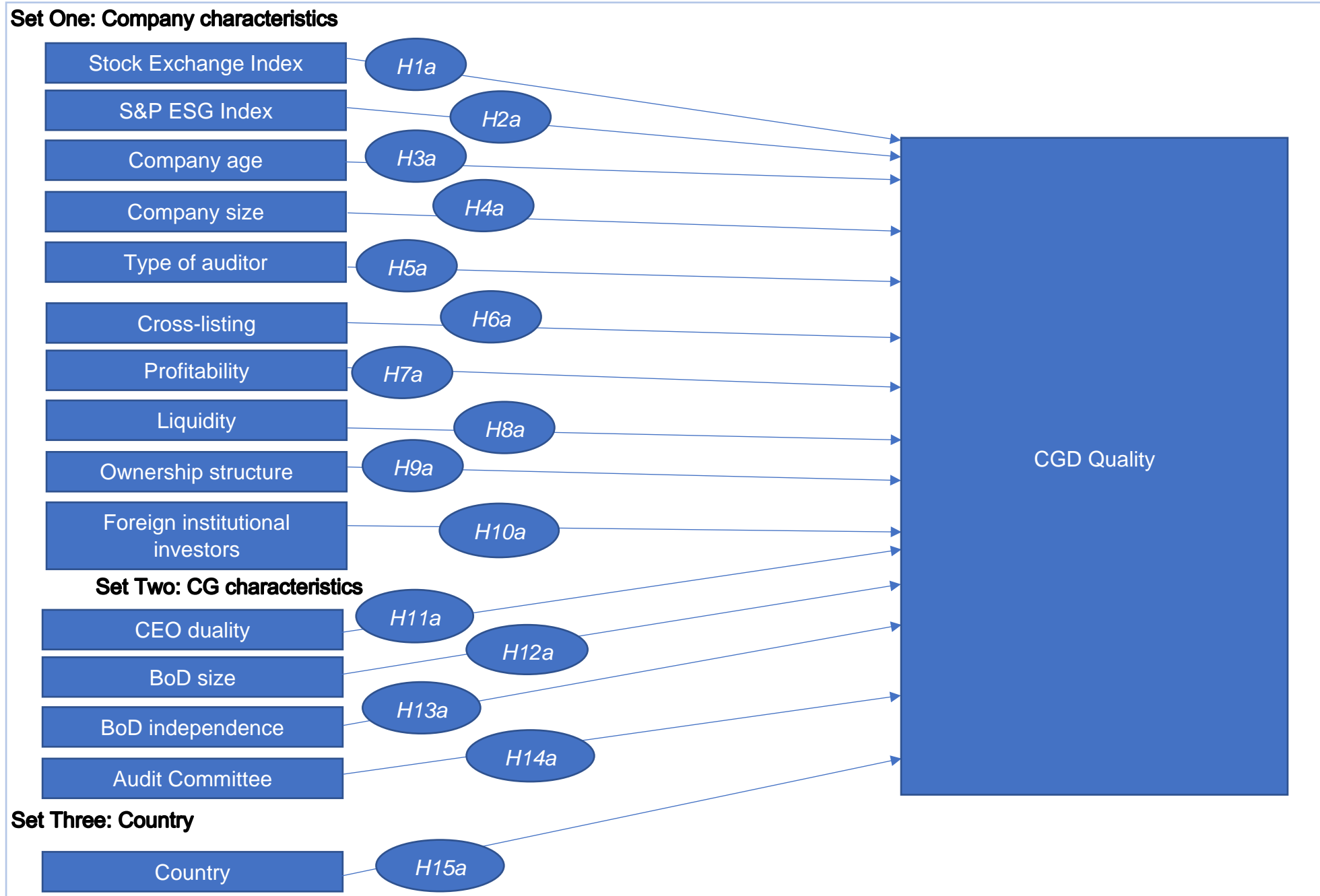
A significant component of the empirical aspects of the research is made up of the testing of hypotheses that have their genesis within Signalling Theory. This is consistent with the key objectives of the research. Thus, within the research, appropriately constructed sets of “signalling” hypotheses are developed and tested, for any potential accord and/or similarity of each of the three sets of identified

characteristics with each other. These developed research hypotheses are expressed in the alternative hypothesis form.

Accordingly, in light of prior empirical literature, this chapter discusses the development of the four sets of hypotheses as follows: first, the company characteristics set; second, the CG characteristics set; third, the country set; fourth and last, the business sectors set. In the coming paragraphs, these four sets of hypotheses are discussed more comprehensively and fully. But first, the first three sets of hypotheses are depicted in the following conceptual figure.



Figure 4.1 Hypotheses Diagram: Set One, Two, and Three



#### **4.2 Set One: The company characteristics hypotheses (U.K./Egypt/U.K. and Egypt jointly)**

Signalling Theory suggests that companies with sound CG structures and practices would wish to signal such healthy CG practices by good CGD. Accordingly, one might expect “that companies revealing positive CGD are effectively doing so to signal the presence of good CG structures and disclosure quality”.

Accordingly, the first set of generalised hypotheses is grounded in the arguments that Signalling Theory would suggest that companies with certain characteristics (e.g. size, type of auditor, cross-listing, and profitability) act in a reasonably consistent manner and so “signal” via commensurate levels of CGD, the presence of such company characteristics.

Thus, for example companies being audited by one of the Big 4 audit firms<sup>9</sup> or companies being listed on more than one stock exchange or companies making high profit will wish to show or “signal” such good company characteristics via an overall level and quality of high and good CGD.

Based on considerations such as the above, the first set of generalised hypotheses could be stated as:

***That companies with good companies’ characteristics will tend to reflect a high level of CGD quality and so “signal” the presence and exercise of sound CG practice.***

Based on the above, there are two generalised hypotheses that could be stated as:

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<sup>9</sup> The thinking behind this research is premised on the view that the Big 4 audit firms are more associated with high quality audits. However, it is recognised that this may not always be the case.

- A. *That CGD quality is significantly influenced by company characteristics “signals” individually and collectively (amenable to Regression analysis).*
- B. *That CGD quality is significantly associated with individual company characteristics “signals” (amenable to Correlation analysis).*

Based on the empirically-related literature review, varying company characteristics are found to be associated with CGD quality. Then, individual hypotheses are developed for each of the company characteristics and are discussed in the following sub-sections.

#### **4.2.1 The stock exchange index hypothesis**

The stock exchange index or listing was examined and appeared to have varying and variable results associated with specific stock exchanges. Thus, the perceived desirability of being listed on a reputable stock exchange, might be regarded as an incentive both for sound CG practices themselves, and a keenness to disclose them (Novotný et al., 2015). Accordingly, it is suggested in some studies that the stock market index is an important explanatory variable with respect to corporate disclosure (Firth, 1979; Cooke, 1992; Dahawy and Conover, 2007).

Thus, in this context, the research hypothesis specifically developed for testing within the present research is as follows:

***H1(a) That there is a statistically significant positive relationship between stock exchange index and CGD quality.***

#### **4.2.2 The S&P ESG index hypothesis**

The S&P ESG (Standard & Poor’s Environmental, Social, and Governance) index scores include a total company-level ESG score for a fiscal year, which includes individual Environmental (E), Social (S), and economic & Governance (G)

dimension scores, using industry-specific criteria scores that can be deployed as specific ESG signals (S&P Global, 2023).

The effect of the inclusion in the S&P ESG index on CGD is examined in this research, as has been examined in prior literature, albeit mostly for developed countries (Jo and Harjoto, 2011; Tamimi and Sebastianelli, 2017). However, it just might be the case that companies attracting an S&P ESG rating tend to practice better and more stakeholder beneficial CGD, while those that are not so listed, do not.

Thus, in this context, the research hypothesis specifically developed for testing within the present research is as follows:

***H2(a) That there is a statistically significant positive relationship between S&P ESG index and CGD quality.***

#### **4.2.3 The company age hypothesis**

The company age and its effect on CGD has been examined and the results were reasonably variable. Some literature finds that the impact of company age is not significant in terms of CGD (Garas and ElMassah, 2018), while others find a positive impact on such CGD (Zamil et al., 2021). Furthermore, others find an impact at times even negative, possibly as a result of company rigidity (Isidro and Sobral, 2015), while others use it as a control variable in their research (Alshbili et al., 2019). The company age is found to be negatively related not only to disclosure, but also to company financial performance as younger companies may grow faster than older ones (Salah, 2018). Nevertheless, in general, it takes time for companies to become more conscious of CGD and also, for board members to develop their experience. As a result, it is expected that with increased company age, CGD will increase.

Thus, in this context, the research hypotheses specifically developed for testing the company age phenomenon within the present research are as follows:

***H3(a) That there is a statistically significant positive relationship between company age and CGD quality.***

***H3(b) That company age is significantly and positively associated with CGD quality in the U.K.***

***H3(c) That company age is significantly and positively associated with CGD quality in Egypt.***

#### **4.2.4 The company size hypothesis**

Some prior literature suggest that the company size does not seem to affect the CGD (Samaha and Dahawy, 2011; Al-Moataz and Hussainey, 2013). However, Watson et al. (2002) do find some evidence of association between CGD and company size. They investigate whether the voluntary disclosure in corporate annual reports can be explained by Signalling Theory. The sample analysed data for 313 large U.K. companies. They find some evidence of an association between disclosure and company performance, size, and industry, in addition to the theoretical use of Signalling Theory to explain companies' decision to disclose (Watson et al., 2002). The normative questions surrounding what, where, and how information should be disclosed, are tremendously important, but have not yet been resolved. Thus, this must be further investigated in an attempt to bridge the understanding gap between users and preparers of corporate annual reports.

Prior literature argues that the level of disclosure varies substantially across companies. They suggest that information is more available in larger companies. Some studies evaluate the role of the size of companies in the CGD practices. They conclude that there is a significant positive relationship between company size and

CGD (Berglöf and Pajuste, 2005; Foyeke et al., 2015; Egbunike and Okerekeoti, 2018). Berglöf and Pajuste (2005) state that publicly disclosed CG information is more frequently available in larger companies than within smaller ones. Indeed, Samaha et al. (2012) contend that the level of CGD increases with company size.

Thus, in this context, the research hypotheses specifically developed for testing within the present research are as follows:

***H4(a) That there is a statistically significant positive relationship between company size and CGD quality.***

***H4(b) That company size is significantly and positively associated with CGD quality in the U.K.***

***H4(c) That company size is significantly and positively associated with CGD quality in Egypt.***

#### **4.2.5 The type of auditor hypothesis**

Prior relevant empirical literature examine individual company characteristics as signals to relevant parties. These characteristics include a range of criteria and considerations associated with, or influencing, CGD. They conclude that financial performance, Big 4 auditor affiliation, and industry type are, to varying degrees, associated with CGD (Cheung et al., 2007; Al-Moataz and Hussainey, 2013).

It is implied that the level of the CGD will likely be high, if the auditor of the company is associated with one of the Big 4 auditing firms (Deloitte, EY - Ernst & Young, PwC - PricewaterhouseCoopers, and KPMG - Klynveld Peat Marwick Goerdeler). As one of the most important variables influencing the level of disclosure by Egyptian companies, according to prior literature, is the auditor's degree of affiliation with an international firm, usually certainly a "Big 4" association (Dahawy, 2009; Samaha and Dahawy, 2010).

Thus, in this context, the research hypothesis specifically developed for testing within the present research is as follows:

***H5(a) That there is a statistically significant positive relationship between type of auditor and CGD quality.***

#### **4.2.6 The cross-listing hypothesis**

Cross-listing is defined as the process by which a company incorporated in one country elects to list its equity on the public stock exchange of another country (Ferris et al., 2009). Cross-listing of the company means that the company is listed on more than one stock exchange. It is a proxy for the internationality of the company. Thus, cross-listing can be used as a measure of internationalisation of companies. It likely encourages companies to manifest better quality CGD (Attig et al., 2016; Lu and Wang, 2021). Companies might choose to willingly use cross-listing to signal the quality of their CGD and improve the investors' perception of this quality.

According to prior literature, cross-listing can improve the performance of companies, while it will significantly improve the CG conditions, mainly characterised by an international board and enhancing the strengthening of the board control behaviour (Ferris et al., 2009; Aly et al., 2010; Jian et al., 2011). Furthermore, there is some evidence suggesting that an increase in the CGD is statistically significant and economically beneficial for cross-listed companies. Additionally, there is further evidence indicating that cross-listing is found to explain the variation in the level of corporate disclosure and reporting between companies and that it is associated with higher disclosure quality (Aly et al., 2010; Shi et al., 2018; Garanina and Aray, 2021).

Thus, in this context, the research hypothesis specifically developed for testing within the present research is as follows:

***H6(a) That there is a statistically significant positive relationship between cross-listing and CGD quality.***

#### **4.2.7 The profitability hypothesis**

Profitability is found to explain the variation in the level of corporate disclosure and reporting between companies (Aly et al., 2010). Additionally, Al-Moataz and Hussainey (2013) also argue that profitability is among the main associates of CGD. In contrast, profitability is revealed to have no significant influence on the level of disclosure by companies in Kenya (Barako et al., 2006). However, some authors have identified a significant positive relationship between profitability and CGD (Brown and Caylor, 2004; Samaha and Dahawy, 2010; Babatunde and Akeju, 2016). Additionally, evidence from prior literature suggest that among the factors influencing CGD is the profitability of the companies in the U.K. (Watson et al., 2002), Egypt (Aly et al., 2010), and Saudi Arabia (Al-Moataz and Hussainey, 2013). Thus, in this context, the research hypotheses specifically developed for testing within the present research are as follows:

***H7(a) That there is a statistically significant positive relationship between profitability and CGD quality.***

***H7(b) That profitability is significantly and positively associated with CGD quality in the U.K.***

***H7(c) That profitability is significantly and positively associated with CGD quality in Egypt.***

#### **4.2.8 The liquidity hypothesis**

Evidence from prior literature suggests that the liquidity of the company is associated with the CGD and furthermore. It is found to be a significant variable in



explaining the intensity and quality of CGD (Ezat and El-Masry, 2008; Samaha and Dahawy, 2010). However, in contrast, other literature find that the liquidity of the company appears to have no significant effect on CGD (Barako et al., 2006; Samaha and Dahawy, 2011). Nonetheless, while presenting contrary evidence, other literature counters this argument and state that the liquidity of the company is one amongst the main determinants of CGD (Watson et al., 2002; Aly et al., 2010; Al-Moataz and Hussainey, 2013).

Thus, in this context, the research hypotheses specifically developed for testing within the present research are as follows:

***H8(a) That there is a statistically significant positive relationship between liquidity and CGD quality.***

***H8(b) That liquidity is significantly and positively associated with CGD quality in the U.K.***

***H8(c) That liquidity is significantly and positively associated with CGD quality in Egypt.***

#### **4.2.9 The ownership structure hypothesis**

The ownership structure of the company can be assessed and determined by the varying types of equity-owners, such as blockholders, government, and institutional. Among other measures of the ownership structure is the “free float” percentage, which is the percentage of the publicly traded shares in relation to the total number of outstanding shares. However, in determining the free float percentage, shares held by, for example, significant shareholders and company directors are excluded (Ding et al., 2016). Some literature evidence suggests that companies with high free float percentage disclose better quality of CG practices (Ezat and El-Masry, 2008).

Thus, in this context, the research hypotheses specifically developed for testing within the present research are as follows:

***H9(a) That there is a statistically significant positive relationship between ownership structure and CGD quality.***

***H9(b) That ownership structure is significantly and positively associated with CGD quality in the U.K.***

***H9(c) That ownership structure is significantly and positively associated with CGD quality in Egypt.***

#### **4.2.10 The foreign institutional investors hypothesis**

To manage the business situation and make informed investment decisions, foreign investors demand higher levels of disclosure from listed companies. Prior literature suggests that there is a positive relationship between the existence of foreign investors and the level of corporate disclosure (Haniffa and Cooke, 2002; Tuan et al., 2020)

Moreover, there is an additional body of literature that indicates that foreign ownership is positively and significantly associated with the level of CGD (Barako et al. 2006; Mangena and Tauringana, 2007; Wachira, 2019). Similar literature confirms that foreign ownership is of greater influence than that of domestic investors (Mizuno, 2010; Nakano and Nguyen, 2013).

Thus, in this context, the research hypothesis specifically developed for testing within the present research is as follows:

***H10(a) That there is a statistically significant positive relationship between foreign institutional investors and CGD quality.***

#### **4.3 Set Two: The CG characteristics hypotheses (U.K./Egypt/U.K. and Egypt jointly)**

The second set of hypotheses as predicated on the argument that Signalling Theory would suggest that companies with certain “sound” characteristics of CG (e.g. different persons for CEO/Chairman positions, independent BoD, and existence of an audit committee) would act in a manner consistent with such “soundness” and so “signal” via a high level and quality of CGD, the presence of such “sound” CG characteristics.

Thus, for example companies where the offices of the chair and CEO are separated (i.e., not one of duality) or where the audit committee exists and efficiently function will wish to manifest or signal such “healthy” CG characteristics via an overall level of high and good CGD.

CG characteristics have been studied in respect to the CGD quality, in either developed or developing countries (Barako et al., 2006; Ezat and El-Masry, 2008; Al-Moataz and Hussainey, 2013; Alabdullah et al., 2019; Saha and Kabra, 2020). However, examining CG characteristics in this research is employed to compare and evaluate the CGD quality within and between listed companies in the U.K., as a developed country, and Egypt, as a developing country. CG characteristics may be seen as signals of CGD quality to third parties.

Based on considerations such as the above, the second set of generalised hypotheses could be stated as:

***That companies with sound CG characteristics will tend to reflect a high level of CGD quality and so “signal” the presence and exercise of sound CG practice.***

Based on the above, there are two generalised hypotheses that could be stated as:

- A. *That CGD quality is significantly influenced by CG characteristics “signals” individually and collectively (amenable to Regression analysis).*
- B. *That CGD quality is significantly associated with individual CG characteristics “signals” (amenable to Correlation analysis).*

The following paragraphs discuss each hypothesis in this second set of hypotheses.

#### **4.3.1 The CEO duality hypothesis**

The CEO is the head of the executive team of the company, while the chairman is the head of the BoD. These are two different posts in the company that sometimes are occupied by the same person. When the executive manager also serves as the BoD chairman, this is referred to as CEO duality (Elsayed, 2007).

The Cadbury Code (1992) suggests that if the chairman also serves as the CEO, there are reasonable concerns in terms of objectivity regarding the combined offices of chairman/chief executive and its effects on the effectiveness of the board to a senior non-executive director, who may be the deputy chairman. In fact, many companies have acknowledged this role, and even some have done so formally in their Articles (Cadbury, 1992). Eventually, most CG codes of best practice advise against allowing one person to hold both positions, the position of chairman and that of CEO, because the chairman's responsibilities differ from and complement those of the executive director and also to avoid power concentration that would compromise proper management oversight and eventually lead to inefficiency (da Costa and Martins, 2019).

The dual nature of the two positions might be problematic because those who are accountable for the company's performance are also those who should be assessing its effectiveness (Moscu, 2013; da Costa and Martins, 2019). This compromises the performance evaluation and may ultimately result in a company that does not perform as expected. Accordingly, the two positions should be kept

separate in order to prevent any form of conflict (Moscu, 2013; da Costa and Martins, 2019).

A different perspective to the CEO duality argues that it gives the company's leadership a single focal point, giving an impression of company stability, increasing trust in management, and improving communication between the BoD and management (Anderson and Anthony, 1986; Iyengar and Zampelli, 2009; da Costa and Martins, 2019).

Consequently, the empirical data on the effect of CEO duality on company performance and disclosure is also contradictory (Iyengar and Zampelli, 2009). There is some evidence suggesting that the CEO duality has a significant negative effect on the CGD quality of listed companies (Samaha and Dahawy, 2011; Samaha et al., 2012; Elbadry et al., 2015; Samaha et al., 2015; Alabdullah et al., 2019).

Thus, in this context, the research hypothesis specifically developed for testing within the present research is as follows:

***H11(a) That there is a statistically significant negative relationship between CEO duality and CGD quality.***

#### **4.3.2 The BOD size hypothesis**

Prior literature suggests that the BoD size has a positive effect on the quality of CGD (Abdel-Fattah, 2008; Ezat and El-Masry, 2008; Samaha et al., 2015; Alabdullah et al., 2019). Thus, the greater the BoD size, the higher the quality of CGD.

Thus, in this context, the research hypotheses specifically developed for testing within the present research are as follows:

***H12(a) That there is a statistically significant positive relationship between BoD size and CGD quality.***

***H12(b) That BoD size is significantly and positively associated with CGD quality in the U.K.***

***H12(c) That BoD size is significantly and positively associated with CGD quality in Egypt.***

#### **4.3.3 The BOD independence hypothesis**

The BoD is composed of Executive and Non-Executive Directors, as well as Independent Directors. Executive directors hold a distinct position of authority within the company and have better access to internal information (Nicholson and Kiel, 2007; Basco et al., 2019). Whereas, non-executive directors have a variety of and more objective insights on the company's issues due to their varied backgrounds and experiences (Filatotchev, 2006; Basco et al., 2019). Finally, an independent director does not have a material relationship with the company. He is not a member of the executives of the company and therefore, he is not part of the day-to-day operations of the company (CFI, 2022). The proportion of the independent and non-executive directors to the total number of the members of the BoD measures the independence of the BoD.

Sanders and Boivie (2004) consider board structure as a CG characteristic that can be seen as signal to attract potential investors when evaluating new companies in new industries. Eventually, they conclude that board structure, which is the proportion of board members who are outsiders, is positively, but not significantly associated with market valuations of new companies in new industries. Though not directly related to disclosure, but it could be seen as an influence on gaining the trust of potential investors. On the other hand, the percentage of non-executive directors appears to have a negative effect on corporate disclosure (Abdel-Fattah, 2008).

Nevertheless, prior literature states that companies with a high proportion of independent directors have a better CGD and furthermore, that the board independence is among the main determinants of CGD (Ezat and El-Masry, 2008; Samaha and Dahawy, 2010; Samaha et al., 2012; Al-Moataz and Hussainey, 2013; Samaha et al., 2015). However, Barako et al. (2006) find that the independence of the board is significantly negatively associated with the disclosure in a developing country.

Thus, in this context, the research hypotheses specifically developed for testing within the present research are as follows:

***H13(a) That there is a statistically significant positive relationship between BoD independence and CGD quality.***

***H13(b) That BoD independence is significantly and positively associated with CGD quality in the U.K.***

***H13(c) That BoD independence is significantly and positively associated with CGD quality in Egypt.***

#### **4.3.4 The audit committee hypothesis**

Al-Moataz and Hussainey (2013) also examine CG characteristics as signals of CG quality to third parties. They conclude that audit committee size are among the main determinants of higher quality levels of CGD. Additionally, relevant literature states that the existence of an Audit Committee among the BoD committees is positively and significantly associated with CGD (Barako et al., 2006; Samaha and Dahawy, 2010; Samaha et al., 2015).

Thus, in this context, the research hypothesis specifically developed for testing within the present research is as follows:

***H14(a) That there is a statistically significant positive relationship between audit committee and CGD quality.***

#### **4.4 Set Three: The country hypothesis (U.K. and Egypt jointly)**

The third set of hypotheses is predicated on the argument that Signalling Theory would suggest that companies listed in the U.K. or Egypt, which have different country-specific characteristics (e.g., transparency, strength of auditing/reporting standards, and shareholder governance) would act in a reasonably consistent manner and so “signal” via a high level of CGD quality, the presence of country-specific characteristics.

Thus, for example companies where the transparency score is high or where shareholders’ rights are protected, will wish to manifest or signal such good country-specific characteristics via an overall level of high and good quality CGD.

Based on considerations such as the above, the third set of generalised hypotheses could be stated as:

***That companies in a country with high country-specific characteristics will tend to reflect a high level of CGD quality and so “signal” the presence and exercise of sound CG practice.***

Based on the above, there is one generalised hypothesis that could be stated as:

*That CGD quality is significantly influenced by country-specific characteristics “signals” (amenable to Regression analysis).*

One might argue that country-specific characteristics are associated with or influence, CGD quality. Country-specific characteristics include, but are not restricted to, corruption, education, shareholder governance, robustness of securities market, and strength of auditing/reporting standards (WEF, 2018b). If so,



one could conclude that developed countries will tend to display higher levels of CGD quality than developing ones.

Berglöf and Pajuste (2005) claim that the level of CGD varies substantially across companies from different countries. This is because there is a strong country effect in what companies disclose, and overall what is disclosed depends on the legal framework and practice in a given country. Thus, the Macro-level effect is as significant as the Micro-level effect on the companies. Furthermore, Doidge et al. (2007) state that country-specific characteristics explain much more of the variance in governance ratings (ranging from 39% to 73%) than observable company characteristics (ranging from 4% to 22%).

La Porta et al. (2008) suggest that an important source of inefficiency might be the transplantation of legal and regulatory rules. They argue that a source of massive delay and corruption in the developing countries are rules copied from and suitable for developed economies. Therefore, it must be taken into consideration the specific characteristics and nature of each country as there is no rule would possibly be suitable and applicable to all countries, regardless of their development status. Therefore, there is a possibility that the differing status of economic development in the two countries (i.e., The U.K. and Egypt) may well be a significant influence when evaluating varying practices of CGD quality.

Differences among countries might be an insightful indicator for CGD quality among other indicators. Thus, Ben Othman and Zeghal (2008) conclude that common law emerging markets have substantially higher levels of CGD than civil law ones. They also state that law enforcement has a strong positive influence on CGD in common law emerging countries, whereas it has no influence on CGD in civil law emerging countries. According to La Porta et al. (2008), U.K. is a developed country with common law origins and Egypt is a developing country with civil law origins.

Therefore, it might be seen that companies in the U.K. have higher CGD quality in comparison to companies in Egypt.

Developing such a line of enquiry, according to the results of GCR 2018 and 2019, the U.K. received a score of 74.5% in 2019 for its CG, down from 76.8% in 2018. Accordingly, in terms of CG, the U.K. was placed 13<sup>th</sup> out of 141 economies in 2019 (WEF, 2018b; WEF, 2019).

Egypt, on the other hand, received a score of 61.5% in 2019 for its CG, moving it up from 57% in 2018. As a result, out of 141 economies, Egypt was ranked 63<sup>rd</sup> in terms of CG in 2019 (WEF, 2018b; WEF, 2019).

The calculation of the CG score in the GCR is based on three components as follows:

1. The strength of auditing and accounting standards
2. Conflict of interest regulation
3. Shareholder governance

For the first component of CG in the GCR 2019, which assesses the strength of auditing and accounting standards, the U.K. scored 73.4%, a 6.9% decrease from 2018. Additionally, in 2019 and 2018, the U.K. received same scores of 83% and 67% for the second and third components, which assess conflict of interest regulation and shareholder governance, respectively (WEF, 2018b; WEF, 2019).

Regarding the components of CG for Egypt, from 2018 to 2019, the first component increased by 6.4%, reaching 67.5%. Egypt received the same 47% for the second component in both 2018 and 2019. Egypt scored 70% in 2019 for the third component, an increase of 7% from 2018 (WEF, 2018b; WEF, 2019).

The transparency and incidence of corruption components of the GCR are also relevant to this research since they may provide insight into the CGD quality in the U.K. and Egyptian companies. The U.K. scored 80% for the transparency and incidence of corruption in 2019 and was ranked 11<sup>th</sup> out of 141 economies, which is 2% lower than in 2018. On the other side, Egypt scored 35% in the transparency and incidence of corruption in 2019 and was ranked 91<sup>st</sup> out of 141 economies, an increase of 3% from the previous year (WEF, 2018b; WEF, 2019).

In line with the preceding, the Corruption Perceptions Index (CPI)<sup>10</sup> shows similar results. The CPI scores of the U.K. have been increasing since 2012, peaking at 82% in 2017. With the exception of 2021, when it reached 78%, the U.K. CPI scores have been dropping since 2017. In 2022, the score dropped to 73%, which is the lowest-ever score for the U.K. Accordingly, the U.K. is ranked 18<sup>th</sup> out of 180 countries (Transparency International, 2023).

On the other hand, the CPI scores of Egypt have fluctuated since 2012. In 2014, 37% was the highest CPI score reached, while the lowest CPI score was 30% in 2022. Accordingly, Egypt is ranked 130<sup>th</sup> out of 180 countries (Transparency International, 2023). Accordingly, it is not unreasonable to assume that country-specific characteristics may impact or influence the CGD quality.

Thus, in this context, the research hypothesis specifically developed for testing within the present research is as follows:

***H15(a) That the U.K. has a statistically significant higher CGD quality than Egypt.***

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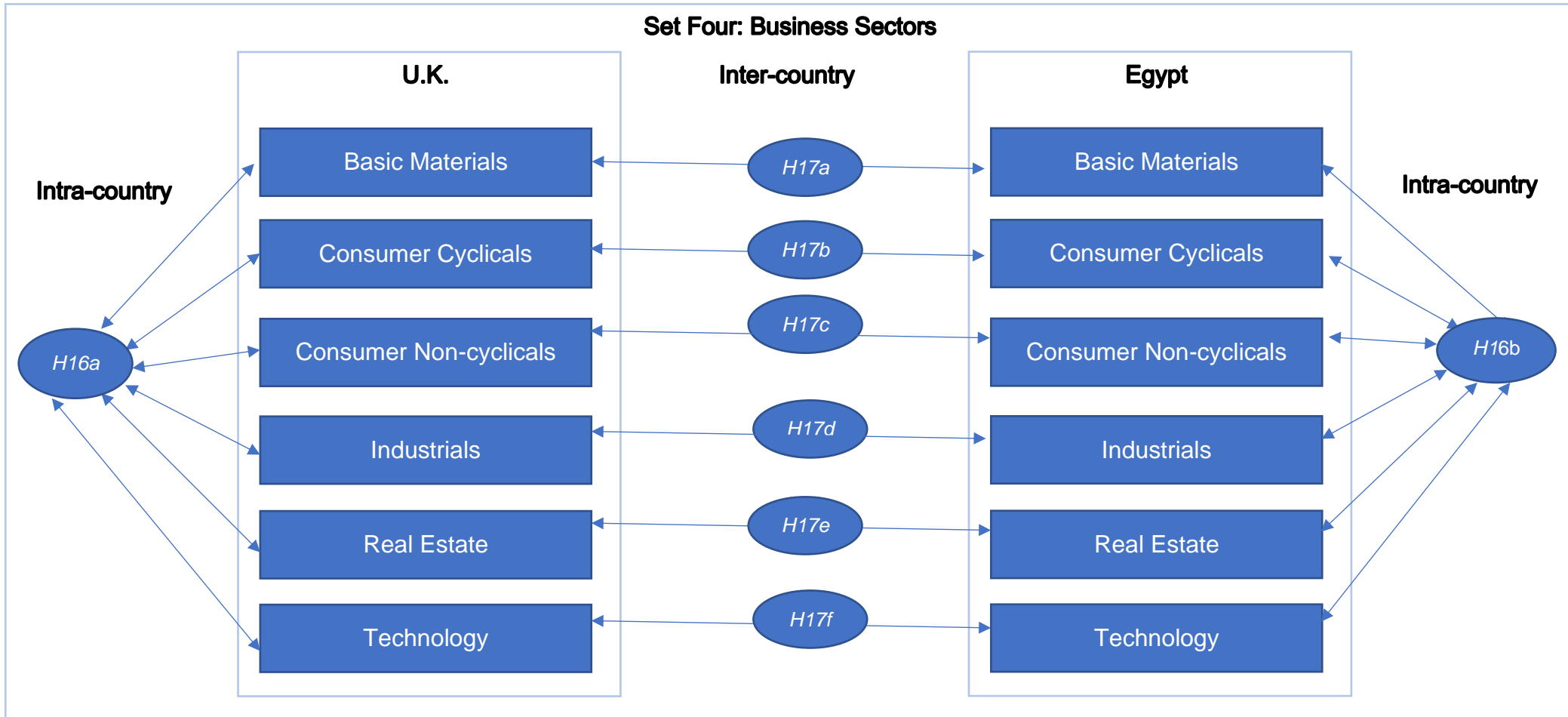
<sup>10</sup> The CPI is published by Transparency International (The global coalition against corruption). A scale from 0 (highly corrupt) to 100 (very clean) is used by the CPI to rank 180 countries and territories throughout the world, in 2022, according to their perceived levels of public sector corruption (Transparency International, 2023).

#### **4.5 Set Four: The business sectors hypotheses (U.K./Egypt)**

The fourth set of hypotheses as predicated on the argument that Signalling Theory would suggest that companies listed in the six identified business sectors, namely basic materials, consumer cyclicals, consumer non-cyclicals, industrials, real estate, and technology sectors, would act in a reasonably consistent manner and so “signal” via a high level and quality of CGD, the presence of a significant difference within and between the different business sectors.

The following conceptual figure depicts the fourth set of hypotheses in terms of the six identified business sectors in the U.K. and Egypt as intra-country and inter-country business sectoral hypotheses.

Figure 4.2 Hypotheses Diagram: Set Four



As illustrated in the above figure, the fourth set of hypotheses are intra-country (within), as well as inter-country (between) business sectors. For instance, within the same country, companies in a specific business sector will disclose high level and quality of CGD than companies in another business sector. Additionally, companies in a specific business sector in a country will disclose high level and quality of CGD than companies in the same sector in another country.

Based on considerations such as the above, the fourth set of generalised hypotheses could be stated as:

***That companies in an identified business sector will tend to reflect a high level of CGD quality and so “signal” the presence and exercise of sound CG practice than companies in another identified business sector.***

Based on the above, there are two generalised hypotheses that could be stated as:

- A. *That CGD quality across companies within particular business sectors (intra-country) is significantly different (amenable to analysis of variance).*
- B. *That CGD quality between companies within particular business sectors (inter-country) is significantly different (amenable to T-test).*

In addition to the first three sets of hypotheses, there is another perspective to the analysis and evaluation within U.K. and Egypt, which is the intra-country business sectoral perspective. In this context, Solomon and Solomon (2004) identify that in the U.K., same-industry peer pressure acts as an incentive for companies to reveal higher quality CGD. Similarly, in Egypt, Samaha et al. (2012) conclude that business sector is indeed such an influencing feature within actively traded Egyptian companies.

Thus, in this context, the research hypotheses specifically developed for testing within the present research are as follows:

***H16(a) That there is a statistically significant difference in CGD quality within the identified six business sectors in the U.K.***

***H16(b) That there is a statistically significant difference in CGD quality within the identified six business sectors in Egypt.***

In addition to the prior hypotheses, the differences between the six identified business sectors in the U.K. and Egypt are further examined and evaluated. The following hypotheses are developed to examine the inter-country sectoral differences.

***H17(a) That there is a statistically significant difference in CGD quality of the basic materials sector between the U.K. and Egypt.***

***H17(b) That there is a statistically significant difference in CGD quality of the consumer cyclicals sector between the U.K. and Egypt.***

***H17(c) That there is a statistically significant difference in CGD quality of the consumer non-cyclicals sector between the U.K. and Egypt.***

***H17(d) That there is a statistically significant difference in CGD quality of the industrials sector between the U.K. and Egypt.***

***H17(e) That there is a statistically significant difference in CGD quality of the real estate sector between the U.K. and Egypt.***

***H17(f) That there is a statistically significant difference in CGD quality of the technology sector between the U.K. and Egypt.***

#### **4.6 Chapter summary**

After discussing the contextually-related literature and the theoretically-related literature in prior chapters, this chapter concerned itself with a reasoned consideration of the development of the research hypotheses examined within the thesis. This development is premised on a review of key relevant empirical literature, and a similar review of key prior literature that is theoretically-related to the context of this thesis, and the relevant theories related to CG identified in the previous two chapters. This review of prior empirical literature is related to CGD practices, with a focus on CG practices in the U.K. and Egypt. Light is shed in particular on the most significant prior empirical literature related to the research, in order to serve as the foundation for the evolution and reasoned development of several hypotheses of this research.

The chapter benefited from six sections. The first section served as a lead-into and an introduction to it. The then following four sections were dedicated to the four sets of hypotheses developed for this research, which are as follows:

1. Company characteristics set
2. CG characteristics set
3. Country-specific characteristics set
4. Business sectors set

The first set of hypotheses is the company characteristics set. Under this first set, there are ten main hypotheses that are tested in the U.K. and Egypt jointly. The different company characteristics, that are tested, are the stock exchange index, the S&P ESG index, the company age, the company size, the type of auditor, the cross-listing, the profitability, the liquidity, the ownership structure, and the foreign institutional investors.



The second set of hypotheses is the CG characteristics set. It comprises four main hypotheses related to CG characteristics. Like the prior set of hypotheses, it is tested in the U.K. and Egypt jointly. The different CG characteristics, that are tested, are the CEO duality, the BoD size, the BoD independence, and the audit committee.

The third set of hypotheses is the country-specific characteristics set. It engenders one hypothesis related to the country variable itself. Like the prior set of hypotheses, it is tested in the U.K. and Egypt jointly.

The fourth set of hypotheses are considered within and between the relevant six identified business sectors, in respect to the U.K. and Egypt. First, there is one hypothesis that is examined for each country. The listed companies in the U.K. and Egypt are classified according to their business sector. Then, from the relevant samples, the emergent six comparable sectors are further investigated and evaluated in this intra-country business sectoral hypotheses. Second, there are six hypotheses that are examined for each business sector of the U.K. and Egypt. The six comparable business sectors are examined and evaluated in this inter-country business sectoral hypotheses.

The sixth and last section of Chapter 4 summarises and reprises the highlights of this chapter. Having deliberated the several hypotheses of the thesis and detailed their rationalised development, taking regard for relevant prior empirical literature within this chapter, the next (Chapter 5) goes on to consider the design and methodology of the research.

## **Chapter 5**

### **The research design and methodology**

## **Chapter 5: The research design and methodology**

### **5.1 Introductory comments**

In an attempt to answer the research questions, the prior chapter discussed the development of the research hypotheses<sup>11</sup> employed for that specific purpose. Nevertheless, these research hypotheses were not stated in a form that makes them amenable to be applied and tested empirically. Therefore, in this chapter and the following chapter, these research hypotheses are presented in a form, that makes them more readily amenable to statistical application and testing.

Accordingly, the aim of this chapter is to explain the design and methodology of this empirical research. In order to do so, this chapter discusses several elements of the employed research design and methodology as follows: 1. The philosophy, 2. The approach, 3. The strategy, 4. The method(s), 5. The time-horizons, and 6. The data and its analysis.

In the data and analysis section, the definition and justification of the data variables employed are discussed. Then, the collection of the data is discussed to reveal the data sources and the data acquisition. The data reliability/validity, ethicality, and limitations are also discussed in this section. Then, the relevant methods of data analysis are considered. Finally, the chapter summary highlights important points discussed in this chapter, in order to pave the way for the next chapter that discusses the empirical results and findings.

### **5.2 Research design and methodology planning**

Significant thought is given to the design and methodology used in this research, and appropriate decisions are made in this context as a consequence. The

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<sup>11</sup> Table 5.21 presented at the end of this chapter is a tabular presentation of the research questions, objectives, and hypotheses.

“Research Onion” layers (Saunders et al., 2023) are used to consider and discuss the research design and methodology in some detail. The methodological theory of the research justifies and further explains the decision-making process in respect to choices made in terms of the layers of the “Research Onion”.

The research issue – i.e., the extent of CGD quality and practices of companies in countries across the world, is the flame that ignited the research idea. After considerable thinking about the research issue, appropriate research questions were identified and the fundamental research question emerged, i.e., what might be the varying criteria and considerations behind and associated with, the decisions of comparable sets of U.K. and Egyptian listed companies, in terms of their varying CGD quality and practices - specifically in disclosing (or not), in an open and transparent manner?

That problem inspired and motivated this research, which was provided by two appropriate sources of intellectual “clothing”. The first source is the prior relevant literature review (Chapters 2 and 4). The second source is mainly Signalling Theory and its implications to attempt to answer the research questions (Chapter 3). Both sources are crucial to this research and specifically to the research questions.

As previously stated, the aim of this research is to contribute to knowledge within the realm of CG while employing a Signalling Theory perspective. Thus, eventually the research attempts to obtain insights into the research problem, while also answering the research questions. This is accomplished by applying appropriate research methods to achieve the research aim and answering the research questions. As a result, the research is planned using a Paradigm-driven Approach (Mohajan, 2020; Park et al., 2020).

Park et al. (2020) contend that through its assumptions and principles, research paradigms drive scientific discoveries. Thus, understanding paradigm-specific

assumptions can aid to illuminate the quality of findings that support scientific studies and identify areas where sound evidence is lacking (Kumar, 2018; Park et al., 2020). The Paradigm-driven Approach to research planning relies on the existence of a paradigm at the start of the research. The research questions are then established, and then the most appropriate research methods are determined to be able to answer them while employing the identified paradigm (Park et al., 2020).

Thus, using the Paradigm-driven Approach for Research Planning, this research proceeds as follows:

- Firstly, the research questions are identified to further allow for a thorough introduction to the research background, context, problem, and motivation.
- Secondly, before conducting the empirical part of the research, which employs well-structured, largely quantitative data, the research design is diligently and carefully developed.
- Thirdly, the most relevant methods and techniques, for effectively and efficiently attempting to answer the research questions, are determined.
- Fourthly, the data that is collected and analysed in the empirical part is firmly structured. For this empirical research, quantitative measurements and details are the main emphasis of the data collecting phase (Mohajan, 2020; Park et al., 2020).

The research problem or question in social sciences stems mostly from a fundamental research theory, prior relevant literature and, in most instances, the immediate practical issues. And so it is for this research. The fundamental research problem and main question are developed with the aid of Signalling Theory, and arguments are stated drawing on previous literature regarding the extent of CGD

practices, and the practical challenges faced by individual stakeholders in terms of the quality of CGD.

Research planning is essential for all research, as it helps define and determine the research questions, the research objectives, and eventually the intended research outcomes. Defining all these elements is crucial and equally beneficial to all research (Kumar, 2018; Park et al., 2020). As for all research, well-structured research planning eventually enhances the chances of the research making a significant contribution. Ultimately, this research seeks to provide policy recommendations for varying stakeholder groups and eventually lead to enhancing the quality of CGD practices. Accordingly, such planning has been integral to the present research.

Thus, after outlining the approach used to plan the research, one might divide the research plan into two parts. First, identify the research questions, and second, use appropriately identified and explained research methods to address these questions. This first part has been completed in prior chapters, while the second part, i.e., specify and employ appropriate research methods, is completed in later sections of this and other chapters. Appropriate research methods, on the other hand, cannot be devised until the research paradigm has been established (Kumar, 2018; Saunders et al., 2023). Therefore, the research paradigm has been established first.

As indicated earlier, the research paradigm refers to the main assumptions regarding the concepts that make up the research phenomena under study. It comprises three key conceptual considerations, consistent with the “Research Onion” layers. These are the research ontology, epistemology, and methodology. These conceptual considerations inter-relate with each other respectively. However, they are also interdependent. The following paragraphs consider each of these individually.

The nature of reality in relation to the major concepts/phenomena under investigation is the subject of ontology. In this research, the quality of CGD is a key concept examined in this research. Accordingly, the research treats CGD as a distinct social construct, with its own structure and norms (apart from the social actors that use and deal with it, such as shareholders and managers). The same approach applies to the other research key concepts, such as company characteristics, CG characteristics, and country-specific characteristics. In the main, the research adopts an Objectivist ontology. This is in contrast to a Subjectivist ontology, which views social phenomena as a product of the social actors' perceptions and interactions (Kumar, 2018; Saunders et al., 2023), with each researcher presenting his/her own individual and subjectivist interpretation of the ontological landscape they encounter through their observations.

Following the selection of the research ontology, it is necessary to select the research epistemology that the ontology warrants. The relationship between the researcher and the concept/phenomenon under investigation is made known (i.e., knowledge generated) and explained by the research epistemology. According to the Objectivist ontology of this research, as previously described, the researcher approaches the research from the perspective of a natural scientist, who regards solely facts to be reality. In the present case, the researcher is collecting data about "objects", such as CGD practices. Subjective aspects such as stakeholders' feelings, perceptions, and attitudes about the disclosure of the CG practices, on the other hand, are not taken into consideration. This is because the researcher is attempting to collect objective data that is free (as possible) from any bias, and then objectively analysed in a most objective manner (Kumar, 2018; Saunders et al., 2023).

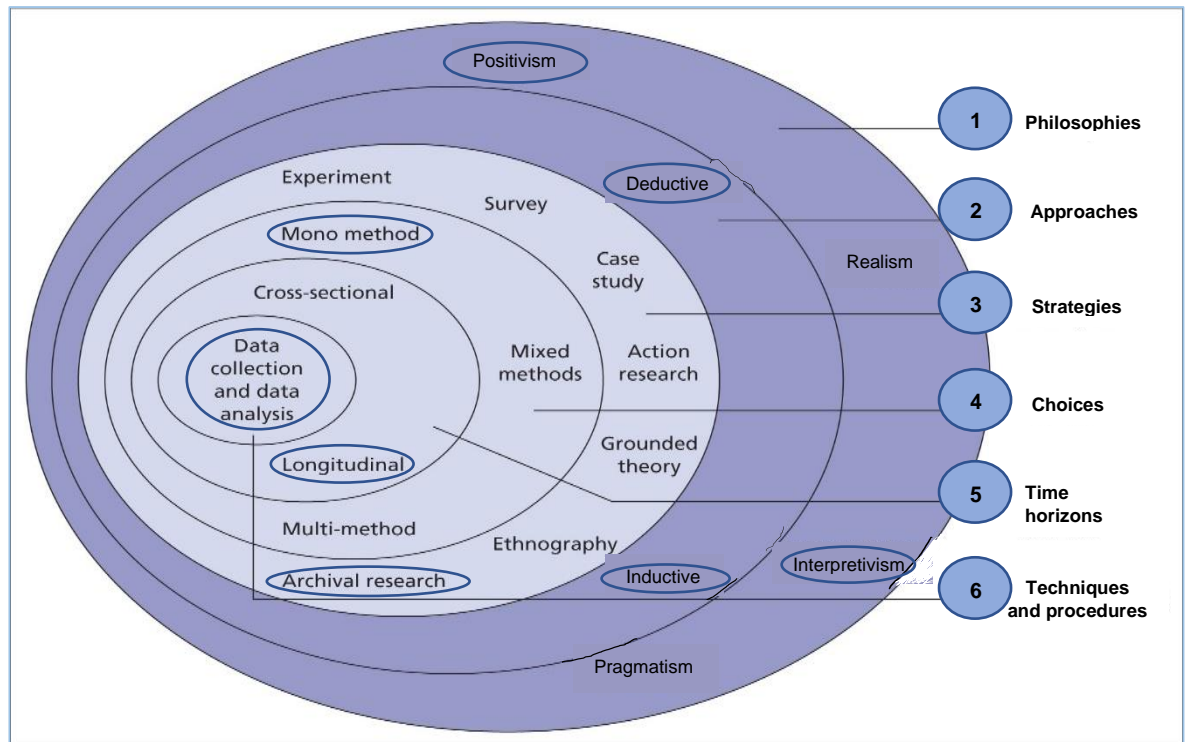
The third element in the research paradigm is the research methodology, which itself is inter-related with ontology and epistemology, respectively. Consideration of the

research ontology and epistemology sets the way for the research methodology. The purpose of the research methodology is to provide the most convenient scientific methods for studying the reality of concern. The research methodology assists the researcher in addressing the critical question of how to achieve the research objectives and eventually how the research results and/or findings can be attained in respect to the proposed research relationships. The research methodology itself consists of various elements. These elements are identified within the six individual and distinct layers of the “Research Onion” (Kumar, 2018; Saunders et al., 2023).

Saunders et al. (2023) provide helpful guidance in relation to the design of research with their “Research Onion”. Their conceptualised “Research Onion” provides an effective progression of the several “layers” or considerations through which a research methodology can be designed and later executed. The peeling of the different layers of the “Research Onion” leads to the core of any research activity. When viewed from the outside, each layer of the onion describes a more detailed stage of the research process as depicted in the following figure.



**Figure 5.1 Research Onion (Source: Saunders et al., 2023)**



As illustrated in the above figure, the design of this research follows the methodological approach suggested by Saunders et al. (2023). The relevant choices of the design of this research, regarding each individual layer of the “Research Onion”, are as highlighted in the figure.

As previously indicated, the research methodology under this approach consists of a number of elements that are “viewed” as the different “layers” of an onion, i.e., the “Research Onion”. The “Research Onion” consists of six layers:

1. Research Philosophy
2. Research Approach
3. Research Strategy
4. Research Method(s)
5. Research Time-horizon
6. Research Techniques and Procedures (particularly in relation to data collection and analysis)

Previous literature on relevant methodological topics is reviewed, evaluated, and finally concluded upon in order to reveal the methodology used for this research (Kumar, 2018; Mohajan, 2020; Park et al., 2020; Saunders et al., 2023). Thus, the empirical nature of this research is reflected in the several methodological features and selections made and discussed in much of the immediately following sections of this chapter, by considering, in turn individually, the six different layers of the “Research Onion”.

### **5.3 Research philosophy**

An important step in planning and carrying out research is about understanding and choosing a philosophy. Thus, the first layer of the “Research Onion” is about the possible philosophies and the philosophical stances associated with undertaking the intended research. Since this research is scientific, then an important philosophical aspect is its epistemology – in other words, its linkage to and with knowledge. In scientific research, one aims at finding or knowing the truth regarding a certain issue of interest and in doing so, one adds to the knowledge in respect to this issue (Saunders et al., 2023). And so, it is with this research. In this research, the researcher seeks the “truth” that might explain, or is associated with, the quality of CGD and the likely quality of underlying quality of CG itself – a feature that likely influences trust (or the lack of it) within the relevant (in this research, U.K. and Egyptian) companies/cases of interest.

The fundamental philosophical form of this research is mainly Positivism. In this research, primarily there are research questions and hypotheses that are (deductively) tested to arrive at appropriate explanations. And in so doing, evaluating accepted knowledge while focusing on CGD quality in particular. In this research, this is done predominantly through statistical analysis and the derivation of quantitative results. This is much consistent with the tenets of Positivism which is

the main philosophical form of this research (Park et al., 2020; Saunders et al., 2023).

However, in some limited instances, and to a minimal extent, in order to discuss some theory-nuanced findings, the research adopts a somewhat Interpretivist philosophical position. Interpretivism is a philosophy that is more likely to be reflected in research that seeks deep insights into subjective meanings, rather than in offering scientific-like generalisations that resemble laws. Such a philosophy is often emphasised when conducting research related to people rather than things. It takes an empathic perspective in order to comprehend people's social environments and the meanings they assign to them from their individual perspective (Saunders and Tosey, 2013; Saunders et al., 2023). As, in part, the present research seeks to offer interpreted insights into Signalling Theory based on the quantitative results of the empirical analysis of the CGD, to that extent, the philosophy of this aspect of the research is Interpretivism. This aspect involves much consideration of how and why directors of companies act as senders of specific signals (e.g. CGD items) to receivers, in particular, stakeholders. In that regard, the research then adopts the Interpretivism philosophy stance.

#### **5.4 Research approach**

The second layer of the “Research Onion” is the research approach. In essence, this research starts with identified/determined questions that may often need to be explained and answered employing and deducing expectations/hypotheses from a specific theory (which in this research is Signalling Theory). Therefore, in the main, this research employs a deductive approach. Accordingly, by the end of this research, there might be confirmation or rejection of the research deductions/hypotheses stated at the beginning of this process. This is all very much

part of the deductive method of research employed in this research (Saunders et al., 2023).

However, as previously noted, in those limited occasions, when the research adopts an Interpretivist Philosophy, the approach employed has nuances of an inductive nature. In this inductive approach, the research is used to develop theories rather than to test pre-ordained forms of them (Saunders et al., 2023). Thus, in these limited instances, the research's approach is inductive, when it provides interpreted insights while applying Signalling Theory to the empirical findings and analysis of the relevant CGD quality.

