

**An-Najah National University  
Faculty of Graduate Studies**

**The Moderating Role of Corporate  
Governance on the Relationship between  
Voluntary Disclosure and the Cost of Equity  
of the Palestinian Companies Listed on PEX**

**By  
Sara Emad Hussein Jallad**

**Supervised by  
Dr. Muiz Abu Alia  
Co-Supervisor  
Dr. Islam Abdeljawad**

**The Thesis is Submitted in Partial Fulfilment of the Requirements  
for the Degree of Master of Accounting, Faculty of Graduate  
Studies, An-Najah National University, Nablus, Palestine,**

**2020**

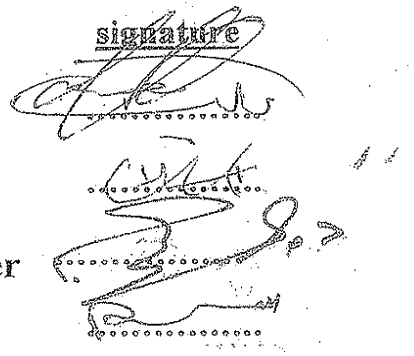
# **The Moderating Role of Corporate Governance on the Relationship between Voluntary Disclosure and the Cost of Equity of the Palestinian Companies Listed on PEX**

**By  
Sara Emad Hussein Jallad**

**This thesis was defended successfully on 22/10/2020, and approved by**

Defence Committee Members

1. Dr. Muiz Abu Alia/ Supervisor
2. Dr. Islam Abdeljawad/ Co-Supervisor
3. Dr. Abdul-Fattah Sartawi/ External Examiner
4. Dr. Sameh Atout/ Internal Examiner

signature  


## *Dedication*

*I dedicate this thesis to my dear parents for their unlimited giving, endless love, and continuous prayer.*

*To my dear brothers for their advices and love and for sharing the most beautiful moments with me.*

*To my husband, who gave me all support and encouragement to complete my scientific career.*

*To my dear baby and all my family and friends.*

*To all doctors in the accounting department.*

*And to all who taught me at all classes.*

## *Acknowledgment*

*First of all, I have to thank god for giving me more than what I deserve, and for continued kindness and generosity. I express my thanks to god who gifted me his blessing and adapted me to achieve my studies and get a master's degree.*

*I want to express my genuine gratitude to both of my supervisors Dr. Muiz Abu Alia and Dr. Islam Abdeljawad. They gave me from their extensive experience and knowledge. Without their continuous support, patience, motivation, guidance and help, this thesis would not have been accomplished.*

*Beside my supervisors, I am also grateful to all doctors in the accounting department at An-Najah National University for their continued efforts in supporting and encouraging me.*

*I am appreciating the efforts of the rest of the thesis committee members and their valuable comments and suggestions.*

*Last but not the least, special thanks to my parents, I am grateful, for their support and inspired. I am also grateful to my husband for his continued encouragement throughout writing this thesis.*

## الإقرار

انا الموقع ادناه مقدم الرسالة التي تحمل العنوان:

## The Moderating Role of Corporate Governance on the Relationship between Voluntary Disclosure and the Cost of Equity of the Palestinian Companies Listed on PEX

الدور الوسيط لحوكمة الشركات في العلاقة بين الإفصاح الإختياري وتكلفة حقوق الملكية للشركات الفلسطينية المدرجة في بورصة فلسطين

أقر بأن ما اشتملت عليه هذه الرسالة انما هي نتاج جهدي الخاص، باستثناء ما تمت الاشارة اليه حيثما ورد، وأن هذه الرسالة هيكلية، أو أي جزء منها لم يقدم لنيل أي درجة علمية أو لقب علمي أو بحثي لدى اية مؤسسة تعليمية اخرى

### Declaration

The work provided in this thesis, unless otherwise referenced, is the researcher's own work and has not been submitted elsewhere for any other degree or qualification