### **5.5 Research strategy**

The research strategy is the third layer in the “Research Onion”. After considering the different research strategies, potentially employable in order to answer the research questions and meet its objectives, for this research, the research strategy selected is the archival<sup>12</sup> research strategy.

The archival research strategy enables historic data to be obtained. It benefits from an “archived” store of administrative records and documents as its principal source of data. These historic data have already been generated and, most often, made available to the public. In the present research, they can be obtained from a range of sources, such as corporate annual reports, BoD reports, company websites, and several other sources of publicly available and accessible data. Archival research strategy enables such relevant records (as indicated in the previous sentence) to be identified and categorised into data, which can then be analysed by the researcher using quantitative or qualitative techniques (Saunders et al., 2023).

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<sup>12</sup> Some methodologists refer to archival research strategy as being conducted using locked and restricted databases, i.e., databases kept away from the general public. However, one could have used the term “near-archival” for this research to indicate that the data is archival and accessible to the general public. Therefore, the term “archival” is retained throughout this research.

The present research focuses and evaluates CGD quality. The data used for that evaluation is publicly available in open access electronic archives. Consequently, this research is archival, as it is done with the use of the archive of electronic documents and information that are publicly available and primarily intended for the U.K. and Egyptian stakeholders. This leads to the fourth and next layer of the “Research Onion”.

### **5.6 Research method(s)**

The fourth layer of the “Research Onion” relates to the method of conducting this research. The choice of method for this research is principally quantitative methods as they are most appropriate in the attempt to answer the questions and to test the hypotheses of this research. However, as explained previously, in some limited measure, qualitative and/or subjective explanations are also employed. Nevertheless, the primary method of data analysis is quantitative/statistical. Accordingly, as the principal nature of this research is empirical using quantitative data, then the principal research method employed for it should be regarded as being quantitative as well.

### **5.7 Research time-horizon**

The fifth layer of the “Research Onion” is the time horizon. The research time horizons can be either cross-sectional or longitudinal. A cross-sectional time horizon captures case-observations at a particular moment in time (Tan, 2008; Tan and Jolani, 2022). On the other hand, a longitudinal time horizon provides observations within and between case-observations over a period of time. For the purpose of this research, the time horizon is longitudinal as it evaluates firm-year observations, i.e., case-observations over the time period covering corporate filings in the years 2019, 2020, and 2021. Moreover, these filings are for the very same cases and observations for each of these three years. Accordingly, this longitudinal time

horizon provides more time-progressive insights into the effect of certain characteristics on the CGD quality within and between the research cases/companies.

In order to ensure viability of the research, and better understand the data itself, after conducting the literature review, the researcher initially collected a non-statistical haphazard sample of data for the research to determine if the intended statistical exercises were indeed “doable”. This exercise proved viable and fruitful. Thus, the decision to so proceed was made. The formal process of the full data collection itself started in year 2022. Therefore, at that point in time, the years selected for the data collection were the most recent available, i.e., 2019, 2020, and 2021.

In order to better study the CGD quality for the same set of the U.K. and Egyptian companies, and consistent with the longitudinal criteria, it is more meaningful to observe them over the same period of time and for three consecutive years (a classic illustration of longitudinal research - Saunders et al., 2023). Therefore, each individual company or research case is investigated over the three different testing periods. These testing periods are divided into annual periods covering the three annual periods for each of the years 2019 to 2021. This is precisely a longitudinal time horizon. Furthermore, the same individual company or research case is investigated for the same set of data items for each of these years. Thus, for each year, the researcher collected several data items from the same company. Consequently, overall, the research data tested conform to and are consistent with a longitudinal time horizon.

## **5.8 Research techniques and procedures**

After taking the time and making the decisions regarding all the prior five layers of the “Research Onion”, this section discusses the sixth and last layer of the

“Research Onion” – i.e., the techniques and procedures of the research, primarily in relation to data collection and analysis. Thus, it, specifically, discusses the techniques and procedures relating to collection and analysis of the research data. Equally, significantly more comprehensive details relating to the research data/cases, as well as the analysis of the cases and employed data are provided in later sections of the chapter. Within them, the relevant dependent and independent variables are discussed. Each variable is defined and the reasons justifying their selection are discussed. Then, follows an explanation and discussion as to what the data sources are and how the data collected are acquired. Additionally, considerations relating to the data reliability, validity, ethicality, limitations, and finally, analysis are also discussed in this section.

### **5.8.1 Data variables definition and justification**

An identification, explanation, discussion of the dependent, independent, and control variables and a justification for the reasons behind the selection of these variables are provided in some of the following paragraphs. But, first the research data/cases themselves are identified and discussed.

#### **5.8.1.1 Sample selection (cases)**

The population is defined as, the “full set of cases from which a sample is taken” (Saunders et al., 2023). In terms of the research cases and since the focus of this research is on both the U.K. and Egypt, there are two samples of companies in respect of the two countries – i.e., one from each country. Regarding the U.K., the sample is derived from companies that are listed on LSE. As for Egypt, the sample is selected from listed companies in EGX. Details and description of the sample incorporated into this research, from both countries follow.

First, the U.K. companies are selected from the population of listed companies in the LSE under FTSE100 index. The FTSE Group is a financial institution that specialises in the management of asset exchanges and creating index offerings for the global financial markets. In 2011, the LSE Group acquired FTSE (FTSE, 2022). FTSE100 is a market-capitalisation weighted index of U.K. listed blue chip companies, which are nationally recognised, well-established, and financially sound companies. The index is part of the FTSE U.K. Index Series and is designed to measure the performance of the 100 largest companies traded on LSE that pass screening for size and liquidity. FTSE100 listed companies are the 100 largest companies in terms of market capitalisation as well (FTSE, 2022).

Second, the sample of the Egyptian companies is based on listed companies in EGX100 Equally Weighted Index (EWI)<sup>13</sup>. On 10 May 2020, EGX launched a new index EGX100 EWI to replace EGX100. Originally, the EGX100 tracked the performance of only the 100 most active companies in EGX. However, EGX100 EWI is a step forward aiming to provide better tools for current and potential investors to be able to track the market performance and to improve and diversify the indices offered by EGX as well (EGX, 2023a).

The EGX100 EWI index tracks the performance of the top 100 companies in terms of liquidity and activity. The index includes the constituents-companies of EGX30 and the constituents-companies of EGX70 EWI (EGX, 2023a). Therefore, the sample is selected from EGX100 EWI constituents-companies.

The main reason for selecting the prior mentioned indices, FTSE100 and EGX100 EWI, to be the indices which the sample of the listed companies for both countries, the U.K. and Egypt, is selected from, is that each index includes, respectively, the

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<sup>13</sup> Many international institutions use the equal-weight index methodology as one of their methods. The index is intended to balance the effect of price changes across its constituents, as they will weigh 1% at each quarterly review, resulting in an equal impact on index performance (EGX, 2023a).



top 100 companies in the U.K. and Egypt. The inclusion of the top 100 companies, of both the U.K. and Egypt, will serve the objectives of this research as to investigate the quality of the CGD practices and will enable the comparison and evaluation of the results of the statistical analysis in respect of the two countries. Furthermore, the samples in prior literature which examine the CG practices, especially in developing countries, are then mostly based on the top companies in the indices of these countries (Shehata, 2016; Abdel-Fattah and Hussainey, 2019; Wachira, 2019).

Furthermore, according to a study of all FTSE100 companies listed in 2016, ALmuaiter and Marzouk (2019) found that the U.K. listed companies appeared to employ 63.97% of debt financing in their total capital. Regarding EGX100, Ismail and Obiedallah (2022) claim that managing the cost of debt financing is simpler than managing the cost of equity financing in Egypt. Therefore, given that companies in both the U.K. and Egypt tend to depend on debt financing, it is possible to claim that their respective financial structures are roughly comparable.

As stated earlier, the research cases are based on the listed companies in FTSE100 for the U.K. and EGX100 EWI for Egypt. Each research case analysed has data extracted for the years 2019, 2020, and 2021. To reach the final number of research cases being analysed, the relevant underlying economic sectors are duly considered and evaluated. Details relating to the initial and the final sample of cases/companies are considered in the following paragraphs.

According to Thomson Reuters Business Classification (TRBC) system, there are 11 top level Economic Sectors (as follows) that embrace the FTSE100 and EGX100 EWI,

1. Academic & Educational Services
2. Basic Materials

3. Consumer Cyclicals
4. Consumer Non-Cyclicals
5. Energy
6. Financials
7. Healthcare
8. Industrials
9. Real Estate
10. Technology
11. Utilities

Initially, the number of listed companies in FTSE100 was 100, under 10 different economic sectors (there were no listed companies under Academic & Educational Services sector) and the number of listed companies in EGX100 EWI was 102 across 11 different economic sectors. In relation to 2022, the year of the data collection, these data sets are as stated below in Table 5.1.

**Table 5.1 The initial population of FTSE100 and EGX100 EWI Listings**

No.	Sector Name	FTSE100	EGX100 EWI	Total companies
1	Financials	20	18	38
2	Consumer Cyclicals	19	16	35
3	Basic Materials	11	19	30
4	Industrials	11	14	25
5	Real Estate	4	18	22
6	Consumer Non-Cyclicals	12	8	20
7	Technology	10	3	13
8	Healthcare	5	3	8
9	Utilities	5	1	6
10	Energy	3	1	4
11	Academic & Educational Services	0	1	1
<b>Total</b>		<b>100</b>	<b>102</b>	<b>202</b>

\* Source: Refinitiv Eikon<sup>14</sup>. Table constructed by the researcher.

<sup>14</sup> Refinitiv Eikon (formerly Thomson Reuters Eikon) is a financial database. Eikon is a set of software products provided by Refinitiv for financial professionals to monitor and analyse financial information.

Although the initial number of listed companies in FTSE100 was 100 and the number of listed companies in EGX100 EWI was 102, not all the companies listed on the referenced indices are considered in this research. Financial companies are excluded from both indices due to their significant varying natures, characteristics, and reporting requirements, even though they share the same sector classification. In total, the number of excluded financial companies are 20 and 18 for FTSE100 and EGX100 EWI, respectively.

Additionally, it was ensured that the joint U.K. and Egyptian listed companies had at least 30 firm-year observations for each sector (10 companies x 3 years). Therefore, it was considered that when the testable cases within an economic sector fell below 10 in total, that number would be too small and inappropriate for statistical analysis according to the Central Tendency Theory requirement of 30 items (Kiogora and Gathoni, 2021). Thus, in that case, sectors with less than 10 firm-year observations are excluded for a more reliable measurement of the statistical analysis (Peasnell et al., 2005; Delice, 2010; Hassaan and Salah, 2023). On that basis, further exclusions were made for the following four sectors, Academic & Educational Services, Energy, Healthcare, and Utilities. These sectors have, in total, from both countries, less than 10 companies, which would have been less than 30 firm-year observations over the three years observed. Therefore, these sectors are excluded from the sample as the number of companies in these economic sectors are not representative to their respective economic sectors. For the total number of companies in both countries, they are as follows: Healthcare (8), Utilities (6), Energy (4), and Academic & Educational Services (1).

Additionally, companies, added to the stock exchanges after year 2019, are also excluded. As the first year to be examined for the data collection is 2019, therefore these companies would have had missing data and for that reason, they are excluded from the sample due to their recent listing and unavailability of data. They

are 2 companies from FTSE100 and 8 companies from EGX100 EWI. The details of the companies finally excluded from the initial number of companies in the sample are presented in Table 5.2.

**Table 5.2 The excluded companies from FTSE100 and EGX100 EWI Listings**

Item	FTSE100	EGX100 EWI	Total companies
<b>Financials</b>	20	18	38
<b>Healthcare</b>	5	3	8
<b>Utilities</b>	5	1	6
<b>Energy</b>	3	1	4
<b>Academic &amp; Educational Services</b>	0	1	1
<b>Added to Stock Exchange after 2019</b>	2	8	10
<b>Total</b>	<b>35</b>	<b>32</b>	<b>67</b>

\* Source: Refinitiv Eikon. Table constructed by the researcher.

After these exclusions, the final testable sample size in total contained 135 companies out of the initial population of 202 companies. 65 companies of the testable companies were from the U.K. and 70 companies were from Egypt. They covered the years 2019, 2020, and 2021. Finally, the testable research cases/companies in the two samples represented six different sectors in the U.K. and Egypt. The total number of companies in the sample as well as the specific number of companies from the U.K. and Egypt categorised by the six different sectors, respectively, is presented in Table 5.3. Additionally, Table 5.4 presents further details of the final testable samples.

**Table 5.3 The final testable samples of FTSE100 and EGX100 EWI Listings**

No.	Sector Name	FTSE 100 Sample	EGX 100 EWI Sample	Total Testable Companies	Number of firm-year observations	% of sample
1	Consumer Cyclicals	19	15	34	102	25
2	Basic Materials	10	17	27	81	20
3	Industrials	11	12	23	69	17
4	Consumer Non-Cyclicals	12	8	20	60	15
5	Real Estate	4	16	20	60	15

No.	Sector Name	FTSE 100 Sample	EGX 100 EWI Sample	Total Testable Companies	Number of firm-year observations	% of sample
6	Technology	9	2	11	33	8
<b>Total</b>		<b>65</b>	<b>70</b>	<b>135</b>	<b>405</b>	<b>100</b>

\* Source: Refinitiv Eikon. Table constructed by the researcher.

**Table 5.4 The final testable samples details**

No.	FTSE100				EGX100 EWI			
	Number of companies	Number of firm-year observations	Sector Name	% of sample	% of sample	Sector Name	Number of firm-year observations	Number of companies
1	19	57	Consumer Cyclical	29.2	24.3	Basic Materials	51	17
2	12	36	Consumer Non-Cyclical	18.5	22.9	Real Estate	48	16
3	11	33	Industrials	16.9	21.4	Consumer Cyclical	45	15
4	10	30	Basic Materials	15.4	17.1	Industrials	36	12
5	9	27	Technology	13.8	11.4	Consumer Non-Cyclical	24	8
6	4	12	Real Estate	6.2	2.9	Technology	6	2
<b>Total</b>	<b>65</b>	<b>195</b>		<b>100</b>	<b>100</b>		<b>210</b>	<b>70</b>

\* Source: Refinitiv Eikon. Table constructed by the researcher.

After presenting in the above table the U.K. and Egyptian companies' sample sectoral details, some comments regarding the sample of both countries are appropriate.

First, the selected six sectors in the samples are based on the total number of listed companies in all sectors in conjunction with the data availability of each sector as companies listed on the respective stock exchange after 2019 were excluded.

Second, apart from the Financials sector, four other sectors were excluded. This is because the total number of companies from both countries was less than 10 (between 8 and 1). This resulted in the least number of companies being included in the sample from the Technology sector. The total number of companies from both countries in this sector is 11 companies enabling more than 30 firm-year observations over the three years observed, which conform with the generally accepted statistical minima (Kiogora and Gathoni, 2021). Accordingly, the six

identified sectors, along with their firm-year observations, indicate that all of the sectors included in the joint sample of the U.K. and Egypt have more than 30 firm-year observations.

Third, the sector with the highest number of listed companies in FTSE100 is the consumer cyclicals (19) and in EGX100 EWI is the basic materials (17). While, the real estate is the sector with the lowest number of companies (4) in FTSE100 and in EGX100 EWI is the technology sector (2). Eventually, the final testable samples include 65 companies from FTSE100 and 70 companies from EGX100 EWI for the years 2019, 2020, and 2021.

Commencing with the U.K., the following section provides a description of the sample of each of the two countries of relevance – i.e., the U.K. and Egypt.

### **The U.K.**

The number of testable companies in the sample of the U.K. is only 5 companies fewer than the number of testable companies in the sample of Egypt. This is due to the exclusion of the previously mentioned sectors, which had a very limited number of listed companies from both countries. Table 5.5 provides a few key sectoral details of the final testable sample of U.K. companies listed on FTSE100.

**Table 5.5 Testable sample categorised by economic sector - U.K. companies**

<b>No.</b>	<b>Sector Name</b>	<b>Number of companies</b>	<b>Number of firm-year observations</b>	<b>% of sample</b>
<b>1</b>	Consumer Cyclicals	19	57	29.2
<b>2</b>	Consumer Non-Cyclicals	12	36	18.5
<b>3</b>	Industrials	11	33	16.9
<b>4</b>	Basic Materials	10	30	15.4
<b>5</b>	Technology	9	27	13.8
<b>6</b>	Real Estate	4	12	6.2
	<b>Total</b>	<b>65</b>	<b>195</b>	<b>100</b>

This testable U.K. sample contains 65 companies with 195 firm-year observations in total over the three years of 2019-2021 as follows:

- With 29.2% of the sample size being contained within the Consumer Cyclicals sector and it containing the largest number of companies (19 companies), this sector enabled 57 firm-year observations. A significant percentage of the Gross Domestic Product (GDP) of the U.K. is generated by the services sector, which includes companies that are similar to those in the Consumer Cyclicals sector. In 2021, the services sector contributed about 71.46% of the GDP of the U.K (O'Neill, 2023a).
- The second largest sector is Consumer Non-Cyclicals. It embraced 18.5% of the testable sample and 12 companies with 36 firm-year observations.
- The third largest sector is the Industrials sector with 11 companies, representing 16.9% of the sample size and 33 firm-year observations.
- 10 companies are included from the Basic Materials sector with 30 firm-year observations, representing 15.4% of the total sample and ranked fourth in order.
- Followed by the Technology which represents 13.8% of the total sample, that is 9 companies with 27 firm-year observations.
- Finally, the Real Estate sector is examined – This sector represents only 6.2% of the testable sample, 4 companies with 12 firm-year observations. The reason behind this low number is that the total number of U.K. listed companies in the Real Estate sector is 4 companies originally.

For further details on this sample, **Appendix 1** presents the list of the testable U.K. sample.

### **Egypt**

Having provided some of the key sectoral details of the U.K. companies, the following is a similar reveal of the relevant sample of testable Egyptian companies. Table 5.6 presents some key sectoral details of the final testable sample of the Egyptian companies listed on EGX100 EWI.

**Table 5.6 Testable sample categorised by economic sector - Egyptian companies**

No.	Sector Name	Number of companies	Number of firm-year observations	% of sample
1	Basic Materials	17	51	24.3
2	Real Estate	16	48	22.9
3	Consumer Cyclicals	15	45	21.4
4	Industrials	12	36	17.1
5	Consumer Non-Cyclicals	8	24	11.4
6	Technology	2	6	2.9
	<b>Total</b>	<b>70</b>	<b>210</b>	<b>100</b>

This sample is composed of 70 Egyptian companies with 210 firm-year observations in total over the three years of 2019-2021 as follows:

- 24.3% of the sample size came from the Basic Materials sector. This is evidenced by that sector containing the highest number of companies in the sample, with a total of 17 companies and 51 firm-year observations. The industry sector, which has common companies as the basic materials sector, contributed around 30.79% of the GDP of Egypt in 2021 (O'Neill, 2023b).
- The Real Estate sector followed. It was the second largest sector and registered 22.9% of the total sample. It contained 16 companies, only 1 company less than the Basic Materials, and 48 firm-year observations. In 2021, the services sector generated more than half of the GDP of Egypt with 52.23% (O'Neill, 2023b). Companies in the services sector are similar to those in the real estate sector.
- The third largest sector is the Consumer Cyclicals sector with 15 companies, representing 21.4% of the sample size and 45 firm-year observations.
- 12 companies are included from the Industrials sector. They enable 36 firm-year observations and represent 17.1% of the total sample and ranked fourth in order of size within.



- The next largest sector is the Consumer Non-Cyclicals, representing 11.4% of the total sample. The sector contains 8 companies and enables 24 firm-year observations.
- Finally, the Technology sector which represents 2.9% of the sample size, that is 2 companies only with 6 firm-year observations. The reason behind this low number is that the total number of Egyptian listed companies in the Technology sector is 3 companies originally and one company is excluded as it was added to EGX100 EWI after 2019, consequently the data was missing for that year.

For further details on this sample, **Appendix 2** presents the list of the testable Egyptian sample.

Having provided some key sectoral details for both (U.K. and Egypt) researched samples, the next section now goes on to discuss the dependent variable.

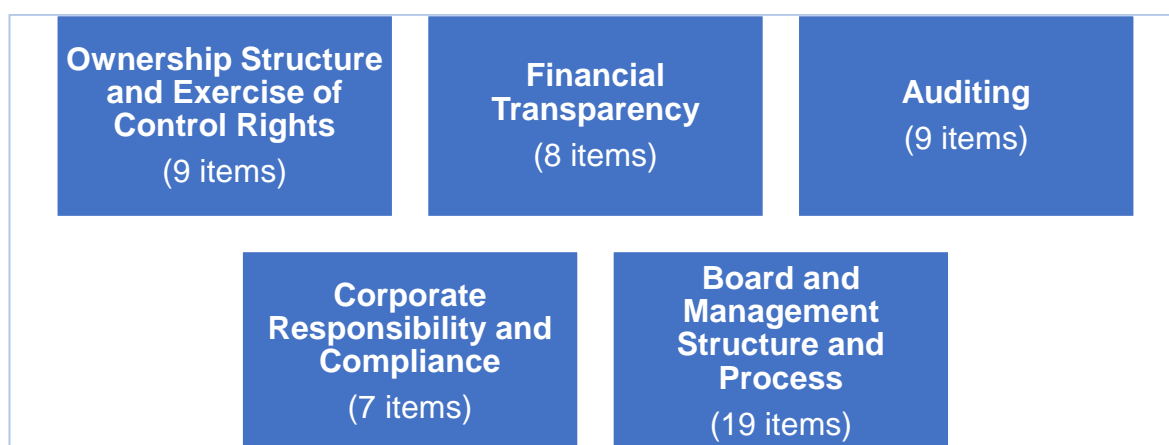
#### **5.8.1.2 Dependent variable**

In this research, the dependent variable is the relevant **Corporate Governance Disclosure (CGD) Quality** index score and it is a numeric computed variable. The following paragraphs discuss, in some detail, the dependent variable and how it is computed.

Revised and/or fresh CG regulations are important in explaining the extent or the level of the CGD in company reports (Samaha and Dahawy, 2011). This suggests at times of regulatory reform, listed companies' attitudes toward more meaningful and substantive CGD quality increase as a result of regulators' efforts to increase corporate transparency and disclosure (Samaha and Dahawy, 2011). Therefore, the variables affecting CG need to be examined further. But, first the CGD quality variable, the dependent variable, itself is discussed.

Prior literature discusses CGD practices, using as a quality index, the 52 CGD items detailed within the 2011 United Nations Conference on Trade and Development (UNCTAD) International Standards of Accounting and Reporting (ISAR) benchmark<sup>15</sup> (Samaha et al., 2012; Shehata and Dahawy, 2013; Shehata, 2016). The five categories that comprise the 52 disclosure items are shown in the following figure.

**Figure 5.2 UNCTAD (2011) 52 disclosure items classified into five categories**



As indicated in the above figure, the list of disclosure items of UNCTAD (2011) itself comprises 52 items, which are classified into five different categories, as follows:

- A. Ownership Structure and Exercise of Control Rights
- B. Financial Transparency
- C. Auditing
- D. Corporate Responsibility and Compliance
- E. Board and Management Structure and Process

**The first category is Ownership Structure and Exercise of Control Rights.** The items, under this category, are mainly concerned with the disclosure of the structure of the ownership, the process for holding Annual General Meetings (AGM), changes

<sup>15</sup> Significantly fuller details of these disclosure items are given in the following Tables 5.7, 5.8, 5.9, 5.10, and 5.11.

in shareholdings, control structure, control and corresponding equity stake, the availability and accessibility of meeting agenda, the control rights, the rules and procedures governing the acquisition of corporate control in capital markets, and the anti-takeover measures.

Each item in the first category is briefly explained as illustrated in Table 5.7.

**The second category is Financial Transparency.** In this category, the financial and operating result is a disclosure item that is required by the listing rules of the stock exchanges. Other items, that are included for disclosure under this category, are critical accounting estimates, nature, type and elements of related-party transactions, company objectives, impact of alternative accounting decisions, the decision-making process for approving transactions with related-parties, rules and procedures governing extraordinary transactions, and finally the board's responsibilities regarding financial communications.

Each item in the second category is more fully identified and briefly explained in Table 5.8.

**The third category is Auditing.** The items, that are advised to be disclosed under this category, are process for interaction with internal auditors, process for interaction with external auditors, process for appointment of external auditors, process for appointment of internal auditors/scope of work and responsibilities, board confidence in independence and integrity of external auditors, internal control systems, duration of current auditors, rotation of audit partners, and auditors' involvement in non-audit work and the fees paid to the auditors.

The disclosure items in the Auditing category are more fully identified and briefly explained in Table 5.9.

**The fourth category is Corporate Responsibility and Compliance.** This category is mainly concerned with CSR, as well as the environmental related disclosure

items. Items included within this category are: Policy and performance in connection with environmental and social responsibility, impact of environmental and social responsibility policies on the firm's sustainability, a code of ethics for the board and waivers to the ethics code, a code of ethics for all company employees, policy on “whistleblower” protection for all employees, mechanisms protecting the rights of other stakeholders in business, and the role of employees in CG.

Corporate Responsibility and Compliance category disclosure items are identified and briefly explained in Table 5.10.

**The fifth category is Board and Management Structure and Process.** This is the largest category in terms of disclosure items. It includes more than one-third of the disclosure items. This is an indication of the significance of this category. Governance structures, such as committees and other mechanisms to prevent conflict of interest, “Checks and balances” mechanisms, composition of BoD (executives and non-executives), composition and function of governance committee structures, and role and functions of the BoD are among the disclosure items in this category. Additionally, other disclosure items, in this category are, risk management objectives, system and activities, qualifications and biographical information on board members, types and duties of outside board and management positions, material interests of members of the board and management, existence of plan of succession, duration of director’s contracts, compensation policy for senior executives departing the firm as a result of a merger or acquisition, determination and composition of directors’ remuneration, independence of the BoD, number of outside board and management position directorships held by the directors, existence of procedure(s) for addressing conflicts of interest among board members, professional development and training activities, availability and use of advisorship facility during reporting period, and performance evaluation process.

The disclosure items in the last category, Board and Management Structure and Process, are identified and briefly clarified within Table 5.11.

**Table 5.7 Ownership Structure and Exercise of Control Rights category**

<b>A. Ownership Structure and Exercise of Control Rights</b>		
<b>No.</b>	<b>Disclosure Item</b>	<b>Explanatory and evaluation question: Does the company disclose meaningful details as to:</b>
<b>1</b>	Ownership structure	What is the company's shareholding structure?
<b>2</b>	Process for holding AGM	How does the company conduct AGM?
<b>3</b>	Changes in shareholdings	What changes have occurred in shareholders' equity since last year?
<b>4</b>	Control structure	Who is the major shareholder?
<b>5</b>	Control and corresponding equity stake	How is the number of shares associated with voting rights?
<b>6</b>	Availability and accessibility of meeting agenda	What is the AGM agenda?
<b>7</b>	Control rights	What are the voting rights in relation to the control structure?
<b>8</b>	Rules and procedures governing the acquisition of corporate control in capital markets	What are the regulations and measures for controlling a company by buying shares on the open market?
<b>9</b>	Anti-takeover measures	What actions does the company take to protect itself from a potential takeover?

\* Source: UNCTAD (2011). Table constructed by the researcher.

**Table 5.8 Financial Transparency category**

<b>B. Financial Transparency</b>		
<b>No.</b>	<b>Disclosure Item</b>	<b>Explanatory and evaluation question: Does the company disclose meaningful details as to:</b>
<b>10</b>	Financial and operating result	What are the results of the financial and operating activities of the company?
<b>11</b>	Critical accounting estimates	What are the critical accounting estimates and assumptions employed during the preparation of the financial statements?
<b>12</b>	Nature, type, and elements of related-party transactions	What related-party transactions does the company participate in?
<b>13</b>	Company objectives	What are the company's goals?
<b>14</b>	Impact of alternative accounting decisions	What is the effect of the accounting policies of the company on its performance?
<b>15</b>	The decision-making process for approving transactions with related-parties	How are the company's related-party transactions approved?
<b>16</b>	Rules and procedures governing extraordinary transactions	What are the regulations and measures for the approval of extraordinary transactions?
<b>17</b>	Board's responsibilities regarding financial communications	What are the board's responsibilities in respect to the financial statements?

\* Source: UNCTAD (2011). Table constructed by the researcher.

**Table 5.9 Auditing category**

<b>C. Auditing</b>		
<b>No.</b>	<b>Disclosure Item</b>	<b>Explanatory and evaluation question: Does the company disclose meaningful details as to:</b>
18	Process for interaction with internal auditors	How does the BoD interact and communicate with the internal auditors of the company?
19	Process for interaction with external auditors	How does the BoD interact and communicate with the external auditors of the company?
20	Process for appointment of external auditors	What are the criteria for selecting the external auditors?
21	Process for appointment of internal auditors/scope of work and responsibilities	What are the criteria for selecting the internal auditors? And what are the duties of the internal auditors?
22	Board confidence in independence and integrity of external auditors	Is the BoD confident in the independence and integrity of the external auditors of the company?
23	Internal control systems	What is the role of the internal control system of the company?
24	Duration of current auditors	What is the duration of the contract of the current auditors?
25	Rotation of audit partners	Does the company rotate its audit partners on a regular basis?
26	Auditors' involvement in non-audit work and the fees paid to the auditors	How much of the total fees is paid to the auditor for non-audit work, if any?

\* Source: UNCTAD (2011). Table constructed by the researcher.



**Table 5.10 Corporate Responsibility and Compliance category**

<b>D. Corporate Responsibility and Compliance</b>		
<b>No.</b>	<b>Disclosure Item</b>	<b>Explanatory and evaluation question: Does the company disclose meaningful details as to:</b>
<b>27</b>	Policy and performance in connection with environmental and social responsibility	How does the company commit to its environmental and social responsibilities?
<b>28</b>	Impact of environmental and social responsibility policies on the firm's sustainability	What is the impact of the environmental and social policies on the company?
<b>29</b>	A code of ethics for the board and waivers to the ethics code	What is the code of ethics adopted by the BoD? and what are the exceptions thereto?
<b>30</b>	A code of ethics for all company employees	What is the company's code of ethics?
<b>31</b>	Policy on "whistleblower" protection for all employees	What is the company's whistleblower protection policy?
<b>32</b>	Mechanisms protecting the rights of other stakeholders in business	What type of measures or policies are adopted by the company to protect other stakeholders?
<b>33</b>	The role of employees in CG	Is there a BoD member who represents the employees?

\* Source: UNCTAD (2011). Table constructed by the researcher.

**Table 5.11 Board and Management Structure and Process category**

<b>E. Board and Management Structure and Process</b>		
<b>No.</b>	<b>Disclosure Item</b>	<b>Explanatory and evaluation question: Does the company disclose meaningful details as to:</b>
34	Governance structures, such as committees and other mechanisms to prevent conflict of interest	What are the committees of the BoD?
35	“Checks and balances” mechanisms	Are the two posts – i.e., CEO and Chairman of the BoD, fulfilled by two different persons?
36	Composition of BoD (executives and non-executives)	What is the structure of the company’s BoD?
37	Composition and function of governance committee structures	What are the structure and duties of the CG committee?
38	Role and functions of the BoD	What are the duties of the BoD?
39	Risk management objectives, system, and activities	What is the role of risk management?
40	Qualifications and biographical information on board members	What are the qualifications and experiences of each member of the BoD?
41	Types and duties of outside board and management positions	What are the key executives' outside board and management positions, if any?
42	Material interests of members of the board and management	Are there any material interests in transactions affecting the company?
43	Existence of plan of succession	What is the succession plan for the board?
44	Duration of director’s contracts	What is the duration of a director’s contract?
45	Compensation policy for senior executives departing the firm as a result of a merger or acquisition	What is the company’s policy for compensating senior executives terminated because of a merger or an acquisition?
46	Determination and composition of directors’ remuneration	What are the elements included in a director’s remuneration?
47	Independence of the BoD	How does the company ensure the independence of its board members?

<b>E. Board and Management Structure and Process</b>		
<b>No.</b>	<b>Disclosure Item</b>	<b>Explanatory and evaluation question: Does the company disclose meaningful details as to:</b>
<b>48</b>	Number of outside board and management position directorships held by the directors	How many outside board and management position held by the directors?
<b>49</b>	Existence of procedure(s) for addressing conflicts of interest among board members	What are the measures adopted to minimise the effects of conflicts of interest among board members?
<b>50</b>	Professional development and training activities	What does the company do for board members' professional development and training?
<b>51</b>	Availability and use of advisorship facility during reporting period	When they deem it appropriate, can directors seek out independent advisors?
<b>52</b>	Performance evaluation process	What are the criteria for assessing the performance of BoD?

\* Source: UNCTAD (2011). Table constructed by the researcher.

After discussing the nature of the dependent variable, the following paragraphs discuss how it is captured.

Using these 52 disclosure items of UNCTAD (2011)<sup>16</sup> Standards as a benchmark, the Dependent Variable is a computed rating of the level/quality of each case's CGD. This variable is captured within, and termed as, its CGD Quality index (see Tables 5.7 to 5.11). For each testable case, its CGD rating is developed using these 52 (financial and non-financial) disclosure items as identified within UNCTAD (2011). Thus, using these items as a basis, each research case is duly examined and appropriately quantitatively evaluated in order to develop their individual CGD rating or score. This CGD rating, individually case-wise computed, is the dependent variable of this research.

While developing the CGD rating for each research case, using the guidance and explanation of the UNCTAD (2011) and UNCTAD (2006), it is important to pay attention to each item disclosed as a whole, as each word stated in the disclosure is important. As much as possible, the researcher is consistent and coherent in the scoring process, so as to ensure that each company has very much the same interpretation for the same item.

The process for the collection of the dependent variable is often described as Content Analysis technique. Content analysis is a highly flexible research method that has been widely used in several studies with varying research goals and objectives (White and Marsh, 2006). Content analysis can be applied in quantitative, qualitative, and even mixed research. It uses a wide range of analytical methods to provide meaningful results and/or findings (White and Marsh, 2006; Gavora, 2015). Quantitative data alone cannot provide complete explanations and/or insights. Thus,

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<sup>16</sup> As a single point of comparison between the U.K. and Egypt, the UNCTAD (2011) disclosure list was selected because it is thought to be country-neutral.

it can be supported by further qualitative observations and/or phenomena such as using the content analysis technique as an act of qualitative observations turning into quantitative observations.

In Accounting and Finance literature, Content Analysis is commonly used to assess the practice of companies in respect to corporate disclosure (Jones and Shoemaker, 1994; Beck et al., 2010). Data that is inaccessible to less invasive research techniques can be collected more easily with the help of the Content Analysis technique (Beck et al., 2010). Through the use of the checklist and the scoring process, the Content Analysis technique is employed as there is no ready-made data regarding the CGD for the research cases being analysed (Beck et al., 2010; Samaha and Dahawy, 2010; Samaha et al., 2012; Mion and Loza Adai, 2019; Ullah et al., 2021).

In this present research, the Content Analysis technique is used to quantify CGD from all publicly available information disclosed by the listed companies such as annual reports, BoD reports, CG reports, sustainability reports, and company websites. These sources are all used to be able to perform the scoring process.

The approach used in the scoring process is the unweighted approach, as there is no generally recognised scientific basis or significance being assigned to a specific item (attribute) being disclosed. As such, the most appropriate approach for this research is the unweighted approach (Cooke, 1989; Akhtaruddin et al., 2009). On that basis, each item evaluated in the unweighted approach is scored on the same consistent basis – i.e., 1 if provided, 0 if not provided (Cooke, 1989; Melis and Carta, 2010). Nevertheless, as the matter of prime significance in this context of the data collection is the disclosure (or not) of the item itself, and this is the fundamental focus of the research, this scoring technique is considered appropriate to, and for, the circumstances.

Thus, as stated, on the above basis, for each of the 135 cases (65 U.K. and 70 Egyptian) the 52 disclosure items stated within UNCTAD (2011) are numerically scored using a dichotomous (0 or 1) basis. The dichotomous basis is used to measure CGD practices as a company is awarded a score of 1 if an item is disclosed and 0 if not (Sekaran, 2003; Bougie and Sekaran, 2020; Saunders et al., 2023). As per the unweighted disclosure approach, for each item disclosed, the company is granted a score of 1, even if the item itself is not practiced properly. However, as disclosure itself is the fundamental acid test for evaluation in this research, disclosure of the item in a possibly less than fully meaningful manner is still considered a disclosure, and attracts a score of 1. If the item is not disclosed, then the score awarded is 0. The overall individual CGD score for each company is then totaled and captured as a ratio of the total CGD items score to the maximum possible disclosure items. The CGD score for each company is then expressed as a percentage (see following). It is a continuous variable.

Regarding the total CGD score, the maximum score awarded to each company is 52 out of 52 as this is the total number of items in the checklist used to calculate the CGD score for each company. While the minimum score is 1 as companies must disclose at least their financial statements to be listed on the stock exchange. The higher the score of the CGD the higher the level of CGD quality. Thus, a score of (say) 52 for a company would attract a CGD quality rating of 100%.

The scale presented in the following table can be used as a guide to determine the level of CGD quality (Shehata et al., 2014).

**Table 5.12 CGD quality level**

<b>Level of CGD quality</b>	<b>CGD quality rating</b>
<b>High</b>	80-100%
<b>Moderate</b>	60-79%
<b>Low</b>	50-59%
<b>Very low</b>	0-49%

As per the above table, if a company had a rating of 60%, then the level of its CGD quality would be moderate and so on.

In the immediately following paragraphs, the independent variables are discussed.

### **5.8.1.3 Independent variables**

After discussing the dependent variable, the next section is dedicated to the independent variables. In terms of independent variables, there are three sets as follows:

- 1) 10 company characteristics
- 2) 4 CG characteristics
- 3) 1 country variable that sits within its own set.

As such, there are 15 independent variables in total. Details of each variable and how they are captured are given in the immediately following paragraphs.

#### **Set One: Company characteristics**

Zamil et al. (2021) determine that about 33% of the prior literature, discussing drivers of corporate disclosure, has focused on the company-level aspect including company age, size, profitability, leverage, and liquidity, however, their findings are inconclusive. Accordingly, further research is needed to explore these company-level characteristics and their impact, if any, on the quality of CGD. To that end, the following ten company characteristics are selected for further action within this present research. They are briefly shown in Table 5.13.

**Table 5.13 Company characteristics variables**

No.	Company characteristics	Possible values
1	Stock Exchange Index	U.K. FTSE100 or Egypt EGX30/EGX70 EWI
2	S&P ESG Index	1 if included, 0 if not included
3	Company age	No. of years since incorporation
4	Company size	Log of total assets – consistently total assets expressed in US \$
5	Type of auditor	1 Big 4, 0 if not Big 4
6	Cross-listing	1 if cross-listed, 0 if not cross-listed
7	Profitability	% of relevant years – net profit to average equity
8	Liquidity	% of relevant year end – current assets less inventory to current liabilities
9	Ownership structure	% of relevant year end – free float
10	Foreign institutional investors	1 if yes, 0 if not

### 1. Stock Exchange Index

The companies examined in this research come from two different stock exchanges, and consequently are listed within two different stock exchange indices. Therefore, these companies are required to abide by distinct listing requirements. Accordingly, the indices, that companies are listed on, might also have an impact on their CGD. For the U.K., all the companies researched are listed on FTSE100. However, for Egypt, while all the companies are listed on EGX100 EWI, they are also listed on either the EGX30 or EGX70 EWI. If so, such Egyptian companies are listed on two different indices, i.e., EGX100 EWI and EGX30/EGX70 EWI. Against that fact, the Egyptian companies listed on EGX30 and EGX70 EWI form the total number of companies listed on EGX100 EWI. The researcher believes that the impact of the inclusion in these two indices on the CGD quality has not been studied.

Thus, the indices variable is the first variable in the company characteristics set. The indices of the companies were retrieved from the London Stock Exchange “LSE” official website, the Egyptian Exchange “EGX” official website, and Refinitiv Eikon financial database.



The indices variable is a dichotomous variable. For the U.K., if the company is listed on FTSE100, then it will take a score of 1 and it will take a score of 0 otherwise. For Egypt, if the company is listed on EGX30, then it is assigned a score of 1, and a score of 0 if it is listed on EGX70 EWI.

## **2. S&P ESG Index**

Another index examined and integrated within this research is the S&P ESG index<sup>17</sup>. The effect of the inclusion in the S&P index on CGD is examined in this research as it has been examined in prior literature, albeit mostly for developed countries (Jo and Harjoto, 2011; Tamimi and Sebastianelli, 2017). However, it just might be the case that companies attracting an S&P ESG rating tend to practice better and more stakeholder beneficial CGD, while those that are not so listed, do not. On that basis, the S&P ESG index variable is a dichotomous variable. If the company is listed on S&P ESG, then it attracts a score of 1 and a score of 0 otherwise.

## **3. Company age**

Prior literature has examined the company age and its effect on CGD and the results were different. Some such literature finds that the impact of company age is not significant in terms of CGD (Garas and ElMassah, 2018), while others find a positive impact on such CGD (Zamil et al., 2021). Furthermore, others find an impact at times even negative, possibly as a result of company rigidity (Isidro and Sobral, 2015), while others use it as a control variable in their research (Alshbili et al., 2019). Such considerations warranted the inclusion of the “Company Age” variable within the relevant research computations.

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<sup>17</sup> S&P ESG (Standard & Poor’s Environmental, Social, and Governance) index scores include a total company-level ESG score for a fiscal year, which includes individual Environmental (E), Social (S), and economic & Governance (G) dimension scores, using industry-specific criteria scores that can be deployed as specific ESG signals (S&P Global, 2023).

The company age variable is measured in years from the date of incorporation of each company to the relevant year-end – i.e., December 2019, 2020, and 2021. It is a continuous variable calculated as the difference between the year of incorporation to the relevant year-end. The exact date of incorporation of each company is retrieved from Refinitiv Eikon financial database. However, the date of incorporation of some companies were not found on Refinitiv Eikon financial database and so had to be determined from the annual reports of each company.

#### **4. Company size**

Some prior literature suggests that the company size does not seem to affect the CGD (Samaha and Dahawy, 2011; Al-Moataz and Hussainey, 2013). However, Watson et al. (2002) do find some evidence of association between CGD and company size. Berglöf and Pajuste (2005) state that publicly disclosed CG information is more frequently available in larger companies than within smaller ones. Indeed, Samaha et al. (2012) contend that the level of CGD increases with company size.

Taking regard for considerations of the above nature, “Company Size” is employed as the fourth variable in the company characteristics set. This variable is proxied by the logarithm of the total assets of the company at end of each fiscal year. Total assets are consistently expressed in US \$. The total assets of the companies were retrieved from Refinitiv Eikon financial database. However, curiously, in some instances when the total assets of a few companies were not found on Refinitiv Eikon financial database, they were retrieved from the relevant financial statements of the company itself. It is a continuous variable.

#### **5. Type of auditor**

Some evidence suggests that the degree of affiliation of the auditor with an international firm – almost always a “Big 4” association - is one of the most significant

variables affecting the level of disclosure by Egyptian companies (Dahawy, 2009; Samaha and Dahawy, 2010). Therefore, if the auditor of the company is associated with one of the Big 4 auditing firms (Deloitte, EY, PwC, and KPMG) it is quite probable that the level of the CGD will be high.

Within the relevant statistical computations undertaken, the type of auditor is a dichotomous variable. If the company is audited by one of the Big 4 audit firm, or closely associated with one, a score of 1 is assigned and, if not, a score of 0 is assigned. This type of auditor variable is a binary variable, as its two values are either 1 or 0.

## **6. Cross-listing**

Cross-listing of the company means that the company is listed on more than one stock exchange. It is a proxy for the internationality of the company. Thus, cross-listing can be used as a measure of internationalisation of companies. It likely encourages companies to manifest better quality CGD (Attig et al., 2016; Lu and Wang, 2021). There is some evidence suggesting that an increase in the CGD is statistically significant and economically beneficial for cross-listed companies. Additionally, there is further evidence indicating that cross-listing is associated with higher disclosure quality (Shi et al., 2018; Garanina and Aray, 2021).

A company is awarded a score of 1 if it is listed on more than one stock exchange and it is awarded the score of 0 otherwise. It is a binary variable. It is also called a dichotomous variable.

## **7. Profitability**

There is some evidence to indicate that the profitability of companies is one of the main determinants of CGD quality (Al-Moataz and Hussainey, 2013). Indeed, some authors have identified a significant positive relationship between profitability and

CGD (Brown and Caylor, 2004; Samaha and Dahawy, 2010; Babatunde and Akeju, 2016).

Within much of the research in the domain of CG, the profitability of the company is most commonly measured using the Return on Equity (ROE) ratio. This is the return on shareholders' investment or equity. ROE assesses the relationship between the company's net income and total shareholders' equity and is computed as the ratio between net income and shareholders' equity, with the result being expressed as a percentage. The use of this measure has been approached with some caution, as the quantum of net income is the result of operations that belongs entirely to the holders of common and preferred equity shares. In contrast, when using the Return on Average Equity (ROAE) approach instead, Average Equity is utilised to allow for the logical possibility that profitable activities accumulate equity over the course of the year, implying that the yearly income should correspond to the midpoint of the buildup (Salami, 2011).

Thus, ROAE is an adjusted form of ROE measure of company profitability, in which the denominator, shareholders' equity, is changed to average shareholders' equity. ROAE is considered to be more accurate in measuring the profitability of the company.

Taking regard for all the above, the measure of profitability in this research slightly varied from ROE to ROAE, which is the ratio of net income before tax to the average common shareholders' equity, with the result being expressed in percentage. Understandably, therefore, it is a continuous variable.

## **8. Liquidity**

Relevant literature suggests that the liquidity of the company is associated with the CGD and furthermore, that it is found to be a significant variable in explaining the intensity and quality of CGD (Ezat and El-Masry, 2008; Samaha and Dahawy,

2010). However, in contrast, Samaha and Dahawy (2011) find that the liquidity of the company appears to have no significant effect on CGD. Nonetheless, Al-Moataz and Hussainey (2013), while presenting contrary evidence, counter this argument and state that the liquidity of the company is one amongst the main determinants of CGD.

Taking regard for arguments relating to the above, the liquidity of the company is among the company characteristics variables employed in this research. It is measured using the current ratio, which is computed as the ratio of current assets (net of inventory) to current liabilities. It is a continuous variable.

## **9. Ownership structure**

The ownership structure of the company can be assessed and determined by the different types of equity-owners such as blockholders, government, and institutional. Among other measures of the ownership structure is the free float percentage, which is the percentage of the publicly traded shares in relation to the total number of outstanding shares. However, in determining the free float percentage, shares held by, for example, significant shareholders and company directors are excluded (Ding et al., 2016).

Some jurisdictions impose certain requirements relating to the quantum of "Free Float". Accordingly, in the U.K., on December, 2011, the FTSE stated that the minimum free float necessary for U.K.-incorporated companies to be listed on the FTSE U.K. Index Series would increase from 15% to 25%. The FTSE U.K. Index Series is one of the most well-known indices in the world, which includes the FTSE100 Index, which is being investigated in this research. Prior to December, 2011, the threshold for listed companies established outside the U.K. was 50%. To address investor concerns regarding companies based in the U.K., the FTSE extended the threshold requirement to the U.K.-incorporated companies on

December 14, 2011. The new listing requirement was created in response to institutional investors' worries that majority shareholders could have strong influence over their companies (Burgess, 2011).

Regarding Egypt, there have been several updates to the listing rules as well. Firstly, the companies had to have at least 15% free float to be listed on EGX30, but under the new listing rules introduced in August, 2015, companies were able to join EGX30 with at least 5% free float, as long as the market value of the free float is at least 100 million Egyptian pounds (Reuters, 2015). This change was intended to assist in reviving trading in Egypt, which has suffered to gain investor trust throughout years of political and economic unrest following the 2011 Revolution (Reuters, 2015). Secondly, in January, 2020, companies had to increase their free float to be at least 10%, up from 5% (EGX, 2023d). Lastly, the rules of listing were revised to state that the minimum free float for inclusion in EGX30 should be at least 15% (EGX, 2023b). Regarding EGX70 EWI, the minimum free float for inclusion in the index is to be at least 10% (EGX, 2023c).

Some literature evidence suggests that companies with high free float percentage disclose better quality of CG practices (Ezat and El-Masry, 2008). Accordingly, the ownership structure of the company, measured as the percentage of publicly traded shares, i.e., the free float percentage, is one of the variables of the company characteristics. It is a continuous variable.

## **10. Foreign institutional investors**

Finally, within this set of company characteristics, there is some body of literature that indicates that foreign ownership is positively and significantly associated with the level of CGD (Barako et al. 2006; Mangena and Tauringana, 2007; Wachira, 2019). Similar literature confirms that foreign ownership is of greater influence than that of domestic investors (Mizuno, 2010; Nakano and Nguyen, 2013).

Taking regard for phenomena identified in the previous paragraph, the existence of foreign institutional investors is employed as the tenth and last variable within the set of company characteristics variables. It is reflected as a binary variable, where the company is awarded a score of either 1 or 0. If there is at least one foreign institutional investor, then the score is 1 and otherwise, it is 0.

### **Set Two: CG characteristics**

The second set of independent variables is related to the CG characteristics. CG characteristics have been studied in respect to the CGD quality, in either developed or developing countries (Barako et al., 2006; Ezat and El-Masry, 2008; Al-Moataz and Hussainey, 2013; Alabdullah et al., 2019; Saha and Kabra, 2020). However, examining CG characteristics in this research is employed to compare and evaluate the CGD quality within and between listed companies in the U.K., as a developed country, and Egypt, as a developing country. Accordingly, the following four CG characteristics are selected for further examination within this research. They are briefly shown in Table 5.14.

**Table 5.14 CG characteristics variables**

<b>No.</b>	<b>CG characteristics</b>	<b>Possible values</b>
<b>11</b>	CEO duality	1 if same person, 0 if two different persons
<b>12</b>	BoD size	no. of members of BoD
<b>13</b>	BoD independence	% of Independent and Non-Executive Directors to the total no. of members of BoD
<b>14</b>	Audit Committee	1 if yes, 0 if no

### **11. CEO duality**

As stated earlier, the CEO is the head of the executive team of the company, while the chairman is the head of the BoD. These are two different posts in the company

that sometimes are occupied by the same person. When the executive manager also serves as the BoD chairman, this is referred to as CEO duality (Elsayed, 2007). The effect of CEO duality on corporate disclosure has been contradictory in the body of literature (Iyengar and Zampelli, 2009). There is some evidence suggesting that the CEO duality has a significant negative effect on the CGD quality of listed companies (Samaha and Dahawy, 2011; Samaha et al., 2012; Elbadry et al., 2015; Samaha et al., 2015; Alabdullah et al., 2019). On the contrary, there is other evidence suggesting that the CEO duality is positively affecting the trust in management (Anderson and Anthony, 1986; Iyengar and Zampelli, 2009; da Costa and Martins, 2019).

In similar vein, within this research, the CEO duality variable examines whether the previously mentioned two posts are occupied by the same person or not. If the same person fulfills both posts – i.e., CEO and Chairman of the BoD, then the company is awarded a score of 1. If the two positions are fulfilled by two different persons, then the company is awarded a score of 0. It is a binary variable.

## **12. BoD size**

Prior literature suggests that the BoD size has a positive effect on the disclosure of CG (Ezat and El-Masry, 2008; Samaha et al., 2015; Alabdullah et al., 2019). Indeed, one might argue that companies with a large number of BoD have better disclosure of CG.

Taking regard for the phenomena highlighted in the previous paragraph, within this research, the size of the BoD is employed as the second variable within the set of CG characteristics. It is a count of the number of the members of the BoD and is a discrete variable.



### **13. BoD independence**

As stated earlier, the BoD is composed of Executive and Non-Executive Directors, as well as Independent Directors<sup>18</sup>. The proportion of the independent and non-executive directors to the total number of the members of the BoD measures the independence of the BoD. Prior literature states that companies with a high proportion of independent directors have a better CGD and furthermore, that the board independence is among the main determinants of CGD (Ezat and El-Masry, 2008; Samaha and Dahawy, 2010; Samaha et al., 2012; Al-Moataz and Hussainey, 2013; Samaha et al., 2015). However, Barako et al. (2006) find that the independence of the board is significantly negatively associated with the disclosure in a developing country.

Therefore, the independence of the BoD variable is proxied by the percentage of non-executive and independent directors on the board in relation to the total number of BoD. It is a continuous variable.

### **14. Audit Committee**

Relevant literature states that the existence of an Audit Committee among the BoD committees is positively and significantly associated with CGD (Barako et al., 2006; Samaha and Dahawy, 2010; Al-Moataz and Hussainey, 2013; Samaha et al., 2015). If so, it becomes more than pertinent to examine this feature within the context of the present research and countries of interest – i.e., U.K. and Egypt. Accordingly, the presence/absence of an audit committee is included as one of the research variables within the set of CG characteristics.

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<sup>18</sup> a) Executive Directors hold a distinct position of authority within the company and have better access to internal information (Nicholson and Kiel, 2007; Basco et al., 2019). b) Non-Executive Directors have a variety of and more objective insights on the company's issues due to their varied backgrounds and experiences (Filatotchev, 2006; Basco et al., 2019). c) An Independent Director does not have a material relationship with the company. He is not a member of the executives of the company and therefore, he is not part of the day-to-day operations of the company (CFI, 2022).

The existence of the audit committee is a binary variable. A company is awarded a score of 1 if there is an audit committee and 0 if this is not the case<sup>19</sup>.

### **Set Three: Country variable**

After considering the independent variables under the two sets of company characteristics and CG characteristics, the last independent variable is discussed in the following paragraph.

#### **15. Country**

The fifteenth and last independent variable is the country. This variable is the country in relation to each research case/company, i.e., the U.K. and Egypt.

Bae et al. (2018) stated that there are numerous studies for developing countries, namely South Asian countries. Moreover, Zamil et al. (2021) revealed that there were no cross-country studies that took into account the African stock markets, while they were all focused on the Asian and European stock markets. Accordingly, this research examines CGD quality in Egypt (representing a developing country in Africa), as well as the U.K. (representing a developed country in Europe).

Lozano and Martínez-Ferrero (2022) examined the effect of some company and CG characteristics on the CGD in developing, as well as developed countries. The results revealed that the BoD is the primary factor affecting CGD in developing and developed countries. However, in developed countries, the ownership effect is also

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<sup>19</sup> The De Jure status of the existence of an audit committee is a must as per the U.K. and Egypt listing requirements of their respective stock exchanges. However, the De Facto status of the existence of an audit committee is slightly different. For the U.K., the existence of the audit committee has been fulfilled by all the 65 companies of the sample. For Egypt, nearly 2% of the sample with 4 firm-year observations had no audit committee among the committees of their BoD. These 4 firm-year observations relate to 2 companies only of the sample. One company had no audit committee for the three-year period of observations. The other company had no audit committee in only one year.

having a significant role. Therefore, in this research, the country is considered a variable to examine its effect on the CGD quality.

The country variable is a binary variable. A company is awarded a score of 1 if it is listed in Egypt and 0 if it is listed in the U.K.

After discussing the independent variables, the following table provides the details of each variable.

**Table 5.15 Independent Variables Details**

Set	No.	Variable Name	Variable Type	Variable Value
Company Characteristics	1	Stock Exchange Index	Binary	U.K.: 1 if the company is listed on FTSE100 and 0 if not. Egypt: 1 if the company is listed on EGX30 and 0 if the company is listed on EGX70 EWI.
	2	S&P ESG Index	Binary	1 if the company is listed on S&P ESG and 0 if not.
	3	Company age	Continuous	Measured in years from the date of incorporation of each company till December, 2019, 2020, and 2021.
	4	Company size	Continuous	Proxied by the logarithm of total assets of the company at end of each fiscal year. Total assets – consistently expressed in US \$
	5	Type of auditor	Binary	1 if the company is audited by a Big 4 affiliation and 0 if not.
	6	Cross-listing	Binary	Cross-listing of the company in more than one stock exchange, as a proxy for the internationality of the company, 1 if cross-listed and 0 if not.
	7	Profitability	Continuous	Proxied by the ROAE and computed as the ratio of net income before tax to average common shareholders' equity.
	8	Liquidity	Continuous	Proxied by the current ratio, which is computed as the ratio of current assets (net of inventory) to current liabilities.
	9	Ownership structure	Continuous	Measured as the % of publicly traded shares, i.e., the free float %.
	10	Foreign institutional investors	Binary	1 if there is at least one foreign institutional investor and 0 if not.
CG Characteristics	11	CEO duality	Binary	1 if the same person occupies both CEO and Chairman of BoD and 0 if the two posts are held by two different persons.
	12	BoD size	Discrete	The number of members of the BoD.
	13	BoD independence	Continuous	Proxied by the % of Independent and Non-Executive Directors on the board in relation to the total number of members of BoD.
	14	Audit Committee	Binary	1 if there is an audit committee and 0 if not.

Set	No.	Variable Name	Variable Type	Variable Value
Country	15	Country	Binary	1 if the company is listed in Egypt and 0 if the company is listed in the U.K.

#### **5.8.1.4 Control variables**

Following the discussion of the independent variables, the following section focuses on the control variables considered within this research. Control variables are still considered variables, which are kept constant throughout the research and are not part of the research itself (Schjoedt and Sangboon, 2015; Elmghamez and Olarewaju, 2022). They are kept constant in order to control their influence on the dependent variable. As stated, in this research, there are two control variables as follows:

1. Industry type
2. Year

The next paragraphs provide details on each control variable and how it is captured, along with the justification for the use of each as a control variable.

#### **1. Industry type**

The impact of the industry type on the level of CGD is inconclusive, as Samaha and Stapleton (2008) suggest that there is no association between the industry type and CGD. On the other hand, some literature finds that there is a positive association between the industry type and CGD (Watson et al., 2002; Aly et al., 2010; Samaha and Dahawy, 2010; Hassan, 2012; Samaha et al., 2012). However, in this research, the industry type is used as a control variable to control the effect of the different industry types/economic sectors on CGD quality. This is due to the small sample

sizes regarding some of the individual sectors within the testable sample of each country of interest.

As discussed earlier, the industry classification used in this research is TRBC. There are 11 top level Economic Sectors, according to TRBC, as follows:

1. Academic & Educational Services
2. Basic Materials
3. Consumer Cyclicals
4. Consumer Non-Cyclicals
5. Energy
6. Financials
7. Healthcare
8. Industrials
9. Real Estate
10. Technology
11. Utilities

However, after several exclusions, the final testable cases came from within 6 economic sectors only as follows:

1. Real Estate
2. Basic Materials
3. Consumer Cyclicals
4. Consumer Non-Cyclicals
5. Industrials
6. Technology

In order to have a comparable set of companies, the TRBC classification is adopted for the same six sectors for both the U.K. and Egyptian listed companies.

Accordingly, the industry type is a control variable of a categorical nominal nature.

It consists of 6 categories, which are coded as follows:

1. Real Estate is the reference category (code = 0)
2. Basic Materials (code = 1)
3. Consumer Cyclical (code = 2)
4. Consumer Non-Cyclical (code = 3)
5. Industrials (code = 4)
6. Technology (code = 5)

The next control variable is the year observed.

## **2. Year**

The year variable represents the year fixed effect. This variable is controlling, adjusting, and fixing the effect of the year variable on the models. The year is a control variable of a categorical nominal nature. It consists of 3 categories, which are coded as follows:

1. Year 2021 is the reference category (code = 0)
2. Year 2020 (code = 1)
3. Year 2019 (code = 2)

After exploring the sample, dependent variable, independent variables, and control variables, the next paragraphs discuss, in some detail, aspects relating to the data collection for the research variables, primarily their sources and acquisition.

## **5.8.2 Data collection**

The data collection process started by extracting the names of the companies listed on EGX100 EWI and FTSE100, which represent the population for this research. Then, the data for each company were collected for each of the years 2019, 2020, and 2021. The collected data are all publicly available data to ensure that these data are accessible to different stakeholders and hence, will be a reflection of the extent and quality of CGD practices of the listed companies in both the U.K. and Egypt. Publicly available data<sup>20</sup> include, and not limited to, annual reports, management release reports, press reports, ESG reports, BoD reports, CG reports, and sustainability reports.

### **5.8.2.1 Data sources**

In this research, the data are collected from five different data sources as presented in the following table and later explained in the paragraphs that follow.

**Table 5.16 Data sources**

<b>No.</b>	<b>Data source</b>	<b>U.K.</b>	<b>Egypt</b>
<b>1</b>	<b>London Stock Exchange official website</b>	√	
<b>2</b>	<b>Egyptian Exchange official website</b>		√
<b>3</b>	<b>Refinitiv Eikon financial database</b>	√	√
<b>4</b>	<b>The official websites of relevant companies</b>	√	√
<b>5</b>	<b>S&amp;P Global official website</b>	√	√

As presented in the above table, the five data sources basically are publicly disclosed and accessible for all stakeholders. The table lists the data sources that were used in relation to each country of interest in this research (i.e., the U.K. and Egypt). The following paragraphs discuss each data source of the five different data sources.

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<sup>20</sup> Issues related to data and research ethicality are considered in Section 5.8.4.

The first and main source of data for the listed U.K. FTSE100 companies is the London Stock Exchange “LSE” official website <https://www.londonstockexchange.com/>. This website is a source that identifies the constituents of the companies listed on FTSE100.

In terms of the listed Egyptian companies, the main (and second) source of data, is the Egyptian Exchange “EGX” official website <https://www.egx.com.eg/en/homepage.aspx>. This website is a source of the constituents of the companies listed on EGX100 EWI. This source also enabled access to the BoD reports and the CG reports for the companies. As required, they were downloaded, individually, for the three years’ period of this research, i.e., 2019-2021.

The third source of data is the financial database Refinitiv Eikon (formerly Thomson Reuters Eikon). Eikon is a set of software products provided by Refinitiv for financial professionals to monitor and analyse financial information. It provides access to real time market data, news, fundamental data, analytics, trading, and messaging tools. Refinitiv Eikon is a source of U.K. and Egyptian listed companies’ different reports, such as Annual Reports, Financial Reports, Sustainability Reports, Management Press Releases, and other Press Reports. It has most of the reports submitted by companies to their respective stock exchanges.

Other data extracted from Refinitiv Eikon are data that can be retrieved in Screener application and these are the following variables:

- Company age
- Company size
- Profitability
- Liquidity
- Ownership structure



- CEO duality
- BoD size
- BoD independence
- Audit Committee
- Industry type

Other variables could not be found in Screener application. The cross-listing variable had to be collected individually from each company's profile on Refinitiv Eikon. Moreover, the data on the existence of foreign institutional investors is displayed in a document titled "Shareholders' Report". Thus, it had to be downloaded for each individual company. Additionally, the type of auditor variable was not available and had to be retrieved from the Annual Reports of each individual company.

Although Refinitiv Eikon has data on all listed companies, most of the Egyptian companies' data was not available. Thus, it had to be retrieved from the Annual Reports of these companies.

The fourth source of data is the official websites of relevant companies within the U.K. and Egypt. The data extracted from the official website of companies can be in the form of reports or part or section on a page on the website. Generally, the companies' official websites were used to retrieve any missing data item from the prior sources of data.

The fifth and last source of data is the official website of S&P Global for S&P ESG scores <https://www.spglobal.com/esg/scores/results>. Each company was searched one by one to check its inclusion in the S&P ESG index for the three years, i.e., 2019-2021.

After discussing the various data sources, the next section discusses the key aspects relating to acquisition of the data for the research from within their identified sources.

### **5.8.2.2 Data acquisition**

The data sources for this research are all publicly available disclosed data. Therefore, the data extracted and collected depend mainly on the integrity of the reporting by the relevant listed companies. The listed companies prepare different reports and disclose them along with other format of data on their website. Furthermore, these reports are sent to the respective stock exchange. These data are disclosed for different stakeholders, and also are collected for the purpose of this research.

In order to collect the required research data for testing, of necessity, the research must rely on the integrity of the documentation published – most of which would have been professionally and independently audited. Thus, it is less likely to contain bias and subjective judgments or opinions. On that basis, such documentation is distinguished by its precision, reliability, and validity, and equally, of the data collected from it (Sekaran, 2003; Bougie and Sekaran, 2020; Saunders et al., 2023). Therefore, such documentation serves as a rigorous and objective source of data for this research.

Although the data acquired for this research are publicly available data, there were some challenges during their acquisition as discussed in the following paragraphs.

At first, the data acquisition process initially started using Bloomberg financial database located at LSBU. Then, due to the pandemic and the travel restrictions, the data collection using this source could not be completed. Fortunately, Refinitiv Eikon financial database was available at BUE. But because different financial databases may utilise different approaches to measurement, the researcher had to disregard any of the data acquired from Bloomberg.

Refinitiv Eikon made it easier to collect a number of variables at once, although not all of the variables of the U.K. listed companies and the majority of the variables of

the Egyptian listed companies could have been collected in a ready-made manner. As a result, several corporate reports were collected to look for these missing variables.

The next sub-section discusses the reliability and validity of the data.

### **5.8.3 Data reliability/validity**

The data for this research are, in genesis terms, secondary data. This means that the data had been already prepared and made public by other parties. While this does not totally guarantee the reliability and validity of it, a good degree of these are likely to be present as the data has been professionally and independently audited – often by a Big 4 auditor affiliation.

The reliability is the accuracy in measurement of the data item (Sekaran, 2003). The degree to which a measure is bias-free (error-free) determines its reliability, which guarantees consistent measurement over time and across the data items. In other words, the reliability of a measure is an indicator of the firmness and uniformity with which the data assess the subject and contributes in determining the "goodness" of a measure (Sekaran, 2003; Bougie and Sekaran, 2020; Saunders et al., 2023).

Even though the data for this research are secondary data, as indicated previously, certain statistical tests are conducted to ensure its reliability. Thus, the Cronbach's Alpha statistical test is used as shown in Table 5.17. Cronbach's Alpha measures the consistency or reliability between a set of items, measurements, or ratings. In other words, it evaluates the reliability of a rating, which would reflect the stability of the method used to develop this rating (Bujang et al., 2018).

**Table 5.17 Cronbach's Alpha for the CGD index scores using the UNCTAD (2011) 52 CGD items**

Item	Cronbach's Alpha	No. of Items
<b>CGD index (all 5 categories)</b>	0.920	52
<b>Category A: Ownership Structure and Exercise of Control Rights</b>	0.796	9
<b>Category B: Financial Transparency</b>	0.684	8
<b>Category C: Auditing</b>	0.718	9
<b>Category D: Corporate Responsibility and Compliance</b>	0.664	7
<b>Category E: Board and Management Structure and Process</b>	0.864	19

Table 5.17 reveals that the CGD index scores (manually determined by the researcher using the previously referenced UNCTAD (2011) 52 CGD items) has an Alpha coefficient of 0.92. In other words, the CGD index scores has a reliability of 92%, which is much above the generally acceptable level of 60% (Henseler and Chin, 2010; Bujang et al., 2018). Accordingly, the data may be regarded as being highly reliable.

Regarding each individual category of the CGD index scores, Alpha coefficient ranges from 0.664 (Category D: Corporate Responsibility and Compliance) to 0.864 (Category E: Board and Management Structure and Process). Then, the overall reliability of the CGD index scores of individual categories is between 66.4% and 86.4%, which is higher than the generally acceptable level of 60% (Henseler and Chin, 2010; Bujang et al., 2018). This would suggest that scores are consistently assigned and that the scoring process is consistent throughout the data collection process and for all categories of the CGD index.

It is worth noting that reliability is an essential, but not sufficient, requirement for the test of a measure's goodness. One could measure an idea with high stability and consistency, for instance, but it might not be the concept that was intended to be

measured. Therefore, the validity is employed to assure that a scale can measure the intended concept (Sekaran, 2003).

To be able to ensure validity in this research, the collected data items are carefully selected in order to answer the research questions and achieve the research intended outcomes. This is accomplished through reviewing earlier empirical research and CG Codes of the two countries of interest – i.e., U.K. and Egypt, as well the codes of other countries. Therefore, validity is enhanced by ensuring that the appropriate data item is being measured, and is duly reconfirmed (Sekaran, 2003).

#### **5.8.4 Ethicality**

As stated previously, all the data collected for the purpose of this research are publicly available. Indeed, this research is concerned with the quality of CGD practices of only listed companies who make such data publicly available. Therefore, in terms of the data themselves, there are no ethical nor confidentiality concerns during the conduct of this research. The type of collected data and ethicality/confidentiality issues are inter-related and therefore, this matter is discussed in the immediately following paragraph.

The collection of data was accomplished through the access to existing sources (such as company website, published reports ...etc.). Therefore, the data collected are disclosed and accessible to all stakeholders. All the data/information intended for use in the research is publicly disclosed and therefore can be obtained from publicly available sources. In other words, they are data that already exist and do not have to be collected by the researcher from the primary source (Sekaran, 2003; Bougie and Sekaran, 2020; Saunders et al., 2023). Accordingly, all the collected data are secondary data and not primary data. Thus, ethical issues relating to data sourcing and sources are not envisaged and no ethical clearance was required from

either LSBU or BUE. Nevertheless, the researcher ensured that at all times while conducting the research, appropriate LSBU and BUE ethical codes were consistently and fully complied with<sup>21</sup>.

The next paragraphs discuss the data limitations.

### **5.8.5 Data limitations**

In order to identify opportunities for progress and prosperity in future research, it is inevitable to have some limitations in the data of any social science research. The data limitations in this research are in regard to the time period covered and the sample size.

The first limitation refers to the time-frame of the research. As stated earlier, the process described for the collection of the dependent variable, i.e., CGD quality index score (the 2011 UNCTAD 52 CGD items), is called Content Analysis technique. This technique requires a considerable amount of time and effort. Therefore, the time period for the research examines data collected of listed companies for three years, namely 2019-2021.

During these three years, CGD has much evolved and continues to evolve. It is expected that in the coming years, there will be even more changes and developments in terms of the level of quality of CGD – if only because additional requirements within statutes and codes are adopted. Additionally, companies and stakeholders are likely to become more aware of the importance of even better CGD practices. In the future, it is expected that more companies will adopt better practices of CGD.

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<sup>21</sup> LSBU Code of Ethics: [https://www.lsbu.ac.uk/\\_data/assets/pdf\\_file/0004/111847/ethics-code-of-practice.pdf](https://www.lsbu.ac.uk/_data/assets/pdf_file/0004/111847/ethics-code-of-practice.pdf)  
BUE Code of Ethics: <https://www.bue.edu.eg/powerpoints-academic-honesty/>

The second data limitation is the sample size. In this research, the listed companies examined are 65 U.K. listed companies and 70 Egyptian listed companies. According to the Central Tendency Theory requirement of 30 items, the sample sizes of the U.K. and Egyptian listed companies do conform with the generally accepted statistical minima (Kiogora and Gathoni, 2021). Nevertheless, for the individual Technology sector within the testable sample of Egypt, the number of companies is relatively small. This is mostly because of the advanced nature of such sector and the fact that Egypt, as a developing country, did not have many listed companies in that particular sector initially. For that reason, to address this limitation, this research's regression models considered the industry types/economic sectors as a control variable to control the effect of this variable on the dependent variable, i.e., the CGD quality. Accordingly, within future research, the number of companies to be examined could be increased, especially in the Egyptian context as a representation of a developing country.

The sixth and last section with respect to the techniques and procedures is the data analysis.

#### **5.8.6 Data analysis**

Having discussed the pertinent sample selection and the appropriate dependent and independent variables, the following paragraphs display how the data is analysed. But, first the type of data itself is discussed.

The data variables collected in this research are panel data as they cover the period of three years, i.e., 2019, 2020, and 2021. And as they are for the same variables for the three years, they are considered to be longitudinal data. A longitudinal data set, often within a panel data set, is one that observes a sample of cases over time, allowing for a good number of observations for each case in the sample (Hsiao, 2022).

On the contrary, in cross-sectional data, research cases are measured at a specific point in time. In such cases, the differences in characteristics of the cases are the only source of variation that may be utilised to explain the outcome in the cross-sectional analysis (Tan, 2008; Tan and Jolani, 2022). On the other hand, longitudinal data analysis provides significant advantages over cross-sectional data because it can differentiate between variance within cases and variance between cases.

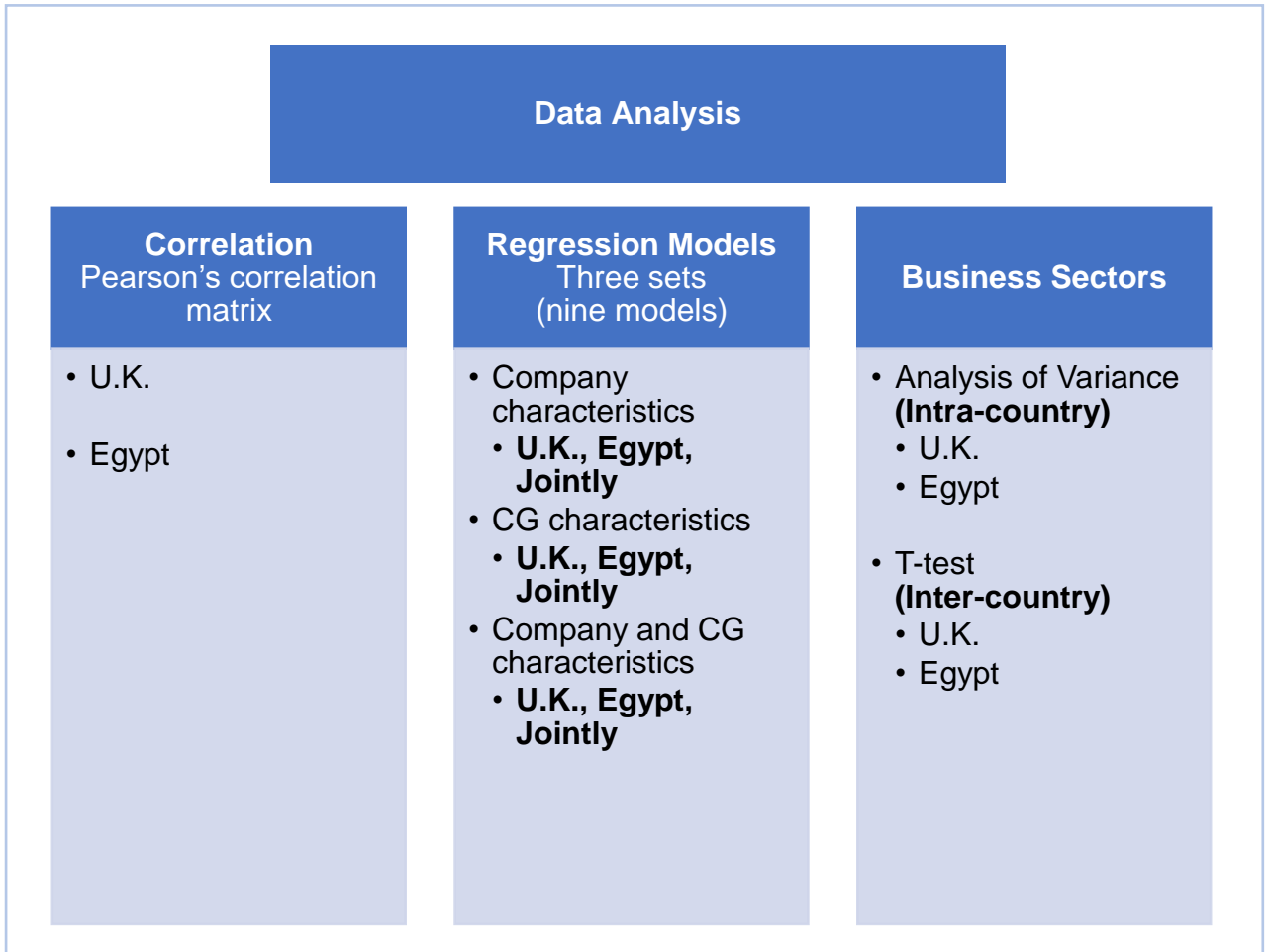
Some advocates of longitudinal data analysis have argued that within case comparisons are more important than between case comparisons. That means that variances in variables for a given research case from one point in time to the next are more important to focus on than variances in variables between different cases at a specific point in time. In other words, in relation to longitudinal cases, it is the between-time comparisons for the same cases that are more of focus, than the between-case comparisons at particular points in time. However, there are arguments that both types of analysis are important as each serves a different purpose (Tan, 2008; Leppink, 2020).

Accordingly, the data in this research is considered to be longitudinal, in most of the data analysis. Exceptionally, for some descriptive analysis, there is a need to analyse the data in a cross-sectional manner. This is done particularly to further examine the difference between CGD index scores over the three years observed.

In terms of data analysis, as appropriate, the dependent and independent variables are analysed using the SPSS and EViews statistical software packages. Such software has enabled appropriate Correlations Analyses, Multiple Regression Analyses, Analysis of Variance (ANOVA), and T-Test to be performed as illustrated in the following figure.



**Figure 5.3 Data analysis**



Initially, the data variables, or meaningful “mixes” of them, are analysed/evaluated while considering appropriate series of resultant Correlations and Multiple Regressions.

Correlations Analysis is used to reveal any relation between the dependent and independent variables (to check the strength and direction of association) and between the latter themselves (to check for multicollinearity occurrences). Regression analysis is appropriate for this research as it indicates not only the nature of any relationship between the dependent and independent variables, but also assesses the degree of the strength of this relationship between the dependent and independent variables (Saunders et al., 2023).

Pooled Ordinary Least Squares (OLS) Regression with Panel-Corrected Standard Errors (PCSE) is conducted to test the dependency between the dependent and

appropriate “mixes” of independent variables. The PCSE approach for estimation is adopted as it simultaneously corrects autocorrelation, cross-sectional dependence, and heteroscedasticity to improve parameter efficiency (Beck and Katz, 1995; Chen et al., 2010; Doku et al., 2019).

As indicated within previous considerations, the purpose of undertaking the development of these Regression models is to check, within three distinct sets, using in each set the CGD Quality as the dependent variable, what are the key independent variables (characteristics) that help determine the value of the former – i.e., CGD Quality – the dependent variable. Understandably, each of the three sets warrant their own and distinct Regression model as later presented. Thereupon, the research develops nine potentially inferential multiple regression models. Eight regression models are developed as subsidiaries models in order to test and check the robustness of the results of the main and ninth model (Model C.3) for consideration, evaluation, and discussion.

As a result, the multiple regression analysis was conducted on three separate levels, with three different models on each level, as follows:

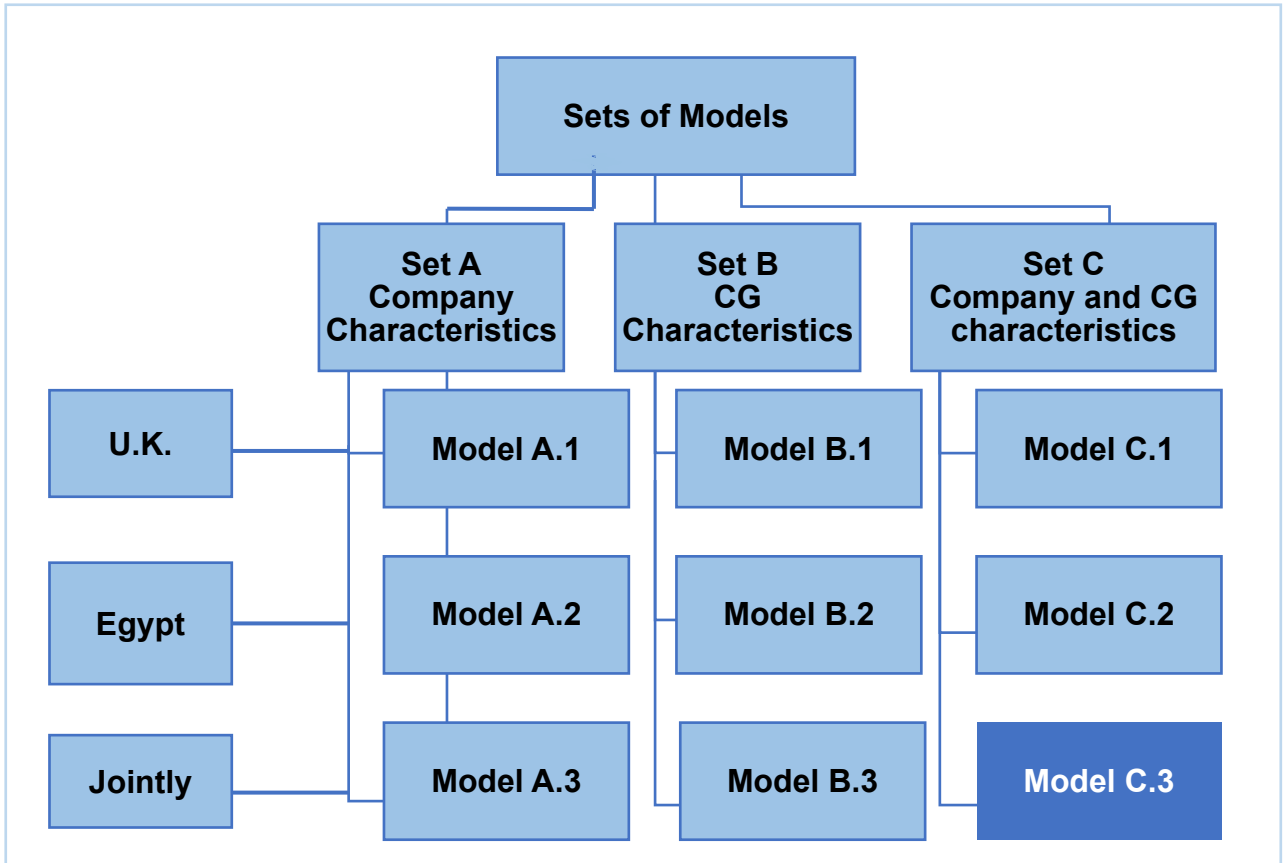
First, the **company characteristics** set is tested on the samples of the U.K. and Egypt separately and then, on the samples of the U.K. and Egypt jointly.

Second, the **CG characteristics** set is tested on the samples of the U.K. and Egypt separately and then, on the samples of the U.K. and Egypt jointly.

Third, the **company characteristics and CG characteristics** sets combined are tested on the samples of the U.K. and Egypt separately and then, on the samples of the U.K. and Egypt jointly.

The following figure illustrates the details of the nine regression models.

**Figure 5.4 The nine regression models**



As illustrated in the above figure, the following paragraphs detail the description of each model of the subsidiaries models as well as the main model (Model C.3).

**Set A Models** focuses only on company characteristics. This set includes 3 Models as follows:

- Model A.1 focuses only on data and variables relating to the U.K.
- Model A.2 focuses only on data and variables relating to Egypt
- Model A.3 focuses on data and variables relating to the U.K. and Egypt

**Set B Models** focuses only on CG characteristics. This set includes 3 Models as follows:

- Model B.1 focuses only on data and variables relating to the U.K.
- Model B.2 focuses only on data and variables relating to Egypt
- Model B.3 focuses on data and variables relating to the U.K. and Egypt

**Set C Models** focuses on company characteristics and CG characteristics. This set includes 3 Models as follows:

- Model C.1 focuses only on data and variables relating to the U.K.
- Model C.2 focuses only on data and variables relating to Egypt
- **Model C.3 focuses on data and variables relating to the U.K. and Egypt**

Having provided some detail of the three sets, the immediately following table shows the Multiple Regression Models themselves.

**Table 5.18 Regression Models**

Model Set	Model Name	Regression Model
Set A	A.1 and A.2	$CGD_{it} = \alpha + \beta_1 INX_{it} + \beta_2 S\&P_{it} + \beta_3 CAG_{it} + \beta_4 CSI_{it} + \beta_5 TOA_{it} + \beta_6 CRL_{it} + \beta_7 PRO_{it} + \beta_8 LIQ_{it} + \beta_9 OWS_{it} + \beta_{10} FIN_{it} + \sum_{j=11}^{15} \beta_j IND_{it} + \sum_{k=16}^{17} \beta_k YER_{it} + \varepsilon_{it}$
	A.3	$CGD_{it} = \alpha + \beta_1 CTY_{it} + \beta_2 S\&P_{it} + \beta_3 CAG_{it} + \beta_4 CSI_{it} + \beta_5 TOA_{it} + \beta_6 CRL_{it} + \beta_7 PRO_{it} + \beta_8 LIQ_{it} + \beta_9 OWS_{it} + \beta_{10} FIN_{it} + \sum_{j=11}^{15} \beta_j IND_{it} + \sum_{k=16}^{17} \beta_k YER_{it} + \varepsilon_{it}$
Set B	B.1 and B.2	$CGD_{it} = \alpha + \beta_1 CEO_{it} + \beta_2 BSI_{it} + \beta_3 BIN_{it} + \beta_4 AUD_{it} + \sum_{j=5}^9 \beta_j IND_{it} + \sum_{k=10}^{11} \beta_k YER_{it} + \varepsilon_{it}$
	B.3	$CGD_{it} = \alpha + \beta_1 CTY_{it} + \beta_2 CEO_{it} + \beta_3 BSI_{it} + \beta_4 BIN_{it} + \beta_5 AUD_{it} + \sum_{j=6}^{10} \beta_j IND_{it} + \sum_{k=11}^{12} \beta_k YER_{it} + \varepsilon_{it}$
Set C	C.1 and C.2	$CGD_{it} = \alpha + \beta_1 INX_{it} + \beta_2 S\&P_{it} + \beta_3 CAG_{it} + \beta_4 CSI_{it} + \beta_5 TOA_{it} + \beta_6 CRL_{it} + \beta_7 PRO_{it} + \beta_8 LIQ_{it} + \beta_9 OWS_{it} + \beta_{10} FIN_{it} + \beta_{11} CEO_{it} +$

Model Set	Model Name	Regression Model
		$\beta_{12}BSI_{it} + \beta_{13}BIN_{it} + \beta_{14}AUD_{it} + \sum_{j=15}^{19} \beta_j IND_{it} + \sum_{k=20}^{21} \beta_k YER_{it} + \varepsilon_{it}$
	<b>C.3</b>	$CGD_{it} = \alpha + \beta_1 CTY_{it} + \beta_2 S\&P_{it} + \beta_3 CAG_{it} + \beta_4 CSI_{it} + \beta_5 TOA_{it} + \beta_6 CRL_{it} + \beta_7 PRO_{it} + \beta_8 LIQ_{it} + \beta_9 OWS_{it} + \beta_{10} FIN_{it} + \beta_{11} CEO_{it} + \beta_{12} BSI_{it} + \beta_{13} BIN_{it} + \beta_{14} AUD_{it} + \sum_{j=15}^{19} \beta_j IND_{it} + \sum_{k=20}^{21} \beta_k YER_{it} + \varepsilon_{it}$

The key to the variables is presented in the following table,

**Table 5.19 Key to variables**

Label	Variable Name
<b>CGD</b>	Corporate Governance Disclosure Quality index
<b>INX</b>	Stock Exchange Index
<b>S&amp;P</b>	S&P ESG Index
<b>CAG</b>	company age
<b>CSI</b>	company size
<b>TOA</b>	type of Auditor
<b>CRL</b>	cross-listing
<b>PRO</b>	profitability
<b>LIQ</b>	liquidity
<b>OWS</b>	ownership structure
<b>FIN</b>	foreign institutional investors
<b>CEO</b>	CEO duality
<b>BSI</b>	BoD size
<b>BIN</b>	BoD independence
<b>AUD</b>	Audit Committee
<b>CTY</b>	country
<b>IND</b>	industry type
<b>YER</b>	year fixed effect
<b>α</b>	constant
<b>β</b>	regression coefficient
<b>i</b>	company
<b>t</b>	time
<b>ε</b>	error term

The fundamental nature of the variables (dependent, the several independent, and control variables) is the same across all nine models. Understandably, however, the numerical values attached to each of the cases within each of the models will inevitably be unique and different.

Taking good regard for the summary provided in the following table, each of the models determined are developed using the appropriate variables as follows and where  $\alpha$  is the constant of the resultant model:

**Table 5.20 Models Summary**

Dependent Variable	Independent Variables			Considered within models*								
				Set A Company Characteristics			Set B CG Characteristics			Set C Company and CG Characteristics		
	No.	Label	Name	A.1	A.2	A.3	B.1	B.2	B.3	C.1	C.2	C.3
CGD Quality	1	INX	Stock Exchange Index	√	√	X	X	X	X	√	√	X
	2	S&P	S&P ESG Index	√	√	√	X	X	X	√	√	√
	3	CAG	Company age	√	√	√	X	X	X	√	√	√
	4	CSI	Company size	√	√	√	X	X	X	√	√	√
	5	TOA	Type of auditor	√	√	√	X	X	X	√	√	√
	6	CRL	Cross-listing	√	√	√	X	X	X	√	√	√
	7	PRO	Profitability	√	√	√	X	X	X	√	√	√
	8	LIQ	Liquidity	√	√	√	X	X	X	√	√	√
	9	OWS	Ownership structure	√	√	√	X	X	X	√	√	√
	10	FIN	Foreign institutional investors	√	√	√	X	X	X	√	√	√
	11	CEO	CEO duality	X	X	X	√	√	√	√	√	√
	12	BSI	BoD size	X	X	X	√	√	√	√	√	√
	13	BIN	BoD independence	X	X	X	√	√	√	√	√	√
	14	AUD	Audit Committee	X	X	X	√	√	√	√	√	√
	15	CTY	Country	X	X	√	X	X	√	X	X	√

\*Considered within models as follows: 1- U.K., 2- Egypt, 3- U.K. & Egypt.

After presenting the models, the following table is a summary of the research questions, objectives, and hypotheses.

**Table 5.21 Research Questions, Objectives, and Hypotheses**

No.	Research Question	Research Objective	Objective achieved by	Objective accomplished within	Associated Research Hypothesis
1	<b>What</b> insights does <b>Signalling Theory</b> offer and how might it serve to potentially respond to the following further questions?	To determine and present theoretical insights relating to Signalling Theory both generally and, more particularly, within the context of CGD quality.	Theoretical insights to Signalling Theory generally and within the context of CGD by conducting a literature discernment.	Chapters 3 and 6	NA
2	<b>What company characteristics</b> are manifest in, and-or possibly influentially associated with, companies exhibiting particular levels/qualities of CGD?	To empirically identify varying company characteristics as possibly associated with CGD quality across two meaningfully identified sets of U.K. and Egyptian companies.	An empirical consideration employing Correlation Analysis and Multiple Regression tested on samples of the U.K., Egyptian, and both the U.K. and Egyptian companies.	Chapters 5 and 6	<i>That companies with good companies' characteristics will tend to reflect a high level of CGD quality and so "signal" the presence and exercise of sound CG practice.</i>
3	<b>What CG characteristics</b> are manifest in, and-or possibly influentially associated with, companies exhibiting particular levels/qualities of CGD?	To empirically identify varying CG characteristics as possibly associated with CGD quality across two meaningfully identified sets of U.K. and Egyptian companies.	An empirical consideration employing Correlation Analysis and Multiple Regression tested on samples of the U.K., Egyptian, and both the U.K. and Egyptian companies.	Chapters 5 and 6	<i>That companies with sound CG characteristics will tend to reflect a high level of CGD quality and so "signal" the presence and exercise of sound CG practice.</i>
4	<b>What country-specific characteristics</b> are manifest in, and-or possibly influentially associated with, companies exhibiting particular levels/qualities of CGD?	To empirically examine and evaluate possible association of country-specific characteristics and the adoption of CGD quality in two sets of comparable U.K. and Egyptian companies.	An empirical consideration employing Multiple Regression tested on samples of both the U.K. and Egyptian companies.	Chapters 5 and 6	<i>That companies in a country with high country-specific characteristics will tend to reflect a high level of CGD quality and so "signal" the presence and exercise of sound CG practice.</i>
5	<b>What</b> insights, in terms of the nature of their CGD quality, are manifest within and	To empirically identify and then provide possible explanatory interpretations for	An empirical consideration employing ANOVA and T-test within and	Chapters 5 and 6	<i>That companies in an identified business sector will</i>

No.	Research Question	Research Objective	Objective achieved by	Objective accomplished within	Associated Research Hypothesis
	between companies listed on London and Egyptian Stock Exchanges across the six identified business sectors?	CGD quality differences within and between the six identified business sectors across the sets of U.K. and Egyptian companies.	between the six business sectors of the samples of the U.K. and Egyptian companies.		<i>tend to reflect a high level of CGD quality and so “signal” the presence and exercise of sound CG practice than companies in another identified business sector.</i>
6	<b>What policy recommendations</b> may emerge from the empirical determinations regarding the quality of CGD while employing Signalling Theory perspectives?	To make recommendations regarding policy contributions at country-level (U.K. and Egypt), in respect to CGD quality developed from Signalling Theory consideration while taking regard for the earlier empirical determinations.	A theoretical consideration grounded in empirical evidence and considerations.	Chapter 7	NA

### **5.9 Chapter summary**

The research design and methodology is explained, in this chapter, using a helpful structure provided by the “Research Onion”, suggested by Saunders et al. (2023). It started with a discussion of the philosophical assumption and the approach used in the thesis. The prime philosophy of the research is positivist with some limited interpretivist aspects. And, given its dominant positivist philosophy and numeric/quantitative bent, the research approach is essentially deductive with some limited inductive aspects. The applied research strategy is archival. Methodologically, the research is primarily quantitative and uni-methodical. Its time horizon is fundamentally longitudinal, with the same set of companies being used as the research cases over the years 2019, 2020, and 2021 and their relevant



audited financial statements and reports being analytically and (in some small measure) evaluatively considered.

As stated, the chapter considers the key aspects of the philosophy, approach, strategy, method, time horizon, and finally, techniques and procedures. The section of the techniques and procedures unfolds several sub-sections discussing mainly the research data collection and its analysis. First, the sample selection is discussed. Then, the research data collection and its analysis are mainly discussed.

This chapter also provided significant details about the data collection. The data collection section considered the sources and means of acquisition of the data. It identified and rationalised the sources of the data and its related acquisition. Thus, it clarified where the data comes from and how the data is obtained. The data are collected from five different sources. They are as follows:

1. London Stock Exchange official website
2. Egyptian Exchange official website
3. Refinitiv Eikon financial database
4. The official websites of relevant companies within the U.K. and Egypt
5. S&P Global official website

Thus, as stated previously, the data itself is of a secondary nature as can be concluded from its sources, but primary in its ultimate source. After identifying the data sources, the reliability, validity, and ethicality of the data were also discussed in this chapter.

Finally, the chapter considered the various statistical tests that are to be applied to the relevant quantitative data for each of the several sets of hypotheses. The predominant means of analysing the data are relevant sets of correlations and multiple regressions, as appropriate to the individual testable hypotheses. Accordingly, the identified sets are appropriately “fleshed” with, as necessary and

appropriate, quantitative values being duly measured and given to each variable. The series of appropriate correlations and multiple regressions are then statistically computed and evaluated with, as previously stated, each computation having its unique dependent variable (CGD quality) and an appropriate or “mix” of independent variables.

Apart from a series of Correlation analyses, ANOVA, and T-test, the main form of analysis is Multiple Regression analysis with a dependent variable and appropriate independent variables. This discussion starts with the identification, definition, and rationalisation of the variables selected for consideration (both the dependent variable and the independent variables). The dependent variable is consistently CGD quality, while the independent variables are appropriate “mixes” of company characteristics, CG characteristics, and country-specific characteristics. Accordingly, each variable, either dependent or independent, is identified, appropriately clarified, and its usage rationalised. Moreover, the specific nature and basis of measurement or determination were also discussed. Then, the models being tested in this research were duly identified, processed, and discussed.

After explaining the research design and methodology and running the relevant statistical tests, the next Chapter 6 goes on to present and discuss the empirical results, and offer a discussion of the associated theoretical findings.

## **Chapter 6**

# **The empirical results and related discussions**

## **Chapter 6: The empirical results and related discussions**

### **6.1 Introductory comments**

After discussing the research design and methodology of the thesis in the prior chapter, and revealing how each layer of the “Research Onion” has been determined and decided upon, this chapter unfolds the empirical results and discusses their main implications in terms of the objectives and related hypotheses of this research. The previous chapter offered clarifications relating to and decisions regarding the layers of the “Research Onion”, starting from the research philosophy, then the research approach, strategy, method, time-horizon and finally the research techniques and procedures. These were made during the development of the prior chapter.

Now, the opportunity for a further step towards achieving the objectives of this research is at hand, and is taken within this chapter. The data collection process followed by the data analysis procedures much enable the contents of this chapter. The data analysis is significantly implemented using SPSS and EViews statistical software. These software enable an appropriate range of statistical tests to be undertaken, primarily Correlations and Multiple Regression tests, in addition to the analysis of variance, and T-test. The results of the data analysis process are discussed in this chapter generally, and the tests in particular. These are discussed, explained, and described in many of the following paragraphs.

Accordingly, this chapter provides appropriate explanations and discussions of the data analysis, and the data employed for the statistical results derived from the research. For each statistical analysis, the results of the U.K. sample are first considered and discussed as a reference point and basis for a discussion, and then

the results of the Egyptian sample are discussed. Finally, an evaluation of the comparable results of the U.K. and Egyptian samples follows.

In an effort to better get “to know” the quantitative research data, after the introductory comments, this chapter first presents and discusses key descriptive statistical results. In this section, further discussions of the descriptive results are presented in terms of their dependence or independence, and their individual scales (nominal/ordinal/interval/ratio) of measurement. Accordingly, this section is divided into two main sub-sections discussing the descriptive results of the dependent variable in the first one, and the descriptive results of the independent variables in the second. This second main sub-section unfolds itself into two main sub-sections, each of which discusses one of the two types of independent variables (i.e., categorical and continuous).

Then, in the third section of this chapter, key inferential results are discussed. This section is much dedicated to a presentation and discussion of the results of the statistical correlations and multiple regressions. A discussion of the results of the analysis of variance and T-test is also provided in this section. In turn, in the fourth section, theoretical and empirical insights and conclusions with respect to the research hypotheses are provided. Then, the fifth section discusses the theory-associated findings in respect of the empirical results. The sixth and last section of the chapter is a brief concluding summary of it. This section briefly summarises the main points revealed and discussed in this chapter.

## **6.2 Discussion of the descriptive results of the variables**

After analysing the data collected, the next step is to present the descriptive and inferential results of the data analysis. A primary objective of the presentation of these analyses is to provide broad and comprehensive information, in as clear and a concise manner as possible. This helps make the results simple and easy to

understand (Kumar, 2018). Raw quantitative data - that is, mere numbers that have not been processed and analysed - convey relatively little meaning. Therefore, these data almost always need to be first processed and descriptively considered in order to be useful, or to be perceived as meaningful information (Saunders et al., 2023).

Quantitative information can be processed/analysed using various analysis techniques in order to convey and meaningfully present it after analysis. Such meaningful presentation include text, tables, graphs, charts, and situationally appropriate statistical measures (Kumar, 2018; Saunders et al., 2023). Presentation of the results of the data analysis, in such manners, enables researchers to present, explore, show, interpret, and analyse relationships and patterns (Saunders et al., 2023). In this section, various presentational forms are employed to help illustrate the results of the statistical analysis. The descriptive results for the relevant variables are reflected across three sub-sections. Each sub-section considers and captures data of a particular nature – i.e., categorical variables, continuous variables, and discrete variables. However, this is first preceded by some limited discussion of the presently relevant dependent variable, followed by a comparable discussion of the set(s) of independent variables.

### **6.2.1 Discussion of the descriptive results of the dependent variable (CGD)**

In the following paragraphs, some discussions regarding the dependent variable, i.e., CGD Quality index, are duly presented.

#### **6.2.1.1 Discussion of the descriptive results of the dependent variable (CGD) of the U.K. companies sample**

The descriptive results of the dependent variable, namely CGD Quality index, in total, as well as each of the five CGD categories of the U.K. companies are provided in Table 6.1 and are discussed next. They present the relevant annual computations

as a composite for all the three years of interest – i.e., 2019, 2020, and 2021.

**Appendix 3** contains a list of the 195 firm-year observations of the U.K. listed companies and their CGD scores for the three years' period 2019-2021.

**Table 6.1 Descriptive Statistics of CGD - the dependent variable of the U.K. companies sample**

Dependent Variable	N	Minimum	Maximum	Mean	Median	Std. Deviation
<b>CGD Quality index</b>	195	0.83	1	0.92	0.92	0.03
<b>Category A: Ownership Structure and Exercise of Control Rights</b>	195	0.89	1	0.99	1	0.03
<b>Category B: Financial Transparency</b>	195	0.75	1	0.84	0.88	0.08
<b>Category C: Auditing</b>	195	0.67	1	0.96	1	0.06
<b>Category D: Corporate Responsibility and Compliance</b>	195	0.43	1	0.86	0.86	0.12
<b>Category E: Board and Management Structure and Process</b>	195	0.84	1	0.92	0.89	0.04

With respect to the relevant U.K. companies, in overall terms, the **CGD** quality index scores ranged from 0.83 to 1 across the sample. Thus, the difference in their value was only 0.17, which is the difference between the minimum and the maximum CGD quality index scores of these companies. The maximum CGD score of 1 was earned by only one company in the sample. On average, the companies earned a CGD rating of 0.92, with a standard deviation of 0.03. This would suggest that the CGD scores of the U.K. sample were closely clustered around the mean. Additionally, the median was 0.92. This implies that the data has a relatively symmetrical distribution.

As explained earlier, the CGD Quality index is divided into five categories. The first category, "**A: Ownership Structure and Exercise of Control Rights**", comprises

195 firm-year observations and revealed a minimum score of 0.89 and a maximum score of 1. This category earned a mean CGD rating of 0.99 and a standard deviation of 0.03. The median was 1. This would suggest that the data in this category also has a relatively symmetrical distribution.

The second category, "**B: Financial Transparency**", reflected that its CGD ranged from 0.75 and 1 across the sample. The companies earned an average CGD rating of 0.84 and a median of 0.88, with a standard deviation of 0.08. Again, this would suggest that the data were closely clustered around the mean.

Category "**C: Auditing**" was the third category to be evaluated. For this set of companies, the relevant minimum rating was 0.67 and the maximum was 1. With a standard deviation of only 0.06, this would suggest only minimal variance from the relevant mean rating of 0.96. Additionally, the median was revealed to be 1 suggesting that the data has a relatively symmetrical distribution. Thus, the overall quality of CGD for this category over the relevant three years appears to have been fairly stable.

In terms of the fourth category, "**D: Corporate Responsibility and Compliance**", the CGD ranged from 0.43 and 1 across the sample. The companies earned an average CGD rating of 0.86 and a median of 0.86, with a standard deviation of 0.12. This would suggest that the data were closely clustered around the mean. As for the previous category, it would appear that the quality of CGD for this one is also relatively stable.

The fifth and last category of the CGD Quality index, with regard to which the relevant sampled companies were evaluated, was category "**E: Board and Management Structure and Process**". Table 6.1 shows that for this specific category, the relevant minimum CGD rating was 0.84 and the maximum was 1.



Attracting a standard deviation of only 0.04, again thus suggests only minimal variation from the relevant mean rating of 0.92, and a registered median of 0.89.

Overall, the lowest value of the CGD score for all five categories is 0.43, which is the CGD score of the fourth category “D: Corporate Responsibility and Compliance”. This would suggest that the U.K. companies seem to disclose at least nearly half of the CGD Quality index across all the categories. However, special attention and monitoring are due in respect to the fourth category as it recorded the lowest CGD score. Regarding the maximum score for all five categories, it is 1, indicating that the U.K. companies are both aware of and actively practicing all the CGD disclosure items.

Further discussion as to the CGD mean over the three years’ 2019-2021 is in the following paragraph. The mean of CGD over years for the U.K. companies is illustrated in Figure 6.1. Whereas, Figure 6.2 illustrates the mean of CGD per category over years for the U.K. companies. Further descriptive statistics regarding CGD per category over years are provided in Table 6.2.