Student's name:

اسم الطالبة: سارة عمار حيدر

Signature:

التوقيع: سارة

Date:

التاريخ: ٢٠٠٩ / ١٠ / ٢٠٠٩

## Table of contents

No.	Contents	Page
	Dedication	iii
	Acknowledgment	iv
	Declaration	v
	Table of Contents	vi
	List of Tables	viii
	List of Figure	ix
	List of Appendices	x
	Abstract	xi
	<b>Chapter one: Introduction</b>	<b>1</b>
1.1	Introduction	2
1.2	Problem Statement	3
1.3	Objectives of the Study	4
1.4	Research Questions	5
1.5	Importance of the Study	6
	<b>Chapter Two: Theoretical Framework and Literature Review</b>	<b>8</b>
2.1	Introduction	9
2.1.1	Cost of Equity	9
2.1.2	Voluntary disclosure	10
2.1.3	Corporate governance	11
2.2	Theoretical background	12
2.2.1	Agency theory	12
2.2.2	Stakeholders' theory	13
2.2.3	Capital needs theory	13
2.2.4	Signaling theory	14
2.3	The relationship between voluntary disclosure and cost of equity	15
2.4	The relationship between corporate governance (CG) and the cost of equity (COE)	20
2.5	Research Hypotheses	21
2.5.1	The relationship between voluntary disclosure (VD) and cost of equity (COE)	21
2.5.2	The interaction between the cost of equity (COE), voluntary disclosure (VD) and the level of corporate governance (CG)	22
2.6	Research Model	23
2.7	The disclosure and corporate governance in Palestine	23
	<b>Chapter Three: Research Methodology</b>	<b>28</b>
3.1	Introduction	29

<b>No.</b>	<b>Contents</b>	<b>Page</b>
3.2	Study population and sample	29
3.3	Data	29
3.4	Variables measurement	30
3.4.1	Dependent variable	30
3.4.2	Independent variable	35
3.4.3	Moderating variable	36
3.4.4	Control variables	37
3.5	Statistical methods used to analyse data	39
3.6	Research models	40
	<b>Chapter Four: Results and Discussion</b>	<b>42</b>
4.1	Introduction	43
4.2	Descriptive statistics of variables	43
4.3	Pearson Correlation Matrix	45
4.4	Estimation Results	47
4.5	Discussion of Results	52
	<b>Chapter Five: Summary and conclusions</b>	<b>59</b>
5.1	Introduction	60
5.2	Results Summary	61
5.3	Conclusion	63
5.4	Limitation of the study	64
5.5	Recommendations for future research	64
	<b>References</b>	<b>66</b>
	<b>Appendices</b>	<b>86</b>
	المخلص	ب

**List of Tables**

<b>No.</b>	<b>Table</b>	<b>Page</b>
<b>Table (1)</b>	The study variables, their abbreviations and operational definitions.	39
<b>Table (2)</b>	Descriptive statistics of the study variables	43
<b>Table (3)</b>	Pearson correlation matrix between variables	45
<b>Table (4)</b>	Estimation results for the model with COE1 as a dependent variable	47
<b>Table (5)</b>	Estimation results for the model with COE2 as a dependent variable	48
<b>Table (6)</b>	Estimation results for the model with COE3 as a dependent variable	49
<b>Table (7)</b>	Estimation results for the model with ROE1 as a dependent variable	50
<b>Table (8)</b>	Estimation results for the model with ROE2 as a dependent variable	51
<b>Table (9)</b>	Summary of the relationships from the study findings	53



**List of Figure**

<b>No.</b>	<b>Figure</b>	<b>Page</b>
<b>Figure (1)</b>	The conceptual model of the study	23

**List of Appendices**

<b>No.</b>	<b>Appendices</b>	<b>Page</b>
<b>Appendix (1)</b>	voluntary disclosure checklist	87
<b>Appendix (2)</b>	corporate governance checklist	89