**Figure 6.1 The mean of CGD over years for the U.K. companies**

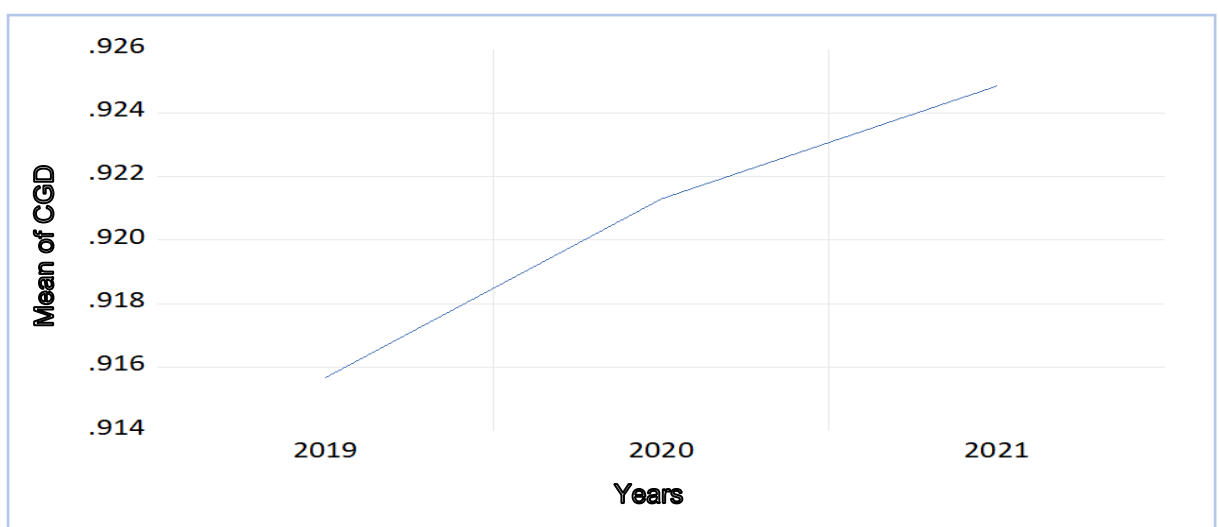


Figure 6.2 The mean of CGD per category over years for the U.K. companies

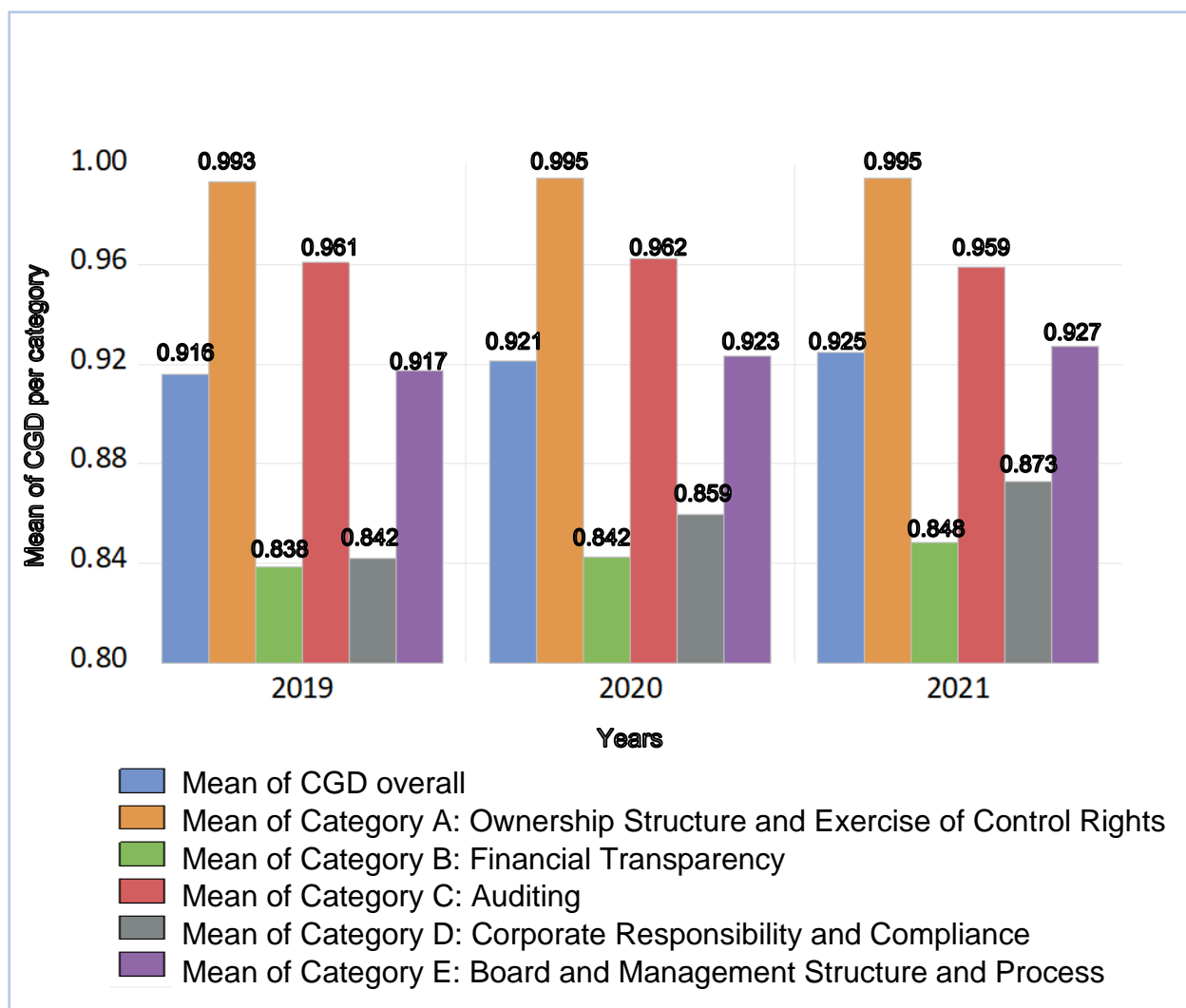


Table 6.2 Descriptive Statistics of CGD per category over years for the U.K. companies

Year	Category	N	Min	Max	Mean	Median	Std. Dev.
2019	CGD Quality index	65	0.827	1	0.916	0.923	0.031
	Category A: Ownership Structure and Exercise of Control Rights	65	0.889	1	0.993	1	0.027
	Category B: Financial Transparency	65	0.750	1	0.838	0.875	0.082
	Category C: Auditing	65	0.667	1	0.961	1	0.066

Year	Category	N	Min	Max	Mean	Median	Std. Dev.
	<b>Category D: Corporate Responsibility and Compliance</b>	65	0.429	1	0.842	0.857	0.134
	<b>Category E: Board and Management Structure and Process</b>	65	0.842	1	0.917	0.895	0.037
2020	<b>CGD Quality index</b>	65	0.827	0.981	0.921	0.923	0.031
	<b>Category A: Ownership Structure and Exercise of Control Rights</b>	65	0.889	1	0.995	1	0.023
	<b>Category B: Financial Transparency</b>	65	0.750	1	0.842	0.875	0.081
	<b>Category C: Auditing</b>	65	0.667	1	0.962	1	0.063
	<b>Category D: Corporate Responsibility and Compliance</b>	65	0.571	1	0.859	0.857	0.125
	<b>Category E: Board and Management Structure and Process</b>	65	0.842	1	0.923	0.895	0.036
2021	<b>CGD Quality index</b>	65	0.827	0.981	0.925	0.923	0.031
	<b>Category A: Ownership Structure and Exercise of Control Rights</b>	65	0.889	1	0.995	1	0.023
	<b>Category B: Financial Transparency</b>	65	0.750	1	0.848	0.875	0.084
	<b>Category C: Auditing</b>	65	0.667	1	0.959	1	0.064

Year	Category	N	Min	Max	Mean	Median	Std. Dev.
	<b>Category D: Corporate Responsibility and Compliance</b>	65	0.571	1	0.873	0.857	0.113
	<b>Category E: Board and Management Structure and Process</b>	65	0.842	1	0.927	0.947	0.037

As illustrated in Figure 6.1, the CGD mean of the U.K. companies demonstrate an annual improvement over the three years' period from 0.916 to 0.925. This implies that there is improving quality in the CGD practices among the U.K. companies. The increase in the mean CGD scores is examined further to determine which of the CGD five categories contributed the most to this increase as illustrated in Figure 6.2 and Table 6.2. The results revealed that the mean of two categories increased over the three years' period. The mean CGD of Category D: Corporate Responsibility and Compliance increased from 0.842 to 0.873. Also, the mean of CGD of Category E: Board and Management Structure and Process increased from 0.917 to 0.927. This would suggest that disclosure practices regarding environmental and social corporate responsibility, as well as board committees and management responsibilities were much improved over the three years.

#### **6.2.1.2 Discussion of the descriptive results of the dependent variable (CGD) of Egyptian companies sample**

After discussing the descriptive results of the dependent variable of the U.K. companies, the following is a discussion of the same for Egyptian companies as shown in Table 6.3. Similarly, to the U.K. sample, they present the relevant annual computations as a composite for all the three years of interest – i.e., 2019, 2020, and 2021. **Appendix 4** presents the list of the sample of Egyptian companies and their CGD for the period from 2019-2021, totaling 210 firm-year observations.

**Table 6.3 Descriptive Statistics of CGD - the dependent variable of the Egyptian companies sample**

<b>Dependent Variable</b>	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Median</b>	<b>Std. Deviation</b>
<b>CGD Quality index</b>	210	0.40	0.85	0.66	0.67	0.11
<b>Category A: Ownership Structure and Exercise of Control Rights</b>	210	0.33	0.78	0.63	0.56	0.12
<b>Category B: Financial Transparency</b>	210	0.70	0.88	0.85	0.88	0.05
<b>Category C: Auditing</b>	210	0.33	1	0.74	0.78	0.19
<b>Category D: Corporate Responsibility and Compliance</b>	210	0	0.86	0.51	0.57	0.18
<b>Category E: Board and Management Structure and Process</b>	210	0.26	0.95	0.61	0.61	0.17

Regarding the sample of Egyptian listed companies, the **CGD** ranged from 0.4 to 0.85 for 210 firm-year observations. The minimum CGD 0.4 indicated that some of the sampled Egyptian companies disclosed less than half of the 52 items of the CGD Quality index. In fact, five of the sampled Egyptian companies had CGD score of less than 0.5 in all their three years' observations. It is worth noting that all five companies were listed on EGX70 EWI. Coincidentally, they were also not audited by external auditors affiliated with Big 4 firms. Moreover, they were not cross-listed. On the other hand, the maximum CGD score of 0.85 implies that some of the Egyptian companies are on a progressive path towards better CGD Quality. Nevertheless, there are improvements to be made to fulfill the 52 disclosure items of the CGD. The mean of the CGD for the sample was 0.66 and the standard deviation was 0.11. This implies that the sampled Egyptian companies had CGD scores clustered around the mean. Additionally, the median was 0.67. This implies that the data has a fairly symmetrical distribution.

For 210 firm-year observations, the first category of CGD “**A: Ownership Structure and Exercise of Control Rights**” revealed a minimum score of 0.33 and a maximum score of 0.78. This category earned a mean CGD rating of 0.63 with a standard deviation of 0.12 and a median of 0.56. This would suggest that the data were closely clustered around the mean.

The second category, “**B: Financial Transparency**”, where the CGD ranged from 0.7 to 0.88 across the sample. The average CGD rating earned by the companies was 0.85 and a median of 0.88, with a standard deviation of 0.05. This would suggest that the data has a symmetrical distribution.

The third category, “**C: Auditing**”, where the relevant minimum rating was 0.33 and the maximum was 1. It is the only category that had a maximum score of 1 among all the sampled Egyptian companies. The companies earned an average CGD rating of 0.74 and a median of 0.78, with a standard deviation of 0.19. This would suggest that the data were closely clustered around the mean.

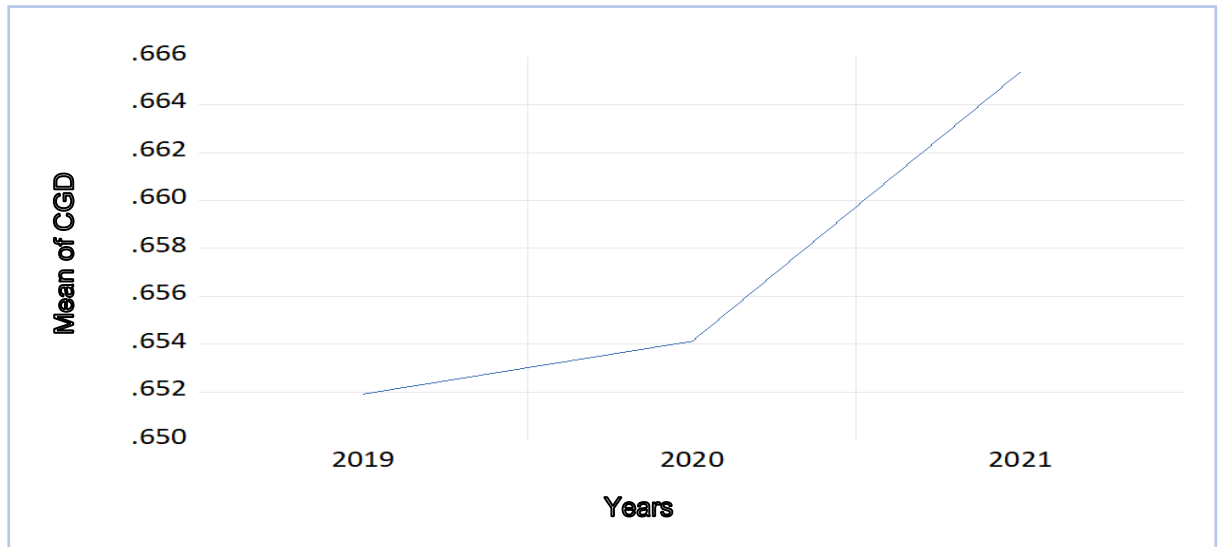
The fourth category, “**D: Corporate Responsibility and Compliance**”, where the CGD ranged from 0 and 0.86. A minimum score of 0 suggests that this category needs more regulations and enforcement and above all awareness to its importance so that the companies perform better and disclose more information. This category earned a mean CGD rating of 0.51 and a standard deviation of 0.18. The median was 0.57. This would suggest that the data has a symmetrical distribution.

The fifth and last category “**E: Board and Management Structure and Process**”, where the CGD ranged from 0.26 and 0.95. The companies earned an average CGD rating of 0.61 and a median of 0.61, with a standard deviation of 0.17. This would suggest that the data were closely clustered around the mean.

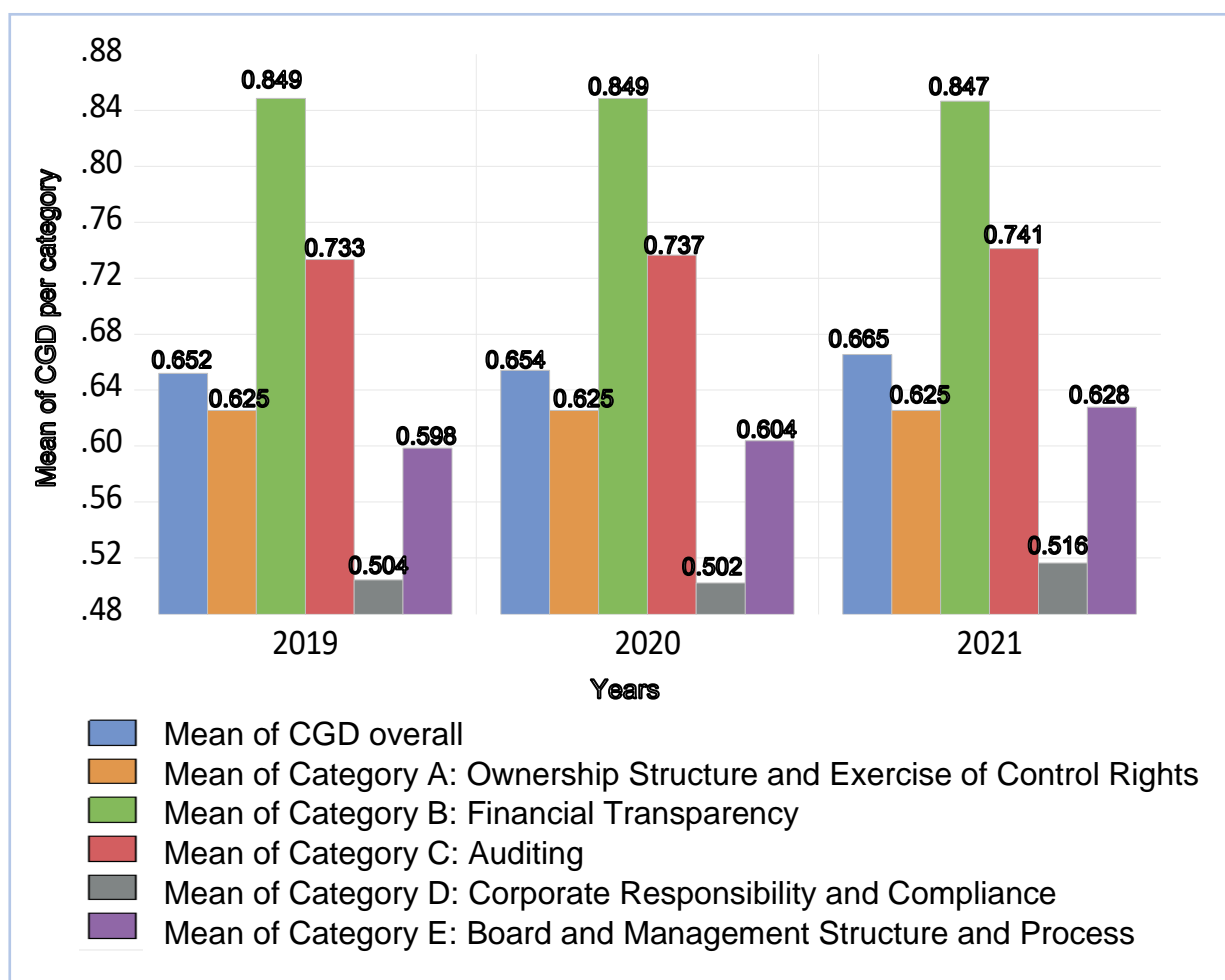
Further discussion as to the CGD mean over the three years’ 2019-2021 is in the following paragraph. The mean of CGD over years for the Egyptian companies is

illustrated in Figure 6.3. Whereas, Figure 6.4 illustrates the mean of CGD per category over years for the Egyptian companies. Further descriptive statistics regarding CGD per category over years are provided in Table 6.4.

**Figure 6.3 The mean of CGD over years for Egyptian companies**



**Figure 6.4 The mean of CGD per category over years for the Egyptian companies**



**Table 6.4 Descriptive Statistics of CGD per category over years for the Egyptian companies**

Year	Category	N	Min	Max	Mean	Median	Std. Dev.
2019	<b>CGD Quality index</b>	70	0.404	0.827	0.652	0.663	0.105
	<b>Category A: Ownership Structure and Exercise of Control Rights</b>	70	0.333	0.778	0.625	0.556	0.117
	<b>Category B: Financial Transparency</b>	70	0.700	0.875	0.849	0.875	0.054



Year	Category	N	Min	Max	Mean	Median	Std. Dev.
	<b>Category C: Auditing</b>	70	0.333	1	0.733	0.778	0.189
	<b>Category D: Corporate Responsibility and Compliance</b>	70	0	0.857	0.504	0.571	0.178
	<b>Category E: Board and Management Structure and Process</b>	70	0.263	0.895	0.598	0.579	0.167
<b>2020</b>	<b>CGD Quality index</b>	70	0.404	0.846	0.654	0.663	0.104
	<b>Category A: Ownership Structure and Exercise of Control Rights</b>	70	0.333	0.778	0.625	0.556	0.117
	<b>Category B: Financial Transparency</b>	70	0.700	0.875	0.849	0.875	0.054
	<b>Category C: Auditing</b>	70	0.333	1	0.737	0.778	0.189
	<b>Category D: Corporate Responsibility and Compliance</b>	70	0	0.857	0.502	0.571	0.177
	<b>Category E: Board and Management Structure and Process</b>	70	0.263	0.947	0.604	0.605	0.166
<b>2021</b>	<b>CGD Quality index</b>	70	0.423	0.846	0.665	0.692	0.106
	<b>Category A: Ownership Structure and Exercise of Control Rights</b>	70	0.333	0.778	0.625	0.556	0.117
	<b>Category B: Financial Transparency</b>	70	0.700	0.875	0.847	0.875	0.055

Year	Category	N	Min	Max	Mean	Median	Std. Dev.
	<b>Category C: Auditing</b>	70	0.333	1	0.741	0.778	0.191
	<b>Category D: Corporate Responsibility and Compliance</b>	70	0	0.857	0.516	0.571	0.174
	<b>Category E: Board and Management Structure and Process</b>	70	0.263	0.947	0.628	0.632	0.168

The following paragraphs discuss further the CGD Quality index scores over the three years' period for the sampled Egyptian companies.

There is an increase in the mean of CGD score over the three years' period as illustrated in Figure 6.3. The result reflects that the mean of CGD increased between 2019 and 2021 from 0.652 to 0.666. Consequently, the CGD practices of the Egyptian companies in the sample improved over the three years' period. This might suggest that the awareness of companies, investors, and professional and governmental bodies, is rising towards the importance of enhancing CGD practices and hence CGD Quality.

In order to determine which of the five CGD categories have contributed to the overall increase in the mean of CGD, each category was examined further as illustrated in Figure 6.4 and Table 6.4. It is observed that the mean of CGD of three categories have increased mean values over the three years' period. The mean of CGD of Category C: Auditing increased from 0.733 to 0.741. Also, Category D: Corporate Responsibility and Compliance mean of CGD increased from 0.504 to 0.516. The mean of CGD of Category E: Board and Management Structure and Process category increased from 0.598 to 0.628. Consequently, the mean of the CGD of the sampled Egyptian companies increased over the three years' period.

**6.2.1.3 Discussion of the descriptive results of the dependent variable (CGD) of the U.K. and Egyptian companies samples**

The following paragraphs discuss the descriptive results of the CGD of the sampled U.K. and Egyptian listed companies as indicated in Table 6.5.

**Table 6.5 Descriptive Statistics of CGD - the dependent variable of the U.K. and Egyptian companies samples**

Dependent Variable	U.K.						Egypt					
	N	Min	Max	Mean	Median	Std. Dev.	N	Min	Max	Mean	Median	Std. Dev.
<b>CGD Quality index</b>	195	0.83	1	0.92	0.92	0.03	210	0.40	0.85	0.66	0.67	0.11
<b>Category A: Ownership Structure and Exercise of Control Rights</b>	195	0.89	1	0.99	1	0.03	210	0.33	0.78	0.63	0.56	0.12
<b>Category B: Financial Transparency</b>	195	0.75	1	0.84	0.88	0.08	210	0.70	0.88	0.85	0.88	0.05
<b>Category C: Auditing</b>	195	0.67	1	0.96	1	0.06	210	0.33	1	0.74	0.78	0.19
<b>Category D: Corporate Responsibility and Compliance</b>	195	0.43	1	0.86	0.86	0.12	210	0	0.86	0.51	0.57	0.18
<b>Category E: Board and Management Structure and Process</b>	195	0.84	1	0.92	0.89	0.04	210	0.26	0.95	0.61	0.61	0.17

Regarding the **CGD** Quality index score, it ranged from 0.83 to 1 in the U.K. companies, while in the Egyptian companies, it ranged from 0.4 to 0.85. The minimum CGD of the U.K. companies is almost equal to the maximum CGD of the Egyptian companies. This suggests that there are differences in the CGD practices between the U.K. and Egyptian companies. The following table provides details regarding the level of CGD quality in each country.

**Table 6.6 CGD quality level for the U.K. and Egypt listed companies**

Level of CGD quality	CGD quality rating	U.K.		Egypt	
		Firm-year observations	% of sample	Firm-year observations	% of sample
High	80-100%	195	100	20	10
Moderate	60-79%	0	0	142	67.5
Low	50-59%	0	0	32	15
Very low	0-49%	0	0	16	7.5
<b>Total</b>		<b>195</b>	<b>100</b>	<b>210</b>	<b>100</b>

As indicated in the above table, the CGD quality index scores for the U.K. companies are all at a high level, whereas those for Egyptian companies range from very low to high.

While all five categories of the CGD quality index indicate a maximum score of 1 in the U.K. companies, Egyptian companies only disclose a maximum score of 1 in only one category, which is Category “**C: Auditing**”. On the other hand, Category “**D: Corporate Responsibility and Compliance**” had the minimum CGD scores, which are 0.43 and 0 in the U.K. and Egyptian listed companies respectively. The gap in the minimum CGD score, i.e., 0.43 and 0, between the two samples implies that the U.K. companies have better CGD practices than Egyptian companies. Finally, the CGD mean of Category “**B: Financial Transparency**” is nearly equal in the two samples, i.e., 0.84 and 0.85 in the U.K. and Egypt respectively. This CGD mean value, i.e., 0.85, is also the highest CGD mean value among all five categories

in the Egyptian sample. Furthermore, the median of this same category is revealed to be the same in the U.K. and Egypt with a value of 0.88. This would suggest that the data has a symmetrical distribution for both samples.

## **6.2.2 Discussion of the descriptive results of the independent variables**

The following sub-section discusses the results of the descriptive statistics of the categorical independent variables. This is followed by a second sub-section discussing the results of the descriptive statistics of the continuous independent variables.

### **6.2.2.1 Discussion of the descriptive results of the independent categorical variables**

The independent categorical variables in this research, of which there are seven, are as follows:

1. Stock Exchange Index
2. S&P ESG Index
3. Type of auditor
4. Cross-listing
5. Foreign institutional investors
6. CEO duality
7. Audit Committee

The descriptive results of the categorical variables of the U.K. and Egypt are illustrated and discussed thoroughly in the following paragraphs.

**6.2.2.1.1 Discussion of the descriptive results of the independent categorical variables of the U.K. companies**

Table 6.7 provides a summary of the main categorical variables in relation to the sample of U.K. companies. The sample of U.K. companies did not have any variations in all the categorical variables except for the CEO duality, which had a very low variation, as explained below.

**Table 6.7 Descriptive Statistics of the categorical variables of the U.K. companies sample**

No.	Categorical Variable	Category Group	Firm-year observations	Percent
1	Stock Exchange Index	Yes (1)	195	100
		No (0)	0	0
2	S&P ESG Index	Yes (1)	195	100
		No (0)	0	0
3	Type of auditor	Yes (1)	195	100
		No (0)	0	0
4	Cross-listing	Yes (1)	195	100
		No (0)	0	0
5	Foreign institutional investors	Yes (1)	195	100
		No (0)	0	0
6	CEO duality	Yes (1)	2	1
		No (0)	193	99
7	Audit Committee	Yes (1)	195	100
		No (0)	0	0
<b>Total</b>			<b>195</b>	<b>100</b>

All 65 companies of the U.K. sample are listed on FTSE100 index. Therefore, there was no variation in the **stock exchange index** variable. Regarding the **S&P ESG index** variable, all 65 companies of the U.K. sample are listed on S&P ESG index. Moreover, regarding the **type of auditor** variable, all 65 companies are audited by a Big 4 auditor affiliation. Furthermore, all 65 companies are **cross-listed** in several stock exchanges, in addition to LSE. Consequently, all 65 companies have **foreign institutional investors** among their shareholders.

Nonetheless, out of the 65 companies, 64 companies have two different persons holding the post of CEO and chairman of the BoD, except for one company during 2019 and 2020. This company had the same person occupying both posts. However, in 2021, this same company had two different persons holding the two posts. Therefore, the CEO duality variable had a very low variation. This suggests that **CEO duality** is cherished and well-respected in the U.K. listed companies.

Lastly, the existence of the **audit committee** categorical variable has been fulfilled by all 65 companies in the U.K. sample.

The next section discusses the descriptive statistics results of the categorical variables of the Egyptian sample.

#### **6.2.2.1.2 Discussion of the descriptive results of the independent categorical variables of Egyptian companies**

In similar vein, Table 6.8 provides a summary of the main categorical variables in relation to the sample of Egyptian companies and a discussion follows.

**Table 6.8 Descriptive Statistics of the categorical variables of the Egyptian companies sample**

No.	Categorical Variable	Category Group	Firm-year observations	Percent
1	Stock Exchange Index	Yes (1)	57	27.1
		No (0)	153	72.9
2	S&P ESG Index	Yes (1)	57	27.1
		No (0)	153	72.9
3	Type of auditor	Yes (1)	73	34.8
		No (0)	137	65.2
4	Cross-listing	Yes (1)	46	21.9
		No (0)	164	78.1
5	Foreign institutional investors	Yes (1)	143	68.1
		No (0)	67	31.9
6	CEO duality	Yes (1)	83	39.5
		No (0)	127	60.5
7	Audit Committee	Yes (1)	206	98
		No (0)	4	2
<b>Total</b>			<b>210</b>	<b>100</b>



Regarding the first categorical variable, i.e., **stock exchange index**, it is evident that nearly 73% of the firm-year observations are listed on EGX70 EWI index, while only 27% are listed on EGX30 index. This is expected as the initial number of listed companies in each index is as indicated in the name of the index itself. Therefore, EGX70 EWI index is composed of 70 companies, while EGX30 index is composed of 30 companies. Consequently, the number of companies and firm-year observations from EGX70 EWI index in the sample is higher (51 companies and 153 firm-year observations) than the number of companies and firm-year observations from EGX30 index (19 companies and 57 firm-year observations).

The second categorical variable is the **S&P ESG index**. Only 19 Egyptian companies from the sample are listed on the S&P ESG index, that is 27.1% with 57 firm-year observations. Consequently, the remainder 72.9% of the sample of Egyptian companies, that is 51 companies with 153 firm-year observations, are found to be not listed on the S&P ESG index. This low number of the sample of Egyptian companies listed on S&P ESG index is related to their performance in respect to the Environmental, Social, and Governance (ESG) aspects. Thus, it is an indication of the companies' CGD practices.

It is also worth noting that out of the 19 companies included in the S&P ESG index, 12 companies are also listed on EGX30 index and the remainder 7 are listed on EGX70 EWI index. This is mainly because the companies listed on EGX30 index have better awareness and resources, as they are the companies with higher market capitalisation and consequently are able to have higher ESG scores as well.

The **type of auditor** is the third categorical variable. The majority of the sample of the Egyptian listed companies, which represents 65.2% with 137 firm-year observations, do not appoint an external auditor with Big 4 affiliation. The reason behind opting for local external auditors could be because of a perceived steepness

of auditing fees paid to external auditors with Big 4 affiliation, when compared to those paid to local (non-Big 4) external auditors. Nevertheless, one must recognise that 34.8% of the sample with 73 firm-year observations did engage external auditors with Big 4 affiliation.

It is worth noting that almost all these 73 firm-year observations have also either foreign institutional investors in the company or the company is cross-listed or both. This could be because the existence of foreign institutional investors and the listing in another stock exchange require higher level of disclosure and transparency, as well as the fulfillment of the listing requirements of the foreign stock exchanges. These listing requirements would be for the Egyptian companies to prepare their financial statements with accordance to the Generally Accepted Accounting Principles (GAAP) of the foreign stock exchanges and to translate their financial statements to their currency as well, which necessitates financial and human resources. However, only 6 out of the 73 firm-year observations, which reflect observations from exactly two companies for the three years, had no foreign institutional investors nor were cross-listed. Yet, they did engage external auditors with Big 4 affiliation. This could be due to their long-term plans of attracting foreign institutional investors and/or being cross-listed in the coming future.

The fourth categorical variable is the **cross-listing**, which is concerned with whether a company is listed on another stock exchange other than EGX or not. The results reveal that 78.1%, which reflects 164 firm-year observations, are listed on EGX only. Consequently, only 46 firm-year observations, that represent 21.9% of the sample, are cross-listed and they are related to 18 companies of the sample. Among these 18 cross-listed companies, 14 companies are constituents of EGX30 index, while the remainder 4 companies are constituents of EGX70 EWI index. This is consistent with the assumption that the companies listed on EGX30 index have better disclosure and transparency practices. In addition to the availability of financial

resources, EGX30 index listed companies have the potential to be cross-listed more than EGX70 EWI companies have.

The **existence of foreign institutional investors** is the fifth categorical variable. It is evident that the efforts exerted by the professional and governmental bodies in Egypt, as well as the companies themselves, paid off eventually. The existence of foreign institutional investors in the Egyptian companies represents 68.1% of the sample with 143 firm-year observations. Nevertheless, 31.9% with 67 firm-year observations have no foreign institutional investors among their shareholders.

The sixth categorical variable is **CEO duality**. This refers to the situation where the two posts of CEO and chairman of the BoD held and occupied by the same person, or alternatively two different persons hold these two positions as recommended by the international CG codes. It is noted that 60.5% of the sample with 127 firm-year observations have two different persons holding the two posts. However, 39.5% of the sample with 83 firm-year observations have the same person holding the two posts. Most of the companies, that have two different persons holding the two posts, had the same persons holding the two posts for years 2019 and 2020. However, a trend in year 2021 indicates that most companies complied with the rule in the Egyptian CG Code related to the CEO duality, which states that two different persons should be holding these two posts. Only 15 companies out of the 70 companies had the same person holding the two posts during year 2021.

Finally, the seventh and last categorical variable is the existence of the **audit committee**. Out of the 210 firm-year observations over the period from 2019 to 2021, 98% had an audit committee, which represents 206 firm-year observations. However, 2% of the sample, which represents 4 firm-year observations, had no audit committee among the committees of their BoD. These 4 firm-year observations are related to 2 companies only of the sample. One company had no audit committee

for the three-year period of observations. The other company had no audit committee in only one year. A high percentage of the sample having an audit committee indicates that the Egyptian government and professional bodies are strictly enforcing this rule in accordance with the Egyptian CG Code.

The following is the discussion of the descriptive results of the categorical variables for the U.K. and Egypt.

### **6.2.2.1.3 Discussion of the descriptive results of the independent categorical variables of the U.K. and Egyptian companies**

After discussing the descriptive results of the categorical variables of each sample, the following is a discussion of both samples and the results are illustrated in Table 6.9.

**Table 6.9 Descriptive Statistics of the categorical variables of the U.K. and Egyptian companies samples**

No.	Categorical Variable	Category Group	U.K.		Egypt	
			Firm-year observations	Percent	Firm-year observations	Percent
1	Stock Exchange Index	Yes (1)	195	100	57	27.1
		No (0)	0	0	153	72.9
2	S&P ESG Index	Yes (1)	195	100	57	27.1
		No (0)	0	0	153	72.9
3	Type of auditor	Yes (1)	195	100	73	34.8
		No (0)	0	0	137	65.2
4	Cross-listing	Yes (1)	195	100	46	21.9
		No (0)	0	0	164	78.1
5	Foreign institutional investors	Yes (1)	195	100	143	68.1
		No (0)	0	0	67	31.9
6	CEO duality	Yes (1)	2	1	83	39.5
		No (0)	193	99	127	60.5
7	Audit Committee	Yes (1)	195	100	206	98
		No (0)	0	0	4	2
<b>Total</b>			<b>195</b>	<b>100</b>	<b>210</b>	<b>100</b>

As evident in the above table, the sample of the U.K. companies had no variation in six out of the seven categorical variables as opposed to the Egyptian companies,

which had variation in all of the categorical variables. However, both samples had relatively low variation in one variable. This variable was the **CEO duality** for the U.K. companies and the **audit committee** for the Egyptian companies.

A discussion of the descriptive results of the continuous variables follows.

#### **6.2.2.2 Discussion of the descriptive results of the independent continuous variables**

After discussing the results of the descriptive statistics of the categorical variables in the prior section, the results of the descriptive statistics of the continuous variables of the sample of the U.K. and Egypt are discussed in the following paragraphs.

The independent continuous variables in this research, of which there are seven, are as follows:

1. Company age
2. Company size
3. Profitability
4. Liquidity
5. Ownership structure
6. BoD size
7. BoD independence

The descriptive results of the continuous variables of the U.K. and Egypt are illustrated and discussed thoroughly in the following paragraphs.

**6.2.2.2.1 Discussion of the descriptive results of the independent continuous variables of the U.K. companies**

The results of the descriptive statistics of the continuous variables of the U.K. companies are detailed in Table 6.10. The paragraphs that follow offer a discussion of these results.

**Table 6.10 Descriptive Statistics of the continuous variables of the U.K. companies sample**

No.	Continuous Variable	N	Min	Max	Mean	Median	Std. Dev.
1	Company age	195	4	135	42.29	26	36.21
2	Company size	195	8.11	11.28	10.09	10.02	0.55
3	Profitability	195	-0.36	0.67	0.16	0.15	0.19
4	Liquidity	195	0.30	4.50	1.56	1.23	0.95
5	Ownership structure	195	0.58	1	0.93	0.99	0.11
6	BoD size	195	6	16	10.33	10	1.94
7	BoD independence	195	0.44	1	0.75	0.75	0.10

The first continuous variable is the **company age**. For 195 firm-year observations in the U.K. sample, the company age ranged from 4 years to 135 years. This would indicate that the company age variable is quite varied. 8 out of 65 companies had been established for hundred years or more. The oldest company in the U.K. sample had been operating since 1886, while the newest companies were just founded in 2015. As a result, there is much variability in this continuous variable, and the data is dispersed widely, with a mean of nearly 42 years, a median of 26, and a standard deviation of nearly 36 years.

The second continuous variable is the **company size**. The log of the total of each company's assets is used to proxy for the company size for a total of 195 firm-year observations. The value of the log of total assets ranged from 8.11 at the lowest end to 11.28 at the highest end. The log of total assets was 10.09 on average and a

median of 10.02, with a standard deviation of 0.55. This implies that the data is clustered around the mean.

The **profitability** of the company is the third continuous variable. The ratio of net income before taxes to average common shareholders' equity is used to calculate ROAE, which measures the profitability of the company. The tested companies' profitability ratio varied between -0.36 and 0.67. The mean of the profitability variable was 0.16 and the median was 0.15, with a standard deviation of 0.19. As a result, there is a lot of fluctuation in this continuous variable. This would suggest that the data is dispersed widely.

The fourth continuous variable is the company's **liquidity**. It is measured using the current ratio of 195 firm-year observations, as being the ratio of current assets (net of inventory) to current liabilities. The minimum and maximum current ratios are revealed to be 0.3 and 4.5 respectively. The mean was 1.56 and median was 1.23, with a standard deviation of 0.95. This would suggest that the data is not overly dispersed and reasonably clustered around the mean.

The **ownership structure** represents the fifth continuous variable. It is calculated using the free float percentage, which is the percentage of shares that are traded publicly. The free float percentage of the sampled companies ranged from 58% to 100%. The free float percentage had an average of 93%, a median of 99% and a standard deviation of 0.11. This implies that the data is clustered around the mean.

The **BoD size** is the sixth continuous variable. The number of BoD members for the sample companies ranged from 6 to 16. The average number of BoD members was close to 11 and the median was 11, while the standard deviation was close to 2. This implies that the data has a reasonable dispersed but still with a relatively symmetrical distribution.

The **BoD independence** is the last and seventh continuous variable. This variable was expressed as the ratio of independent and non-executive board members to the total number of BoD members. Accordingly, the variable serves as a proxy for BoD independence. The BoD independence for the U.K. companies ranged from 44% to 100%. The mean was 75% and the median was 75%, with a standard deviation of 0.1. This implies that the data has a fairly symmetrical distribution.

The immediately following paragraphs provide a discussion regarding the descriptive results of the continuous variables of Egyptian companies.

**6.2.2.2 Discussion of the descriptive results of the independent continuous variables of Egyptian companies**

After discussing the sample of the U.K. companies, the immediately following paragraphs discuss the results of the Egyptian companies. Table 6.11 presents the descriptive statistics results for the continuous variables for the Egyptian companies.

**Table 6.11 Descriptive Statistics of the continuous variables of the Egyptian companies sample**

No.	Continuous Variable	N	Min	Max	Mean	Median	Std. Dev.
1	Company age	210	2	92	34.97	25	20.85
2	Company size	210	6.74	9.95	8.31	8.26	0.71
3	Profitability	210	-0.43	0.62	0.08	0.09	0.20
4	Liquidity	210	0.36	3.75	1.61	1.39	0.84
5	Ownership structure	210	0.045	0.89	0.34	0.30	0.19
6	BoD size	210	3	20	8.78	8	2.90
7	BoD independence	210	0.20	1	0.75	0.80	0.16

The **company age** is the first continuous variable. The minimum company age was 2 years and the maximum company age was 92 years, for 210 firm-year observations. The median is revealed to be 25 years. The mean of almost 35 years with a standard deviation of nearly 21 suggests a considerably high variation in the



company age. The oldest three companies in the sample had been established since 1929 and had registered a company age of 92 years by 2021. In contrast, the three newest companies in the sample were only 2 years old in 2019 having been established only in 2017. Not unreasonably then, with a standard deviation of approximately 21, there is much variation in this continuous variable and so, this indicates that the data is widely spread.

**Company size** is the second continuous variable and it is proxied by the logarithm of total assets. The minimum log of total assets value was 6.74, while the maximum log of total assets value was 9.95. The median of the log of total assets value was 8.26 and the mean was 8.31 with a standard deviation of 0.71. This would suggest that the values for this variable have a fairly symmetrical and limited dispersion distribution.

The third continuous variable is the **profitability** of the company. It is measured using ROAE ratio. The ratio of profitability of the sampled companies fluctuated between -0.43 and 0.62. The median was 0.09 and the mean was 0.08, with a standard deviation of 0.2. As a result, there was a lot of fluctuation in this continuous variable. This would suggest that the data of this variable have a fairly symmetrical and limited dispersion distribution.

The **liquidity** of the company is the fourth continuous variable. It is measured using the current ratio. The minimum liquidity ratio was 0.36, while the maximum liquidity ratio was 3.75. The mean of the liquidity ratio was 1.61 with a standard deviation of 0.84 and the median was 1.39. This would suggest that the data is not very widely dispersed and centered around the mean.

The fifth continuous variable is the **ownership structure**. It is measured using the free float percentage. The sampled companies' free float percentage varied from 4.5% to 89%. This implies that there is no company with free float 100% within the

sample. The mean of the free float percentage was 34% with a standard deviation of 0.19 and the median was 30%. This implies that the data is very widely dispersed and there is a high dispersal of the mean.

The **BoD size** is the sixth continuous variable, where the companies in the sample had a minimum of 3 and a maximum of 20 BoD members. The mean of the BoD size was nearly 9 BoD members with a standard deviation of nearly 3. Additionally, the median was 8 members. This would suggest that the data is reasonably clustered around the mean and had a fairly symmetrical distribution.

The seventh and last continuous variable is **BoD independence**. This is measured by the percentage of independent and non-executive directors on the board in relation to the total number of BoD members. The BoD independence ranged from as low as 20% to as high as 100%. The mean was 75% with a standard deviation of 0.16 and the median was 80%. This suggests that the data is widely dispersed and several observations lie far from the mean.

The next sub-section discusses the continuous variables of both, the U.K. and Egyptian companies, within comparable terms.

#### **6.2.2.2. Discussion of the descriptive results of the independent continuous variables of the U.K. and Egyptian companies**

In terms of the independent variables only, first a presentation in Table 6.12 followed by a discussion of the descriptive results of the continuous variables of both the U.K. and Egyptian samples are provided.

**Table 6.12 Descriptive Statistics of the continuous variables of the U.K. and Egyptian companies samples**

No.	Continuous Variable	U.K.						Egypt					
		N	Min	Max	Mean	Median	Std. Dev.	N	Min	Max	Mean	Median	Std. Dev.
1	Company age	195	4	135	42.29	26	36.21	210	2	92	34.97	25	20.85
2	Company size	195	8.11	11.28	10.09	10.02	0.55	210	6.74	9.95	8.31	8.26	0.71
3	Profitability	195	-0.36	0.67	0.16	0.15	0.19	210	-0.43	0.62	0.08	0.09	0.20
4	Liquidity	195	0.30	4.50	1.56	1.23	0.95	210	0.36	3.75	1.61	1.39	0.84
5	Ownership structure	195	0.58	1	0.93	0.99	0.11	210	0.045	0.89	0.34	0.30	0.19
6	BoD size	195	6	16	10.33	10	1.94	210	3	20	8.78	8	2.90
7	BoD independence	195	0.44	1	0.75	0.75	0.10	210	0.20	1	0.75	0.80	0.16

Regarding the **company age**, both countries had a high standard deviation in respect to this variable. The company age in the U.K. companies ranged from 4 to 135 years, while, in the Egyptian companies, it ranged from 2 to 92 years. This would suggest that both the U.K. and Egyptian stock markets embrace a wide and diverse spectrum of companies, from very old to very new. It also shows that this continuous variable has considerable variability and the data is extensively dispersed across both samples.

It is worth noting that the **ownership structure**, represented by the free float percentage, had a maximum of 100% in the U.K. sample. On the other hand, the Egyptian sample had a maximum of 89%. Moreover, the minimum free float percentage for the U.K. was 58%, however, for Egypt, the minimum was 4.5%.

In terms of the **BoD size**, the minimum number of members in the Egyptian sample was only 3, compared to 6 in the U.K. However, the maximum number in Egypt was 20, while it was lower at 16 in the U.K. Regarding the **BoD independence**, the relevant minimum in the U.K. was 44%, with the comparable statistic for Egypt being roughly half that – at 20%.

Regarding the other variables, the mean and standard deviation have no significant difference between the U.K. and Egyptian samples. On that basis, the descriptive results are relatively similar, warranting no matters of strong contrast.

### **6.3 The inferential results and a discussion of them**

This section discusses the inferential results of the research and is divided into three main sub-sections. The first main sub-section discusses the results of Correlation analysis of the U.K., Egyptian, and the U.K. and Egyptian companies. The second main sub-section discusses the results of Multiple Regression analysis in terms of company, CG, and finally, company and CG characteristics jointly within the

contexts of the U.K., Egyptian, and the U.K. and Egyptian companies. The third main sub-section discusses the results of the analysis of variance and T-test regarding the six identified business sectors.

### **6.3.1 Discussion of the inferential - Correlation results**

In the following section, the results of the correlation analysis are discussed. The purpose for conducting the correlation analysis is to analyse the relationship between the dependent and the individual independent variables included in the empirical model. The correlation analysis also enables a further for potential multicollinearity occurrences across all the research variables.

Correlation analysis has several benefits, one of which is that it identifies the interdependency of multiple variables at the same time. This technique also measures the consolidated and reversing relationship among the variables. It is a widely used technique that states the degree of association between the variables either positively or negatively. If the values are closer to +1, this means that the two variables are strongly positively associated with each other. However, if the values are closer to -1, this means that the two variables are strongly negatively associated with each other (Tabachnick et al., 2007; Hox et al., 2017; Tabachnick and Fidell, 2019).

Furthermore, the correlation between independent variables should not exceed 0.7 to indicate the absence of a multicollinearity issue among independent variables. Generally, it is considered that if the correlation coefficient is greater than 0.7, then the data presents a multicollinearity phenomenon among independent variables. As it will likely diminish the statistical significance of an independent variable, multicollinearity is frequently deemed to be an issue of concern when examining and evaluating sets of quantitative variables (Tabachnick et al., 2007; Hox et al., 2017; Tabachnick and Fidell, 2019).

The following sections discuss, in turn, the results of Correlation Analyses of the U.K., Egyptian, and the U.K. and Egyptian companies.

#### **6.3.1.1 Discussion of the inferential - Correlation results of the U.K. companies**

The correlation results of the U.K. sample reveal that only three variables emerged to be highly statistically significant and positively correlated with CGD quality. These are the variables of company size, BoD size, and BoD independence. This suggests that these three variables are associated and/or potentially causally linked with the respective CGD quality variable. However, company age, profitability, liquidity, and ownership structure do not appear to have a significant correlation with CGD quality as discussed in the following paragraphs.

Table 6.13 presents the Pearson's correlation across the variables examined in this research for the U.K. sample. It is helpful to recall that this testable sample consists of 65 companies (195 firm-year observations) for the three years of 2019 through 2021.

**Table 6.13 Pearson's correlation matrix of the U.K. companies sample**

Variable	CGD	Company age	Company size	Profitability	Liquidity	Ownership structure	BoD size	BoD independence
<b>CGD</b>	1							
<b>Company age</b>	0.083 (0.248)	1						
<b>Company size</b>	0.320** (0.000)	0.104 (0.150)	1					
<b>Profitability</b>	-0.013 (0.855)	0.088 (0.222)	-0.284** (0.000)	1				
<b>Liquidity</b>	-0.123 (0.086)	0.067 (0.350)	-0.416** (0.000)	0.096 (0.182)	1			
<b>Ownership structure</b>	0.003 (0.969)	0.214** (0.003)	0.004 (0.957)	0.127 (0.076)	-0.188** (0.008)	1		
<b>BoD size</b>	0.331** (0.000)	-0.028 (0.695)	0.338** (0.000)	-0.269** (0.000)	-0.131 (0.069)	0.026 (0.718)	1	
<b>BoD independence</b>	0.376** (0.000)	-0.018 (0.798)	0.286** (0.000)	-0.180* (0.012)	-0.180* (0.012)	-0.320** (0.000)	0.252** (0.000)	1

Note: \*\*, \*. Denote Correlation is significant at the 0.01 level and 0.05 level respectively (2-tailed).

The correlation coefficient between the **company size** and CGD is positively correlated and highly statistically significant ( $r = 0.32$ ,  $p\text{-value} < 0.01$ ). This would suggest that in terms of the U.K. sample of companies, a larger company size is positively associated with CGD quality. But recognising that size is a function of growth, and that growth requires time, the company age must also be of consequence.

The correlation coefficient between **BoD size** and CGD is positively and highly statistically significant ( $r = 0.331$ ,  $p\text{-value} < 0.01$ ). This may well suggest that a larger BoD size is also positively associated with CGD quality. However, one must recognise that there will usually be an inherent relationship between BoD size and company size. And these two variables possibly need to be considered jointly in conjunction with each other.

Additionally, the matrix indicates that **BoD independence** is highly statistically significant and positively correlated with CGD ( $r = 0.376$ ,  $p\text{-value} < 0.01$ ). This may well lead one to assume that higher BoD independence is positively associated with CGD quality.

On the other hand, the **company age**, **profitability**, **liquidity**, and **ownership structure** variables appear to have no significant correlation with CGD quality as their significance level is greater than 0.05. This indicates that these variable appear not to be significantly associated with CGD quality.

According to the correlation matrix, the independent variables do not have multicollinearity problems as all correlation coefficients between the independent variables range from - 0.416 and 0.338 and eventually are below the acceptable range of 0.7 (Tabachnick et al., 2007; Hox et al., 2017; Tabachnick and Fidell, 2019). This indicates that a regression model developed from these variables will likely not reflect multicollinearity issues of concern.



### **6.3.1.2 Discussion of the inferential - Correlation results of Egyptian companies**

Having regard to the Egyptian sample, the relevant correlation matrix indicates that CGD quality is highly statistically significant and positively correlated with company size, profitability, ownership structure, and BoD size. Additionally, CGD quality is positively correlated and statistically significant with BoD independence. However, while the relationship between CGD quality and the company age emerges to be highly statistically significant, it is curiously, negatively correlated. Moreover, liquidity appears to have no significant correlation with CGD quality as discussed in the following paragraphs.

Table 6.14 presents Pearson's correlation among the variables examined in this research for the Egyptian sample, which consists of 70 companies (210 firm-year observations) from 2019 through 2021.

**Table 6.14 Pearson's correlation matrix of the Egyptian companies sample**

Variable	CGD	Company age	Company size	Profitability	Liquidity	Ownership structure	BoD size	BoD independence
<b>CGD</b>	1							
<b>Company age</b>	-0.324** (0.000)	1						
<b>Company size</b>	0.546** (0.000)	-0.242** (0.000)	1					
<b>Profitability</b>	0.231** (0.001)	-0.055 (0.426)	0.271** (0.000)	1				
<b>Liquidity</b>	-0.117 (0.090)	0.101 (0.145)	-0.175* (0.011)	0.371** (0.000)	1			
<b>Ownership structure</b>	0.344** (0.000)	-0.134 (0.052)	0.029 (0.672)	0.070 (0.316)	-0.193** (0.005)	1		
<b>BoD size</b>	0.315** (0.000)	-0.019 (0.787)	0.367** (0.000)	0.175* (0.011)	-0.032 (0.643)	0.039 (0.577)	1	
<b>BoD independence</b>	0.150* (0.030)	0.015 (0.830)	0.048 (0.492)	0.021 (0.760)	-0.001 (0.989)	0.064 (0.359)	0.396** (0.000)	1

Note: \*\*, \*. Denote Correlation is significant at the 0.01 level and 0.05 level respectively (2-tailed).

The correlation coefficient between the **company size** and CGD is positively correlated and highly statistically significant ( $r = 0.546$ ,  $p\text{-value} < 0.01$ ). Thus, according to this correlation model, it can be assumed that larger company size is positively associated with CGD quality. This is probably consistent with intuitive arguments and reasoning.

The correlation coefficient between the company **profitability** and CGD is positively correlated and highly statistically significant ( $r = 0.231$ ,  $p\text{-value} < 0.01$ ). Thus, it can be assumed that higher company profitability is positively associated with CGD quality. Again, this is consistent with intuition, with profitable companies likely being well managed and “governed”. If so, this would quite likely engender better quality reporting and higher standards of CGD quality.

The correlation coefficient between the **ownership structure** and CGD is positively correlated and highly statistically significant ( $r = 0.344$ ,  $p\text{-value} < 0.01$ ). Thus, it can be suggested that higher ownership structure is positively associated with CGD quality.

The correlation coefficient between the **BoD size** and CGD is positively correlated and highly statistically significant ( $r = 0.315$ ,  $p\text{-value} < 0.01$ ). Thus, it can be suggested that larger BoD size is positively associated with CGD quality.

Additionally, the **BoD independence** is statistically significant and positively correlated with CGD ( $r = 0.15$ ,  $p\text{-value} < 0.05$ ). Thus, according to this correlation model, it can be assumed that higher BoD independence is positively associated with CGD quality.

In contrast, the **company age** is highly statistically significant and negatively correlated with CGD ( $r = -0.324$ ,  $p\text{-value} < 0.01$ ). Thus, according to this correlation model, it can be suggested that older companies is negatively associated with CGD quality. Reasons might be that sometimes in growing economies, investors take

over older companies and establish new companies. Thus, the new established companies may have better CGD. In this instances, the company age does not necessarily reflect its true age of establishment. Indeed, 8 out of 102 EGX100 EWI companies were listed after 2019 as opposed to only 2 out of 100 FTSE100 companies.

On the other hand, the correlation coefficient between the **liquidity** and CGD implies that there is no correlation as the significance level is greater than 0.05. Thus, according to this correlation model, it can be assumed that the liquidity has no significant correlation with CGD quality.

According to the correlation matrix, the independent variables do not have multicollinearity problems as all correlation coefficients between the independent variables range from - 0.242 and 0.396 and eventually are below the acceptable range of 0.7 (Tabachnick et al., 2007; Hox et al., 2017; Tabachnick and Fidell, 2019). This indicates that the regression model will not suffer from multicollinearity issue.

#### **6.3.1.3 Discussion of the inferential - Correlation results of the U.K. and Egyptian companies**

Table 6.15 presents Pearson's correlation among the variables of the U.K. and Egyptian samples from 2019 through 2021.

**Table 6.15 Pearson's correlation matrix of the U.K. and Egyptian companies samples**

U.K.								
Variable	CGD	Company age	Company size	Profitability	Liquidity	Ownership structure	BoD size	BoD independence
<b>CGD</b>	1							
<b>Company age</b>	0.083 (0.248)	1						
<b>Company size</b>	0.320** (0.000)	0.104 (0.150)	1					
<b>Profitability</b>	-0.013 (0.855)	0.088 (0.222)	-0.284** (0.000)	1				
<b>Liquidity</b>	-0.123 (0.086)	0.067 (0.350)	-0.416** (0.000)	0.096 (0.182)	1			
<b>Ownership structure</b>	0.003 (0.969)	0.214** (0.003)	0.004 (0.957)	0.127 (0.076)	-0.188** (0.008)	1		
<b>BoD size</b>	0.331** (0.000)	-0.028 (0.695)	0.338** (0.000)	-0.269** (0.000)	-0.131 (0.069)	0.026 (0.718)	1	
<b>BoD independence</b>	0.376** (0.000)	-0.018 (0.798)	0.286** (0.000)	-0.180* (0.012)	-0.180* (0.012)	-0.320** (0.000)	0.252** (0.000)	1
Egypt								
<b>CGD</b>	1							
<b>Company age</b>	-0.324** (0.000)	1						
<b>Company size</b>	0.546** (0.000)	-0.242** (0.000)	1					
<b>Profitability</b>	0.231** (0.001)	-0.055 (0.426)	0.271** (0.000)	1				
<b>Liquidity</b>	-0.117 (0.090)	0.101 (0.145)	-0.175* (0.011)	0.371** (0.000)	1			
<b>Ownership structure</b>	0.344** (0.000)	-0.134 (0.052)	0.029 (0.672)	0.070 (0.316)	-0.193** (0.005)	1		
<b>BoD size</b>	0.315** (0.000)	-0.019 (0.787)	0.367** (0.000)	0.175* (0.011)	-0.032 (0.643)	0.039 (0.577)	1	
<b>BoD independence</b>	0.150* (0.030)	0.015 (0.830)	0.048 (0.492)	0.021 (0.760)	-0.001 (0.989)	0.064 (0.359)	0.396** (0.000)	1

Note: \*\*, \*. Denote Correlation is significant at the 0.01 level and 0.05 level respectively (2-tailed).

In terms of the U.K. and Egyptian samples, both samples reveal that CGD quality appears to be positively correlated and highly statistically significant with the **company size** and **BoD size**. Furthermore, the **BoD independence** is revealed to be positively correlated with CGD quality for both samples. However, in the U.K., it was highly statistically significant, while in Egypt, it was statistically significant.

Regarding **profitability**, **ownership structure**, and **company age**, they appear to have no significant correlation with CGD quality in the U.K. sample. However, in Egypt, they emerge to be highly statistically significant, with the first two being positively correlated and the latter being negatively correlated with CGD quality. Equally, both samples reveal that **liquidity** appears to have no significant correlation with CGD quality.

Furthermore, the correlation coefficient in Pearson's correlation matrix can reveal the degree of strength of the correlation between the dependent and independent variables as follows:

**Table 6.16 The degree of strength of the Correlation coefficient**

<b>Correlation coefficient</b>	<b>Degree of strength</b>
<b>0.00–0.09</b>	Negligible correlation
<b>0.10–0.39</b>	Weak correlation
<b>0.40–0.69</b>	Moderate correlation
<b>0.70–0.89</b>	Strong correlation
<b>0.90–1.00</b>	Very strong correlation

\* Source: Schober et al. (2018). Table constructed by the researcher.

In terms of Pearson's correlation coefficient degree of strength, according to the above table, all significant correlations between CGD quality and the various continuous variables, in the U.K. and Egyptian samples, are shown to be weak

correlations, except for the company size in the Egyptian sample, which has been found to be a moderate correlation.

Moreover, the Egyptian sample reveals a stronger correlation between CGD quality and company size than the U.K. sample. However, with regards to the correlations between CGD quality and BoD size as well as BoD independence, U.K. sample correlation coefficients indicate a stronger correlation than the Egyptian sample correlation coefficients.

Based on the above discussions and considerations, the following paragraphs provide the hypotheses testing results.

***H3(b) That company age is significantly and positively associated with CGD quality in the U.K.***

Hypothesis 3(b) was rejected.

***H3(c) That company age is significantly and positively associated with CGD quality in Egypt.***

Hypothesis 3(c) was rejected.

***H4(b) That company size is significantly and positively associated with CGD quality in the U.K.***

Hypothesis 4(b) was accepted.

***H4(c) That company size is significantly and positively associated with CGD quality in Egypt.***

Hypothesis 4(c) was accepted.

***H7(b) That profitability is significantly and positively associated with CGD quality in the U.K.***

Hypothesis 7(b) was rejected.

***H7(c) That profitability is significantly and positively associated with CGD quality in Egypt.***

Hypothesis 7(c) was accepted.

***H8(b) That liquidity is significantly and positively associated with CGD quality in the U.K.***

Hypothesis 8(b) was rejected.

***H8(c) That liquidity is significantly and positively associated with CGD quality in Egypt.***

Hypothesis 8(c) was rejected.

***H9(b) That ownership structure is significantly and positively associated with CGD quality in the U.K.***

Hypothesis 9(b) was rejected.

***H9(c) That ownership structure is significantly and positively associated with CGD quality in Egypt.***

Hypothesis 9(c) was accepted.

***H12(b) That BoD size is significantly and positively associated with CGD quality in the U.K.***

Hypothesis 12(b) was accepted.

***H12(c) That BoD size is significantly and positively associated with CGD quality in Egypt.***

Hypothesis 12(c) was accepted.

***H13(b) That BoD independence is significantly and positively associated with CGD quality in the U.K.***

Hypothesis 13(b) was accepted.

***H13(c) That BoD independence is significantly and positively associated with CGD quality in Egypt.***

Hypothesis 13(c) was accepted.

### **6.3.2 Discussion of the inferential - Regression results**

Apart from the prior series of correlation analyses, the main form of analysis, in this research, is a series of multiple regression models with a unique dependent variable (CGD quality) and an appropriate or “mix” of independent variables.



There are nine regression models<sup>22</sup>. They are categorised into three sets of models of company characteristics, CG characteristics, and company and corporate characteristics jointly. For each set of models, the independent variables are tested on the U.K. sample, then, the Egyptian sample, and finally, the U.K. and Egyptian samples jointly. The first eight models are subsidiaries models. They were run in order to enhance the robustness of the results and conclusions of the primary and main model. The ninth and final model (i.e., Model C.3) is the main model, where the company characteristics and CG characteristics, as well as the country variables were tested on the samples of the U.K. and Egyptian companies jointly.

### **6.3.2.1 Discussion of the inferential - Regression results of the primary model**

#### **(Model C.3)**

In Model C.3, data from the sampled U.K. and Egyptian companies jointly were examined and the regression model equation<sup>23</sup> and results are presented as follows:

$$\begin{aligned} \text{CGD}_{it} = & 0.354 - 0.050 \text{CTY}_{it} + 0.032 \text{S\&P}_{it} - 0.0002 \text{CAG}_{it} + 0.029 \text{CSL}_{it} + 0.089 \text{TOA}_{it} \\ & + 0.010 \text{CRL}_{it} + 0.037 \text{PRO}_{it} + 0.006 \text{LIQ}_{it} + 0.075 \text{OWS}_{it} - 0.007 \text{FIN}_{it} - 0.035 \text{CEO}_{it} \\ & + 0.003 \text{BSL}_{it} + 0.038 \text{BIN}_{it} \end{aligned}$$

**Table 6.17 Regression Results for Model C.3**

<b>Model C.3</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Sig.</b>	<b>Std. Error</b>	<b>t-Statistic</b>
<b>(Constant)</b>	0.354	0.000	0.024	14.650
<b>S&amp;P ESG Index</b>	0.032**	0.000	0.004	8.324
<b>Company age</b>	-0.0002**	0.000	0.00003	-6.922
<b>Company size</b>	0.029**	0.000	0.002	13.258
<b>Type of auditor</b>	0.089**	0.000	0.004	20.679
<b>Cross-listing</b>	0.010*	0.032	0.005	2.149

<sup>22</sup> Figure 5.4 offers a detailed illustration of the nine regression models.

<sup>23</sup> Table 5.19 provides the key to the variables.

<b>Model C.3</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Sig.</b>	<b>Std. Error</b>	<b>t-Statistic</b>
<b>Profitability</b>	0.037**	0.000	0.005	7.057
<b>Liquidity</b>	0.006**	0.000	0.001	4.766
<b>Ownership structure</b>	0.075**	0.000	0.008	8.911
<b>Foreign institutional investors</b>	-0.007*	0.031	0.003	-2.161
<b>CEO duality</b>	-0.035**	0.000	0.003	-11.061
<b>BoD size</b>	0.003**	0.000	0.001	6.839
<b>BoD independence</b>	0.038**	0.000	0.009	4.307
<b>Country</b>	-0.050**	0.000	0.006	-8.517
<b>R-squared</b>	<b>0.889</b>			

Note: \*\*, \*. Denote significance at the 0.01 level and 0.05 respectively (2-tailed).

As indicated in the above table and the preceding regression model equation, the dependent variable is CGD quality. Regarding the independent variables, they are the company characteristics (9 out of 10), the CG characteristics (3 out of 4), and the country (1 out of 1) variables.

Regarding the company characteristics, the stock exchange index variable is excluded from the model, as it is a different index in each country. Regarding the CG characteristics, the audit committee variable is also excluded as it had low or no variability in the samples of the U.K. and Egyptian companies. This suggests that the law enforcement regarding the existence of an audit committee is quite effective in both countries. Apart from the excluded variables, the country variable is added to examine the influence, if any, of the country itself on the CGD quality. Also, two control variables are added to the model to control the effect of the different industry types/business sectors, i.e., industry type variable, and to represent the year fixed effect, i.e., year variable.

After stating the dependent, independent, and control variables, the results of the model are provided in the immediately following paragraphs.

The model revealed that the company characteristics which have a highly statistically significant ( $p$ -value  $< 0.01$ ) and positive relation with CGD quality are S&P ESG Index ( $\beta = 0.032$ ), company size ( $\beta = 0.029$ ), type of auditor ( $\beta = 0.089$ ), profitability ( $\beta = 0.037$ ), liquidity ( $\beta = 0.006$ ), and ownership structure ( $\beta = 0.075$ ). Additionally, the results indicated that cross-listing ( $\beta = 0.01$ ) has a statistically significant ( $p$ -value  $< 0.05$ ) and positive relation with CGD quality. On the other hand, the results revealed that there is a highly statistically significant ( $p$ -value  $< 0.01$ ) and negative relation between CGD quality and company age ( $\beta = -0.0002$ ). Furthermore, there is a statistically significant ( $p$ -value  $< 0.05$ ) and negative relation between CGD quality and foreign institutional investors ( $\beta = -0.007$ ).

Regarding the CG characteristics, the results revealed that there is a highly statistically significant ( $p$ -value  $< 0.01$ ) and positive relation between CGD quality and BoD size ( $\beta = 0.003$ ) and BoD independence ( $\beta = 0.038$ ). On the other hand, it appeared that there is a highly statistically significant ( $p$ -value  $< 0.01$ ) and negative relation between CGD quality and CEO duality ( $\beta = -0.035$ ). Additionally, it appeared that the country variable ( $\beta = -0.05$ ) has a highly statistically significant ( $p$ -value  $< 0.01$ ) and negative relation with CGD quality.

The R-squared = 0.889 in this model, which means that 88.9% of the variability in CGD quality is explained by the examined company characteristics, CG characteristics, and country variables. This regression model is one with very high explanatory power – roughly 90% of the variability within the data is explained by the model. It is important to note that this model has the highest explanatory power among the three models that were tested using data from U.K. and Egyptian companies jointly. In fact, it has the highest explanatory power among all the nine models of this research. A helpful result that could also be quite illuminating as it adds to the robustness of the results of this main model.

The following paragraphs discuss with some details the results of the model in terms of each set of characteristics examined.

### **Set One: Company characteristics**

This set is related to the following research objective.

#### **Objective 2**

To empirically identify varying **company characteristics** as possibly associated with CGD quality across two meaningfully identified sets of U.K. and Egyptian companies.

The results of each of the hypotheses that are tested and appropriately considered in order to achieve this objective are next.

***H1(a) That there is a statistically significant positive relationship between stock exchange index and CGD quality.***

Hypothesis 1(a) was not tested in the main model. This is due to the fact that the stock exchanges for companies in the U.K. and Egypt are different. For the U.K., the companies examined are all listed on FTSE100. However, for Egypt, while the companies are all listed on EGX100 EWI, they are also listed on either EGX30 or EGX70 EWI.

Despite being removed from the main model, the stock exchange index variable was included in three out of the eight subsidiaries models that were tested using the sample of the Egyptian companies only. However, the results were not significant.

This is in contrast to prior literature that suggests that the stock exchange index or listing appear to have varying and variable results associated with CGD quality. Thus, the perceived desirability of being listed on a reputable stock exchange, might be regarded as an incentive both for sound CG practices themselves, and a keenness to disclose them (Novotný et al., 2015). Accordingly, it is suggested in

prior studies that the stock market index is an important explanatory variable with respect to corporate disclosure (Firth, 1979; Cooke, 1992; Dahawy and Conover, 2007).

***H2(a) That there is a statistically significant positive relationship between S&P ESG index and CGD quality.***

Hypothesis 2(a) was accepted. As per Table 6.17, the results suggest that S&P ESG index may have a statistically highly significant and positive influence on CGD quality. This is consistent with prior literature suggesting the inclusion in the S&P ESG index has a positive impact on CGD quality (Jo and Harjoto, 2011; Tamimi and Sebastianelli, 2017). According to Signalling Theory, inclusion in the S&P ESG index may offer to investors more reliable information regarding the CGD practices of companies, and eventually reduce information asymmetry and uphold their trust in the directors of these companies.

***H3(a) That there is a statistically significant positive relationship between company age and CGD quality.***

Hypothesis 3(a) was rejected. The results indicate that the company age appears to have a statistically highly significant and negative influence on CGD quality.

It was expected that with increased company age, CGD will increase. This is due to the assumption that it takes time for BoD to develop their experience and for companies to become more aware of CGD practices. The results, however, did not support this hypothesis.

These results are in line with Salah (2018), who contends that the company age is found to be negatively related not only to disclosure, but also to company financial performance, as younger companies may grow faster than older ones. The rigidity of the company, as found by Isidro and Sobral (2015), is another possible reason for this negative influence.

Nevertheless, the results contradict Zamil et al. (2021), who find that company age has a positive impact on CGD. Additionally, Garas and ElMassah (2018) argue that the impact of company age is not significant in terms of CGD.

***H4(a) That there is a statistically significant positive relationship between company size and CGD quality.***

Hypothesis 4(a) was accepted. The results suggest that company size may have a statistically highly significant and positive influence on CGD quality.

The results are consistent with Berglöf and Pajuste (2005), Samaha et al. (2012), Foyeke et al. (2015), and Egbunike and Okerekeoti (2018), who find that there is a significant positive relationship between company size and CGD. They contend that CGD increases with company size. Consequently, publicly disclosed CG information is more frequently available in larger companies than within smaller ones. According to Signalling Theory, information is more readily available in large companies, which reduces the information asymmetry.

However, the results contradict prior literature that argue that the company size does not seem to affect CGD (Samaha and Dahawy, 2011; Al-Moataz and Hussainey, 2013).

***H5(a) That there is a statistically significant positive relationship between type of auditor and CGD quality.***

Hypothesis 5(a) was accepted. The results indicate that the type of auditor appears to have a statistically highly significant and positive influence on CGD quality. If the company's auditor is affiliated with one of the Big 4 auditing firms, it is assumed that the level of CGD quality will likely be high.

Similarly, Cheung et al. (2007) and Al-Moataz and Hussainey (2013) conclude that Big 4 auditor affiliation is associated with CGD. Furthermore, the results are

consistent with Dahawy (2009) and Samaha and Dahawy (2010), who contend that the degree of affiliation of the auditor, with a Big 4 association, is one of the most significant variables affecting the level of disclosure by Egyptian companies.

***H6(a) That there is a statistically significant positive relationship between cross-listing and CGD quality.***

Hypothesis 6(a) was accepted. The results suggest that cross-listing may have a statistically significant and positive influence on CGD quality. According to Signalling Theory, companies might choose to willingly use cross-listing to signal higher level of CGD quality.

This is in line with the results of Attig et al. (2016) and Lu and Wang (2021), who state that cross-listing encourages companies to have higher level of CGD quality. Additionally, the results are consistent with the results of Ferris et al. (2009), Aly et al. (2010), and Jian et al. (2011) that cross-listing can significantly improve the CG conditions in general by having an international board. Similarly, Shi et al. (2018) and Garanina and Aray (2021) indicate that cross-listing is associated with higher disclosure quality.

***H7(a) That there is a statistically significant positive relationship between profitability and CGD quality.***

Hypothesis 7(a) was accepted. The results suggest that profitability may have a statistically highly significant and positive influence on CGD quality.

The results are consistent with the results of Brown and Caylor (2004), Samaha and Dahawy (2010), and Babatunde and Akeju (2016), who find a significant positive relationship between profitability and CGD. Additionally, Aly et al. (2010) indicate that profitability explains the variation in the level of corporate disclosure and reporting between companies. Similarly, Al-Moataz and Hussainey (2013) contend that profitability is among the main determinants of CGD.

In contrast to the results, Barako et al. (2006) argue that profitability appears to have no significant influence on the level of disclosure by companies.

***H8(a) That there is a statistically significant positive relationship between liquidity and CGD quality.***

Hypothesis 8(a) was accepted. The results suggest that liquidity may have a statistically highly significant and positive influence on CGD quality. According to Signalling Theory, CGD is positively influenced by the liquidity of the company.

The results are consistent with the results of Ezat and El-Masry (2008) and Samaha and Dahawy (2010), who find that the liquidity appears to be a significant variable in explaining the intensity and quality of CGD. Similarly, Aly et al. (2010) and Al-Moataz and Hussainey (2013) state that the liquidity of the company is one amongst the main determinants of CGD.

However, in contrast to the results, Barako et al. (2006) and Samaha and Dahawy (2011) find that the liquidity appears to have no significant effect on CGD.

***H9(a) That there is a statistically significant positive relationship between ownership structure and CGD quality.***

Hypothesis 9(a) was accepted. The results suggest that ownership structure may have a statistically highly significant and positive influence on CGD quality. This suggests that companies with higher free float percentage will be more likely to have high level of CGD quality.

The results are consistent with Ezat and El-Masry (2008), who suggest that companies with high free float percentage disclose better CGD quality. The results are also consistent with the 2011 revised listing rules, which increased the minimum free float percentage of FTSE U.K. Index Series listed companies to 25%. Egypt likewise revised its listing rules in 2020, requiring that the minimum free float for



inclusion in EGX30 index to be at least 15% and for EGX70 EWI index to be at least 10%.

***H10(a) That there is a statistically significant positive relationship between foreign institutional investors and CGD quality.***

Hypothesis 10(a) was rejected. The results suggest that foreign institutional investors may have a statistically significant and negative influence on CGD quality. Although, it was expected that the existence of foreign institutional investors would positively affect CGD quality.

These results are in contrast with Haniffa and Cooke (2002) and Tuan et al. (2020), who suggest that there is a positive relationship between the existence of foreign investors and the level of CGD. In the same vein, Barako et al. (2006), Mangena and Tauringana (2007), and Wachira (2019) indicate that foreign ownership is positively and significantly associated with the level of CGD. Furthermore, Mizuno (2010) and Nakano and Nguyen (2013) state that foreign ownership is of greater influence than that of domestic investors.

In general, the evidence presented contradicts the results since the results do not support the linked research hypothesis that foreign institutional investors may demand and influence higher level of CGD from listed companies.

### **Set Two: CG characteristics**

This set is related to the following research objective.

#### **Objective 3**

To empirically identify varying **CG characteristics** as possibly associated with CGD quality across two meaningfully identified sets of U.K. and Egyptian companies.

The results of each of the hypotheses that are tested and appropriately considered in order to achieve this objective are next.

***H11(a) That there is a statistically significant negative relationship between CEO duality and CGD quality.***

Hypothesis 11(a) was accepted. The results suggest that CEO duality may have a statistically highly significant and negative influence on CGD quality. This suggests that CGD quality is lower when the executive manager also serves as the chairman of BoD.

Similarly, Samaha and Dahawy (2011), Samaha et al. (2012), Elbadry et al. (2015), Samaha et al. (2015), and Alabdullah et al. (2019) suggest that the CEO duality has a significant negative effect on CGD quality of listed companies.

Nonetheless, while presenting contrary evidence, other literature counters this argument. Anderson and Anthony (1986), Iyengar and Zampelli (2009), and da Costa and Martins (2019) claim that the CEO duality gives the company's leadership a single focal point. Consequently, this would signal the stability of the company and increase trust in the management.

***H12(a) That there is a statistically significant positive relationship between BoD size and CGD quality.***

Hypothesis 12(a) was accepted. The results suggest that BoD size may have a statistically highly significant and positive influence on CGD quality. This implies that companies with a large number of BoD have better CGD.

The results are consistent with the results of Abdel-Fattah (2008), Ezat and El-Masry (2008), Samaha et al. (2015), and Alabdullah et al. (2019), who suggest that BoD size has a positive effect on CGD quality.

***H13(a) That there is a statistically significant positive relationship between BoD independence and CGD quality.***

Hypothesis 13(a) was accepted. The results suggest that BoD independence may have a statistically highly significant and positive influence on CGD quality.

The results are in line with Sanders and Boivie (2004), who consider that board structure can be seen as a signal to attract potential investors when evaluating new companies in new industries. As a result, BoD independence may have an impact on CGD quality because it contributes in earning the trust of potential investors.

Similarly, Ezat and El-Masry (2008), Samaha and Dahawy (2010), Samaha et al. (2012), Al-Moataz and Hussainey (2013), and Samaha et al. (2015) contend that companies with a high proportion of independent directors have higher CGD quality.

In contrast to the results, Abdel-Fattah (2008) argues that BoD independence appears to have a negative effect on corporate disclosure. Furthermore, Barako et al. (2006) claim that BoD independence is significantly and negatively associated with the disclosure in a developing country.

***H14(a) That there is a statistically significant positive relationship between audit committee and CGD quality.***

Hypothesis 14(a) was not tested. The existence of an audit committee variable appeared to have no variability in the sample of the U.K., while it showed low variability in the sample of Egypt. This indicates that the listed companies in both countries are adhering to the rule requiring the existence of an audit committee.

### **Set Three: Country-specific characteristics**

This set is related to the following research objective.

#### **Objective 4**

To empirically examine and evaluate possible association of **country-specific characteristics** and the adoption of CGD quality in two sets of comparable U.K. and Egyptian companies.

The result of the hypothesis tested and appropriately considered in order to achieve this objective is next.

***H15(a) That the U.K. has a statistically significant higher CGD quality than Egypt.***

Hypothesis 15(a) was accepted. The results suggest that the U.K. has a statistically significant higher CGD quality than Egypt. According to Signalling Theory, it could be implied that investors in the U.K. or Egypt would receive different signals regarding the country-specific characteristics, reflecting different influence on CGD quality as well. In other words, it implies that companies in a country with high country-specific characteristics will tend to reflect a high level of CGD quality and so “signal” the presence and exercise of sound CG practices.

The results are consistent with Berglöf and Pajuste (2005), who contend that CGD varies substantially across companies from different countries. Similarly, La Porta et al. (2008) state that the specific characteristics and nature of each country should be considered when adopting corporate rules and regulations. They argue that a source of massive delay and corruption in the developing countries are rules copied from and suitable for developed economies. As a result, when comparing various CGD practices, the two countries' varying economic development statuses (the U.K. and Egypt) may have a considerable influence on the level of CGD quality.

The results are also in line with the revelations of international professional bodies regarding the scores and rankings of both countries. According to the GCR of 2019, in terms of the CG components<sup>24</sup>, the U.K. scored 74.5% and was ranked 13<sup>th</sup> out of 141 economies, while Egypt scored 61.5% and was ranked 63<sup>rd</sup> (WEF, 2019). Regarding the transparency and incidence of corruption components in 2019, the U.K. scored 80% and was ranked 11<sup>th</sup> out of 141 economies, while Egypt scored 35% and was ranked 91<sup>st</sup> (WEF, 2019).

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<sup>24</sup> Section 4.4 offers details about CG score calculation.

Similarly, in 2022, the CPI score of the U.K. dropped to 73%, which is the lowest score since 2012. Accordingly, the U.K. was ranked 18<sup>th</sup> out of 180 countries. Egypt, on the other hand, was ranked 130<sup>th</sup> with a CPI score of 30%, which is also its lowest score since 2012 (Transparency International, 2023).

One could contend that differences among countries might be an insightful indicator for CGD quality. Accordingly, these revelations are consistent with the results suggesting that the U.K. has a statistically significant higher CGD quality than Egypt.

### **6.3.2.2 Robustness check discussion**

This section discusses and presents the regression models that are used to test the robustness of the main model C.3. This main model examines data from the U.K. and Egypt jointly for company characteristics, CG characteristics, and country variables.

Multiple regression analyses were performed to ensure robustness by dividing the sample into U.K. and Egyptian data. The second level of division is in the independent variables. As a result, the variables are divided into two sets: company characteristics only and CG characteristics only. The two characteristics are then merged and examined using the sample of each country. Then, in the third level, the data from U.K. and Egypt are combined to test each set of characteristics.

The following tables present the results of the eight subsidiaries regression models, along with the results of the main model C.3. Table 6.18 presents the detailed results of the nine models. On the other hand, Table 6.19 presents a summary regarding the results in terms of the significance and direction.

**Table 6.18 Robustness check results**

		Set A Company Characteristics			Set B CG Characteristics			Set C Company and CG Characteristics		
Model		A.1	A.2	A.3	B.1	B.2	B.3	C.1	C.2	C.3
Variable										
<b>Company characteristics</b>	Stock Exchange Index		0.006 (0.008)							
	S&P ESG Index		0.034** (0.008)	0.036** (0.005)					0.033** (0.004)	<b>0.032** (0.004)</b>
	Company age	0.0001** (0.00002)	-0.0002* (0.0001)	-0.0002** (0.00003)				0.00005 (0.00003)	-0.0003** (0.00008)	<b>-0.0002** (0.00003)</b>
	Company size	0.019** (0.002)	0.044** (0.005)	0.034** (0.002)				0.015** (0.001)	0.032** (0.005)	<b>0.029** (0.002)</b>
	Type of auditor		0.081** (0.006)	0.089** (0.005)					0.088** (0.006)	<b>0.089** (0.004)</b>
	Cross-listing		-0.001 (0.006)	0.010 (0.006)						<b>0.010* (0.005)</b>
	Profitability	-0.008 (0.004)	0.034** (0.010)	0.032** (0.006)				0.011* (0.005)	0.050** (0.010)	<b>0.037** (0.005)</b>
	Liquidity	-0.001 (0.001)	0.006* (0.020)	0.005** (0.001)					0.007** (0.002)	<b>0.006** (0.001)</b>
	Ownership structure	0.007 (0.006)	0.084** (0.011)	0.086** (0.009)				0.030** (0.011)	0.072** (0.011)	<b>0.075** (0.008)</b>
	Foreign institutional investors		-0.011 (0.006)	-0.004 (0.005)					-0.014** (0.003)	<b>-0.007* (0.003)</b>
<b>CG Characteristics</b>	CEO duality					-0.060** (0.006)	-0.062** (0.004)		-0.039** (0.004)	<b>-0.035** (0.003)</b>
	BoD size				0.004** (0.001)	0.014** (0.001)	0.009** (0.001)	0.002** (0.001)	0.003** (0.001)	<b>0.003** (0.001)</b>
	BoD independence				0.085** (0.011)	-0.006 (0.018)	0.006 (0.009)	0.094** (0.012)	0.027 (0.015)	<b>0.038** (0.009)</b>
	Audit Committee									
<b>Country</b>	Country			-0.048** (0.006)			-0.225** (0.003)			<b>-0.050** (0.006)</b>
<b>Constant</b>		0.693 (0.019)	0.221 (0.045)	0.337 (0.022)	0.782 (0.009)	0.576 (0.014)	0.820 (0.008)	0.619 (0.020)	0.296 (0.045)	<b>0.354 (0.024)</b>
<b>No. of observations</b>		195	210	405	195	210	405	195	210	<b>405</b>
<b>R-squared %</b>		25.8	56.8	87.6	32.9	24.8	78.7	36.9	61.8	<b>88.9</b>

Note: \*\*, \*. Denote significance at the 0.01 level and 0.05 respectively. Robust standard errors are shown in parentheses.

**Table 6.19 Regression Results Summary**

		Set A Company Characteristics			Set B CG Characteristics			Set C Company and CG Characteristics		
Model		A.1	A.2	A.3	B.1	B.2	B.3	C.1	C.2	C.3
<b>R-squared %</b>		<b>25.8</b>	<b>56.8</b>	<b>87.6</b>	<b>32.9</b>	<b>24.8</b>	<b>78.7</b>	<b>36.9</b>	<b>61.8</b>	<b>88.9</b>
<b>Variable</b>										
<b>Company characteristics</b>	Stock Exchange Index									
	S&P ESG Index		***	**					**	**
	Company age	**	*	**					**	**
	Company size	**	**	**				**	**	**
	Type of auditor		**	**					**	**
	Cross-listing									*
	Profitability		**	**				*	**	**
	Liquidity		*	**					**	**
	Ownership structure		**	**				**	**	**
	Foreign institutional investors								**	*
<b>CG Characteristics</b>	CEO duality					**	**		**	**
	BoD size				**	**	**	**	**	**
	BoD independence				**			**		**
	Audit Committee									
<b>Country</b>	Country			**			**			**

Note: \*\*, \*. Denote significance at the 0.01 level and 0.05 respectively.

As per the above tables, the regression results of almost all variables in the subsidiaries models are consistent with the main model. The variables in the subsidiaries models that appear to have a statistically significant relationship with CGD quality also appear to have a statistically significant relationship in the main model.

Although the relationship between CGD quality and company age appears to be significant in all models, the direction of the relationship was positive in the U.K. and negative in Egypt, as well as in the main model. In terms of the cross-listing, it was only found in the main model that it significantly and positively influences CGD quality.

Further insights into the nine models in terms of their R-squared results follow.

**Table 6.20 R-squared % results**

Characteristics \ Country	U.K.	Egypt	U.K. and Egypt
Company	25.8%	56.8%	87.6%
CG	32.9%	24.8%	78.7%
Company and CG	36.9%	61.8%	<b>88.9%</b>

According to the results of all nine models, the highest R-squared was associated with Model C.3. As mentioned earlier, this model examined data from the U.K. and Egyptian companies jointly in respect to the company characteristics and the CG characteristics jointly, in addition to the country variable. Furthermore, it appears that the highest R-squared in each set were associated with Models A.3 (87.6%), B.3 (78.7%), and C.3 (88.9%). As stated earlier, these models examined data from the U.K. and Egyptian companies jointly.

Additionally, for data examined from the U.K. in each set (Models A.1, B.1, and C.1), the highest R-squared was associated with Model C.1 in respect to the company characteristics and the CG characteristics jointly. The data from the Egyptian



sample revealed the same results. After considering Models A.2, B.2, and C.2, the highest R-squared was associated with Model C.2 in respect to the company characteristics and the CG characteristics jointly.

In general, the results of the subsidiaries models appear to be consistent with those of the main model, contributing to the robustness of the latter results.

The following paragraphs discuss the results of each subsidiary model.

### **Set A: Company Characteristics**

#### **Model A.1**

This model examined the data of the sampled U.K. companies only. As stated in the descriptive results, five company characteristics variables had no variation and as a result, they were excluded from this regression model. These variables are stock exchange index, S&P ESG index, type of auditor, cross-listing, and foreign institutional investors.

The results of Model A.1 reveal a highly significant at p-value < 0.01 and positive relation between CGD and two variables, i.e., company age ( $\beta = 0.0001$ ) and company size ( $\beta = 0.019$ ). However, profitability, liquidity, and ownership structure appear to have no significant influence on CGD quality. In this model R-squared = 0.258, which means that only 25.8% of the variability in CGD is explained by the examined company characteristics variables.

#### **Model A.2**

This model examined the sampled Egyptian companies only. All 10 company characteristics variables were considered. However, not all of these variables revealed to have a significant influence on the CGD. The results reveal a highly significant at p-value < 0.01 and positive relation between CGD and the following variables S&P ESG index ( $\beta = 0.034$ ), company size ( $\beta = 0.044$ ), type of auditor ( $\beta$

= 0.081), profitability ( $\beta = 0.034$ ), and ownership structure ( $\beta = 0.084$ ). Additionally, liquidity had a significant positive relation with CGD ( $\beta = 0.006$ , p-value < 0.05). However, company age had a significant negative relation with CGD ( $\beta = -0.0002$ , p-value < 0.05). However, stock exchange index, cross-listing, and foreign institutional investors appear to have no significant influence on CGD quality. In this model R-squared = 0.568, which means that almost 57% of the variability in CGD is explained by the examined company characteristics variables.

### **Model A.3**

In Model A.3, data from the sampled U.K. and Egyptian companies jointly were examined. The stock exchange index variable is excluded, as it is a different index in each country. However, the country variable is added to examine the influence, if any, of the country on CGD quality.

The following variables had a highly significant at p-value < 0.01 and positive relation with CGD, S&P ESG index ( $\beta = 0.036$ ), company size ( $\beta = 0.034$ ), type of auditor ( $\beta = 0.089$ ), profitability ( $\beta = 0.032$ ), liquidity ( $\beta = 0.005$ ), and ownership structure ( $\beta = 0.086$ ). However, company age ( $\beta = -0.0002$ ) had a highly significant at p-value < 0.01 and negative relation with CGD. Additionally, the country ( $\beta = -0.048$ ) had a highly significant at p-value < 0.01 and negative relation with CGD. Cross-listing and foreign institutional investors revealed to have no significant relation with CGD. In this model R-squared = 0.876, which means that almost 88% of the variability in CGD is explained by the examined company characteristics variables.

### **Set B: CG Characteristics**

#### **Model B.1**

This model examined the data of the sampled U.K. companies only. As stated in the descriptive results, two CG characteristics variables had low or no variation and as a result, they were excluded from the regression model. These variables are CEO

duality and audit committee. In terms of the remaining CG characteristics variables, the results revealed a highly significant at  $p\text{-value} < 0.01$  and positive relation with CGD and BoD size ( $\beta = 0.004$ ) and BoD independence ( $\beta = 0.085$ ). In this model  $R\text{-squared} = 0.329$ , which means that only 32.9% of the variability in CGD is explained in only relatively weak terms by the examined CG characteristics variables.

### **Model B.2**

This model examined the data of the sampled Egyptian companies only. As stated in the descriptive results, the audit committee variable had low variation and as a result, it was excluded from the regression model. The results revealed that there is a highly significant at  $p\text{-value} < 0.01$  and positive relation between CGD and BoD size ( $\beta = 0.014$ ). On the other hand, there is a highly significant at  $p\text{-value} < 0.01$  and negative relation between CGD and CEO duality ( $\beta = -0.06$ ). As for BoD independence, it appeared to have no significant influence on CGD. In this model  $R\text{-squared} = 0.248$ , which means that almost 25% of the variability in CGD is explained by the examined CG characteristics variables.

### **Model B.3**

In Model B.3, data from the sampled U.K. and Egyptian companies jointly were examined. The audit committee variable is excluded from the model, as it had low or no variability in the samples of the U.K. and Egyptian companies. Also, the country variable is added to examine the influence, if any, of the country on the CGD quality. The results revealed a highly significant at  $p\text{-value} < 0.01$  and positive relation with CGD and BoD size ( $\beta = 0.009$ ). On the other hand, the results revealed a highly significant at  $p\text{-value} < 0.01$  and negative relation with CGD and CEO duality ( $\beta = -0.062$ ). Additionally, the country ( $\beta = -0.225$ ) had a highly significant at  $p\text{-value} < 0.01$  and negative relation with CGD. In this model  $R\text{-squared} = 0.787$ , which means that almost 79% of the variability in CGD is explained by the examined CG characteristics variables.

## **Set C: Company and CG characteristics**

### **Model C.1**

This model examined the data of the sampled U.K. companies only. The liquidity was removed from the model as it appeared to have no significant influence on CGD in the first run of this regression model. The final results of this regression model revealed that the company characteristics which had a highly significant at p-value < 0.01 and positive relation with CGD are company size ( $\beta = 0.015$ ) and ownership structure ( $\beta = 0.03$ ). Additionally, profitability ( $\beta = 0.011$ ) had a significant at p-value < 0.05 and positive relation with CGD. As for company age, it appeared to have no significant influence on CGD.

Regarding the CG characteristics, the results revealed that there is a highly significant at p-value < 0.01 and positive relation between CGD and BoD size ( $\beta = 0.002$ ) and BoD independence ( $\beta = 0.094$ ). In this model R-squared = 0.369, which means that 36.9% of the variability in CGD is explained by the examined company characteristics and CG characteristics variables. It is important to note that this model has the highest explanatory power among the three models that were tested using data from U.K. companies.

### **Model C.2**

This model examined the data of the sampled Egyptian companies only. In the prior runs of this regression model, cross-listing and Stock Exchange index variables were removed, in this particular order, as they had no significant influence on CGD. The final results of this regression model revealed that the company characteristics which had a highly significant at p-value < 0.01 and positive relation with CGD are S&P ESG index ( $\beta = 0.033$ ), company size ( $\beta = 0.032$ ), type of auditor ( $\beta = 0.088$ ), profitability ( $\beta = 0.05$ ), liquidity ( $\beta = 0.007$ ), and ownership structure ( $\beta = 0.072$ ). However, the company characteristics which had a highly significant at p-value <

0.01 and negative relation with CGD are company age ( $\beta = -0.0003$ ) and foreign institutional investors ( $\beta = -0.014$ ).

Regarding the CG characteristics, the results revealed that there is a highly significant at p-value  $< 0.01$  and positive relation between CGD and BoD size ( $\beta = 0.003$ ). On the other hand, it appeared that there is a highly significant at p-value  $< 0.01$  and negative relation between CGD and CEO duality ( $\beta = -0.039$ ). As for BoD independence, it appeared to have no significant influence on CGD.

In this model R-squared = 0.618, which means that 61.8% of the variability in CGD is explained by the examined company characteristics and CG characteristics variables. It is important to note that this model has the highest explanatory power among the three models that were tested using data from Egyptian companies.

The following section discusses the results of the business sector hypotheses.

### **6.3.3 Discussion of the business sectors results<sup>25</sup>**

The result of each hypothesis is presented along with a discussion of the appropriate statistical analysis results. 8 hypotheses are tested and appropriately considered in order to achieve the following,

#### **Objective 5**

To empirically identify and then provide possible explanatory interpretations for CGD quality **differences** within and between the **six identified business sectors** across the sets of U.K. and Egyptian companies.

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<sup>25</sup> Table 5.4 presents the final testable samples details.

The intra-country business sectoral results are to be discussed first. They are attained through employing the analysis of variance. Then, the results of the inter-country business sectoral are discussed. These are the outcomes of the T-test.

### **6.3.3.1 Discussion of the intra-country business sectoral results**

The results presented as an outcome of the testing in this section are intra-country sectoral comparisons and evaluations<sup>26</sup> which examine sets of business sectors within two countries - i.e., U.K. and Egypt.

#### **6.3.3.1.1 Discussion of the intra-country business sectoral results in the U.K.**

This sub-section discusses the results of the analysis of the U.K. business sectors, but first the following table presents the descriptive statistics of the sectors.

**Table 6.21 Descriptive Statistics of the business sectors in U.K.**

No.	Sector	N	Mean	Std. Dev.	Std. Error	Min	Max	95% Confidence Interval for Mean	
								Lower Bound	Upper Bound
1	Consumer Cyclicals	57	0.912	0.036	0.005	0.827	0.962	0.902	0.921
2	Consumer Non- Cyclicals	36	0.925	0.027	0.005	0.846	0.962	0.915	0.934
3	Industrials	33	0.938	0.029	0.005	0.904	1	0.927	0.948
4	Basic Materials	30	0.926	0.020	0.004	0.885	0.962	0.918	0.933
5	Technology	27	0.922	0.025	0.005	0.885	0.962	0.912	0.932
6	Real Estate	12	0.888	0.020	0.006	0.865	0.923	0.875	0.900
<b>Total</b>		<b>195</b>	<b>0.921</b>	<b>0.031</b>	<b>0.002</b>	<b>0.827</b>	<b>1</b>	<b>0.916</b>	<b>0.925</b>

<sup>26</sup> Given the limitation and the form of the results of the intra-sectoral comparisons and evaluations, it could be suggested to be a proposition rather than a hypothesis. Nevertheless, it is treated as a hypothesis as it deals with quantitative results.

As shown in the above table, the real estate sector appeared to have the lowest mean value of CGD quality 88.8%, representing almost 90% of the disclosure items. This could be due to the fact that this sector has the least number of companies in the sample. Nevertheless, the final testable sample included all the listed companies in this sector in the U.K. This sector appeared to have a minimum CGD quality score 86.5% and a maximum score 92.3%.

On the other hand, the industrials sector appeared to have the highest mean value of CGD quality 93.8%, representing almost 94% of the disclosure items. This could be due to the fact that this is the only sector that had a maximum CGD quality score of 1 among all the six identified business sectors in the U.K. It is worth mentioning that only one company in the U.K. had a total CGD quality score of 1, and that company was in fact in the industrials sector. Additionally, this sector appeared to have a minimum CGD quality score 90.4%, which is considered the highest minimum score across the six business sectors.

As for the consumer cyclicals sector, it appeared to have an average CGD quality 91.2%, with the lowest minimum CGD quality score 82.7% across all six sectors and maximum CGD quality score 96.2%.

Similarly, the consumer non-cyclicals, basic materials, and technology sectors appeared to have the same maximum CGD quality score 96.2%. However, their minimum and average scores differ. The consumer non-cyclicals sector appeared to have a minimum CGD quality score 84.6% and an average score 92.5%. The basic materials sector appeared to have a minimum CGD quality score 88.5% and an average score 92.6%. Finally, the technology sector appeared to have the same minimum CGD quality score 88.5% as the basic materials sector and an average score 92.2%.

After discussing the descriptive statistics, a discussion of the results of the ANOVA follows.

**Table 6.22 Test of Homogeneity of Variances of CGD Quality Index Score for the U.K. business sectors**

Levene Statistic	df1	df2	Sig.
3.063	5	189	<b>0.011</b>

The above table shows the test of homogeneity of variances. Since the Levene's Statistic is significant at p-value < 0.05, the equal variance was not assumed. This indicates that there is a statistically significant difference between the business sectors. The next step is to conduct the analysis of variance.

**Table 6.23 Results of the Analysis of Variance (ANOVA) for the U.K. business sectors**

	Sum of Squares	df	Mean Square	F	Sig.
<b>Between Groups</b>	0.028	5	0.006	6.790	<b>0.000</b>
<b>Within Groups</b>	0.157	189	0.001		
<b>Total</b>	<b>0.185</b>	<b>194</b>			

As per the above table, the results of the analysis of variance for the U.K. sectors appear to suggest that there is a statistically significant difference in the mean value of CGD quality between the identified six business sectors in the U.K. This is evident as the results show that the p-value < 0.05, which indicates that at least one sector is different from the other sectors in the mean CGD quality index score. Accordingly, the following table reveals the CGD quality index score mean differences between the six identified business sectors in the U.K using one-way ANOVA test.



**Table 6.24 CGD quality index score mean difference for the U.K. business sectors**

<b>(I) Sector</b>	<b>(J) Sector</b>	<b>(I-J) Mean Difference</b>	<b>Std. Error</b>	<b>Sig.</b>
<b>Basic Materials</b>	Industrials	-0.012	0.007	<b>0.565</b>
	Consumer Non-Cyclicals	0.001	0.007	<b>1.000</b>
	Real Estate	0.038*	0.010	<b>0.002</b>
	Consumer Cyclicals	0.014	0.006	<b>0.287</b>
	Technology	0.004	0.008	<b>0.995</b>
<b>Industrials</b>	Basic Materials	0.012	0.007	<b>0.565</b>
	Consumer Non-Cyclicals	0.013	0.007	<b>0.425</b>
	Real Estate	0.050*	0.010	<b>0.000</b>
	Consumer Cyclicals	0.026*	0.006	<b>0.001</b>
	Technology	0.016	0.007	<b>0.271</b>
<b>Consumer Non-Cyclicals</b>	Basic Materials	-0.001	0.007	<b>1.000</b>
	Industrials	-0.013	0.007	<b>0.425</b>
	Real Estate	0.037*	0.010	<b>0.002</b>
	Consumer Cyclicals	0.013	0.006	<b>0.303</b>
	Technology	0.003	0.007	<b>0.998</b>
<b>Real Estate</b>	Basic Materials	-0.038*	0.010	<b>0.002</b>
	Industrials	-0.050*	0.010	<b>0.000</b>
	Consumer Non-Cyclicals	-0.037*	0.010	<b>0.002</b>
	Consumer Cyclicals	-0.024	0.009	<b>0.093</b>
	Technology	-0.034*	0.010	<b>0.011</b>
<b>Consumer Cyclicals</b>	Basic Materials	-0.014	0.006	<b>0.287</b>
	Industrials	-0.026*	0.006	<b>0.001</b>
	Consumer Non-Cyclicals	-0.013	0.006	<b>0.303</b>
	Real Estate	0.024	0.009	<b>0.093</b>
	Technology	-0.010	0.007	<b>0.700</b>
<b>Technology</b>	Basic Materials	-0.004	0.008	<b>0.995</b>
	Industrials	-0.016	0.007	<b>0.271</b>
	Consumer Non-Cyclicals	-0.003	0.007	<b>0.998</b>
	Real Estate	0.034*	0.010	<b>0.011</b>
	Consumer Cyclicals	0.010	0.007	<b>0.700</b>

Note: \*. Denote significance at the 0.05 level.

The above table shows the results of one-way ANOVA that is used to test CGD quality scores across the six identified business sectors. It compares each sector and the other sectors in CGD quality.

The results reveal that there is no statistically significant difference in the mean value of CGD quality between real estate sector and consumer cyclicals sector as  $p\text{-value} > 0.05$ . However, the mean value of CGD quality of real estate sector is statistically significantly different from the other sectors as  $p\text{-value} < 0.05$ , namely basic materials, industrials, consumer non-cyclicals, and technology sectors.

Furthermore, the results appeared to suggest that there is a statistically significant difference in the mean value of CGD quality between the industrials sector and both real estate and consumer cyclicals sectors as  $p\text{-value} < 0.05$ . However, the results suggested that there is no statistically significant difference in the mean value of CGD quality between industrials sector and the other sectors (basic materials, consumer non-cyclicals, and technology) as  $p\text{-value} > 0.05$ .

Regarding the other business sectors, the results appear to indicate that there is no statistically significant difference in the mean value of CGD quality across them as  $p\text{-value} > 0.05$ .

Another presentation of the CGD quality index score mean differences across the six business sectors is in the following table.

**Table 6.25 CGD quality index score mean differences between the business sectors in the U.K.**

Sector	Basic materials	Consumer cyclicals	Consumer non-cyclicals	Industrials	Real estate	Technology
Basic materials					√	
Consumer cyclicals				√		
Consumer non-cyclicals					√	
Industrials		√			√	

Sector	Basic materials	Consumer cyclicals	Consumer non-cyclicals	Industrials	Real estate	Technology
Real estate	√		√	√		√
Technology					√	

As stated earlier, the above table highlights the statistically significant difference in the CGD quality mean value between the six business sectors. It shows that there is a statistically significant difference in the CGD quality mean value between the real estate sector and the basic materials, consumer non-cyclicals, industrials, and technology sectors. Additionally, there is a statistically significant difference in the CGD quality mean value between the industrials sector and consumer cyclicals sector. As for the other sectors, there is no statistically significant difference in the CGD quality mean value between them.