**The Moderating Role of Corporate Governance on the Relationship  
between Voluntary Disclosure and the Cost of Equity of the Palestinian  
Companies Listed on PEX**

**By**

**Sara Emad Hussein Jallad**

**Supervised by**

**Dr. Muiz Abu Alia**

**Co-Supervisor**

**Dr. Islam Abdeljawad**

**Abstract**

Securing financing for companies is a critical issue for their managements. Actually, the cost of equity (COE) is an important element in determining their financing source. COE may be influenced by voluntary disclosure (VD). Disclosing additional information could reduce information asymmetry and leads to lower risk and decrease the COE.

This study investigates the relationship between VD and the COE, from one hand. On the other hand, it also examines the moderating role of corporate governance (CG) on the association between VD and the COE.

Relevant measures were used in this study to achieve its objectives. Voluntary disclosure was measured by developing a checklist based on the extant literature and the prevailing circumstances in Palestine. The Capital Assets Pricing Model (CAPM) framework and the profitability ratio (ROE) were used to measure the COEC. CAPM was employed through using three models including the classical CAPM model (COE 1), Standard Deviation of return (COE 2), and Semi-deviation of return (COE 3). Furthermore, the profitability was measured by return on equity (ROE) twice. In the first (ROE1), the classical return on equity, which is measured

by dividing the net income of the firm by its total book value of equity, was used. Since ROE can have negative values but the COE can never be negative, an additional measure of the COE is used where all negative values are set to zero (ROE2). Moreover, a second checklist was also developed to measure the moderating variable (CG).

Data was obtained mainly from the annual reports prepared by the companies listed on Palestine Exchange (PEX) for ten years from 2009 to 2018. Forty-one companies listed in the PEX were considered in this study after excluding the banking sector. Financial and non-financial panel data (longitudinal data) was collected; it includes cross-sectional and time-series data.

The regression results indicate that the most significant results emerged when using CAPM- downside risk (COE 3). This can be explained as beta (COE 1) is not proper to estimate risk in emerging markets. Moreover, investors don't avoid favorable volatility (COE 2); they just avoid downside or unfavorable volatility that can be measured by the semi deviation.

Our findings highlight a negative and significant relationship between voluntary disclosure and cost of equity (COE 3), confirming the research hypothesis. The results also provide evidence when used (ROE1 and ROE2) indicates that CG moderates the associations between VD and COE since a negative and significant relationship between both variables exist only under commitment to good corporate governance mechanisms.

The study suggests a set of recommendations, including the manager should use a proper measure for cost of equity when take financing decision, and managers must pay more attention to disclosure and, in particular, must increase the quality of voluntary disclosure through commitment to good corporate governance practice.

# **Chapter One**

## **Introduction**

# Chapter one

## Introduction

### 1.1 Introduction

Financing is among the core activities of the firm; it is essential to maintain their current operations, purchase new fixed assets, pay obligations and for expansion (Modigliani et al., 1958; Pike and Neale, 2009). Financing decisions are critical for companies' sustainability and growth given their effect on current and future performance (Ardillah, 2020). Normally, companies obtain financing through two main sources, debt and equity. Choosing between them is one of the significant decisions companies face in shaping their capital structure (Mallisa et al., 2017).

The cost of financing is a primary determinant for choosing the source of financing for companies (Titman et al., 1988). There are two components for the cost of financing, i.e. cost of debt and cost of equity. While cost of debt is somewhat easy to estimate, it is noted that cost of equity estimation is more difficult (Villadsen et al., 2017). COE is the return rate required by investors to compensate for the risk of providing capital (Botosan, 1997), or the expected return on the stock of the firm (Fama et al., 1972). COE is influenced by numerous external factors, such as political stability (Li et al., 2018) and economic situation (Kim et al., 2010). Moreover, it is claimed that many internal factors can influence the company's COE such as governance system (Srivastava, 2019), corporate social responsibility (El Ghouli, 2011; Byun and Oh 2018) and company disclosure (Dutta, 2017; Raimo et al., 2020).