**Table 6.26 Homogeneous subsets of the business sectors in the U.K.**

CGD Quality Index Score				
Sector	N	Subset for alpha = 0.05		
		1	2	3
Real Estate	12	0.888		
Consumer Cyclicals	57		0.912	
Technology	27		0.921	0.922
Consumer Non-Cyclicals	36		0.925	0.925
Basic Materials	30		0.926	0.926
Industrials	33			0.938
<b>Sig.</b>		1.000	0.520	0.341

As shown in the above table, the real estate sector falls in a subset by itself. This suggests that there is a statistically significant difference in the CGD quality index score between the real estate sector and the other sectors. However, the second subset includes the consumer cyclicals, technology, consumer non-cyclicals, and basic materials sectors. This means that there is no statistically significant difference in the CGD quality index score between these sectors. Similarly, the third subset includes the technology, consumer non-cyclicals, basic materials, and industrials

sectors. This means that there is no statistically significant difference in the CGD quality index score between these sectors. Meanwhile, it also suggests that there is a statistically significant difference in the CGD quality index score between consumer cyclicals and industrials sectors.

Based on the above discussions and considerations, the related hypothesis testing result is as follows:

***H16(a) That there is a statistically significant difference in CGD quality across the identified six business sectors in the U.K.***

Hypothesis 16(a) was accepted.

The following section discusses the business sectors within the sample of the Egyptian listed companies.

#### **6.3.3.1.2 Discussion of the intra-country business sectoral results in Egypt**

This sub-section discusses the results of the analysis of the Egyptian business sectors. First, the descriptive statistics are presented in the following table.

**Table 6.27 Descriptive Statistics of the business sectors in Egypt**

No.	Sector	N	Mean	Std. Dev.	Std. Error	Min	Max	95% Confidence Interval for Mean	
								Lower Bound	Upper Bound
1	Basic Materials	51	0.641	0.082	0.012	0.500	0.810	0.617	0.664
2	Real Estate	48	0.664	0.107	0.015	0.420	0.830	0.633	0.695
3	Consumer Cyclicals	45	0.646	0.104	0.016	0.460	0.810	0.614	0.677
4	Industrials	36	0.647	0.122	0.020	0.400	0.830	0.606	0.688
5	Consumer Non-Cyclicals	24	0.682	0.106	0.022	0.637	0.726	0.460	0.830
6	Technology	6	0.793	0.059	0.024	0.710	0.850	0.732	0.855
	<b>Total</b>	<b>210</b>	<b>0.657</b>	<b>0.105</b>	<b>0.007</b>	<b>0.400</b>	<b>0.850</b>	<b>0.643</b>	<b>0.671</b>

As shown in the above table, the basic materials sector appears to have the lowest mean value of CGD quality 64.1%, representing almost 64% of the disclosure items. This sector appeared to have a minimum CGD quality score 50% and a maximum score 81%.

On the other hand, the technology sector appeared to have the highest mean value of CGD quality 79.3%, representing almost 80% of the disclosure items. This result highly suggests that the technology sector may have higher disclosure standards because its mean value is the highest. Additionally, the fact that this sector had the least number of companies in the sample may be the cause of this. As stated earlier, all companies listed in this sector were considered for examination, except one company that was excluded due to data unavailability. The minimum and maximum CGD quality scores for this sector appeared to be the highest of all the sectors, at 71% and 85%, respectively.

Similarly, the real estate and industrials sectors appeared to have the same maximum score 85%, however their minimum scores are slightly different at 42% and 40%, respectively. The real estate sector appeared to have higher value than the industrials sector in terms of their average CGD quality, with 66.4% and 64.7%, respectively.

Regarding the consumer cyclicals sector, it appeared to have an average CGD quality 64.6%, with a minimum CGD quality score 46% and maximum CGD quality score 81%. As for the consumer non-cyclicals sector, it appeared to have an average CGD quality 68.2%, with a minimum CGD quality score 63.7% and maximum CGD quality score 72.6%.

**Table 6.28 Test of Homogeneity of Variances of CGD Quality Index Score for the Egyptian business sectors**

Levene Statistic	df1	df2	Sig.
1.718	5	204	<b>0.132</b>

The above table shows the test of homogeneity of variances. Since the Levene's Statistic is not significant at  $p\text{-value} > 0.05$ , the equal variance was assumed. This indicates that there is no significant difference between the business sectors. The next step is to conduct the analysis of variance.

**Table 6.29 Results of the Analysis of Variance (ANOVA) for the Egyptian business sectors**

	Sum of Squares	df	Mean Square	F	Sig.
<b>Between Groups</b>	0.151	5	0.030	2.874	<b>0.016</b>
<b>Within Groups</b>	2.147	204	0.011		
<b>Total</b>	<b>2.299</b>	<b>209</b>			

As per the table, the results of the analysis of variance for the Egyptian sectors appear to show that the  $p\text{-value} < 0.05$ , which indicates that there is a statistically significant difference in the mean value of CGD quality between the identified six business sectors. In other words, there is at least one sector that is different from the other sectors in the mean value of CGD quality. This sector is to be identified in the following table using one-way ANOVA test.

**Table 6.30 CGD quality index score mean difference for the Egyptian business sectors**

(I) Sector	(J) Sector	(I-J) Mean Difference	Std. Error	Sig.
<b>Basic Materials</b>	Industrials	-0.007	0.022	<b>1.000</b>
	Consumer Cyclicals	-0.005	0.021	<b>1.000</b>
	Real Estate	-0.023	0.021	<b>0.876</b>

<b>(I) Sector</b>	<b>(J) Sector</b>	<b>(I-J) Mean Difference</b>	<b>Std. Error</b>	<b>Sig.</b>
	Consumer Non-Cyclicals	-0.041	0.025	<b>0.588</b>
	Technology	-0.153*	0.044	<b>0.009</b>
<b>Industrials</b>	Basic Materials	0.007	0.022	<b>1.000</b>
	Consumer Cyclicals	0.002	0.023	<b>1.000</b>
	Real Estate	-0.016	0.023	<b>0.979</b>
	Consumer Non-Cyclicals	-0.034	0.027	<b>0.799</b>
	Technology	-0.146*	0.045	<b>0.018</b>
<b>Consumer Cyclicals</b>	Basic Materials	0.005	0.021	<b>1.000</b>
	Industrials	-0.002	0.023	<b>1.000</b>
	Real Estate	-0.018	0.021	<b>0.959</b>
	Consumer Non-Cyclicals	-0.036	0.026	<b>0.732</b>
	Technology	-0.148*	0.045	<b>0.014</b>
<b>Real Estate</b>	Basic Materials	0.023	0.021	<b>0.876</b>
	Industrials	0.016	0.023	<b>0.979</b>
	Consumer Cyclicals	0.018	0.021	<b>0.959</b>
	Consumer Non-Cyclicals	-0.018	0.026	<b>0.981</b>
	Technology	-0.130*	0.044	<b>0.044</b>
<b>Consumer Non-Cyclicals</b>	Basic Materials	0.041	0.025	<b>0.588</b>
	Industrials	0.034	0.027	<b>0.799</b>
	Consumer Cyclicals	0.036	0.026	<b>0.732</b>
	Real Estate	0.018	0.026	<b>0.981</b>
	Technology	-0.112	0.047	<b>0.167</b>
<b>Technology</b>	Basic Materials	0.153*	0.044	<b>0.009</b>
	Industrials	0.146*	0.045	<b>0.018</b>
	Consumer Cyclicals	0.148*	0.045	<b>0.014</b>
	Real Estate	0.130*	0.044	<b>0.044</b>
	Consumer Non-Cyclicals	0.112	0.047	<b>0.167</b>

Note: \*. Denote significance at the 0.05 level.

As presented in the above table, the results of one-way ANOVA indicated that, with the exception of consumer-non cyclicals sector, which has a p-value > 0.05, the

mean value of CGD quality in the technology sector is statistically significantly different from all other sectors as  $p\text{-value} < 0.05$ .

Regarding all the other sectors, the results reveal that there is no statistically significant difference in the mean value of CGD quality between them as  $p\text{-value} > 0.05$ .

Another presentation of the CGD quality index score mean differences across the six business sectors is in the following table.

**Table 6.31 CGD quality index score mean differences between the business sectors in Egypt**

Sector	Basic materials	Consumer cyclicals	Consumer non-cyclicals	Industrials	Real estate	Technology
Basic materials						√
Consumer cyclicals						√
Consumer non-cyclicals						
Industrials						√
Real estate						√
Technology	√	√		√	√	

As stated earlier, the above table highlights the statistically significant difference in the CGD quality mean value between the six business sectors. It shows that there is a statistically significant difference in the CGD quality mean value between the technology sector and the basic materials, consumer cyclicals, industrials, and real estate sectors. As for the other sectors, there is no statistically significant difference in the CGD quality mean value between them.

**Table 6.32 Homogeneous subsets of the business sectors in Egypt**

CGD Quality Index Score			
Sector	N	Subset for alpha = 0.05	
		1	2
Basic Materials	51	0.641	
Consumer Cyclicals	45	0.646	



CGD Quality Index Score			
Sector	N	Subset for alpha = 0.05	
		1	2
Industrials	36	0.647	
Real Estate	48	0.664	
Consumer Non-Cyclicals	24	0.682	
Technology	6		0.793
<b>Sig.</b>		0.802	1.000

As presented in the above table, the results of the homogeneous subsets of the business sectors in Egypt reveal that all business sectors fall in the same subset, except the technology sector. This suggests that there is no statistically significant difference between these five sectors. However, the technology sector falls in a group by itself, and this is because its CGD quality mean value is statistically significantly different from the other sectors.

Based on the above discussions and considerations, the related hypothesis testing result is as follows:

***H16(b) That there is a statistically significant difference in CGD quality across the identified six business sectors in Egypt.***

Hypothesis 16(b) was accepted.

After discussing the results of the differences in the business sectors within U.K. and Egypt, the following section discusses the results of the differences of the business sectors between U.K. and Egypt.

### **6.3.3.2 Discussion of the inter-country business sectoral results**

This section discusses the results of the inter-country business sectoral results using T-Test. The following discussion of the results of the T-test, of the six business sectors, is in descending order according to the total number of companies per sector in the U.K. and Egypt jointly.

### **6.3.3.2.1 Consumer cyclicals sector**

The first sector is consumer cyclicals, where there are 57 firm-year observations in the U.K. and 45 in Egypt.

**Table 6.33 Group statistics consumer cyclicals sector and CGD Quality**

<b>Consumer cyclicals sector</b>	<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Std. Error Mean</b>
<b>CGD Quality Index Score</b>	U.K.	57	0.910	0.035	0.005
	Egypt	45	0.646	0.104	0.016

As per the above table, it appears that the consumer cyclicals companies in the U.K. have a mean CGD quality index score of 0.910, which is higher than that of companies in Egypt operating in the same sector, which have a mean CGD quality index score of 0.646. Furthermore, the deviation in CGD quality between companies is higher in Egypt (Std. Dev. = 0.104) than the U.K. (Std. Dev. = 0.035).

Then, the results of Levene's Test for Equality of Variances indicate that the equal variance is not assumed between the two countries as  $p\text{-value} < 0.05$ . Thus, there is a statistically significant difference between the two countries in the mean CGD quality index score. Even though the companies are grouped under the same sector, this is expected as the sample consists of two different countries with distinct characteristics. Accordingly, to compare the mean difference of CGD quality index score between the two countries, the t-test using the equal variance not assumed results is presented in the following table.

**Table 6.34 Results of t-test for consumer cyclicals sector**

<b>t-test Variable</b>	<b>t-test for Equality of Means</b>		
	<b>t-Value</b>	<b>Sig.</b>	<b>Mean Difference</b>
<b>CGD Quality Index Score</b>	16.249	0.000	0.264

As per the above table, there is a statistically significant difference ( $t = 16.249$ ,  $p$ -value  $< 0.05$ ) in the mean CGD quality index score in companies between the U.K. and Egypt. The U.K. companies appeared to have a mean CGD quality index score higher than companies in Egypt by 0.264.

### **6.3.3.2.2 Basic materials sector**

The basic materials sector is the second to discuss, where there are 30 firm-year observations in the U.K. and 51 in Egypt.

**Table 6.35 Group statistics basic materials sector and CGD Quality**

<b>Basic materials sector</b>	<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Std. Error Mean</b>
<b>CGD Quality Index Score</b>	U.K.	30	0.923	0.021	0.004
	Egypt	51	0.641	0.082	0.012

As per the above table, it appears that the basic materials companies in the U.K. have a mean CGD quality index score of 0.923, which is higher than that of companies in Egypt operating in the same sector, which have a mean CGD quality index score of 0.641. Furthermore, the deviation in CGD quality between companies is higher in Egypt (Std. Dev. = 0.082) than the U.K. (Std. Dev. = 0.021).

Then, the results of Levene's Test for Equality of Variances indicate that the equal variance is not assumed between the two countries as  $p$ -value  $< 0.05$ . Thus, there is a statistically significant difference between the two countries in the mean CGD quality index score. Even though the companies are grouped under the same sector, this is expected as the sample consists of two different countries with distinct characteristics. Accordingly, to compare the mean difference of CGD quality index score between the two countries, the t-test using the equal variance not assumed results is presented in the following table.

**Table 6.36 Results of t-test for basic materials sector**

t-test Variable	t-test for Equality of Means		
	t-Value	Sig.	Mean Difference
<b>CGD Quality Index Score</b>	23.218	0.000	0.282

As per the above table, there is a statistically significant difference ( $t = 23.218$ ,  $p$ -value  $< 0.05$ ) in the mean CGD quality index score in companies between the U.K. and Egypt. The U.K. companies appeared to have a mean CGD quality index score higher than companies in Egypt by 0.282.

### **6.3.3.2.3 Industrials sector**

The third sector is the industrials, where there are 33 firm-year observations in the U.K. and 36 in Egypt.

**Table 6.37 Group statistics industrials sector and CGD Quality**

Industrials sector	Group	N	Mean	Std. Dev.	Std. Error Mean
<b>CGD Quality Index Score</b>	U.K.	33	0.935	0.030	0.005
	Egypt	36	0.647	0.122	0.020

As per the above table, it appears that the industrials companies in the U.K. have a mean CGD quality index score of 0.935, which is higher than that of companies in Egypt operating in the same sector, which have a mean CGD quality index score of 0.647. Furthermore, the deviation in CGD quality between companies is higher in Egypt (Std. Dev. = 0.122) than the U.K. (Std. Dev. = 0.030).

Then, the results of Levene's Test for Equality of Variances indicate that the equal variance is not assumed between the two countries as  $p$ -value  $< 0.05$ . Thus, there is a statistically significant difference between the two countries in the mean CGD quality index score. Even though the companies are grouped under the same sector,

this is expected as the sample consists of two different countries with distinct characteristics. Accordingly, to compare the mean difference of CGD quality index score between the two countries, the t-test using the equal variance not assumed results is presented in the following table.

**Table 6.38 Results of t-test for industrials sector**

t-test Variable	t-test for Equality of Means		
	t-Value	Sig.	Mean Difference
<b>CGD Quality Index Score</b>	13.755	0.000	0.288

As per the above table, there is a statistically significant difference ( $t = 13.755$ ,  $p$ -value  $< 0.05$ ) in the mean CGD quality index score in companies between the U.K. and Egypt. The U.K. companies appeared to have a mean CGD quality index score higher than companies in Egypt by 0.288.

#### **6.3.3.2.4 Consumer non-cyclicals sector**

The fourth sector is consumer non-cyclicals, where there are 36 firm-year observations in the U.K. and 24 in Egypt.

**Table 6.39 Group statistics consumer non-cyclicals sector and CGD Quality**

Consumer non-cyclicals sector	Group	N	Mean	Std. Dev.	Std. Error Mean
<b>CGD Quality Index Score</b>	U.K.	36	0.923	0.026	0.004
	Egypt	24	0.682	0.106	0.022

As per the above table, it appears that the consumer non-cyclicals companies in the U.K. have a mean CGD quality index score of 0.923, which is higher than that of companies in Egypt operating in the same sector, which have a mean CGD quality index score of 0.682. Furthermore, the deviation in CGD quality between companies is higher in Egypt (Std. Dev. = 0.106) than the U.K. (Std. Dev. = 0.026).

Then, the results of Levene's Test for Equality of Variances indicate that the equal variance is not assumed between the two countries as  $p\text{-value} < 0.05$ . Thus, there is a statistically significant difference between the two countries in the mean CGD quality index score. Even though the companies are grouped under the same sector, this is expected as the sample consists of two different countries with distinct characteristics. Accordingly, to compare the mean difference of CGD quality index score between the two countries, the t-test using the equal variance not assumed results is presented in the following table.

**Table 6.40 Results of t-test for consumer non-cyclicals sector**

t-test Variable	t-test for Equality of Means		
	t-Value	Sig.	Mean Difference
<b>CGD Quality Index Score</b>	10.953	0.000	0.241

As per the above table, there is a statistically significant difference ( $t = 10.953$ ,  $p\text{-value} < 0.05$ ) in the mean CGD quality index score in companies between the U.K. and Egypt. The U.K. companies appeared to have a mean CGD quality index score higher than companies in Egypt by 0.241.

#### **6.3.3.2.5 Real estate sector**

The real estate sector, where there are 12 firm-year observations in the U.K. and 48 in Egypt, is the fifth sector to discuss.

**Table 6.41 Group statistics real estate sector and CGD Quality**

Real estate sector	Group	N	Mean	Std. Dev.	Std. Error Mean
<b>CGD Quality Index Score</b>	U.K.	12	0.887	0.017	0.005
	Egypt	48	0.664	0.107	0.015

As per the above table, it appears that the real estate companies in the U.K. have a mean CGD quality index score of 0.887, which is higher than that of companies in

Egypt operating in the same sector, which have a mean CGD quality index score of 0.664. Furthermore, the deviation in CGD quality between companies is higher in Egypt (Std. Dev. = 0.107) than the U.K. (Std. Dev. = 0.017).

Then, the results of Levene's Test for Equality of Variances indicate that the equal variance is not assumed between the two countries as  $p\text{-value} < 0.05$ . Thus, there is a statistically significant difference between the two countries in the mean CGD quality index score. Even though the companies are grouped under the same sector, this is expected as the sample consists of two different countries with distinct characteristics. Accordingly, to compare the mean difference of CGD quality index score between the two countries, the t-test using the equal variance not assumed results is presented in the following table.

**Table 6.42 Results of t-test for real estate sector**

t-test Variable	t-test for Equality of Means		
	t-Value	Sig.	Mean Difference
<b>CGD Quality Index Score</b>	13.803	0.000	0.223

As per the above table, there is a statistically significant difference ( $t = 13.803$ ,  $p\text{-value} < 0.05$ ) in the mean CGD quality index score in companies between the U.K. and Egypt. The U.K. companies appeared to have a mean CGD quality index score higher than companies in Egypt by 0.223.

#### **6.3.3.2.6 Technology sector**

The sixth and last sector is technology, where there are 27 firm-year observations in the U.K. and 6 in Egypt.

**Table 6.43 Group statistics technology sector and CGD Quality**

Technology sector	Group	N	Mean	Std. Dev.	Std. Error Mean
CGD Quality Index Score	U.K.	27	0.919	0.026	0.005
	Egypt	6	0.793	0.059	0.024

As per the above table, it appears that the technology companies in the U.K. have a mean CGD quality index score of 0.919, which is higher than that of companies in Egypt operating in the same sector, which have a mean CGD quality index score of 0.793. Furthermore, the deviation in CGD quality between companies is higher in Egypt (Std. Dev. = 0.059) than the U.K. (Std. Dev. = 0.026).

Then, the results of Levene's Test for Equality of Variances indicate that the equal variance is not assumed between the two countries as  $p\text{-value} < 0.05$ . Thus, there is a statistically significant difference between the two countries in the mean CGD quality index score. Even though the companies are grouped under the same sector, this is expected as the sample consists of two different countries with distinct characteristics. Accordingly, to compare the mean difference of CGD quality index score between the two countries, the t-test using the equal variance not assumed results is presented in the following table.

**Table 6.44 Results of t-test for technology sector**

t-test Variable	t-test for Equality of Means		
	t-Value	Sig.	Mean Difference
CGD Quality Index Score	5.127	0.003	0.125

As per the above table, there is a statistically significant difference ( $t = 5.127$ ,  $p\text{-value} < 0.05$ ) in the mean CGD quality index score in companies between the U.K. and Egypt. The U.K. companies appeared to have a mean CGD quality index score higher than companies in Egypt by 0.125.



Based on the above discussions and considerations, the following paragraphs provide the hypotheses testing results.

***H17(a) That there is a statistically significant difference in CGD quality of the basic materials sector between the U.K. and Egypt.***

Hypothesis 17(a) was accepted.

***H17(b) That there is a statistically significant difference in CGD quality of the consumer cyclicals sector between the U.K. and Egypt.***

Hypothesis 17(b) was accepted.

***H17(c) That there is a statistically significant difference in CGD quality of the consumer non-cyclicals sector between the U.K. and Egypt.***

Hypothesis 17(c) was accepted.

***H17(d) That there is a statistically significant difference in CGD quality of the industrials sector between the U.K. and Egypt.***

Hypothesis 17(d) was accepted.

***H17(e) That there is a statistically significant difference in CGD quality of the real estate sector between the U.K. and Egypt.***

Hypothesis 17(e) was accepted.

***H17(f) That there is a statistically significant difference in CGD quality of the technology sector between the U.K. and Egypt.***

Hypothesis 17(f) was accepted.

The following section discusses the level of CGD quality of the six business sectors.

#### **6.3.3.3 Discussion of the CGD quality of the business sectors**

The results of the inter-country business sectoral results indicate that across all the six identified sectors, there is a statistically significant difference in the mean CGD quality index score between U.K. and Egyptian companies. The industrials sector

had the highest mean difference (0.288), while the technology sector had the lowest mean difference (0.125).

The following table presents the six identified business sectors in the U.K. and Egypt and their respective level of CGD quality.

**Table 6.45 Level of CGD quality based on business sectors in the U.K. and Egypt**

Sector	Level of CGD quality	CGD quality rating	U.K.		Egypt	
			Firm-year observations	% of sample	Firm-year observations	% of sample
Basic Materials	High	80-100%	30	15.4	1	0.5
	Moderate	60-79%	0	0	36	17.1
	Low	50-59%	0	0	14	6.7
	Very low	0-49%	0	0	0	0
Consumer Cyclical	High	80-100%	57	29.2	1	0.5
	Moderate	60-79%	0	0	34	16.2
	Low	50-59%	0	0	4	1.9
	Very low	0-49%	0	0	6	2.9
Consumer Non-Cyclical	High	80-100%	36	18.5	3	1.4
	Moderate	60-79%	0	0	18	8.6
	Low	50-59%	0	0	0	0
	Very low	0-49%	0	0	3	1.4
Industrials	High	80-100%	33	16.9	3	1.4
	Moderate	60-79%	0	0	21	10
	Low	50-59%	0	0	8	3.8
	Very low	0-49%	0	0	4	1.9
Real Estate	High	80-100%	12	6.2	9	4.3
	Moderate	60-79%	0	0	30	14.3
	Low	50-59%	0	0	6	2.9
	Very low	0-49%	0	0	3	1.4
Technology	High	80-100%	27	13.8	3	1.4
	Moderate	60-79%	0	0	3	1.4
	Low	50-59%	0	0	0	0
	Very low	0-49%	0	0	0	0
<b>Total</b>			<b>195</b>	<b>100</b>	<b>210</b>	<b>100</b>

According to the above table, the level of CGD quality in the U.K. listed companies is higher than in Egyptian listed companies. All U.K. companies have high CGD quality, whereas Egyptian companies fluctuate from high to very low. This reflects the difference in CGD practices between the U.K. and Egyptian companies.

Furthermore, the level of CGD quality of each sector will have different implications for each country depending on its distinctive economy. Therefore, the main drivers of each country's GDP are discussed next.

As stated earlier, the GDP of the U.K. is mostly generated by the services sector, and specifically tourism, which drives the economy and accounts for a significant portion of the U.K.'s GDP. In 2021, around 71.46% came from services, 17.49% from industry, and around 0.68% from agriculture (O'Neill, 2023a).

Nevertheless, it is expected that tourism may not be the main driver of the GDP of the U.K. in the coming years, mainly because of Brexit<sup>27</sup> and all of its implications. After Brexit, the traveling arrangements became more difficult and time consuming, in addition to costing more money (O'Neill, 2023a).

As per the above table, 29.2% of the U.K. companies in the consumer cyclicals sector appear to have a high level of CGD quality. This can be perceived as a favourable sign for the U.K. economy as consumer cyclicals may include companies involved in travel and tourism, such as airlines, hotels, and restaurants.

Regarding the GDP of Egypt, 52.23% came from the services sector, followed by industry with a contribution of 30.79% and agriculture with a contribution of roughly 11.83% in 2021 (O'Neill, 2023b).

However, the consumer cyclicals sector has roughly 16.7% in the moderate and high levels combined. This would imply that there is a need for higher CGD quality levels among companies in this particular business sector, as it represents more than half of the country's GDP.

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<sup>27</sup> Brexit is a term made of two words: "Britain" and "exit". In the U.K., a referendum was held on June 23, 2016, and the results showed that a majority of 51.9% of voters wanted the country to exit the EU (Ben Ameer and Louhichi, 2022).

In light of the business sectoral results, the overall CGD quality in the U.K. is higher than Egypt. This would suggest that the secretive culture in Egypt is still an issue. Even though, there is a trend in Egypt towards higher level of CGD quality. Yet, there is certainly potential for improvement. In a global context, more transparency will have implications and be beneficial to Egypt since it will grant access to more funds, which will eventually have an impact on economic growth.

#### **6.4 Hypotheses testing results summary**

The following table summarises the results of the hypotheses testing – acceptance/rejection at 0.05 level of significance.

**Table 6.46 Summary of hypotheses testing results**

<b>Set</b>	<b>No.</b>	<b>Hypothesis</b>	<b>Result</b>
<b>Company Characteristics Hypotheses</b>	<b>H1(a)</b>	<i>That there is a statistically significant positive relationship between stock exchange index and CGD quality.</i>	NA
	<b>H2(a)</b>	<i>That there is a statistically significant positive relationship between S&amp;P ESG index and CGD quality.</i>	Accepted
	<b>H3(a)</b>	<i>That there is a statistically significant positive relationship between company age and CGD quality.</i>	Rejected
	<b>H3(b)</b>	<i>That company age is significantly and positively associated with CGD quality in the U.K.</i>	Rejected
	<b>H3(c)</b>	<i>That company age is significantly and positively associated with CGD quality in Egypt.</i>	Rejected
	<b>H4(a)</b>	<i>That there is a statistically significant positive relationship between company size and CGD quality.</i>	Accepted
	<b>H4(b)</b>	<i>That company size is significantly and positively associated with CGD quality in the U.K.</i>	Accepted
	<b>H4(c)</b>	<i>That company size is significantly and positively associated with CGD quality in Egypt.</i>	Accepted

Set	No.	Hypothesis	Result
	<b>H5(a)</b>	<i>That there is a statistically significant positive relationship between type of auditor and CGD quality.</i>	<i>Accepted</i>
	<b>H6(a)</b>	<i>That there is a statistically significant positive relationship between cross-listing and CGD quality.</i>	<i>Accepted</i>
	<b>H7(a)</b>	<i>That there is a statistically significant positive relationship between profitability and CGD quality.</i>	<i>Accepted</i>
	<b>H7(b)</b>	<i>That profitability is significantly and positively associated with CGD quality in the U.K.</i>	<i>Rejected</i>
	<b>H7(c)</b>	<i>That profitability is significantly and positively associated with CGD quality in Egypt.</i>	<i>Accepted</i>
	<b>H8(a)</b>	<i>That there is a statistically significant positive relationship between liquidity and CGD quality.</i>	<i>Accepted</i>
	<b>H8(b)</b>	<i>That liquidity is significantly and positively associated with CGD quality in the U.K.</i>	<i>Rejected</i>
	<b>H8(c)</b>	<i>That liquidity is significantly and positively associated with CGD quality in Egypt.</i>	<i>Rejected</i>
	<b>H9(a)</b>	<i>That there is a statistically significant positive relationship between ownership structure and CGD quality.</i>	<i>Accepted</i>
	<b>H9(b)</b>	<i>That ownership structure is significantly and positively associated with CGD quality in the U.K.</i>	<i>Rejected</i>
	<b>H9(c)</b>	<i>That ownership structure is significantly and positively associated with CGD quality in Egypt.</i>	<i>Accepted</i>
	<b>H10(a)</b>	<i>That there is a statistically significant positive relationship between foreign institutional investors and CGD quality.</i>	<i>Rejected</i>
<b>CG Characteristics Hypotheses</b>	<b>H11(a)</b>	<i>That there is a statistically significant negative relationship between CEO duality and CGD quality.</i>	<i>Accepted</i>
	<b>H12(a)</b>	<i>That there is a statistically significant positive relationship between BoD size and CGD quality.</i>	<i>Accepted</i>

Set	No.	Hypothesis	Result
	<b>H12(b)</b>	<i>That BoD size is significantly and positively associated with CGD quality in the U.K.</i>	<i>Accepted</i>
	<b>H12(c)</b>	<i>That BoD size is significantly and positively associated with CGD quality in Egypt.</i>	<i>Accepted</i>
	<b>H13(a)</b>	<i>That there is a statistically significant positive relationship between BoD independence and CGD quality.</i>	<i>Accepted</i>
	<b>H13(b)</b>	<i>That BoD independence is significantly and positively associated with CGD quality in the U.K.</i>	<i>Accepted</i>
	<b>H13(c)</b>	<i>That BoD independence is significantly and positively associated with CGD quality in Egypt.</i>	<i>Accepted</i>
	<b>H14(a)</b>	<i>That there is a statistically significant positive relationship between audit committee and CGD quality.</i>	<i>NA</i>
<b>Country Hypothesis</b>	<b>H15(a)</b>	<i>That the U.K. has a statistically significant higher CGD quality than Egypt.</i>	<i>Accepted</i>
<b>Business Sector Hypotheses</b>	<b>H16(a)</b>	<i>That there is a statistically significant difference in CGD quality across the identified six business sectors in the U.K.</i>	<i>Accepted</i>
	<b>H16(b)</b>	<i>That there is a statistically significant difference in CGD quality across the identified six business sectors in Egypt.</i>	<i>Accepted</i>
	<b>H17(a)</b>	<i>That there is a statistically significant difference in CGD quality of the basic materials sector between the U.K. and Egypt.</i>	<i>Accepted</i>
	<b>H17(b)</b>	<i>That there is a statistically significant difference in CGD quality of the consumer cyclicals sector between the U.K. and Egypt.</i>	<i>Accepted</i>
	<b>H17(c)</b>	<i>That there is a statistically significant difference in CGD quality of the consumer non-cyclicals sector between the U.K. and Egypt.</i>	<i>Accepted</i>

Set	No.	Hypothesis	Result
	<b>H17(d)</b>	<i>That there is a statistically significant difference in CGD quality of the industrials sector between the U.K. and Egypt.</i>	<i>Accepted</i>
	<b>H17(e)</b>	<i>That there is a statistically significant difference in CGD quality of the real estate sector between the U.K. and Egypt.</i>	<i>Accepted</i>
	<b>H17(f)</b>	<i>That there is a statistically significant difference in CGD quality of the technology sector between the U.K. and Egypt.</i>	<i>Accepted</i>

A discussion on the theoretical findings, grounded in the empirical results, follows.

### **6.5 Discussion of theoretical findings**

In this section, the discussion draws on Signalling Theory insights and evaluations regarding the quality of CGD in order to achieve the following,

#### **Objective 1**

To determine and present theoretical insights relating to **Signalling Theory** both generally and, more particularly, within the context of **CGD quality**.

As per the research empirical results using Correlations, Multiple Regression Models, ANOVA, and T-test, one may induce that companies with certain company characteristics, CG characteristics, and country-specific characteristics have better CGD quality. Accordingly, the research draws the conclusion that company characteristics, CG characteristics, and country-specific characteristics appear to have a very significant ability to influence the level of CGD quality, concurrently sending very strong positive signals to various stakeholders.

Therefore, it is not unreasonable to interpret that companies “signal” to different stakeholders through their CGD practices. Company directors act as signallers, sending signals to receivers, primarily shareholders, related to the

company characteristics, CG characteristics, and country-specific characteristics. These signals are meant to be interpreted as an indication of high CGD quality level. In response, the receivers provide feedback in the form of investment funds to these companies.

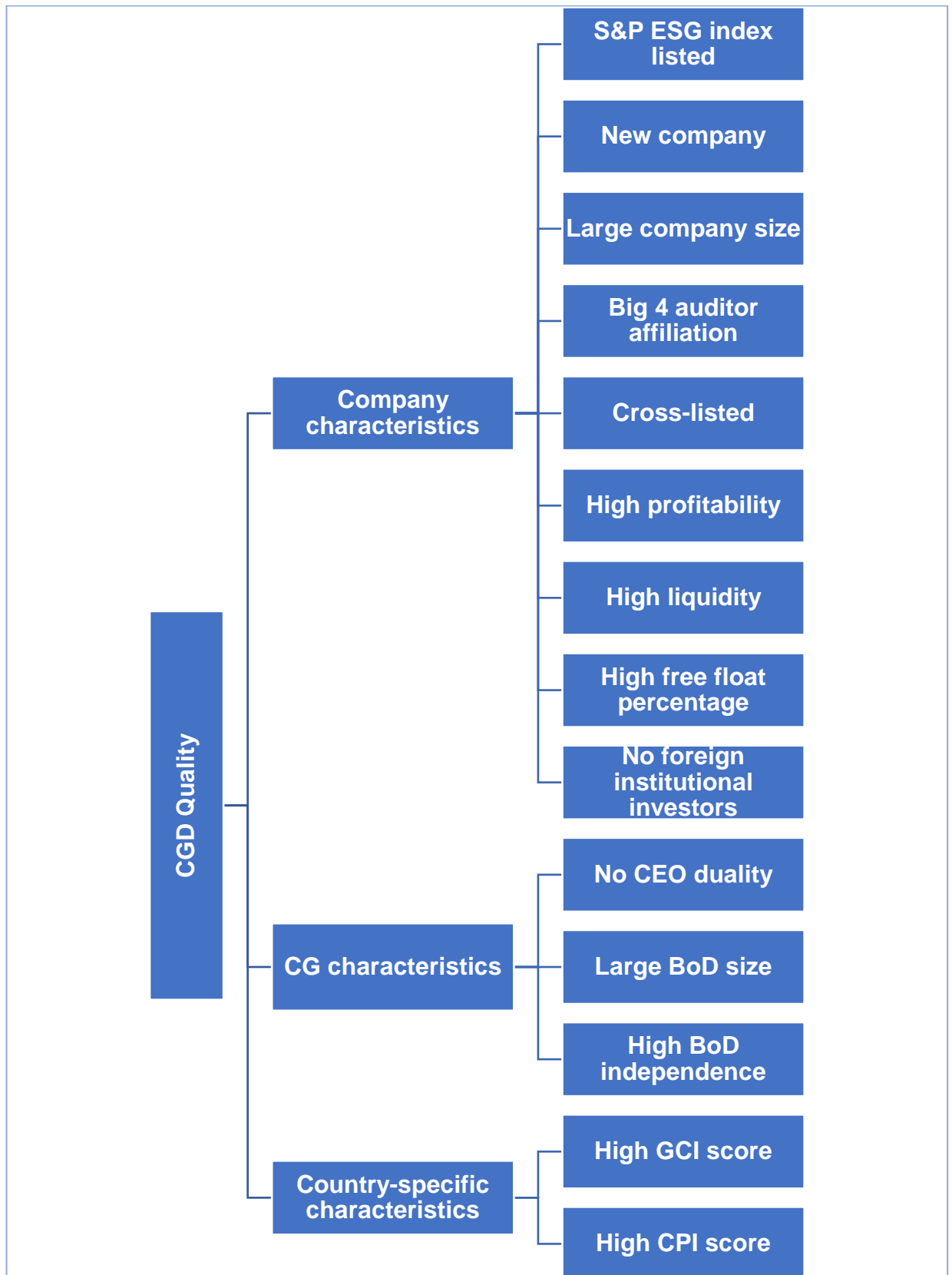
One may consider the potential signals that could be sent by company directors to signal their companies' high level of CGD quality by referring to the concepts outlined in the Signalling Timeline by Connelly et al. (2011)<sup>28</sup>. These different signals would influence the decision-making of investors either positively or negatively as illustrated in the following figure.

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<sup>28</sup> Figure 3.1 presents the Signalling Timeline.



**Figure 6.5 CGD quality potential “signals”**



As presented in the above figure, there are signals regarding the company characteristics, CG characteristics, and country-specific characteristics. Investors would likely believe that sending these signals is an indication of sound CGD

practices. Accordingly, the results are generally supportive of “Signalling Theory” and these signals help reduce information asymmetry. Consequently, disclosure and transparency will improve while trust between companies’ directors and shareholders will be upheld.

## **6.6 Chapter summary**

The chapter started with the discussion of the descriptive results of the dependent variable, then the independent variables, which are classified into categorical and continuous. This is discussed in terms of the sample of the U.K. listed companies, i.e., the set of the 65 testable U.K. sample of companies over the period of three years 2019-2021, as well as the sample of the Egyptian listed companies, i.e., the set of the 70 testable companies over the same period three year of 2019-2021.

The correlation results for the U.K. and Egyptian samples are discussed to determine the strength of the association between the CGD quality and the independent variables within the contexts of the U.K. and Egyptian companies. The correlation results for the U.K. sample reveal that only three variables emerged to be highly statistically significant and positively correlated with CGD quality. These are the variables of company size, BoD size, and BoD independence. However, the results indicate that the variables of company age, profitability, liquidity, and ownership structure appear to have no significant correlation with CGD quality.

Regarding the Egyptian sample, the correlation results are slightly different. The CGD quality is highly statistically significant and positively correlated with the company size, profitability, ownership structure, and BoD size. On the other hand, CGD quality is positively correlated and statistically significant with BoD independence. However, while the relationship between CGD quality and the company age emerges to be highly statistically significant, it is curiously, negatively

correlated. Moreover, liquidity appears to have no significant correlation with CGD quality.

In terms of the U.K. and Egyptian samples, both samples reveal that CGD quality appears to be positively correlated and highly statistically significant with the company size and BoD size. Furthermore, BoD independence is revealed to be positively correlated with CGD quality for both samples. However, in the U.K., it was highly statistically significant, while in Egypt, it was statistically significant. Equally, both samples reveal that liquidity appears to have no significant correlation with CGD quality.

Then, the results of the multiple regression models are discussed to indicate which independent variables are significantly influencing the CGD quality in the contexts of the U.K. and Egyptian companies. The research determines that the independent variables, combining company characteristics and CG characteristics as well as the country variable, explain 88.9% of the change in the CGD quality, based on the R-squared %. Additionally, the country variable indicated a highly significant and negative effect on CGD quality. This suggests that, overall, disclosure quality is somewhat reduced, when the company is located in Egypt. In other words, a company's CGD quality would generally be lower if it were located in Egypt than if it were located in the U.K.

Concerning the results of the intra-country business sectoral evaluation, the analysis of variance for the U.K. sample indicate that there is a statistically significant difference in CGD quality across the six identified business sectors. The real estate sector appeared to have the lowest mean value of CGD quality. On the other hand, the industrials sector appeared to have the highest mean value of CGD quality. This could be due to the fact that this is the only sector that had a maximum CGD quality index score of 1 among all the six identified business sectors in the U.K. The results

indicate that only one company in the U.K. had a total CGD quality score of 1, and that company was in fact in the industrials sector.

As for the Egyptian sample, the results suggest that there is a statistically significant difference in CGD quality across the six identified business sectors. It appeared that the technology sector had the highest mean value of CGD quality. This result highly suggests that the technology sector may have higher disclosure standards because its mean value is the highest.

Regarding the results of the inter-country business sectoral evaluation, the results of the six T-test revealed that there is a statistically significant difference in CGD quality of the six identified business sectors between the U.K. and Egypt. The CGD quality of the U.K. companies was higher than that of the Egyptian companies across all six business sectors. This is consistent with the premise that CGD quality in the U.K. is higher than in Egypt.

Then, a discussion on the theoretical findings, grounded in the empirical results, followed. This discussion drew on Signalling Theory insights and evaluations regarding the quality of CGD.

The next chapter discusses the research conclusions, policy contribution(s), and future research.

## **Chapter 7**

**Research conclusions, policy  
contribution(s), and future research**

## **Chapter 7: Research conclusions, policy contribution(s), and future research**

### **7.1 Introductory comments**

This final chapter of the thesis discusses **conclusions** initially drawn from the results of the empirical analysis. It then also suggests some appropriate **policy contributions** to policy makers so that their actions could make a practical difference to the phenomenon of trust within the CG arena. Thereafter, some important research **limitations** are discussed, in the light of the results of the analyses undertaken. Equally, in order to alleviate these research limitations, some suggested possible **future research** ideas are offered. Finally, the chapter also takes the opportunity to highlight the **knowledge contributions** made through the research and present some possibilities as to how future researchers may extend and expand upon it.

### **7.2 Conclusions**

Earlier chapters of the thesis set out that its fundamental research question is “what might be the varying criteria and considerations behind and associated with, the decisions of comparable sets of U.K. and Egyptian listed companies, in terms of their varying CGD quality and practices - specifically in disclosing (or not), in an open and transparent manner?”. The answer to this question was sought on the premise that companies that have high quality disclosures, will likely tend to exercise high quality governance practices and so are likely to be more meriting of trust (particularly investor trust) than those that do not.

Then, the answer to this question is explored using the sample of the U.K. listed companies, i.e., the set of the 65 testable U.K. sample of companies over the period of three years 2019-2021, as well as the sample of the Egyptian listed companies,

i.e., the set of the 70 testable companies over the same period three year of 2019-2021.

In that context, and to that end, the research identified, within U.K. and Egypt, sets of meaningful characteristics that seem to signal and are associated with levels of quality of CGD. Against that background, the relevant section of this chapter discusses the research conclusions in relation to the research questions and research objectives. The section also provides some thoughtful considerations in the light of the statistical results derived from the testing of the previously identified sets of research hypotheses.

### **7.2.1 Company characteristics**

The first set of hypotheses examined in the research focused on company characteristics within the contexts of the U.K. and Egyptian listed companies. This was done in an attempt to answer the following research question, “**What company characteristics** are manifest in, and-or possibly influentially associated with, companies exhibiting particular levels/qualities of CGD?”. Accordingly, the objective linked to this question was, “To empirically identify varying company characteristics as possibly associated with CGD quality across two meaningfully identified sets of U.K. and Egyptian companies”. In order to derive appropriate results from suitable data, the research employed Correlation and Regression analyses. These helped determine the main company characteristics that appear to be (positively or negatively) associated with varying practices of CGD quality within the identified contexts of the U.K. and Egyptian listed companies.

In terms of the Correlation analyses, the results indicated the degree of strength and the direction of the association between the CGD quality and the company

characteristics variables within the contexts of the U.K. and Egyptian listed companies.

The results for the U.K. sample reveal that only one company characteristic variable, that is the company size, emerged to be highly statistically significant and positively correlated with the CGD quality. This suggests that larger companies may be associated with higher level of CGD quality. However, the results indicate that the variables of company age, profitability, liquidity, and ownership structure appear to have no significant correlation with CGD quality.

Regarding the Egyptian sample, the correlation results are slightly different. The CGD quality is highly statistically significant and positively correlated with the company size, profitability, and ownership structure. This suggests that larger and more profitable companies with higher percentage of free float may be associated with higher level of CGD quality.

However, while the relationship between the CGD quality and the company age emerges to be highly statistically significant, it is curiously, negatively correlated. This indicates that older companies may be associated with lower level of CGD quality. Moreover, liquidity (while negatively correlated) appears to have no significant correlation with the CGD quality.

Then, in terms of the U.K. and Egyptian samples, both samples reveal that the CGD quality appears to be positively correlated and highly statistically significant with the company size. Equally, both samples reveal that liquidity appears to have no significant correlation with CGD quality.

In terms of the Regression analyses, the results indicated that the company characteristics variables that affect the CGD quality within the contexts of the U.K. and Egyptian listed companies. As an evidence for the robustness of the main



model, the results revealed from the subsidiaries models appear to be consistent with those obtained from the main model.

The company characteristics that indicated a statistically highly significant and positive influence on the CGD quality are S&P ESG index, company size, type of auditor, profitability, liquidity, and ownership structure. Among these characteristics, the one that appeared to have the highest positive effect on the main model was the type of auditor characteristic. On the other hand, the company characteristic that indicated a statistically highly significant and negative influence on the CGD quality is the company age. This would suggest that the older the company, the lower the level of its CGD quality.

Moreover, the company characteristics that revealed a statistically significant influence on the CGD quality are cross-listing and foreign institutional investors. However, the influence itself appeared to be in different directions.

Cross-listing is a company characteristic that revealed a statistically lower significance level, than the earlier stated company characteristics, but positive influence on the CGD quality in the main model. However, cross-listing characteristic appeared to have no significance in all subsidiaries models. This would suggest that companies that are listed on one or more foreign stock exchange, in addition to its local stock exchange, would tend to have higher CGD quality.

The second company characteristic that also revealed a statistically lower significance level is the existence of the foreign institutional investors. The results appeared to suggest that the existence of foreign institutional investors may negatively influence the CGD quality. It was expected to have a positive influence on the CGD quality. But it may be suggested that the influence of the foreign institutional investors depends on their country of origin. For instance, if foreign

institutional investors are from countries with lower level of CGD disclosure quality, their existence may be of negative effect.

The next section discusses conclusions and remarks regarding the CG characteristics.

### **7.2.2 CG characteristics**

The second set of hypotheses examined was one that considered specific, meaningfully identified, CG characteristics within the contexts of the U.K. and Egyptian listed companies. The related hypotheses tested were an attempt to answer the following research question, “**What CG characteristics** are manifest in, and-or possibly influentially associated with, companies exhibiting particular levels/qualities of CGD?”. To that end, the relevant objective set was as follows, “To empirically identify varying CG characteristics as possibly associated with CGD quality across two meaningfully identified sets of U.K. and Egyptian companies”.

Accordingly, the hypotheses enabled an empirical determination of the CG characteristics positively or negatively associated with different practices of CGD quality within the identified contexts of the companies examined within the U.K. and Egypt, individually using Correlation analyses, and then, the U.K. and Egypt conjointly using Regression analyses.

Regarding the Correlation analyses, the results for the U.K. sample reveal that two CG characteristics variables emerged to be highly statistically significant and positively correlated with the CGD quality. These are the variables of BoD size and BoD independence. These results suggest that companies with larger BoD and more independent and non-executive members on BoD are more likely to be associated with higher levels of CGD quality.

Regarding the Egyptian sample, the correlation results reveal that the CGD quality is highly statistically significant and positively correlated with the BoD size. On the other hand, the CGD quality is positively correlated and statistically significant with BoD independence.

Accordingly, in terms of the U.K. and Egyptian samples, both samples reveal that the CGD quality appears to be positively correlated and highly statistically significant with the BoD size. Furthermore, the BoD independence is revealed to be positively correlated with the CGD quality for both samples. However, in the U.K., it was highly statistically significant, while in Egypt, it was statistically significant.

Regarding the Regression analyses, the robustness of the results of the main model is further proven by the fact that the results from the subsidiaries models seem to be similar to those obtained from the main model. In other words, when the data from the two countries are combined, the results of the CG characteristics appear to be similar with the individual results of each country by itself.

That being said, CEO duality does appear to be statistically highly significant and negatively influencing CGD quality. Additionally, the BoD size and BoD independence characteristics appear to be statistically highly significant and positively influencing CGD quality. This would suggest that companies having two different persons, each occupying the post of CEO and Chairman of the BoD, a larger BoD size, and a higher number of independent and non-executive BoD members, will tend to demonstrate a higher CGD quality than others. Among these characteristics, the one that appeared to have the highest positive effect on the main model was the BoD independence characteristic.

The next section discusses the conclusion regarding the country-specific characteristics.

### **7.2.3 Country-specific characteristics**

Within the contexts of the U.K. and Egyptian listed companies jointly, the third set of hypothesis examined was country-specific characteristics. The hypothesis developed was an attempt to answer the following research question, “**What country-specific characteristics** are manifest in, and-or possibly influentially associated with, companies exhibiting particular levels/qualities of CGD?”. The associated objective was set as follows, “To empirically examine and evaluate possible association of country-specific characteristics and the adoption of CGD quality in two sets of comparable U.K. and Egyptian companies”.

Accordingly, the testing of this hypothesis enabled an empirical determination of the possible association of country-specific characteristics and the adoption of CGD quality in two sets of comparable U.K. and Egyptian companies. Regression analysis was used to test this hypothesis.

As an evidence for the robustness of the main model, the results revealed from the subsidiaries models appear to be consistent with those obtained from the main model. The country variable seems to be statistically highly significant and negatively influencing the CGD quality in all subsidiaries as well as the main model.

Employing the context of U.K. and Egyptian companies jointly, the results of the Regression analysis revealed that the country variable indicated a highly statistically significant and negative influence on CGD quality when examined with the identified company characteristics and CG characteristics jointly. Furthermore, the country variable appeared to have the highest negative effect on the main model. This suggests that, overall, disclosure quality is somewhat reduced, when the company is located in Egypt. In other words, the level of a company's CGD quality would generally be lower if it were located in Egypt than if it were located in the U.K.

This would be consistent with the GCR revelation that Egypt had an average competitiveness score of only 15.37% in GCI terms, for the years 2007 to 2019. Additionally, such a determination is supported by the fact that in 2019, in relative terms, Egypt earned its all time high score of 54.5%. In contrast, it earned a record low score of 3.6% in 2015. Egypt was ranked 93<sup>rd</sup> out of 141 economies in terms of its global competitiveness (WEF, 2019). Of equal note is the fact that between 2017 and 2019, curiously, the U.K. declined three places from 6<sup>th</sup> to 9<sup>th</sup> in its global competitiveness, and warranted a competitiveness score of 81.2% in the GCI 2019 (WEF, 2019).

These results are also consistent with GCR revelations about the U.K.'s transparency and incidence of corruption as compared to Egypt. The U.K. received a score of 80% for the transparency and incidence of corruption component in 2019 and was ranked 11<sup>th</sup> out of 141 economies. Egypt, on the other hand, scored 35% in the same component in 2019 and was ranked 91<sup>st</sup> out of 141 economies, an improvement of 3% from the previous year (WEF, 2018b; WEF, 2019).

Additionally, the results are consistent with the CPI ranking of 2022, as the U.K. was ranked 18<sup>th</sup> out of 180 countries with a CPI score of 73% and Egypt was ranked 130<sup>th</sup> with a CPI score of 30% (Transparency International, 2023). Therefore, it could be suggested that Egypt is exerting efforts towards better transparency. However, these efforts must yet continue.

#### **7.2.4 Business sectors**

The fourth set of hypotheses enabled an intra-country as well as an inter-country sectoral examination of business sectors within and between each set of U.K. and Egyptian companies. These hypotheses were tested in order to answer the following research question, “**What** insights, in terms of the nature of their CGD quality, are manifest within and between companies listed on London and Egyptian Stock

Exchanges across the six identified business sectors?”. The relevant objective was expressed as follows, “To empirically identify and then provide possible explanatory interpretations for CGD quality differences within and between the six identified business sectors across the sets of U.K. and Egyptian companies”.

Thus, the testing of these hypotheses enabled an empirical determination and possible explanatory interpretations of the main differences of varying practices of CGD quality within and between business sectors of the U.K. and Egyptian companies.

In terms of the results of the intra-country business sectoral evaluation, the analysis of variance for the U.K. sample indicate that there was a statistically significant difference in CGD quality between and within the six sectors. It is worth noting that the real estate sector appeared to have the lowest mean value of CGD quality. Nevertheless, while the final testable sample included all the relevant listed companies in this sector in the U.K., the real estate sector, with only four companies within it, had the least number of companies in the sample. On the other hand, the industrials sector appeared to have the highest mean value of CGD quality. This could be due to the fact that this is the only sector that had a maximum CGD quality index score of 1 among all the six identified business sectors in the U.K. This was the total CGD quality score of only one company, which was in the industrials sector.