Many empirical studies (e.g. Botosan,1997; Hail, 2002; Leuz and Verrecchia, 2004; Botosan and Plumlee, 2005; Francis, Khurana, and Pereira, 2005) provide evidence indicating that information disclosed by firms has an important role in determining the COE. Diamond and Verrecchia (1991) argued that high disclosure improves market liquidity which, ultimately, raises the demand on the firm's stock and reduces transaction costs. Moreover, high disclosure reduces estimation risk resulting from uncertainty related to future returns and also decreases information asymmetry between manger and investor, and this causes a decrease in the COE (Diamond and Verrechia, 1991; Verrechia, 2001).

On the other hand, the relationship between information disclosure and the COE may be affected by corporate governance practices; it may influence the risk of the corporate insider. According to Srivastava et al., (2019); Lombardo and Pagano (2002), CG may also reduce the external monitoring cost required to ensure given payoff by management in addition to its role in reducing information asymmetry by limiting opportunistic insider trading.

## **1.2 Problem Statement**

Companies face challenges in securing financing to the extent that they become vulnerable to bankruptcy due to the lack of financing. COE is a critical element in determining their financing source as well as it influences their performance (Reverte, 2009; Pham et al., 2012). Also, many executives lack knowledge about the factors influencing the COE



and struggling in finding ways to reduce it. Identification of factors impacting the COE is a significant step in improving companies financing and investment decisions (Huang et al., 2009). Furthermore, it will help companies to reduce their COE by taking the consideration of such factors.

Among these factors is voluntary disclosure, which is necessary to satisfy the needs of shareholders, as the higher the level of voluntary disclosure, the greater the level of investors' confidence in granting their financial resources and investment in companies. While The lack of continuous voluntary disclosure and lack of commitment to good corporate governance mechanisms by the Palestinian companies listed on the Palestine Stock Exchange may lead to the withholding of useful and sufficient information on the cost of equity, which in turn leads to a set of negative effects, the most important of which is a loss of confidence in the information disclosed, and erroneous decisions regarding determining the cost of equity.

In Palestine, there are no sufficient studies on the COE and the factors that have an impact on it. Moreover, many of the Palestinian companies face challenges in securing financing or they are having higher financing costs (Migdad, 2017).

### **1.3 Objectives of the Study**

The intend of the study is to highlight the financing issues of the Palestinian companies listed on the Palestine Exchange (PEX) and the factors impacting their cost of equity. It tries to bridge the gap in the

literature by examining the relationship between VD and the COE in Palestine, from one hand, and the moderating role of CG on the association between VD and the COE on the other hand. Particularly, it tests empirically whether these factors influence the COE and through which channel. Specifically, the main study objectives are:

1. Measuring the level of VD of the Palestinian companies listed on PEX.
2. Measuring the COE of the Palestinian companies listed on PEX.
3. Measuring the CG level of the Palestinian companies listed on PEX.
4. Investigating the relationship between VD and COE for the Palestinian companies listed on PEX.
5. Investigating the role of CG as a moderating variable on the association between VD and COE for the Palestinian companies listed on PEX.
6. Provide recommendations for the Palestinian companies listed on the PEX relevant to their financing decisions.

#### **1.4 Research Questions**

Given the significance of the COE for companies' financing and investment decisions, the study investigates the factors affecting it for the Palestinian companies listed on PEX. Particularly, it intends to provide answers for the following questions:

1. Does the VD level affect the Palestinian-listed companies' cost of equity?

2. Does the CG affect the relationship between VD and COE for Palestinian listed companies?

### **1.5 Importance of the Study**

In Palestine, a lack of research that measures the COE and the factors affecting it exists. Mainly, prior studies investigate 1) the determinants and importance of capital structure for the Palestinian-companies (e.g. Daraghma et al., 2010; Abu Mouamer, 2011; and Abbadi et al., 2012), 2) the commitment of the Palestinian companies with CG requirements (e.g. Abdelkarim et al., 2010; Abu Alia and Awwad, 2020), 3) the factors affecting voluntary disclosure of Palestinian listed companies (e.g. Sweiti et al., 2016;), and 4) the importance and role of corporate social responsibility at Palestinian listed companies (e.g. Alkababji, 2014; Abu Alia and Merdawi, 2018).