In terms of the Egyptian sample, the results suggest that there is at least one sector that was different from the other sectors in the mean value of CGD quality. Further analysis revealed that only one sector had a different mean value of CGD quality among all the identified sectors. It appeared to be the technology sector which showed the highest mean value of CGD quality. This result highly suggests that the technology sector may have higher disclosure standards because its mean value is the highest. Again, the fact that this sector had the least number of companies in

the sample may well be the cause of this. Nevertheless, in terms of completeness, one must note that the final testable sample excluded only one company from all the listed companies in this sector in Egypt. This was due to data unavailability.

Regarding the inter-country business sectoral evaluation, the T-test results for the samples of the U.K. and Egyptian listed companies revealed that there is a statistically significant difference in CGD quality between the U.K. and Egypt across all the six identified business sectors.

The industrials sector had the most significant mean difference (0.288) between the U.K. and Egypt. This shows that the industrial sector has a significantly larger gap in CGD practices than the other business sectors. The technology sector had the least significant mean difference (0.125) between the U.K. and Egypt. This result seems to suggest that there are some similarities between CGD practices in the technology sectors of the two countries.

### **7.3 Contribution to knowledge**

This research fills a gap in the theoretical as well as the empirical CG literature in general and CGD quality in developed vs developing countries in particular. Therefore, this research contributes to knowledge on CG literature in several aspects.

First, using Signalling Theory as its theoretical lens, the research provides some light on the theory itself and, more particularly, it does so in the context of explaining varying practices of CGD quality. To the best of the researcher's knowledge, no prior literature has examined CGD quality using the Signalling Timeline concepts proposed by Connelly et al. (2011). The research design and proposed methodology contributes to the research importance as it uses a positivist philosophy stance with

some limited interpretivist philosophy stance to examine the CG practices of the U.K. and Egyptian listed companies while employing Signalling Theory concepts.

Second, to the best of the researcher's knowledge, there is a deficiency of research examining CGD quality in developing countries, and an even greater deficiency of research analysing and evaluating CGD quality between developed and developing countries. Accordingly, the importance of this research comes from its focus on the determinants of CGD quality while employing Signalling Theory from one side and the analysis and evaluation of CGD quality in the U.K. (as a developed country) and Egypt (as a developing country) using the UNCTAD 52 (financial and non-financial) disclosure items from the other side.

Third, using the 2011 UNCTAD 52 (financial and non-financial) disclosure items for assessing the levels of CGD quality in the two countries is thought to be a country-neutral basis that has not been used in prior studies. It is considered to be a comprehensive list of disclosure items including financial and non-financial items. Additionally, the UNCTAD 52 disclosure items checklist paves the way for future research as it enables comparability of CGD quality across countries.

Fourth, additional enlightenments as to differences in the quality of CGD practices within and between sets of comparable U.K. and Egyptian companies across the six identified business sectors also emerge and are provided. Using an extensive list of fifteen independent variables individually and collectively to examine the determinants of CGD quality is a contribution to knowledge related to three sets of characteristics: company, CG, and country-specific.

The results of this research appear to be consistent with several prior literature (Jo and Harjoto, 2011; Samaha et al., 2012; Al-Moataz and Hussainey, 2013; Attig et al., 2016; Tamimi and Sebastianelli, 2017; Salah, 2018; Shi et al., 2018; Alabdullah et al., 2019; Garanina and Array, 2021; Lu and Wang, 2021). However, some of the



results of this research contradict with some prior literature (Barako et al., 2006; Mizuno, 2010; Nakano and Nguyen, 2013; Garas and ElMassah, 2018; da Costa and Martins, 2019; Wachira, 2019; Tuan et al., 2020; Zamil et al., 2021).

Nevertheless, to the best of the researcher's knowledge, there is no prior research assessing CGD quality using these fifteen variables collectively. Accordingly, this knowledge is mainly relevant to U.K. and Egyptian companies — particularly in terms of company characteristics, CG characteristics, as well as the country-specific characteristics as briefly discussed in the following paragraphs.

Based on the results generated from the empirical test and analyses undertaken, it has become more apparent that there are additional disclosures or some change in disclosures that would help companies to have more light shed on their CGD practices. As a result, the following characteristics are identified and highlighted in order to attract the attention of company directors to their disclosures' practices that will eventually contribute to engender trust.

Accordingly, it is suggested that companies with certain company characteristics signal higher CGD quality. Potential investors should look out for such signals, whether they were positive or negative signals. The knowledge contributions offered by the main model as well as the subsidiaries models (with the highest R-squared) are discussed in the following paragraphs.

The main model revealed that the type of auditor is the company characteristic that appears to have the highest statistically significant and positive influence on CGD quality, while the company age characteristic appears to have the highest statistically significant and negative influence on CGD quality.

Regarding the subsidiaries models, there are some company characteristics that appeared to have a statistically significant influence on CGD quality. In terms of the U.K., these company characteristics are likely to be, in order of their highly

statistically significant and positive influence on CGD quality, ownership structure, company size, and profitability. This would indicate that CGD quality will be likely high, if the companies have a high percentage of free float (ownership structure), their total assets are considered to be large (company size), and display high ratio of ROAE (profitability). It is worth noting that none of the examined company characteristics had a statistically significant and negative influence on CGD quality in the U.K. context.

However, in relation to Egypt, these company characteristics are likely to be, in order of their highly statistically significant and positive influence on CGD quality, type of auditor, ownership structure, profitability, S&P ESG index, company size, and liquidity. On the contrary, the company characteristics, which are likely to have a statistically highly significant and negative influence on CGD quality, in order of the highest, are foreign institutional investors and company age.

In terms of CG characteristics, it is suggested that companies with certain CG characteristics signal higher CGD quality. Potential investors should look out for such signals, whether they were positive or negative signals.

In terms of the context of the U.K. and Egyptian companies tested in the main model, the BoD independence characteristic appeared to have the highest statistically significant and positive influence on CGD quality, while CEO duality characteristic appeared to have the highest statistically significant and negative influence on CGD quality.

Regarding the subsidiaries models, in the context of the U.K., in order of the highest statistically significant influence on CGD quality, these characteristics are likely to be BoD independence and BoD size. This would suggest that the larger the number of independent and non-executive BoD (BoD independence) and the larger the

number of BoD members (BoD size), the higher the CGD quality of the relevant companies.

Regarding the Egyptian context, two CG characteristics appear to have a statistically highly significant influence on CGD quality, positively or negatively. The BoD size characteristic appeared to have the highest statistically significant and positive influence on CGD quality, while CEO duality characteristic appeared to have the highest statistically significant and negative influence on CGD quality.

Regarding the country-specific characteristics, in the main model, the country variable appeared to have the highest statistically significant and negative influence on CGD quality among all other variables. This would suggest that a company being located in Egypt will be more likely to have lower CGD quality than a company being located in the U.K.

In the subsidiaries models as well, the country variable had consistent results. This would indicate that, regardless of the characteristics being examined, the country variable seems to have a statistically highly significant and negative effect on the quality of the CGD.

Finally, based on robust empirical analysis, the research concluded that the U.K. has higher levels of CGD quality compared to Egypt. This conclusion provides comprehensive theoretical and empirical insights that have not previously been offered in prior literature by comparing these two countries of different stages of development. The analysis and evaluation of CGD quality in the U.K. as a developed country and Egypt as a developing country enriches the body of literature by comparing and contrasting two countries with different CG practices, aiming to benefit from the CG practices of the U.K. to enhance the CG practices of Egypt.

#### **7.4 Policy contribution(s)**

A contribution to policy is made by offering recommendations regarding CGD quality at country-level (U.K. and Egypt). These recommendations take into consideration earlier empirical reveals regarding the companies' intention of emitting particular signals. Although, these recommendations are not contributions to knowledge in themselves, they are enabled as a result of the application of knowledge acquired from this research.

When and if investments are to be made, and a measure of trust is to be invoked, then the directional advice/policy suggestion would be:

##### **In relation to the U.K.**

In general, the U.K. companies appeared to have high CGD quality. Nevertheless, CGD quality can be further enhanced. The ownership structure and BoD independence characteristics appeared to be the characteristics with the highest statistically significant and positive influence on the CGD quality. Therefore, companies should be encouraged by professional bodies to increase their free float percentage as well as the number of independent and non-executive BoD members. Furthermore, while choosing which companies to invest in, investors should be looking for these specific characteristics as signals of higher levels of CGD quality.

##### **In relation to Egypt**

More importantly, the Egyptian professional bodies should work with regulatory bodies and practitioners to enhance the quality of CGD. They should cover all aspects of CGD, with an emphasis on the type of auditor, ownership structure, profitability, S&P ESG index, company size, and liquidity. Also, the BoD size and CEO duality should be among the aspects emphasised. Furthermore, investors

should be looking for these specific characteristics when deciding which companies to invest in as they could be seen as signals of CGD quality.

Apart from the policy contributions suggested, it may be assumed that factors other than the rules of CG codes or the efforts of regulators and professional bodies ultimately influence the decision of a company to disclose information or not. Companies are part of a society that is being affected by a certain culture. This culture may differ from one country to another, and even within the same country, there might be cultural differences.

Generally, the aspects that are reported are the ones that can be measured. Culture, on the other hand, will influence aspects that cannot be measured. Culture can be expressed in many ways. It can be expressed in values, priorities, and information. There could be very significant cultural differences between developed and developing countries. Culture might promote openness and transparency, while it might, on the other hand, encourage secrecy and ambiguity. In general, one could anticipate that more information would lead to more trust and less information would lead to less trust. Nevertheless, trust would be affected by corruption.

Corruption is not only about money. Corruption can also be perceived as an abuse of power. Corruption is an inhibitor of trust. Investors would choose to put their funds in companies they can trust. Investors would prefer to invest in companies founded in countries where a culture of transparency is accepted and fostered. One way to determine, which companies to invest in, is to check the GCI CG score and the CPI score of the countries where these companies are located.

Therefore, it is thought that one crucial rule that must be adopted when it comes to CGD practices is the Golden Rule. According to the Golden Rule, one should treat others how they would like to be treated. Although different religions view it in

different ways, the beliefs of the majority of religions and creeds throughout history contain various manifestations of this rule. It is perceived as an ethic of reciprocity.

Even though some company and CG characteristics appeared to be associated with CGD quality, the decision of companies to disclose or not, comes down to the Golden Rule to “Act in an ethical manner and treat others the way you want to be treated”. The directors of companies may reconsider their CGD practices if they thought about how they would like to be treated if they were the recipients of the signals rather than the senders. By disclosing more information and being more transparent about their CGD practices, they would eventually reduce the information asymmetry and engender trust among investors.

### **7.5 Research limitations and suggestions for future research**

There will unavoidably be some limitations in the methods, of execution, and consequently the results of any social science research. And so, it is the case for this research. Taking regard for that, the following section identifies and considers some presently prevailing limitations, and taking regard for them offers some suggestions for future research.

As discussed in Chapter 5, there were two limitations in this research in respect to its data. The following paragraphs discuss them in the same order.

First, the time period for the research examines data collected of listed companies for three years, namely 2019-2021. The quality of CGD is expected to benefit from further improving enhancements and advancements in the future. Thus, such developments are an on-going process, with consequent amendments to the relevant CG Codes and Recommendations. Consequently, it is recommended to study, over time and in a longitudinal manner, the presently employed

characteristics and any other meaningfully identified characteristics that might be influencing the quality of CGD.

Second, the size of the samples examined are 65 U.K. listed companies and 70 Egyptian listed companies. Future research should seek to increase the number of testable companies, so as to then also increase the accuracy of the resultant statistics and decrease the related statistical margins of error.

In accordance with the second data limitation, there is a limitation related to the results of the fourth set of hypotheses "Business sectors". The testing in this set is considered to be intra-country as well as inter-country sectoral comparisons and evaluations as it examined sectors within and between the two countries of interest to this research. Nevertheless, for future research, it could be suggested to further examine intra-country and inter-country business sectoral comparisons and evaluations between developed and developing countries. Additionally, in future research, the number of sectors to be examined could be increased to provide further explanations to the differences, if any, within and between various business sectors.

Regarding the results of the statistical analyses, because their effect was statistically significant and negative, contrary to expectations, further investigation and examination of the effect of the company age and the existence of foreign institutional investors on the CGD quality may be enlightening in varying contexts.

Moreover, the following are some future research practical suggestions:

1. Replicate same time frame, but different sets of companies from U.K. and Egypt.
2. Replicate different time frame, but with the same sets of companies from U.K. and Egypt.

3. Examine different sets and different time frames in conjunction with a “mix” of the “same” and “other” sets of characteristics.
4. Attempt to extract the explanatory or contributive power underlying each of the variables identified within the Multiple Regression models.
5. Employ a different data collection technique to further explore the culture and the level of trust. This could be attempted through an integration of the human factor, for example interviews with the directors of companies as well as shareholders of the same companies or different stakeholders in general.

After discussing the research limitations and suggestions for future research, the following section discusses some further thoughts.

## **7.6 Further thoughts**

This research is an initial and partial response to a need for trust by identifying within particular (country) contexts, sets of company characteristics and CG characteristics “signal” that do suggest corporate behaviour of a sound ethical manner.

In contrast, when fraud and deception are manifest, the very opposite is the consequence. Meyer (2010) rightly expresses this in the following words:

***“Deception can cost billions. Think Enron<sup>29</sup>, Madoff<sup>30</sup>, the mortgage crisis. Or in the case of double agents and traitors, like Robert Hanssen or Aldrich Ames<sup>31</sup>, lies can betray our country. They can compromise our security. They can undermine democracy. They can cause the deaths of those that defend us.”***

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<sup>29</sup> Enron Corporation, a U.S. energy company based in Houston, Texas, was involved in a financial fraud scandal in 2001 (Heath and Norman, 2004).

<sup>30</sup> He operated largest Ponzi scheme in history, where early investors are paid back through a financial scam using funds obtained from subsequent investors rather than from actual investment income (Lewis, 2015; Kashyap, 2021).

<sup>31</sup> American spies who had allegiance to Soviet Union and Russia (Yellen, 2007).



Pamela Meyer is an American author, certified fraud examiner, and entrepreneur. She is the author of the 2010 book "Liespotting: Proven Techniques to Detect Deception" from which the above is a quotation. She contends that a significant portion of the financial crisis, including Enron, Madoff, the mortgage crisis, and other forms of betrayal events, had very high costs. Regrettably, these costs were not only financial. And, in many instances, the impact of these has fallen on those who could least bear them.

The commencement point for this research was the premise that if investors have more confidence and trust in companies, they will be more willing to make investments in them. Hopefully with such rationally placed trust, the related economic benefits will flow and enable a more beneficial and peaceful world for all. Thus, the need to identify key signals suggestive of sound CG is certainly warranted.

On that basis, this research has been a journey begun towards identifying and enabling trust in companies and, more broadly, in their identified countries. This will likely lead to considered and sustainable economic growth and consequently improve the relevant country's GCI and CPI scores. Indeed, when the relevant country's score is convincingly high enough, investors will likely place trust in the identified companies in these countries and a positive domino effect or chain reaction would then start.

## **Bibliography and/or References**

## **Bibliography and/or References**

Abdel-Fattah, T. (2008) *Voluntary disclosure practices in emerging capital markets: The case of Egypt*. PhD Thesis, Durham University.

Abdel-Fattah, T. (2018) The second wave of corporate governance in Egypt: Challenges ahead, in: Jamali, D., Bodolica, V. and Lapina, Y. (eds.) *Corporate Governance in Arab Countries: Specifics & Outlooks*. Sumy: Virtus Interpress, pp. 70-87.

Abdel-Fattah, T. and Aboud, A. (2020) Tax avoidance, corporate governance, and corporate social responsibility: The case of the Egyptian capital market, *Journal of International Accounting, Auditing and Taxation*, 38, pp. 1-16.

Abdel-Fattah, T. and Hussainey, K. (2019) Development and impact of corporate governance in Egypt, in: Weetman, P. and Tsalavoutas, I. (eds.) *The Routledge Companion to Accounting in Emerging Economies*. 1<sup>st</sup> ed. Abingdon: Routledge, pp. 184-195.

Abdel-Kader, K. (2013) What are structural policies? *The International Monetary Fund, Finance & Development*, 50 (1), pp. 46-47.

Abdullah, A.B. and Ismail, K.N.I.K. (2008) Disclosure of voluntary accounting ratios by Malaysian listed companies, *Journal of Financial Reporting and Accounting*, 6 (1), pp. 1-20.

Abraham, S. and Cox, P. (2007) Analysing the determinants of narrative risk information in UK FTSE100 annual reports, *The British Accounting Review*, 39 (3), pp. 227-248.

Adel, C., Hussain, M.M., Mohamed, E.K.A. and Basuony, M.A.K. (2019) Is corporate governance relevant to the quality of corporate social responsibility disclosure in large European companies? *International Journal of Accounting & Information Management*, 27 (2), pp. 301-332.

Agyei-Mensah, B.K. (2017) The relationship between corporate governance, corruption and forward-looking information disclosure: A comparative study, *Corporate Governance*, 17 (2), pp. 284-304.

Akhtaruddin, M., Hossain, M.A., Hossain, M. and Yao, L. (2009) Corporate governance and voluntary disclosure in corporate annual reports of Malaysian listed firms, *Journal of Applied Management Accounting Research*, 7 (1), pp. 1-20.

Alabdullah, T.T.Y., Ahmed, E.R. and Muneerali, M. (2019) Effect of board size and duality on corporate social responsibility: What has improved in corporate governance in Asia? *Journal of Accounting Science*, 3 (2), pp. 121-135.

Albassam, W. (2014) *Corporate governance, voluntary disclosure and financial performance: An empirical analysis of Saudi listed firms using a mixed-methods research design*. PhD Thesis, University of Glasgow.

- Almanie, A.A. (2021) Corporate governance reforms in the United Kingdom, *Journal of Law, Policy and Globalization*, 106, pp. 30-34.
- Al-Moataz, E. and Hussainey, K. (2013) Determinants of corporate governance disclosure in Saudi corporations, *Journal of King Abdulaziz University-Economics and Administration*, 27 (2), pp. 430-411.
- ALmuaither, S. and Marzouk, M. (2019) Determinants of capital structure: Evidence from the UK, *Journal of Modern Accounting and Auditing*, 15 (6), pp. 261-292.
- Alshbili, I., Elamer, A.A. and Beddewela, E. (2019) Ownership types, corporate governance and corporate social responsibility disclosures: Empirical evidence from a developing country, *Accounting Research Journal*, 33 (1), pp. 148-166.
- Aly, D., Simon, J. and Hussainey, K. (2010) Determinants of corporate internet reporting: Evidence from Egypt, *Managerial Auditing Journal*, 25 (2), pp. 182-202.
- Anderson, C.A. and Anthony, R.N. (1986) *The New Corporate Directors*. New York: John Wiley & Sons.
- Aras, G. and Crowther, D. (2008) Governance and sustainability: An investigation into the relationship between corporate governance and corporate sustainability, *Management Decision*, 46 (3), pp. 433-448.
- Arnorsson, A. and Zoega, G. (2018) On the causes of Brexit, *European Journal of Political Economy*, 55 (C), pp. 301-323.
- Arslan, M. and Alqatan, A. (2020) Role of institutions in shaping corporate governance system: Evidence from emerging economy, *Heliyon*, 6 (3), pp. 1-17.
- Attig, N., Boubakri, N., El Ghouli, S. and Guedhami, O. (2016) Firm internationalization and corporate social responsibility, *Journal of Business Ethics*, 134 (2), pp. 171-197.
- Babatunde, A.A. and Akeju, J.B. (2016) The Impact of corporate governance on firms' profitability in Nigeria, *International Journal of Business and Management Invention*, 5 (8), pp. 69-72.
- Bae, S.M., Masud, M.A.K. and Kim, J.D. (2018) A cross-country investigation of corporate governance and corporate sustainability disclosure: A signaling theory perspective, *Sustainability*, 10 (8), pp. 2611-2627.
- Barako, D.G., Hancock, P. and Izan, H.Y. (2006) Factors influencing voluntary corporate disclosure by Kenyan companies, *Corporate Governance: An International Review*, 14 (2), pp. 107-125.
- Basco, R., Campopiano, G., Calabrò, A. and Kraus, S. (2019) They are not all the same! Investigating the effect of executive versus non-executive family board members on firm performance, *Journal of Small Business Management*, 57 (sup2), pp. 637-657.

- Beck, A.C., Campbell, D. and Shrides, P.J. (2010) Content analysis in environmental reporting research: Enrichment and rehearsal of the method in a British–German context, *The British Accounting Review*, 42 (3), pp. 207-222.
- Beck, N. and Katz, J.N. (1995) What to do (and not to do) with time-series cross-section data, *American Political Science Review*, 89 (3), pp. 634–647.
- Ben Ameer, H. and Louhichi, W. (2022) The Brexit impact on European market co-movements, *Annals of Operations Research*, 313 (2), pp. 1387-1403.
- Ben Othman, H. and Zeghal, D. (2008) A study of corporate governance disclosure and its country-level determinants in the emerging markets, in: Tsamenyi, M. and Uddin, S. (eds.) *Corporate Governance in Less Developed and Emerging Economies, Research in Accounting in Emerging Economies*, 8. Bingley: Emerald Group Publishing Limited, pp. 125-155.
- Ben Othman, H. and Zeghal, D. (2010) Investigating transparency and disclosure determinants at firm-level in MENA emerging markets, *International Journal of Accounting, Auditing and Performance Evaluation*, 6 (4), pp. 368-396.
- Ben-Amar, W. and Boujenoui, A. (2007) Factors explaining corporate governance disclosure quality: Canadian evidence, *Illinois International Accounting Symposium*, pp. 1-39.
- Bendickson, J., Muldoon, J., Liguori, E.W. and Davis, P.E. (2016) Agency theory: Background and epistemology, *Journal of Management History*, 22 (4), pp. 437-449.
- Berglöf, E. and Pajuste, A. (2005) What do firms disclose and why? Enforcing corporate governance and transparency in Central and Eastern Europe, *Oxford Review of Economic Policy*, 21 (2), pp. 178-197.
- Berle, A. and Means, G. (1932) *The modern corporation and private property*. New York: Macmillan. Available from: [https://books.google.co.uk/books/about/The Modern Corporation and Private Prope.html?id=mmVQDwAAQBAJ&printsec=frontcover&source=kp\\_read\\_button&redir\\_esc=y#v=onepage&q&f=false](https://books.google.co.uk/books/about/The Modern Corporation and Private Prope.html?id=mmVQDwAAQBAJ&printsec=frontcover&source=kp_read_button&redir_esc=y#v=onepage&q&f=false) [Accessed: 10 January 2023].
- Berrill, J., Hutson, E. and Sinkovics, R. (2011) *Firm-level internationalization, regionalism and globalization: Strategy, performance and institutional change*. New York: Macmillan. Available from: [https://books.google.co.uk/books?hl=en&lr=&id=-kKBDAAAQBAJ&oi=fnd&pg=PP1&dq=Firm-Level+Internationalization,+Regionalism+and+Globalization:+...&ots=hE0ykm-jHF&sig=XmhlATRcYADph5bLTj-9Dj784Hg&redir\\_esc=y#v=onepage&q=Firm-Level%20Internationalization%2C%20Regionalism%20and%20Globalization%3A%20...&f=false](https://books.google.co.uk/books?hl=en&lr=&id=-kKBDAAAQBAJ&oi=fnd&pg=PP1&dq=Firm-Level+Internationalization,+Regionalism+and+Globalization:+...&ots=hE0ykm-jHF&sig=XmhlATRcYADph5bLTj-9Dj784Hg&redir_esc=y#v=onepage&q=Firm-Level%20Internationalization%2C%20Regionalism%20and%20Globalization%3A%20...&f=false) [Accessed: 10 January 2023].
- Bhagat, S., Bolton, B. and Romano, R. (2008) The promise and peril of corporate governance indices, *Columbia Law Review*, 108 (8), pp. 1803-1882.

- Bhuiyan, M.H.U. and Biswas, P.K. (2007) Corporate governance and reporting: An empirical study of the listed companies in Bangladesh, *Journal of Business Studies*, XXVIII (1), pp. 1-32.
- Bougie, R. and Sekaran, U. (2020) *Research methods for business: A skill building approach*. 8<sup>th</sup> ed. New York: John Wiley & Sons.
- Brown, L.D. and Caylor, M.L. (2004) Corporate governance study: The correlation between corporate governance and company performance, *Corporate Governance Study, Institutional Shareholder Services*, pp. 1-13.
- Bujang, M.A., Omar, E.D. and Baharum, N.A. (2018) A review on sample size determination for Cronbach's alpha test: A simple guide for researchers, *The Malaysian Journal of Medical Sciences: MJMS*, 25 (6), pp. 85-99.
- Burgess, K. (2011) *Financial Times*. Available from: <https://www.ft.com/content/1ab7c1b4-267c-11e1-91cd-00144feabdc0> [Accessed: 10 January 2023].
- Business Roundtable (2016) *Principles of corporate governance*. Available from: <https://s3.amazonaws.com/brt.org/Principles-of-Corporate-Governance-2016.pdf> [Accessed: 10 January 2023].
- Cadbury, A. (1992) *Report of the committee on the financial aspects of corporate governance*. London: Gee.
- Campbell, D., Shrives, P. and Bohmbach-Saager, H. (2001) Voluntary disclosure of mission statements in corporate annual reports: Signaling what and to whom? *Business and Society Review*, 106 (1), pp. 65-87.
- Carney, M., Gedajlovic, E. and Sur, S. (2011) Corporate governance and stakeholder conflict, *Journal of Management & Governance*, 15 (3), pp. 483-507.
- Center for International Private Enterprise (CIPE) (2005) Egypt releases corporate governance code, *Corporate Governance Trends*, 8 (1), pp. 1-4.
- Charles, H. (2002) What is a Business for? *Harvard Business Review*, December, pp. 49-55.
- Chau, G. and Gray, S. (2002) Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore, *The International Journal of Accounting*, 37 (2), pp. 247-265.
- Chekir, H. and Diwan, I. (2014) Crony capitalism in Egypt, *Journal of Globalization and Development*, 5 (2), pp. 177-211.
- Chen, X., Lin, S. and Reed, W. R. (2010) A Monte Carlo evaluation of the efficiency of the PCSE estimator, *Applied Economics Letters*, 17 (1), pp. 7-10.
- Cheung, Y., Connelly, J.T., Limpaphayom, P. and Zhou, L. (2007) Do investors really value corporate governance? Evidence from the Hong Kong market, *Journal of International Financial Management & Accounting*, 18 (2), pp. 86-122.

- Chung, C.N. and Zhu, H. (2021) Corporate governance dynamics of political tie formation in emerging economies: Business group affiliation, family ownership, and institutional transition, *Corporate Governance International Review*, 29, pp. 1-21.
- Claessens, S. (2006) Corporate governance and development, *The World Bank Research Observer*, 21 (1), pp. 91-122.
- Claessens, S. and Yurtoglu, B.B. (2012) Corporate governance and development: An update, *Global Corporate Governance Forum, Focus 10*. Available from: [https://www.ifc.org/wps/wcm/connect/15fae179-97e0-48ea-a123-abc07deabd36/Focus10\\_CG%26Development.pdf?MOD=AJPERES&CVID=jtCwukM](https://www.ifc.org/wps/wcm/connect/15fae179-97e0-48ea-a123-abc07deabd36/Focus10_CG%26Development.pdf?MOD=AJPERES&CVID=jtCwukM) [Accessed: 10 January 2023].
- Clarke, T. (2015) The transformation of corporate governance in emerging Markets: Reform, convergence, and diversity, *Emerging Markets Finance and Trade*, 51 (sup2), pp. S25-S46.
- Connelly, B.L., Certo, S.T., Ireland, R.D. and Reutzel, C.R. (2011) Signaling theory: A review and assessment, *Journal of Management*, 37 (1), pp. 39-67.
- Cooke, T.E. (1989) Disclosure in the corporate annual reports of Swedish companies, *Accounting and Business Research*, 19 (74), pp. 113-124.
- Cooke, T.E. (1992) The impact of size, stock market listing and industry type on disclosure in the annual reports of Japanese listed corporations, *Accounting and Business Research*, 22 (87), pp. 229-237.
- Cooke, T.E. (1998) Regression analysis in accounting disclosure studies, *Accounting and Business Research*, 28 (3), pp. 209-224.
- Corporate Financial Institute (CFI) (2022) *Independent director*. Available from: <https://corporatefinanceinstitute.com/resources/career/independent-director/> [Accessed: 10 January 2023].
- Cotter, J., Lokman, N. and Najah, M. (2011) Voluntary disclosure research: Which theory is relevant? *The Journal of Theoretical Accounting Research*, 6 (2), pp. 77-95.
- Crane, A., Matten, D. and Moon, J. (2008) *Corporations and citizenship: Business, responsibility and society*. Cambridge: Cambridge University Press.
- Crowther, D. and Jatana, R. (2007) Agency theory: A cause of failure in corporate governance, *Corporate Social Responsibility: Theory and Practice with Case Studies*, pp. 346-356.
- da Costa, Y.C.L. and Martins, O.S. (2019) CEO duality and corporate performance: Evidence in the Brazilian capital market, *Revista de Administração da Universidade Federal de Santa Maria*, 12 (3), pp. 403-417.
- Dahawy, K. (2009) Company characteristics and disclosure level: The Egyptian story, *International Research Journal of Finance and Economics*, 34 (2), pp. 194-208.

- Dahawy, K. and Conover, T. (2007) Accounting disclosure in companies listed on the Egyptian stock exchange, *Middle Eastern Finance and Economics*, 1 (1), pp. 5-20.
- Deegan, C.M. (2014) An overview of legitimacy theory as applied within the social and environmental accounting literature, *Sustainability Accounting and Accountability*, 2, pp. 248-272.
- Deegan, C.M. (2019) Legitimacy theory: Despite its enduring popularity and contribution, time is right for a necessary makeover, *Accounting, Auditing & Accountability Journal*, 32 (8), pp. 2307-2329.
- Delice, A. (2010) The sampling issues in quantitative research, *Educational Sciences: Theory and Practice*, 10 (4), pp. 2001-2018.
- Denis, D. and McConnell, J. (2003) International corporate governance, *Journal of Financial and Quantitative Analysis*, 38 (1), pp. 1-36.
- Dhaliwal, D.S., Li, O.Z., Tsang, A. and Yang, Y.G. (2011) Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting, *The Accounting Review*, 86 (1), pp. 59-100.
- Ding, X.S., Ni, Y. and Zhong, L. (2016) Free float and market liquidity around the world, *Journal of Empirical Finance*, 38 (Part A), pp. 236-257.
- Doidge, C., Karolyi, G. and Stulz, R. (2007) Why do countries matter so much for corporate governance? *Journal of Financial Economics*, 86 (1), pp. 1-39.
- Doku, J.N., Kpekpena, F.A. and Boateng, P.Y. (2019) Capital structure and bank performance: Empirical evidence from Ghana, *African Development Review*, 31 (1), pp. 15-27.
- Donaldson, T. and Preston, L.E. (1995) The stakeholder theory of the corporation: Concepts, evidence, and implications, *Academy of Management Review*, 20 (1), pp. 65-91.
- Dowling, J. and Pfeffer, J. (1975) Organizational legitimacy: Social values and organizational behavior, *The Pacific Sociological Review*, 18 (1), pp. 122-136.
- D'Silva, K.E. and Khan, Y. (2010) Audit fee modelling & corporate governance in a South Asian context, in: *International Conference on Corporate Governance on "Making corporate governance work: Towards reforming the ways we govern"*, India, 6-7 January.
- Duckworth, C. (2022) Moral courage and manager-regret, in: Barkemeyer, R., Jamali, D., Markovic, S. and Samara, G. (eds.) *Business Ethics, the Environment & Responsibility*. New York: John Wiley & Sons, pp. 1-11.
- Duh, M. (2017) Corporate governance codes and their role in improving corporate governance practice, *Corporate Governance and Strategic Decision Making*, 8, pp. 53-87.



Egbunike, C.F. and Okerekeoti, C.U. (2018) Macroeconomic factors, firm characteristics and financial performance: A study of selected quoted manufacturing firms in Nigeria, *Asian Journal of Accounting Research*, 3 (2), pp. 142-168.

EGX (2023a) *The Egyptian Exchange EGX100 EWI index rules & methodology*. Available from: <https://www.egx.com.eg/en/indexrulesmethodologyegx100-ewi.aspx?nav=4> [Accessed: 10 January 2023].

EGX (2023b) *The Egyptian Exchange EGX30 index rules & methodology*. Available from: <https://www.egx.com.eg/en/indexrulesmethodologyegx30.aspx?nav=1> [Accessed: 10 January 2023].

EGX (2023c) *The Egyptian Exchange EGX70 EWI index rules methodology*. Available from: <https://www.egx.com.eg/en/indexrulesmethodologyegx70-ewi.aspx?nav=16> [Accessed: 10 January 2023].

EGX (2023d) *The Egyptian Exchange EGX newsletter*. Available from: <https://www.egx.com.eg/en/newsletter.aspx> [Accessed: 10 January 2023].

Egyptian Institute of Directors (EIoD) (2005) *Egypt Code of Corporate Governance 2005*. Available from: [http://www.eiod.org/uploads/Publications/Pdf/Publications/egyptiancodeofcorporategovernance\\_eng/untitled1/index.html](http://www.eiod.org/uploads/Publications/Pdf/Publications/egyptiancodeofcorporategovernance_eng/untitled1/index.html) [Accessed: 10 January 2023].

Egyptian Institute of Directors (EIoD) (2011) *Egypt Code of Corporate Governance 2011*. Available from: <http://www.eiod.org/uploads/Publications/Pdf/Publications/Code%20of%20Corporate%20Governance%20for%20Private%20Sector%20in%20Egypt/untitled1/index.html> [Accessed: 10 January 2023].

Egyptian Institute of Directors (EIoD) (2016) *The Egyptian Corporate Governance Code 2016*. Available from: <http://www.eiod.org/uploads/documents/code%20En.pdf> [Accessed: 10 January 2023].

Eisenhardt, K.M. (1989) Agency theory: An assessment and review, *Academy of Management Review*, 14 (1), pp. 57-74.

Elbadry, A., Gounopoulos, D. and Skinner, F. (2015) Governance quality and information asymmetry, *Financial Markets, Institutions & Instruments*, 24 (2-3), pp. 127-157.

El-Dyasty, M.M. and Elamer, A.A. (2021) The effect of ownership structure and board characteristics on auditor choice: Evidence from Egypt, *International Journal of Disclosure and Governance*, 18 (4), pp. 362-377.

Elmghaamez, I.K. and Olarewaju, J.I. (2022) Corporate social responsibility and financial performance of product and service-based firms listed on London Stock Exchange, *Corporate Social Responsibility and Environmental Management*, 29 (5), pp. 1370-1383.

- Elsayed, K. (2007) Does CEO duality really affect corporate performance? *Corporate Governance: An International Review*, 15 (6), pp. 1203-1214.
- Eng, L. and Mak, Y. (2003) Corporate governance and voluntary disclosure, *Journal of Accounting and Public Policy*, 22 (4), pp. 325-345.
- European Corporate Governance Institute (ECGI) (2016) *The Egyptian Corporate Governance Code 2016*. Available from: <https://ecgi.global/code/egyptian-code-corporate-governance> [Accessed: 10 January 2023].
- Ezat, A. and El-Masry, A. (2008) The impact of corporate governance on the timeliness of corporate internet reporting by Egyptian listed companies, *Managerial Finance*, 34 (12), pp. 848-867.
- Fama, E.F. and Jensen, M.C. (1983) Agency problems and residual claims, *The Journal of Law and Economics*, 26 (2), pp. 327-349.
- Farber, D. (2005) Restoring trust after fraud: Does corporate governance matter? *The Accounting Review*, 80 (2), pp. 539-561.
- Farinha, J. (2003) Corporate governance: A survey of the literature, *Discussion Paper 2003-06*, Faculty of Economics, De Porto University, Portugal, pp. 1-72.
- Farrar, D.E. and Glauber, R.R. (1967) Multicollinearity in regression analysis: The problem revisited, *The Review of Economics and Statistics*, 49 (1), pp. 92–107.
- Farrell, L.M. (2003) Principal-Agency risk in project finance, *International Journal of Project Management*, 21 (8), pp. 547-561.
- Ferris, S.P., Kim, K.A. and Noronha, G. (2009) The effect of cross-listing on corporate governance: A review of the international evidence, *Corporate Governance: An International Review*, 17 (3), pp. 338-352.
- Filatotchev, I. (2006) Effects of executive characteristics and venture capital involvement on board composition and share ownership in IPO firms, *British Journal of Management*, 17 (1), pp. 75-92.
- Financial Reporting Council (FRC) (2016) *The UK Corporate Governance Code*. Available from: <https://www.frc.org.uk/getattachment/ca7e94c4-b9a9-49e2-a824-ad76a322873c/UK-Corporate-Governance-Code-April-2016.pdf> [Accessed: 10 January 2023].
- Financial Reporting Council (FRC) (2018) *The UK Corporate Governance Code*. Available from: <https://www.frc.org.uk/getattachment/88bd8c45-50ea-4841-95b0-d2f4f48069a2/2018-UK-Corporate-Governance-Code-FINAL.pdf> [Accessed: 10 January 2023].
- Firth, M. (1979) The impact of size, stock market listing, and auditors on voluntary disclosure in corporate annual reports, *Accounting and Business Research*, 9 (36), pp. 273-280.

- Foyeke, O.I., Iyoha, F.O. and Ojeka, S. (2015) Firm size and financial performance: A determinant of corporate governance disclosure practices of Nigerian companies, *Journal of Accounting and Auditing: Research & Practice*, pp. 1-8.
- Freeman, R. (1984) Strategic management: A stakeholder theory, *Journal of Management Studies*, 39 (1), pp. 1-21.
- Freeman, R. (1999) Divergent stakeholder theory, *Academy of Management Review*, 24 (2), pp. 233-236.
- Freeman, R. and Evan, W. (1990) Corporate governance: A stakeholder interpretation, *Journal of Behavioral Economics*, 19 (4), pp. 337-359.
- Freeman, R. and McVea, J. (2001) A stakeholder approach to strategic management, *The Blackwell Handbook of Strategic Management*, pp. 189-207.
- Freeman, R. and Reed, D. (1983) Stockholders and stakeholders: A new perspective on corporate governance, *California Management Review*, 25 (3), pp. 88-106.
- Freeman, R., Wicks, A. and Parmar, B. (2004) Stakeholder theory and “the corporate objective revisited”, *Organization Science*, 15 (3), pp. 364-369.
- Friedman, M. (2007) The social responsibility of business is to increase its profits, in: Zimmerli, W.C., Richter, K. and Holzinger, M. (eds.) *Corporate Ethics and Corporate Governance*. Berlin: Springer, pp. 173-178.
- Garanina, T. and Aray, Y. (2021) Enhancing CSR disclosure through foreign ownership, foreign board members, and cross-listing: Does it work in Russian context? *Emerging Markets Review*, 46 (100754), pp. 1-16.
- Garas, S. and ElMassah, S. (2018) Corporate governance and corporate social responsibility disclosures: The case of GCC countries, *Critical Perspectives on International Business*, 14 (1), pp. 2-26.
- Gavora, P. (2015) The state-of-the-art of content analysis, *Education Sciences*, 1, pp. 6-18.
- Girella, L., Rossi, P. and Zambon, S. (2019) Exploring the firm and country determinants of the voluntary adoption of integrated reporting, *Business Strategy and the Environment*, 28 (7), pp. 1323-1340.
- Glaeser, E., Johnson, S. and Shleifer, A. (2001) Coase Versus the Coasians, *The Quarterly Journal of Economics*, 116 (3), pp. 853-899.
- Graham, J.R., Harvey, C.R. and Rajgopal, S. (2005) The economic implications of corporate financial reporting, *Journal of Accounting and Economics*, 40 (1-3), pp. 3-73.
- Gray, S. (1988) Towards a theory of cultural influence on the development of accounting systems internationally, *Abacus*, 24 (1), pp. 1-15.

- Grove, H. and Clouse, M. (2019) Contemporary financial reporting and intangible resources: Implications for corporate governance, *Corporate Governance and Organizational Behavior Review*, 3 (1), pp. 39-47.
- Haddad, A.E., Baalbaki Shibly, F. and Haddad, R. (2020) Voluntary disclosure of accounting ratios and firm-specific characteristics: The case of GCC, *Journal of Financial Reporting and Accounting*, 18 (2), pp. 301-324.
- Hair, J.F., Anderson, R.E., Tatham, R.L. and Black, W.C. (2006) *Multivariate data analysis*. 6<sup>th</sup> ed. New York: Prentice-Hall.
- Haniffa, R.M., and Cooke, T.E. (2002) Culture, corporate governance and disclosure in Malaysian corporations, *Abacus*, 38 (3), pp. 317-349.
- Hart, O. (1995) Corporate governance: Some theory and implications, *The Economic Journal*, 105 (430), pp. 678-689.
- Hassaan, M. and Salah, W. (2023) Corporate governance, financial transparency and currency devaluation shocks: Evidence from Egypt, *Corporate Governance: The International Journal of Business in Society*, ahead-of-print.
- Hassan, M.K. (2012) A disclosure index to measure the extent of corporate governance reporting by UAE listed corporations, *Journal of Financial Reporting and Accounting*, 10 (1), pp. 4-33.
- Hassan, M.K. and Halbouni, S.S. (2013) Corporate governance, economic turbulence and financial performance of UAE listed firms, *Studies in Economics and Finance*, 30 (2), pp. 118-138.
- Healy, P. and Palepu, K. (2001) Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature, *Journal of Accounting and Economics*, 31 (1), pp. 405-440.
- Heath, J. and Norman, W. (2004) Stakeholder theory, corporate governance and public management: What can the history of state-run enterprises teach us in the post-Enron era? *Journal of Business Ethics*, 53 (3), pp. 247-265.
- Henseler, J. and Chin, W.W. (2010) A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling, *Structural Equation Modeling*, 17 (1), pp. 82-109.
- Hill, C.W. and Jones, T.M. (1992) Stakeholder-Agency theory, *Journal of Management Studies*, 29 (2), pp. 131-154.
- Hox, J.J., Moerbeek, M. and Van de Schoot, R. (2017) *Multilevel analysis: Techniques and applications*. 3<sup>rd</sup> ed. New York: Routledge.
- Hsiao, C. (2022) *Analysis of panel data*. 4<sup>th</sup> ed. Cambridge: Cambridge University press.
- Inchausti, B.G. (1997) The influence of company characteristics and accounting regulation on information disclosed by Spanish firms, *European Accounting Review*, 6 (1), pp. 45-68.

- Isidro, H. and Sobral, M. (2015) The effects of women on corporate boards on firm value, financial performance, and ethical and social compliance, *Journal of Business Ethics*, 132, pp. 1-19.
- Ismail, T.H. and Obiedallah, Y.R. (2022) Firm performance and cost of equity capital: The moderating role of narrative risk disclosure quality in Egypt, *Future Business Journal*, 8:44, pp. 1-19.
- Issa, A.I.F. (2017) The factors influencing corporate social responsibility disclosure in the Kingdom of Saudi Arabia, *Australian Journal of Basic and Applied Sciences*, 11 (10), pp. 1-19.
- Iyengar, R.J. and Zampelli, E.M. (2009) Self-selection, endogeneity, and the relationship between CEO duality and firm performance, *Strategic Management Journal*, 30 (10), pp. 1092-1112.
- Jamali, D., Safieddine, A. and Rabbath, M. (2008) Corporate governance and corporate social responsibility synergies and interrelationships, *Corporate Governance*, 16 (5), pp. 443-459.
- Jangu, T., Darus, F., Zain, M. and Sawani, Y. (2014) Does good corporate governance lead to better sustainability reporting? An analysis using structural equation modeling, *Procedia - Social and Behavioral Sciences*, 145, pp. 138-145.
- Jensen, M. and Meckling, W. (1976) Theory of the firm: Managerial behavior, agency costs and ownership structure, *Journal of Financial Economics*, 3 (4), pp. 305-360.
- Jian, Z., Tingting, Z. and Shengchao, C. (2011) Cross listing, corporate governance and corporate performance: Empirical evidence of Hong Kong-listed Chinese companies, *Nankai Business Review International*, 2 (3), pp. 275-288.
- Jo, H. and Harjoto, M.A. (2011) Corporate governance and firm value: The impact of corporate social responsibility, *Journal of Business Ethics*, 103 (3), pp. 351-383.
- Johnston, M. (2017) Secondary data analysis: A method of which the time has come, *Qualitative and Quantitative Methods in Libraries*, 3 (3), pp. 619-626.
- Jones, M.J. and Shoemaker, P.A. (1994) Accounting narratives: A review of empirical studies of content and readability, *Journal of Accounting Literature*, 13, pp. 142-184.
- Kashyap, R. (2021) Do traders become rogues or do rogues become traders? The Om of Jerome and the Karma of Kerviel, *Corporate and Business Law Journal*, 2, pp. 88-150.
- Kiogora, D.K. and Gathoni, F. (2021) Influence of resource competition on human-wildlife conflicts among the community of Kithoka area in Meru County, Kenya, *International Journal of Research and Innovation in Social Science (IJRISS)*, V (IX), pp. 526- 534.

- Kline, R.B. (2016) *Principles and practice of structural equation modeling*. 4<sup>th</sup> ed. New York: The Guilford Press.
- Kultys, J. (2016) Controversies about agency theory as theoretical basis for corporate governance, *Oeconomia Copernicana, Institute of Economic Research*, 7 (4), pp. 613-634.
- Kumar, R. (2018) *Research methodology: A step-by-step guide for beginners*. California: Sage.
- La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (2008) The economic consequences of legal origins, *Journal of Economic Literature*, 46 (2), pp. 285-332.
- Lagasio, V. and Cucari, N. (2019) Corporate governance and environmental social governance disclosure: A meta-analytical review, *Corporate Social Responsibility and Environmental Management*, 26 (4), pp. 701-711.
- Lan, L.L. (2022) Corporate governance in Singapore—The road thus far, European Corporate Governance Institute-Law Working Paper No. 667/2022, *Journal of Business Law* (Forthcoming, 2023).
- Leech, N., Barrett, K. and Morgan, G.A. (2013) *SPSS for intermediate statistics: Use and interpretation*. 3<sup>rd</sup> ed. New York: Routledge.
- Leppink, J. (2020) Progress testing in larger cohorts. *The Art of Modelling the Learning Process: Uniting Educational Research and Practice*. Cham: Springer, pp. 227-233.
- Lewis, M.K. (2015) *Understanding Ponzi Schemes: Can Better Financial Regulation Prevent Investors from Being Defrauded?* Glos: Edward Elgar Publishing.
- Lozano, M.B. and Martínez-Ferrero, J. (2022) Do emerging and developed countries differ in terms of sustainable performance? Analysis of board, ownership and country-level factors, *Research in International Business and Finance*, 62 (101688), pp. 1-13.
- Lu, J. and Wang, J. (2021) Corporate governance, law, culture, environmental performance and CSR disclosure: A global perspective, *Journal of International Financial Markets, Institutions and Money*, 70 (101264), pp. 1-20.
- Maessen, R., Seters, P.V. and Rijckevorsel, E.V. (2007) Circles of stakeholders: Towards a relational theory of corporate social responsibility, *International Journal of Business Governance and Ethics*, 3 (1), pp. 77-94.
- Mahmud, M.T. (2020) Quest for a single theory to explain managerial motivations for sustainability disclosures: Legitimacy theory, stakeholder theory or institutional theory, 国際会計研究学会年報= *Bulletin of Japanese Association for International Accounting Studies*, 2019 (1), pp. 135-159.

Mangena, M. and Tauringana, V. (2007) Disclosure, corporate governance and foreign share ownership on the Zimbabwe stock exchange, *Journal of International Financial Management & Accounting*, 18 (2), pp. 53-85.

Maria, M.M. (2020) Do Romanian companies and their stakeholders benefit from the advantages of a good corporate governance? Empirical research on the level of compliance, *Annals of the University of Oradea, Economic Science Series*, 29, pp. 284-293.

Meek, G., Roberts, C. and Gray, S. (1995) Factors influencing voluntary annual report disclosures by US, UK and continental European multinational corporations, *Journal of International Business Studies*, 26 (3), pp. 555-572.

Melis, A. and Carta, S. (2010) Does accounting regulation enhance corporate governance? Evidence from the disclosure of share-based remuneration, *Journal of Management & Governance*, 14 (4), pp. 435-446.

Meyer, P. (2010) *Liespotting: Proven techniques to detect deception*. New York: Macmillan.

Mion, G. and Loza Adai, C.R. (2019) Mandatory nonfinancial disclosure and its consequences on the sustainability reporting quality of Italian and German companies, *Sustainability*, 11 (17), pp. 1-28.

Mitchell, R.K., Agle, B.R. and Wood, D.J. (1997) Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts, *Academy of Management Review*, 22 (4), pp. 853-886.

Mitnick, B. (1973) Fiduciary rationality and public policy: The theory of agency and some consequences, in: *Annual Meeting of the American Political Science Association*, USA.

Mitnick, B. (2013) Origin of the theory of agency: An account by one of the theory's originators, *SSRN Electronic Journal*, pp. 1-16. Available from: <https://ssrn.com/abstract=1020378> [Accessed: 10 January 2023].

Mitroff, I. (1983) *Stakeholders of the organizational mind: Toward a new view of organizational policy making*. San Francisco: Jossey-Bass.

Mizruchi, M. (2004) Berle and Means revisited: The governance and power of large US corporations, *Theory and Society*, 33 (5), pp. 579-617.

Mizuno, M. (2010) Institutional investors, corporate governance and firm performance in Japan, *Pacific Economic Review*, 15 (5), pp. 653-665.

Mohajan, H.K. (2020) Quantitative research: A successful investigation in natural and social sciences, *Journal of Economic Development, Environment and People*, 9 (4), pp. 50-79.

Morris, R. (1987) Signalling, agency theory and accounting policy choice, *Accounting and Business Research*, 18 (69), pp. 47-56.

Moscu, R.G. (2013) Does CEO duality really affect corporate performance? *International Journal of Academic Research in Economics and Management Sciences*, 2 (1), pp. 156-166.

Nakano, M. and Nguyen, P. (2013) Foreign ownership and firm performance: Evidence from Japan's electronics industry, *Applied Financial Economics*, 23 (1), pp. 41-50.

Nasr, M.A. and Ntim, C.G. (2018) Corporate governance mechanisms and accounting conservatism: Evidence from Egypt, *Corporate Governance: The International Journal of Business in Society*, 18 (3), pp. 386-407.

National Committee on Corporate Governance (The NCCG) (2016) *The National Code of Corporate Governance for Mauritius*. Available from: [https://nccg.mu/sites/default/files/2021-01/the-national-code-of-corporate-governance-for-mauritius\\_2016.pdf](https://nccg.mu/sites/default/files/2021-01/the-national-code-of-corporate-governance-for-mauritius_2016.pdf) [Accessed: 10 January 2023].

Nedelchev, M. (2013) Good practices in corporate governance: One-size-fits-all vs. comply-or-explain, *International Journal of Business Administration*, 4 (6), pp. 75-81.

Nicholson, G.J. and Kiel, G.C. (2007) Can directors impact performance? A case-based test of three theories of corporate governance, *Corporate Governance: An International Review*, 15 (4), pp. 585-608.

Novotný, J., Sejkora, F. and Hrneček, M. (2015) A comparison of the stock exchanges of the Central and Eastern Europe stock exchange group, *Scientific papers of the University of Pardubice, Series D, Faculty of Economics and Administration*, 35, pp. 89-100.

O'Donovan, G. (2000) *Legitimacy theory as an explanation for corporate environmental disclosures*. PhD Thesis, Victoria University of Technology.

Okaily, J.A., Dixon, R. and Salama, A. (2019) Corporate governance quality and premature revenue recognition: Evidence from the UK, *International Journal of Managerial Finance*, 15 (1), pp. 79-99.

Olufemi, A. (2021) Board gender diversity and performance of listed deposit banks in Nigeria, *European Business & Management*, 7 (1), pp. 27-36.