Achieving the study objectives is important as the empirical relation considered in the study has not yet been established for the Palestinian-listed companies. It unearths the hidden relationship between the VD and the COE of the Palestinian-listed companies. Moreover, it investigates the moderating role of CG on this relationship. It will provide a better understanding of the COE, especially for the Palestinian companies. Results expected from such a study will also contribute to the existing literature and be beneficial for academicians for future research in the field. Moreover, regulatory bodies may benefit from the results in a way that enhance the governance and reporting practices in Palestine. Finally, the

study findings will help companies, financial analysts and investors in evaluating Palestinian listed companies accurately and enhancing their financing and investment decisions.

The rest of this thesis is structured as follows. Chapter Two presents the existing literature and theoretical framework. Chapter Three discusses the methodology employed in the study. Chapter Four illustrates and discusses the empirical results. Finally, a summary and conclusion are evaluated in Chapter Five.

**Chapter Two**  
**Theoretical Framework and**  
**Literature Review**

## **Chapter Two**

### **Theoretical Framework and Literature Review**

#### **2.1 Introduction**

This chapter seeks to provide a clear view and a full understanding of the study variables as stated in related theories and the accounting and finance literature. It is structured into seven sections in a form that serve the study objectives. The second section explains the concepts of the cost of equity capital, (COE), voluntary disclosure (VD) and corporate governance (CG). The third section addresses the theoretical background of VD and CG from different views including; information asymmetry, the agency problem, the stewardship theory, and the stakeholder theory. Section four discusses the impact of VD on the COE. The fifth section discusses the impact of CG on the COE. The sixth section addresses the research hypotheses. The final section of this chapter presents the conceptual model of the study.

##### **2.1.1 Cost of Equity**

Cost of financing is one of the main direct determinants of the source of financing in companies (Titman et al., 1988). Cost of capital includes two components these are the cost of debt capital and the COE. While the first is relatively easy to estimate using interest rate, it is noted that the estimation of the COE is more difficult (Villadsen et al., 2017). The COE is defined as the rate of return required by investors to compensate the risk of providing capital (Botosan, 1997), or as the return expected on the stock of the company as defined by (Fama et al., 1972).

Mulyati (2017) stated the COE as the minimum rate of return required by investors to use their capital for investment. They show that it includes premium that investors receive for the risk of their investment. Rationally, investors do not invest their capital in a company if they will not be paid the return that is at least equal to other investments with the same level of risk (Murni, 2004; Indayani and Mutia, 2013).

### **2.1.2 Voluntary disclosure**

The existing studies provided similar definitions for VD. For example, Meek et al. (1995), Williams (2001), and Ghazali and Weetman (2006), defined it as additional disclosure which is over and above the requirements of acts, rules and regulations. This disclosure improves the usefulness of the financial statement for users in decision making.

Companies' managements can disclose further information by presenting it in either the company's annual reports and through other means such as their newsletters, press releases, or the websites of stock exchange (Dzaraly et al., 2018). Most companies use annual reports as a mean for providing shareholders, potential investors and all other interested users with additional quantitative and qualitative information (Williams, 2001). Even though the issuance of annual reports is a mandatory requirement for listed corporations, management realizes that additional economic benefit can be gained through including additional information, this is known as voluntarily disclose (Williams, 2001).