O'Neill, A. (2023a) *United Kingdom: Distribution of gross domestic product (GDP) across economic sectors from 2011 to 2021*. Available from: <https://www.statista.com/statistics/270372/distribution-of-gdp-across-economic-sectors-in-the-united-kingdom/#:~:text=In%202021%2C%20agriculture%20contributed%20around,per cent%20from%20the%20services%20sector.&text=The%20vast%20majority%20of%20the,particular%20keeps%20the%20economy%20going.> [Accessed: 20 April 2023].



O'Neill, A. (2023b) *Egypt: Distribution of gross domestic product (GDP) across economic sectors from 2011 to 2021*. Available from: <https://www.statista.com/statistics/377309/egypt-gdp-distribution-across-economic-sectors/#:~:text=In%202021%2C%20agriculture%20contributed%20around,percent%20from%20the%20service%20sector.> [Accessed: 20 April 2023].

Organisation for Economic Co-Operation and Development (OECD) (2004) *OECD Principles of Corporate Governance*. Available from: <http://www.oecd.org/daf/ca/corporategovernanceprinciples/31557724.pdf> [Accessed: 10 January 2023].

Organisation for Economic Co-Operation and Development (OECD) (2015) *G20/OECD Principles of Corporate Governance*. Available from: <https://www.oecd.org/daf/ca/Corporate-Governance-Principles-ENG.pdf> [Accessed: 10 January 2023].

Organisation for Economic Co-Operation and Development (OECD) (2019) *Report to G20 on the implementation of the G20/OECD Principles of Corporate Governance*. Available from: <https://www.oecd.org/daf/ca/G20-Report-Implementation-Corporate-Governance-Principles-2019.pdf> [Accessed: 10 January 2023].

Panda, B. and Leepsa, N.M. (2017) Agency theory: Review of theory and evidence on problems and perspectives, *Indian Journal of Corporate Governance*, 10 (1), pp. 74-95.

Park, Y.S., Konge, L. and Artino, A.R. (2020) The positivism paradigm of research, *Academic Medicine*, 95 (5), pp. 690-694.

Peasnell, K.V., Pope, P.F. and Young, S. (2005) Board monitoring and earnings management: Do outside directors influence abnormal accruals? *Journal of Business Finance & Accounting*, 32 (7) & (8), pp. 1311-1346.

Pergola, T.M. and Joseph, G.W. (2011) Corporate governance and board equity ownership, *Corporate Governance: The International Journal of Business in Society*, 11 (2), pp. 200-213.

Phillips, R., Freeman, R.E. and Wicks, A.C. (2003) What stakeholder theory is not, *Business Ethics Quarterly*, 13 (4), pp. 479-502.

Porter, M.E. (1979) How competitive forces shape strategy, *Harvard Business Review*, 57 (March-April), pp. 137-145.

Prais, S.J. (1976) *The evolution of giant firms in Britain: A study of the growth of concentration in manufacturing industry in Britain, 1909–70*. Cambridge: Cambridge University Press.

PricewaterhouseCoopers (PwC) (2020) *The eight key effective corporate governance practices*. Available from: <https://www.pwc.ie/services/human-resource-services/insights/the-eight-key-effective-corporate-governance-practices.html> [Accessed: 10 January 2023].

Quang Trinh, V. (2022) Theories in corporate governance, in: *Fundamentals of Board Busyness and Corporate Governance. Contributions to Management Science*. Cham: Springer, pp. 1-17.

Reuters (2015) *Egypt bourse to reduce free float required to list on EGX30*. Available from: <https://www.reuters.com/article/ozabs-uk-egypt-bourse-idAFKBN0OD0TK20150528> [Accessed: 10 January 2023].

Reuters (2015) *Update 2-Egypt bourse changes rules to benchmark index to encourage listings*. Available from: <https://www.reuters.com/article/idUSL5N0YJ1M120150528> [Accessed: 10 January 2023].

Rizk, R.R. (2006) *Corporate social and environmental disclosure practices: An international comparison of UK, Indian and Egyptian corporations*. PhD Thesis, Durham University.

Ross, S.A. (1973) The economic theory of agency: The principal's problem, *The American Economic Review*, 63 (2), pp. 134-139.

Ross, S.A. (1977) The determination of financial structure: The incentive-Signalling Approach, *The Bell Journal of Economics*, 8 (1), pp. 23-40.

Ross, S.A. (1979) Disclosure regulation in financial markets: Implications of modern finance theory and signaling theory, *Issues in Financial Regulation*, 5, pp. 177-202.

Rowley, C.K. (1979) The evolution of giant firms in Britain: A study of the growth of concentration in manufacturing industry in Britain, 1909–70 by S.J. Prais 1976, *The Economic Journal*, 89 (356), pp. 960-962.

Roychowdhury, S., Shroff, N. and Verdi, R.S. (2019) The effects of financial reporting and disclosure on corporate investment: A review, *Journal of Accounting and Economics*, 68 (2-3), pp. 1-27.

S&P Global (2023) *S&P ESG Index, overview*. Available from: <https://www.spglobal.com/esg/performance/indices/esg-index-family#overview> [Accessed: 10 January 2023].

Saha, R. and Kabra, K.C. (2020) Corporate governance and voluntary disclosure: A synthesis of empirical studies, *Business Perspectives and Research*, 8 (2), pp. 117-138.

Salah, W. (2018) The impact of country-level and firm-level on financial performance: A multilevel approach, *International Journal of Accounting and Taxation*, 6 (2), pp. 41-53.

Salami, K.A. (2011) Analysis of the relationship between share ownership structure, corporate governance structure, and corporate investment efficiency, using GSE market data (2005-9), *Journal of Accounting and Finance*, 11 (4), pp. 111-118.

- Samaha, K. (2013) Progressing corporate governance disclosure in Egypt: Current status and action plan, *Corporate Ownership & Control*, 10 (4), pp. 9-20.
- Samaha, K. and Dahawy, K. (2010) Factors influencing corporate disclosure transparency in the active share trading firms: An explanatory study, in: Tsamenyi, M. and Uddin, S. (eds.) *Research in Accounting in Emerging Economies*, 10. Bingley: Emerald Group Publishing Limited, pp. 87-118.
- Samaha, K. and Dahawy, K. (2011) An empirical analysis of corporate governance structures and voluntary corporate disclosure in volatile capital markets, *International Journal of Accounting, Auditing and Performance Evaluation*, 7 (1/2), pp. 61-93.
- Samaha, K. and Stapleton, P. (2008) Compliance with International Accounting Standards in a national context: Some empirical evidence from the Cairo and Alexandria Stock Exchanges, *Afro-Asian Journal of Finance and Accounting*, 1 (1), pp. 40-66.
- Samaha, K., Dahawy, K., Hussainey, K. and Stapleton, P. (2012) The extent of corporate governance disclosure and its determinants in a developing market: The case of Egypt, *Advances in Accounting, Incorporating Advances in International Accounting*, 28 (1), pp. 168-178.
- Samaha, K., Khlif, H. and Hussainey, K. (2015) The impact of board and audit committee characteristics on voluntary disclosure: A meta-analysis, *Journal of International Accounting, Auditing and Taxation*, 24 (1), pp. 13-28.
- Sanders, W. and Boivie, S. (2004) Sorting things out: Valuation of new firms in uncertain markets, *Strategic Management Journal*, 25 (2), pp. 167-186.
- Saunders, M. and Tosey, P. (2013) The layers of research design, *Rapport*, Winter 2012/2013, pp. 58-59.
- Saunders, M., Lewis, P. and Thornhill, A. (2019) *Research methods for business students*. 8<sup>th</sup> ed. Harlow: Pearson Education Limited.
- Saunders, M., Lewis, P. and Thornhill, A. (2023) *Research methods for business students*. 9<sup>th</sup> ed. Harlow: Pearson Education Limited.
- Schiopoiu Burlea, A. and Popa, I. (2013) Legitimacy theory, *Encyclopedia of Corporate Social Responsibility*, pp. 1579-1584.
- Schjoedt, L. and Sangboon, K. (2015) Control variables: Problematic issues and best practices. *The Palgrave handbook of research design in business and management*. London: Palgrave Macmillan, pp. 239-261.
- Schober, P., Boer, C. and Schwarte, L.A. (2018) Correlation coefficients: Appropriate use and interpretation, *Anesthesia and Analgesia*, 126 (5), pp. 1763-1768.
- Sekaran, U. (2003) *Research methods for business: A skill building approach*. 4<sup>th</sup> ed. New York: John Wiley & Sons.

- Sharma, N. (2013) Theoretical framework for corporate disclosure research, *Asian Journal of Finance & Accounting*, 5 (1), pp. 183-196.
- Shehata, N.F. (2013) *Corporate governance disclosure in the Gulf countries*. PhD Thesis, Aston University.
- Shehata, N.F. (2015) Development of corporate governance codes in the GCC: An overview, *Corporate Governance*, 15 (3), pp. 315-338.
- Shehata, N.F. (2016) Assessment of corporate governance disclosure in the GCC countries using the UNCTAD ISAR benchmark, *The Journal of Developing Areas*, 50 (2), pp. 453-460.
- Shehata, N.F. and Dahawy, K.M. (2013) 2013 Review of the implementation status of corporate governance disclosures: Egypt, in: *United Nations Conference on Trade and Development, Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting*, Geneva, 6-8 November.
- Shehata, N.F., Dahawy, K.M. and Ismail, T.H. (2014) The relationship between firm characteristics and mandatory disclosure level: When Egyptian Accounting Standards were first adopted, *Mustang Journal of Accounting and Finance*, 5 (4), pp. 85-103.
- Shi, H., Zhang, X. and Zhou, J. (2018) Cross-listing and CSR performance: Evidence from AH shares, *Frontiers of Business Research in China*, 12 (1), pp. 1-15.
- Shleifer, A. and Vishny, R. (1997) A survey of corporate governance, *The Journal of Finance*, 52 (2), pp. 737-783.
- Solomon, J. and Solomon, A. (2004) *Corporate Governance and Accountability*. West Sussex: John Wiley & Sons.
- Soltow, J.H. (1977) The evolution of giant firms in Britain: A study of the growth of concentration in manufacturing industry in Britain, 1909–70 by S.J. Prais 1976 and the rise and decline of small firms by J. Boswell 1973, *The Journal of Economic History*, 37 (4), pp. 1084–1086.
- Spence, M. (1973) Job Market Signaling, *The Quarterly Journal of Economics*, 87 (3), pp. 355-374.
- Squires, B. and Elnahla, N. (2020) The roles played by boards of directors: An integration of the agency and stakeholder theories, *Transnational Corporations Review*, 12 (2), pp. 126-139.
- Suchman, M. (1995) Managing legitimacy: Strategic and institutional approaches, *Academy of Management Review*, 20 (3), pp. 571-610.
- Sund, L., Melin, L. and Haag, K. (2015) Intergenerational ownership succession: Shifting the focus from outcome measurements to preparatory requirements, *Journal of Family Business Strategy*, 6 (3), pp. 166-177.

- Sundaram, A.K. and Inkpen, A.C. (2004) The corporate objective revisited, *Organization Science*, 15 (3), pp. 350-363.
- Tabachnick, B.G. and Fidell, L.S. (2019) *Using multivariate statistics*. 7<sup>th</sup> ed. New York: Pearson.
- Tabachnick, B.G., Fidell, L.S. and Ullman, J.B. (2007) *Using multivariate statistics*. Boston: Pearson.
- Tamimi, N. and Sebastianelli, R. (2017) Transparency among S&P 500 companies: An analysis of ESG disclosure scores, *Management Decision*, 55 (8), pp. 1660-1680.
- Tan, F.E. (2008) Best practices in analysis of longitudinal data: A multilevel approach, in: Osborne, J.W. (ed.) *Best practices in quantitative methods*. London: Sage, pp. 451-470.
- Tan, F.E. and Jolani, S. (2022) *Applied linear regression for longitudinal data: With an emphasis on missing observations*. 1<sup>st</sup> ed. New York: Chapman and Hall.
- The Financial Regulatory Authority (FRA) (2016) *The Egyptian Corporate Governance Code 2016*. Available from: [http://www.fra.gov.eg/content/efsa\\_en/pool\\_extra\\_efsa\\_en/UG30664UG30665.pdf](http://www.fra.gov.eg/content/efsa_en/pool_extra_efsa_en/UG30664UG30665.pdf) [Accessed: 10 January 2023].
- The Financial Regulatory Authority (FRA) (2020) *Announcement*. Available from: <https://fra.gov.eg/> [Accessed: 10 January 2023].
- The Financial Times Stock Exchange (FTSE) (2022) *FTSE100 index, FTSE Russell factsheets*. Available from: <https://www.ftserussell.com/analytics/factsheets/home/search?text=ftse%20100> [Accessed: 10 January 2023].
- Tilling, M. (2004) Some thoughts on legitimacy theory in social and environmental accounting, *Social and Environmental Accountability Journal*, 24 (2), pp. 3-7.
- Transparency International (2023) *Corruption Perceptions Index*. Available from: <https://www.transparency.org/en> [Accessed: 15 April 2023].
- Tsang, A., Xie, F., Xiangang, X. (2019) Foreign institutional investors and corporate voluntary disclosure around the world, *The Accounting Review*, 94 (5), pp. 319-348.
- Tuan, T., Hung, D. and Uyen, C. (2020) The effect of factors on degree of disclosing accounting information: Evidence from food industry, *Accounting*, 6 (4), pp. 525-532.
- Ullah, S., Ahmad, S., Akbar, S., Kodwani, D. and Frecknall-Hughes, J. (2021) Governance disclosure quality and market valuation of firms in UK and Germany, *International Journal of Finance & Economics*, 26 (4), pp. 5031-5055.

United Nations Conference on Trade and Development (UNCTAD) (2006) *Guidance on good practices in corporate governance disclosure*. Available from: [https://unctad.org/en/docs/iteteb20063\\_en.pdf?user=46](https://unctad.org/en/docs/iteteb20063_en.pdf?user=46) [Accessed: 10 January 2023].

United Nations Conference on Trade and Development (UNCTAD) (2011) *Corporate governance disclosure in emerging markets*, UNCTAD, 16 (5), pp. 1-50. Available from: [https://unctad.org/en/Docs/diaeed2011d3\\_en.pdf](https://unctad.org/en/Docs/diaeed2011d3_en.pdf) [Accessed: 10 January 2023].

Vitolla, F., Raimo, N. and Rubino, M. (2020) Board characteristics and integrated reporting quality: An agency theory perspective, *Corporate Social Responsibility and Environmental Management*, 27 (2), pp. 1152-1163.

Wachira, M. (2019) Corporate governance and risk disclosures: An empirical study of listed companies in Kenya, *African Journal of Business Management*, 13 (17), pp. 571-578.

Wan, W. and Hoskisson, R. (2003) Home country environments, corporate diversification strategies, and firm performance, *Academy of Management Journal*, 46 (1), pp. 27-45.

Warner, I. (2020) *How to ensure good corporate governance?* Available from: <https://aprioboardportal.com/news/how-to-ensure-good-corporate-governance/> [Accessed: 10 January 2023].

Watson, A., Shrides, P. and Marston, C. (2002) Voluntary disclosure of accounting ratios in the UK, *The British Accounting Review*, 34 (4), pp. 289-313.

Watts, R. and Zimmerman, J. (1990) Positive accounting theory: A ten-year perspective, *Accounting Review*, 65 (1), pp. 131-156.

Weinstein, O. (2012) Firm, property and governance: From Berle and Means to the agency theory, and beyond, *Accounting, Economics, and Law*, 2 (2), pp. 1-55.

Weston, J.F. (1981) Developments in finance theory, *Financial Management, Tenth Anniversary Issue: The Evolution of the Finance Discipline*, 10 (2), pp. 5-22.

White, M.D. and Marsh, E.E. (2006) Content analysis: A flexible methodology, *Library Trends*, 55 (1), pp. 22-45.

World Bank Group (WBG) (2001) *Report on the Observance of Standards and Codes (ROSC) - Corporate governance country assessment Arab Republic of Egypt (English) 2001*. Available from: <http://documents.worldbank.org/curated/en/300051468258319741/Report-on-the-observance-of-standards-and-codes-ROSC-Corporate-governance-country-assessment-Arab-Republic-of-Egypt> [Accessed: 10 January 2023].

World Bank Group (WBG) (2004) *Report on the Observance of Standards and Codes (ROSC) - Corporate governance country assessment Arab Republic of Egypt (English) 2004*. Available from:  
<http://documents.worldbank.org/curated/en/110881468233681903/Egypt-Report-on-the-Observance-of-Standards-and-Codes-ROSC-corporate-governance-country-assessment>  
[Accessed: 10 January 2023].

World Bank Group (WBG) (2009) *Report on the Observance of Standards and Codes (ROSC) - Corporate governance country assessment Arab Republic of Egypt (English) 2009*. Available from:  
<http://documents.worldbank.org/curated/en/348141468247498839/The-Arab-Republic-of-Egypt-Report-on-the-Observance-of-Standards-and-Codes-ROSC-corporate-governance-country-assessment>  
[Accessed: 10 January 2023].

World Bank Group (WBG) (2018) *Doing Business 2018*. 15<sup>th</sup> edition. Available from:  
<https://www.doingbusiness.org/en/reports/global-reports/doing-business-2018>  
[Accessed: 10 January 2023].

World Bank Group (WBG) (2019) *Doing Business 2019*. 16<sup>th</sup> edition. Available from:  
<https://www.doingbusiness.org/en/reports/global-reports/doing-business-2019>  
[Accessed: 10 January 2023].

World Bank Group (WBG) (2021) *The Regulatory problem: Body of knowledge on infrastructure regulation*. Available from:  
<http://regulationbodyofknowledge.org/overview/regulatory-problem/>  
[Accessed: 10 January 2023].

World Economic Forum (WEF) (2014) *The Global Competitiveness Report 2014-2015*. Available from:  
[http://www3.weforum.org/docs/WEF\\_GlobalCompetitivenessReport\\_2014-15.pdf](http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf)  
[Accessed: 10 January 2023].

World Economic Forum (WEF) (2018a) *The Arab World Competitiveness Report 2018*. Available from:  
[https://www.ifc.org/wps/wcm/connect/dcfcb6da-1ad6-45fb-a7d4-097da23c3492/AWCR+2018.post-launch+updates.180824\\_1442.pdf?MOD=AJPERES&CVID=mlXzofa](https://www.ifc.org/wps/wcm/connect/dcfcb6da-1ad6-45fb-a7d4-097da23c3492/AWCR+2018.post-launch+updates.180824_1442.pdf?MOD=AJPERES&CVID=mlXzofa)  
[Accessed: 10 January 2023].

World Economic Forum (WEF) (2018b) *The Global Competitiveness Report 2018*. Available from:  
<http://www3.weforum.org/docs/GCR2018/05FullReport/TheGlobalCompetitivenessReport2018.pdf> [Accessed: 10 January 2023].

World Economic Forum (WEF) (2019) *The Global Competitiveness Report 2019*. Available from:  
[https://www3.weforum.org/docs/WEF\\_TheGlobalCompetitivenessReport2019.pdf](https://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf)  
[Accessed: 10 January 2023].

World Finance (2020) *The Voice of the Market. How to adopt the best corporate governance practices in a privately held company? Interview with: Interac's corporate governance team.* Available from: <https://www.worldfinance.com/strategy/how-to-adopt-the-best-corporate-governance-practices-in-a-privately-held-company> [Accessed: 10 January 2023].

Yasar, B., Martin, T. and Kiessling, T. (2020) An empirical test of signalling theory, *Management Research Review*, 43 (11), pp. 1309-1335.

Yellen, E. (2007) Spy handler: Memoir of a KGB officer. The true story of the man who recruited Robert Hanssen and Aldrich Ames, *The Slavic and East European Journal*, 51 (1), pp. 183-185.

Yiu, D. and Makino, S. (2002) The choice between joint venture and wholly owned subsidiary: An institutional perspective, *Organization Science*, 13 (6), pp. 667-683.

Zamil, I.A., Ramakrishnan, S., Jamal, N.M., Hatif, M.A. and Khatib, S.F.A. (2021) Drivers of corporate voluntary disclosure: A systematic review, *Journal of Financial Reporting and Accounting*, ahead-of-print.



# Appendices

## Appendices

### Appendix 1 – List of U.K. Research Cases

<b>No.</b>	<b>Company Name</b>	<b>TRBC Economic Sector</b>
1	Anglo American PLC	Basic Materials
2	Antofagasta PLC	Basic Materials
3	Ashtead Group PLC	Industrials
4	Associated British Foods PLC	Consumer Non-Cyclicals
5	Auto Trader Group PLC	Technology
6	Avast PLC	Technology
7	AVEVA Group PLC	Technology
8	B&M European Value Retail SA	Consumer Cyclicals
9	BAE Systems PLC	Industrials
10	Barratt Developments P L C	Consumer Cyclicals
11	Berkeley Group Holdings PLC	Consumer Cyclicals
12	British American Tobacco PLC	Consumer Non-Cyclicals
13	British Land Company PLC	Real Estate
14	BT Group PLC	Technology
15	Bunzl plc	Industrials
16	Burberry Group PLC	Consumer Cyclicals
17	Coca Cola HBC AG	Consumer Non-Cyclicals
18	Compass Group PLC	Consumer Cyclicals
19	CRH PLC	Basic Materials
20	Croda International PLC	Basic Materials
21	DCC PLC	Consumer Non-Cyclicals
22	Diageo PLC	Consumer Non-Cyclicals
23	DS Smith PLC	Basic Materials
24	Entain PLC	Consumer Cyclicals
25	Experian PLC	Industrials
26	Flutter Entertainment PLC	Consumer Cyclicals
27	Fresnillo PLC	Basic Materials
28	Glencore PLC	Basic Materials
29	Halma PLC	Technology
30	Howden Joinery Group PLC	Consumer Cyclicals
31	Imperial Brands PLC	Consumer Non-Cyclicals
32	Informa PLC	Consumer Cyclicals
33	InterContinental Hotels Group PLC	Consumer Cyclicals
34	International Consolidated Airlines Group SA	Industrials
35	Intertek Group PLC	Industrials
36	J Sainsbury PLC	Consumer Non-Cyclicals
37	JD Sports Fashion PLC	Consumer Cyclicals
38	Kingfisher PLC	Consumer Cyclicals
39	Land Securities Group PLC	Real Estate

<b>No.</b>	<b>Company Name</b>	<b>TRBC Economic Sector</b>
40	Meggitt PLC	Industrials
41	Melrose Industries PLC	Consumer Non-Cyclicals
42	Mondi PLC	Basic Materials
43	Next PLC	Consumer Cyclicals
44	Ocado Group PLC	Consumer Cyclicals
45	Pearson PLC	Consumer Cyclicals
46	Persimmon PLC	Consumer Cyclicals
47	Reckitt Benckiser Group PLC	Consumer Non-Cyclicals
48	Relx PLC	Industrials
49	Rentokil Initial PLC	Industrials
50	Rightmove PLC	Technology
51	Rio Tinto PLC	Basic Materials
52	Rolls-Royce Holdings PLC	Industrials
53	RS Group PLC	Technology
54	Sage Group PLC	Technology
55	SEGRO PLC	Real Estate
56	Smiths Group PLC	Consumer Non-Cyclicals
57	Smurfit Kappa Group PLC	Basic Materials
58	Spirax-Sarco Engineering PLC	Industrials
59	Taylor Wimpey PLC	Consumer Cyclicals
60	Tesco PLC	Consumer Non-Cyclicals
61	Unilever PLC	Consumer Non-Cyclicals
62	Unite Group PLC	Real Estate
63	Vodafone Group PLC	Technology
64	Whitbread PLC	Consumer Cyclicals
65	WPP PLC	Consumer Cyclicals

## **Appendix 2 – List of Egyptian Research Cases**

<b>No.</b>	<b>Company Name</b>	<b>TRBC Economic Sector</b>
1	Abu Qir Fertilizers and Chemical Industries Co SAE	Basic Materials
2	Alexandria Container and Cargo Handling Company SAE	Industrials
3	Alexandria Spinning & Weaving Co	Consumer Cyclicals
4	Amer Group Holding Co SAE	Real Estate
5	Arabia Cotton Ginning Co SAE	Consumer Cyclicals
6	Arab Developers Holding	Real Estate
7	Arabian Cement Company SAE	Basic Materials
8	ASEC Co for Mining SAE	Basic Materials
9	Cairo Poultry Company SAE	Consumer Non-Cyclicals
10	General Company for Ceramic and Porcelain Products SAE	Consumer Cyclicals
11	Delta Co for Construction and Rebuilding SAE	Real Estate
12	Delta Sugar Co SAE	Consumer Non-Cyclicals
13	Development and Engineering Consultants Co SAE	Industrials
14	Dice Sports and Casual Wear SAE	Consumer Cyclicals
15	Eastern Company SAE	Consumer Non-Cyclicals
16	Edita Food Industries SAE	Consumer Non-Cyclicals
17	Egypt Aluminum Company SAE	Basic Materials
18	Egyptian Chemical Industries SAE	Basic Materials
19	Egyptian Financial & Industrial SAE	Basic Materials
20	Egyptian Resorts Co SAE	Real Estate
21	Egypt Kuwait Holding Co SAE	Basic Materials
22	Egyptian Media Production City Co SAE	Consumer Cyclicals
23	Egyptian Transport and Commercial Services Co SAE	Industrials
24	Egyptians for Housing & Development Reconstruction Company SAE	Real Estate
25	Al Ezz Dekheila Steel Company Alexandria SAE	Basic Materials
26	Cairo for Housing and Development Co SAE	Real Estate
27	El Nasr Clothing and Textiles Company SAE	Consumer Cyclicals
28	El Shams Housing and Urbanization Co SAE	Real Estate
29	Electro Cable Egypt Co SAE	Industrials
30	El-Saeed Contracting & Real Estate Investment Co	Industrials
31	El Sewedy Electric Co SAE	Industrials
32	Emaar Misr for Development SAE	Real Estate
33	Ezz Steel Co SAE	Basic Materials

<b>No.</b>	<b>Company Name</b>	<b>TRBC Economic Sector</b>
34	Fawry for Banking Technology and Electronic Payment SAE	Industrials
35	GB Auto SAE	Consumer Cyclical
36	Giza General Contracting and Real Estate Investment Co SAE	Industrials
37	Heliopolis Company for Housing and Development SAE	Consumer Cyclical
38	Ibnsina Pharma Co SAE	Consumer Non-Cyclical
39	International Co for Agricultural Corps SAE	Consumer Non-Cyclical
40	Ismailia Development and Real Estate Co SAE	Real Estate
41	Ismailia Misr Poultry Co SAE	Consumer Non-Cyclical
42	Lecico Egypt SAE	Consumer Cyclical
43	Madinet Nasr for Housing and Development SAE	Real Estate
44	Mena for Touristic and Real Estate Investment Co SAE	Real Estate
45	Misr Beni Suef Cement Co SAE	Basic Materials
46	Misr Cement Company SAE	Basic Materials
47	Misr Fertilizers Production Co SAE	Basic Materials
48	Misr National Steel SAE	Basic Materials
49	MM Group for Industry and International Trade SAE	Consumer Cyclical
50	Obour Land for Food Industries	Consumer Non-Cyclical
51	Orascom Construction PLC	Industrials
52	Orascom Development Egypt SAE	Consumer Cyclical
53	Orascom Investment Holding SAE	Technology
54	Oriental Weavers Carpet Co SAE	Consumer Cyclical
55	Paints and Chemical Industries Co SAE	Basic Materials
56	Palm Hills Developments	Real Estate
57	General Company for Paper Industry SAE	Basic Materials
58	Raya Contact Center Co	Industrials
59	Remco Tourism Villages Construction SAE	Real Estate
60	Sharm Dreams Company For Touristic Investment SAE	Consumer Cyclical
61	Sidi Kerir Petrochemicals Company SAE	Basic Materials
62	Sixth of October Development and Investment Co SAE	Real Estate
63	South Valley Cement Co SAE	Basic Materials
64	Talaat Mostafa Group Holding Co SAE	Real Estate
65	Telecom Egypt Co SAE	Technology
66	Arab Ceramic Co SAE	Consumer Cyclical
67	Egyptian Company for Construction Development SAE	Industrials
68	United Arab Stevedoring Co SAE	Industrials

<b>No.</b>	<b>Company Name</b>	<b>TRBC Economic Sector</b>
<b>69</b>	United Company for Housing and Development SAE	Consumer Cyclical
<b>70</b>	Zahraa Maadi Investment and Development SAE	Real Estate

### Appendix 3 – CGD Quality score of the U.K. sample of listed companies

No.	Company Name	Year	CGD Quality Score
1	Anglo American PLC	2021	0.92
2	Anglo American PLC	2020	0.92
3	Anglo American PLC	2019	0.88
4	Antofagasta PLC	2021	0.92
5	Antofagasta PLC	2020	0.94
6	Antofagasta PLC	2019	0.94
7	Ashtead Group PLC	2021	0.90
8	Ashtead Group PLC	2020	0.90
9	Ashtead Group PLC	2019	0.90
10	Associated British Foods PLC	2021	0.92
11	Associated British Foods PLC	2020	0.92
12	Associated British Foods PLC	2019	0.92
13	Auto Trader Group PLC	2021	0.94
14	Auto Trader Group PLC	2020	0.92
15	Auto Trader Group PLC	2019	0.88
16	Avast PLC	2021	0.94
17	Avast PLC	2020	0.90
18	Avast PLC	2019	0.90
19	AVEVA Group PLC	2021	0.90
20	AVEVA Group PLC	2020	0.90
21	AVEVA Group PLC	2019	0.90
22	B&M European Value Retail SA	2021	0.92
23	B&M European Value Retail SA	2020	0.92
24	B&M European Value Retail SA	2019	0.92
25	BAE Systems PLC	2021	0.92
26	BAE Systems PLC	2020	0.92
27	BAE Systems PLC	2019	0.90
28	Barratt Developments P L C	2021	0.90
29	Barratt Developments P L C	2020	0.92
30	Barratt Developments P L C	2019	0.92
31	Berkeley Group Holdings PLC	2021	0.88
32	Berkeley Group Holdings PLC	2020	0.88
33	Berkeley Group Holdings PLC	2019	0.88
34	British American Tobacco PLC	2021	0.96
35	British American Tobacco PLC	2020	0.96
36	British American Tobacco PLC	2019	0.94
37	British Land Company PLC	2021	0.87
38	British Land Company PLC	2020	0.87
39	British Land Company PLC	2019	0.87
40	BT Group PLC	2021	0.94
41	BT Group PLC	2020	0.94
42	BT Group PLC	2019	0.92
43	Bunzl plc	2021	0.92
44	Bunzl plc	2020	0.92

<b>No.</b>	<b>Company Name</b>	<b>Year</b>	<b>CGD Quality Score</b>
45	Bunzl plc	2019	0.92
46	Burberry Group PLC	2021	0.90
47	Burberry Group PLC	2020	0.90
48	Burberry Group PLC	2019	0.90
49	Coca Cola HBC AG	2021	0.90
50	Coca Cola HBC AG	2020	0.90
51	Coca Cola HBC AG	2019	0.90
52	Compass Group PLC	2021	0.92
53	Compass Group PLC	2020	0.92
54	Compass Group PLC	2019	0.92
55	CRH PLC	2021	0.94
56	CRH PLC	2020	0.92
57	CRH PLC	2019	0.92
58	Croda International PLC	2021	0.92
59	Croda International PLC	2020	0.92
60	Croda International PLC	2019	0.92
61	DCC PLC	2021	0.94
62	DCC PLC	2020	0.94
63	DCC PLC	2019	0.92
64	Diageo PLC	2021	0.94
65	Diageo PLC	2020	0.94
66	Diageo PLC	2019	0.92
67	DS Smith PLC	2021	0.90
68	DS Smith PLC	2020	0.90
69	DS Smith PLC	2019	0.90
70	Entain PLC	2021	0.90
71	Entain PLC	2020	0.88
72	Entain PLC	2019	0.88
73	Experian PLC	2021	0.96
74	Experian PLC	2020	0.94
75	Experian PLC	2019	0.92
76	Flutter Entertainment PLC	2021	0.96
77	Flutter Entertainment PLC	2020	0.94
78	Flutter Entertainment PLC	2019	0.92
79	Fresnillo PLC	2021	0.94
80	Fresnillo PLC	2020	0.96
81	Fresnillo PLC	2019	0.96
82	Glencore PLC	2021	0.94
83	Glencore PLC	2020	0.94
84	Glencore PLC	2019	0.94
85	Halma PLC	2021	0.94
86	Halma PLC	2020	0.94
87	Halma PLC	2019	0.94
88	Howden Joinery Group PLC	2021	0.83
89	Howden Joinery Group PLC	2020	0.83
90	Howden Joinery Group PLC	2019	0.83
91	Imperial Brands PLC	2021	0.92



<b>No.</b>	<b>Company Name</b>	<b>Year</b>	<b>CGD Quality Score</b>
92	Imperial Brands PLC	2020	0.92
93	Imperial Brands PLC	2019	0.92
94	Informa PLC	2021	0.94
95	Informa PLC	2020	0.94
96	Informa PLC	2019	0.94
97	InterContinental Hotels Group PLC	2021	0.96
98	InterContinental Hotels Group PLC	2020	0.96
99	InterContinental Hotels Group PLC	2019	0.96
100	International Consolidated Airlines Group SA	2021	0.96
101	International Consolidated Airlines Group SA	2020	0.96
102	International Consolidated Airlines Group SA	2019	0.96
103	Intertek Group PLC	2021	0.92
104	Intertek Group PLC	2020	0.92
105	Intertek Group PLC	2019	0.92
106	J Sainsbury PLC	2021	0.87
107	J Sainsbury PLC	2020	0.85
108	J Sainsbury PLC	2019	0.85
109	JD Sports Fashion PLC	2021	0.85
110	JD Sports Fashion PLC	2020	0.85
111	JD Sports Fashion PLC	2019	0.85
112	Kingfisher PLC	2021	0.94
113	Kingfisher PLC	2020	0.94
114	Kingfisher PLC	2019	0.94
115	Land Securities Group PLC	2021	0.90
116	Land Securities Group PLC	2020	0.88
117	Land Securities Group PLC	2019	0.87
118	Meggitt PLC	2021	0.92
119	Meggitt PLC	2020	0.92
120	Meggitt PLC	2019	0.92
121	Melrose Industries PLC	2021	0.94
122	Melrose Industries PLC	2020	0.92
123	Melrose Industries PLC	2019	0.94
124	Mondi PLC	2021	0.90
125	Mondi PLC	2020	0.90
126	Mondi PLC	2019	0.88
127	Next PLC	2021	0.88
128	Next PLC	2020	0.88
129	Next PLC	2019	0.88
130	Ocado Group PLC	2021	0.96
131	Ocado Group PLC	2020	0.94
132	Ocado Group PLC	2019	0.88
133	Pearson PLC	2021	0.96
134	Pearson PLC	2020	0.96
135	Pearson PLC	2019	0.94
136	Persimmon PLC	2021	0.90
137	Persimmon PLC	2020	0.90
138	Persimmon PLC	2019	0.90

<b>No.</b>	<b>Company Name</b>	<b>Year</b>	<b>CGD Quality Score</b>
139	Reckitt Benckiser Group PLC	2021	0.94
140	Reckitt Benckiser Group PLC	2020	0.94
141	Reckitt Benckiser Group PLC	2019	0.90
142	Relx PLC	2021	0.98
143	Relx PLC	2020	0.98
144	Relx PLC	2019	1.00
145	Rentokil Initial PLC	2021	0.96
146	Rentokil Initial PLC	2020	0.94
147	Rentokil Initial PLC	2019	0.94
148	Rightmove PLC	2021	0.90
149	Rightmove PLC	2020	0.90
150	Rightmove PLC	2019	0.90
151	Rio Tinto PLC	2021	0.92
152	Rio Tinto PLC	2020	0.92
153	Rio Tinto PLC	2019	0.90
154	Rolls-Royce Holdings PLC	2021	0.98
155	Rolls-Royce Holdings PLC	2020	0.98
156	Rolls-Royce Holdings PLC	2019	0.98
157	RS Group PLC	2021	0.94
158	RS Group PLC	2020	0.92
159	RS Group PLC	2019	0.92
160	Sage Group PLC	2021	0.88
161	Sage Group PLC	2020	0.88
162	Sage Group PLC	2019	0.88
163	SEGRO PLC	2021	0.92
164	SEGRO PLC	2020	0.90
165	SEGRO PLC	2019	0.90
166	Smiths Group PLC	2021	0.92
167	Smiths Group PLC	2020	0.92
168	Smiths Group PLC	2019	0.92
169	Smurfit Kappa Group PLC	2021	0.94
170	Smurfit Kappa Group PLC	2020	0.94
171	Smurfit Kappa Group PLC	2019	0.94
172	Spirax-Sarco Engineering PLC	2021	0.90
173	Spirax-Sarco Engineering PLC	2020	0.90
174	Spirax-Sarco Engineering PLC	2019	0.90
175	Taylor Wimpey PLC	2021	0.90
176	Taylor Wimpey PLC	2020	0.90
177	Taylor Wimpey PLC	2019	0.90
178	Tesco PLC	2021	0.92
179	Tesco PLC	2020	0.92
180	Tesco PLC	2019	0.92
181	Unilever PLC	2021	0.96
182	Unilever PLC	2020	0.96
183	Unilever PLC	2019	0.94
184	Unite Group PLC	2021	0.88
185	Unite Group PLC	2020	0.88

<b>No.</b>	<b>Company Name</b>	<b>Year</b>	<b>CGD Quality Score</b>
<b>186</b>	Unite Group PLC	2019	0.90
<b>187</b>	Vodafone Group PLC	2021	0.96
<b>188</b>	Vodafone Group PLC	2020	0.96
<b>189</b>	Vodafone Group PLC	2019	0.96
<b>190</b>	Whitbread PLC	2021	0.90
<b>191</b>	Whitbread PLC	2020	0.92
<b>192</b>	Whitbread PLC	2019	0.90
<b>193</b>	WPP PLC	2021	0.96
<b>194</b>	WPP PLC	2020	0.92
<b>195</b>	WPP PLC	2019	0.92

**Appendix 4 – CGD Quality score of the Egyptian sample of listed companies**

<b>No.</b>	<b>Company Name</b>	<b>Year</b>	<b>CGD Quality Score</b>
1	Abu Qir Fertilizers and Chemical Industries Co SAE	2021	0.71
2	Abu Qir Fertilizers and Chemical Industries Co SAE	2020	0.71
3	Abu Qir Fertilizers and Chemical Industries Co SAE	2019	0.71
4	Alexandria Container and Cargo Handling Company SAE	2021	0.65
5	Alexandria Container and Cargo Handling Company SAE	2020	0.63
6	Alexandria Container and Cargo Handling Company SAE	2019	0.63
7	Alexandria Spinning & Weaving Co	2021	0.62
8	Alexandria Spinning & Weaving Co	2020	0.62
9	Alexandria Spinning & Weaving Co	2019	0.62
10	Amer Group Holding Co SAE	2021	0.71
11	Amer Group Holding Co SAE	2020	0.69
12	Amer Group Holding Co SAE	2019	0.69
13	Arabia Cotton Ginning Co SAE	2021	0.60
14	Arabia Cotton Ginning Co SAE	2020	0.60
15	Arabia Cotton Ginning Co SAE	2019	0.60
16	Arab Developers Holding	2021	0.69
17	Arab Developers Holding	2020	0.65
18	Arab Developers Holding	2019	0.67
19	Arabian Cement Company SAE	2021	0.73
20	Arabian Cement Company SAE	2020	0.73
21	Arabian Cement Company SAE	2019	0.73
22	ASEC Co for Mining SAE	2021	0.71
23	ASEC Co for Mining SAE	2020	0.69
24	ASEC Co for Mining SAE	2019	0.69
25	Cairo Poultry Company SAE	2021	0.67
26	Cairo Poultry Company SAE	2020	0.65
27	Cairo Poultry Company SAE	2019	0.65
28	General Company for Ceramic and Porcelain Products SAE	2021	0.54
29	General Company for Ceramic and Porcelain Products SAE	2020	0.52
30	General Company for Ceramic and Porcelain Products SAE	2019	0.52
31	Delta Co for Construction and Rebuilding SAE	2021	0.44
32	Delta Co for Construction and Rebuilding SAE	2020	0.42
33	Delta Co for Construction and Rebuilding SAE	2019	0.42
34	Delta Sugar Co SAE	2021	0.46
35	Delta Sugar Co SAE	2020	0.46
36	Delta Sugar Co SAE	2019	0.46

<b>No.</b>	<b>Company Name</b>	<b>Year</b>	<b>CGD Quality Score</b>
37	Development and Engineering Consultants Co SAE	2021	0.71
38	Development and Engineering Consultants Co SAE	2020	0.71
39	Development and Engineering Consultants Co SAE	2019	0.71
40	Dice Sports and Casual Wear SAE	2021	0.77
41	Dice Sports and Casual Wear SAE	2020	0.77
42	Dice Sports and Casual Wear SAE	2019	0.73
43	Eastern Company SAE	2021	0.71
44	Eastern Company SAE	2020	0.71
45	Eastern Company SAE	2019	0.73
46	Edita Food Industries SAE	2021	0.83
47	Edita Food Industries SAE	2020	0.83
48	Edita Food Industries SAE	2019	0.83
49	Egypt Aluminum Company SAE	2021	0.52
50	Egypt Aluminum Company SAE	2020	0.50
51	Egypt Aluminum Company SAE	2019	0.50
52	Egyptian Chemical Industries SAE	2021	0.56
53	Egyptian Chemical Industries SAE	2020	0.56
54	Egyptian Chemical Industries SAE	2019	0.54
55	Egyptian Financial & Industrial SAE	2021	0.69
56	Egyptian Financial & Industrial SAE	2020	0.67
57	Egyptian Financial & Industrial SAE	2019	0.69
58	Egyptian Resorts Co SAE	2021	0.81
59	Egyptian Resorts Co SAE	2020	0.81
60	Egyptian Resorts Co SAE	2019	0.81
61	Egypt Kuwait Holding Co SAE	2021	0.81
62	Egypt Kuwait Holding Co SAE	2020	0.77
63	Egypt Kuwait Holding Co SAE	2019	0.77
64	Egyptian Media Production City Co SAE	2021	0.63
65	Egyptian Media Production City Co SAE	2020	0.63
66	Egyptian Media Production City Co SAE	2019	0.62
67	Egyptian Transport and Commercial Services Co SAE	2021	0.81
68	Egyptian Transport and Commercial Services Co SAE	2020	0.81
69	Egyptian Transport and Commercial Services Co SAE	2019	0.79
70	Egyptians for Housing & Development Reconstruction Company SAE	2021	0.67
71	Egyptians for Housing & Development Reconstruction Company SAE	2020	0.67
72	Egyptians for Housing & Development Reconstruction Company SAE	2019	0.69
73	Al Ezz Dekheila Steel Company Alexandria SAE	2021	0.69
74	Al Ezz Dekheila Steel Company Alexandria SAE	2020	0.69
75	Al Ezz Dekheila Steel Company Alexandria SAE	2019	0.69

<b>No.</b>	<b>Company Name</b>	<b>Year</b>	<b>CGD Quality Score</b>
76	Cairo for Housing and Development Co SAE	2021	0.71
77	Cairo for Housing and Development Co SAE	2020	0.63
78	Cairo for Housing and Development Co SAE	2019	0.60
79	El Nasr Clothing and Textiles Company SAE	2021	0.60
80	El Nasr Clothing and Textiles Company SAE	2020	0.60
81	El Nasr Clothing and Textiles Company SAE	2019	0.60
82	El Shams Housing and Urbanization Co SAE	2021	0.58
83	El Shams Housing and Urbanization Co SAE	2020	0.58
84	El Shams Housing and Urbanization Co SAE	2019	0.58
85	Electro Cable Egypt Co SAE	2021	0.52
86	Electro Cable Egypt Co SAE	2020	0.50
87	Electro Cable Egypt Co SAE	2019	0.48
88	El-Saeed Contracting & Real Estate Investment Co	2021	0.71
89	El-Saeed Contracting & Real Estate Investment Co	2020	0.71
90	El-Saeed Contracting & Real Estate Investment Co	2019	0.69
91	El Sewedy Electric Co SAE	2021	0.71
92	El Sewedy Electric Co SAE	2020	0.71
93	El Sewedy Electric Co SAE	2019	0.71
94	Emaar Misr for Development SAE	2021	0.81
95	Emaar Misr for Development SAE	2020	0.81
96	Emaar Misr for Development SAE	2019	0.81
97	Ezz Steel Co SAE	2021	0.73
98	Ezz Steel Co SAE	2020	0.73
99	Ezz Steel Co SAE	2019	0.73
100	Fawry for Banking Technology and Electronic Payment SAE	2021	0.83
101	Fawry for Banking Technology and Electronic Payment SAE	2020	0.71
102	Fawry for Banking Technology and Electronic Payment SAE	2019	0.65
103	GB Auto SAE	2021	0.81
104	GB Auto SAE	2020	0.79
105	GB Auto SAE	2019	0.79
106	Giza General Contracting and Real Estate Investment Co SAE	2021	0.56
107	Giza General Contracting and Real Estate Investment Co SAE	2020	0.56
108	Giza General Contracting and Real Estate Investment Co SAE	2019	0.56
109	Heliopolis Company for Housing and Development SAE	2021	0.65
110	Heliopolis Company for Housing and Development SAE	2020	0.62
111	Heliopolis Company for Housing and Development SAE	2019	0.58

<b>No.</b>	<b>Company Name</b>	<b>Year</b>	<b>CGD Quality Score</b>
112	Ibnsina Pharma Co SAE	2021	0.77
113	Ibnsina Pharma Co SAE	2020	0.77
114	Ibnsina Pharma Co SAE	2019	0.77
115	International Co for Agricultural Corps SAE	2021	0.69
116	International Co for Agricultural Corps SAE	2020	0.67
117	International Co for Agricultural Corps SAE	2019	0.67
118	Ismailia Development and Real Estate Co SAE	2021	0.52
119	Ismailia Development and Real Estate Co SAE	2020	0.52
120	Ismailia Development and Real Estate Co SAE	2019	0.52
121	Ismailia Misr Poultry Co SAE	2021	0.63
122	Ismailia Misr Poultry Co SAE	2020	0.62
123	Ismailia Misr Poultry Co SAE	2019	0.63
124	Lecico Egypt SAE	2021	0.71
125	Lecico Egypt SAE	2020	0.73
126	Lecico Egypt SAE	2019	0.73
127	Madinet Nasr for Housing and Development SAE	2021	0.65
128	Madinet Nasr for Housing and Development SAE	2020	0.65
129	Madinet Nasr for Housing and Development SAE	2019	0.65
130	Mena for Touristic and Real Estate Investment Co SAE	2021	0.62
131	Mena for Touristic and Real Estate Investment Co SAE	2020	0.62
132	Mena for Touristic and Real Estate Investment Co SAE	2019	0.62
133	Misr Beni Suef Cement Co SAE	2021	0.60
134	Misr Beni Suef Cement Co SAE	2020	0.60
135	Misr Beni Suef Cement Co SAE	2019	0.60
136	Misr Cement Company SAE	2021	0.63
137	Misr Cement Company SAE	2020	0.62
138	Misr Cement Company SAE	2019	0.60
139	Misr Fertilizers Production Co SAE	2021	0.63
140	Misr Fertilizers Production Co SAE	2020	0.63
141	Misr Fertilizers Production Co SAE	2019	0.63
142	Misr National Steel SAE	2021	0.54
143	Misr National Steel SAE	2020	0.54
144	Misr National Steel SAE	2019	0.54
145	MM Group for Industry and International Trade SAE	2021	0.73
146	MM Group for Industry and International Trade SAE	2020	0.73
147	MM Group for Industry and International Trade SAE	2019	0.71
148	Obour Land for Food Industries	2021	0.73
149	Obour Land for Food Industries	2020	0.71
150	Obour Land for Food Industries	2019	0.71



<b>No.</b>	<b>Company Name</b>	<b>Year</b>	<b>CGD Quality Score</b>
151	Orascom Construction PLC	2021	0.79
152	Orascom Construction PLC	2020	0.79
153	Orascom Construction PLC	2019	0.79
154	Orascom Development Egypt SAE	2021	0.79
155	Orascom Development Egypt SAE	2020	0.79
156	Orascom Development Egypt SAE	2019	0.79
157	Orascom Investment Holding SAE	2021	0.77
158	Orascom Investment Holding SAE	2020	0.71
159	Orascom Investment Holding SAE	2019	0.75
160	Oriental Weavers Carpet Co SAE	2021	0.77
161	Oriental Weavers Carpet Co SAE	2020	0.71
162	Oriental Weavers Carpet Co SAE	2019	0.71
163	Paints and Chemical Industries Co SAE	2021	0.50
164	Paints and Chemical Industries Co SAE	2020	0.50
165	Paints and Chemical Industries Co SAE	2019	0.50
166	Palm Hills Developments	2021	0.73
167	Palm Hills Developments	2020	0.73
168	Palm Hills Developments	2019	0.77
169	General Company for Paper Industry SAE	2021	0.62
170	General Company for Paper Industry SAE	2020	0.58
171	General Company for Paper Industry SAE	2019	0.58
172	Raya Contact Center Co	2021	0.69
173	Raya Contact Center Co	2020	0.69
174	Raya Contact Center Co	2019	0.69
175	Remco Tourism Villages Construction SAE	2021	0.60
176	Remco Tourism Villages Construction SAE	2020	0.60
177	Remco Tourism Villages Construction SAE	2019	0.60
178	Sharm Dreams Company For Touristic Investment SAE	2021	0.46
179	Sharm Dreams Company For Touristic Investment SAE	2020	0.46
180	Sharm Dreams Company For Touristic Investment SAE	2019	0.46
181	Sidi Kerir Petrochemicals Company SAE	2021	0.63
182	Sidi Kerir Petrochemicals Company SAE	2020	0.63
183	Sidi Kerir Petrochemicals Company SAE	2019	0.63
184	Sixth of October Development and Investment Co SAE	2021	0.77
185	Sixth of October Development and Investment Co SAE	2020	0.73
186	Sixth of October Development and Investment Co SAE	2019	0.75
187	South Valley Cement Co SAE	2021	0.69
188	South Valley Cement Co SAE	2020	0.71
189	South Valley Cement Co SAE	2019	0.69
190	Talaat Mostafa Group Holding Co SAE	2021	0.81
191	Talaat Mostafa Group Holding Co SAE	2020	0.81
192	Talaat Mostafa Group Holding Co SAE	2019	0.83



<b>No.</b>	<b>Company Name</b>	<b>Year</b>	<b>CGD Quality Score</b>
<b>193</b>	Telecom Egypt Co SAE	2021	0.85
<b>194</b>	Telecom Egypt Co SAE	2020	0.85
<b>195</b>	Telecom Egypt Co SAE	2019	0.83
<b>196</b>	Arab Ceramic Co SAE	2021	0.48
<b>197</b>	Arab Ceramic Co SAE	2020	0.48
<b>198</b>	Arab Ceramic Co SAE	2019	0.48
<b>199</b>	Egyptian Company for Construction Development SAE	2021	0.42
<b>200</b>	Egyptian Company for Construction Development SAE	2020	0.40
<b>201</b>	Egyptian Company for Construction Development SAE	2019	0.40
<b>202</b>	United Arab Stevedoring Co SAE	2021	0.54
<b>203</b>	United Arab Stevedoring Co SAE	2020	0.52
<b>204</b>	United Arab Stevedoring Co SAE	2019	0.52
<b>205</b>	United Company for Housing and Development SAE	2021	0.65
<b>206</b>	United Company for Housing and Development SAE	2020	0.63
<b>207</b>	United Company for Housing and Development SAE	2019	0.62
<b>208</b>	Zahraa Maadi Investment and Development SAE	2021	0.60
<b>209</b>	Zahraa Maadi Investment and Development SAE	2020	0.60
<b>210</b>	Zahraa Maadi Investment and Development SAE	2019	0.60