Thus Companies' managements are given a choice to decide on what, how, and the information amount to be disclosed voluntarily in the annual reports (Meek et al., 1995; Healy and Pelepu, 2001; Sweiti and Attayah, 2016). Meek et al. (1995) divided VD information into three categories, namely (1) strategic and forward information, (2) financial information and (3) non-financial information. The strategic and forward-looking information includes corporate information such as firm vision, mission, firm objectives, firm corporate planning, future development and prospect. The financial information consists of additional notes and clarification to the financial statements, financial forecasts, and other stock price analysis. The non-financial information mainly includes information about corporate governance, internal control, human resources, corporate social responsibility and other information not related to the first two types.

### **2.1.3 Corporate governance**

Due to the failure of many international firms, such as World com and Enron, the interest in CG in professional and scientific research has increased. The importance of CG arises in modern corporations due to the separation of management and ownership control in the firms. This cues the main problem of managerial self-interest and asymmetric information between managers and the firm's stakeholders (Khan, 2011).

Solomon and Solomon (2004) defined CG as a system of checks and balances to ensure that firms should take responsibility for all stakeholders and to act in a socially responsible manner in all areas of its activities. On



other hand, Sharman and Copnell (2002, p.23) defined CG as “the system and process through which guide and help the entities to boost performance and sustainable value for shareholders, and it's dealing with the effective management structure and the efficiency and reliability of company reports and effective risk management”. Also, La Porta et al. (2000) indicate that it includes mechanisms through which outsiders preserve themselves against the insider’s expropriation.

## **2.2 Theoretical background**

The relationships addressed in this study are considered directly or indirectly by many theories. The main theories related to the VD and CG are discussed in this section.

### **2.2.1 Agency theory**

There is a trend to have corporate governance related to agency theory in recently strategic management and business policy. Jensen and Meckling, (1976) see agency as agreement under which the principal delegates authority to the agent to enable them to perform some services on the principal behalf.

According to agency relationship the principal (shareholder) delegate authority to the agent (manger) to exercise control over the company administration, control information, and allocate resources. So when an agent tends to take advantage of the firm’s resources, the agency cost appears due to the separation exists between owners and management.

Eisenhardt (1989) specified mechanisms that reduce agency loss including the managers' awareness of the efforts required to maximize the interests of the shareholder. Another scheme is that the manager obtains shares at a discount rate so that his interest corresponds with shareholders' interest (Jensen and Meckling, 1976).

It is established that agency conflicts and information asymmetry which reduce the relevance of the financial statements raised the demand for disclosure (Lev, 1989). Furthermore, the adoption of adequate levels of CG increases the reliability of the disclosed information.

### **2.2.2 Stakeholders' theory**

The stakeholder theory states that firms must meet and satisfy not just shareholders requirements, but also the information required by, and interest of, all stakeholders (Abed et al., 2014).

It assumes that large firms are more likely to provide additional information to fulfil the information needs of the stakeholders. According to the stakeholder theory, the company must treat all stakeholders equally (O'Dwyer, 2002). The large base of stakeholders required different demands for information (Kalay, 2015). This could encourage companies to disclose more voluntary disclosure.

### **2.2.3 Capital needs theory**

This theory assumes that firms resort to provide further voluntary disclosure when they want to increase funds either through banks loans or

from financial markets (Hossain et al., 1995; Meek et al., 1995). According to Firth (1980), capital needs theory assumes that the firm will tend to disclose more voluntary disclosure when it needs to increase the external finance with the purpose of reducing the cost of capital. Accordingly, the firms disclose more information to obtain external finance by attracting more potential investors.

#### **2.2.4 Signaling theory**

This theory is originally established by Akerlof (1970) and then developed by Spence (1973). They claimed that firms disclose extra information to show their worthy performance and to give positive indicators for good management to stock market participants.

So, VD increases to signal the companies' quality and real value to interested parties (Ross, 1977; Morris, 1987). In this theory, the voluntary disclosure is used to help the company to reduce information asymmetry (Morris, 1987; Levin, 2001).

Good governance mechanisms stimulate more disclosure to decrease information asymmetry and provide a promising signal about the governance of the firm (Kanagaretnam, Lobo and Whalen, 2007). Governance also gives a good signal to interested parties that their management is efficient and thereby will get the opportunity to raise funds and improve the company's stock value (Cotter et al., 2011). Thus, the signaling theory assumes that firms tend to disclose information voluntarily

more than expected. Diamond and Verrecchia (1991) and Murni (2004) argued that high levels of disclosure would reduce information asymmetry and ultimately reduces the security's risk.

### **2.3 The relationship between voluntary disclosure and cost of equity**

There are several expected benefits when the companies disclose transparent and adequate information to interested parties; thereby management often disclose its exclusive information to interested parties through VD. In accounting literature, the inverse impact of VD on the COE is one of the most fundamental issues (Barry and Brown, 1985; Botosan, 1997; Sengupta, 1998; Easley and O'Hara, 2004; Lambert et al., 2007; Hughes et al., 2007).

Although the expected benefits will be gained with more transparency, VD is not costless. VD may make the private information available for competitors, regulators, customers, and suppliers. The likelihood of rising cost of equity when competitors know the details of information related to products under development makes the opportunity for competition greater (Dye, 1985; Darrrough and Stoughton, 1990; Wagenhofer, 1990; Verrecchia, 2001). Therefore, management should disclose information only when resulted benefits exceed disclosure costs (Jones 2007; Merkley 2014).

Several studies on COE and VD have been conducted to investigate how information transparency be able to reduce the return required by

investors (Diamond and Verrecchia, 1991; Handa and Linn, 1993; Easley and O'Hara, 2004; Albarrak et al., 2020). Daske (2006) established that there are three main streams of studies on the issue exist. The first stream relies on the concept that disclosing more information reduces the non-diversifiable risk of estimation, which will be rewarded. Investors would face less uncertainty regarding prospective cash flows and profitability when they reduce the required return (Clarkson, Guedes and Thompson, 1996). Also, Handa and Linn (1993) suggest that less systematic risk is assigned to the assets with more information quality. According to Diamond and Verrecchia (1991) this raises the demand and prices for such assets. The second research stream associates VD with liquidity risk. According to this stream, when the firm disclose the more information, this could reduce information asymmetry and boost market liquidity. Finally, the third stream associate VD with misalignment risk. Leuz and Verrecchia (2004) argued that high quality information enhances the coordination between the companies and outside investors about investment decisions, and consequently decreases misalignment risk between the two parties.

Many empirical studies such as Botosan and Plumlee (2002) and Poshakwale and Courtis (2005) suggested a significant negative relationship between VD and the COE. According to Botosan (1997), the higher the level of VD, the lower the COE. High levels of VD may increase the investors' confidence about the information included in the financial statements due to the lower information asymmetry between investors and managers. Merton (1987) showed that the increased disclosure by

companies expands the base of the investors and increases their awareness, and this reduces risk and the cost of capital.

Several studies have been conducted to investigate the association between VD and the COE (e. g. Diamond and Verrichia,1991; Easley & O' Hara,2004). They assert that this relationship is important for managers and investors. Actually, among the notable interesting questions in the existing literature is whether disclosure behavior affects the capital cost of companies (Beyer et al., 2010). Botosan (1997) found that COE is affected negatively by levels of disclosure in companies working in low disclosure markets. Similarly, Hail (2002) documented a significant negative association between the level of disclosure practiced by Swiss corporations and their capital cost. This relationship is also supported by Poshakwale and Curtis (2005). Furthermore, Botosan and Plumlee (2002) reported a converse association between excess annual report disclosure and the COE. In general, companies with greater disclosure are expected to associate with access to debt and equity at lower capital costs. Notwithstanding, Richardson and Welker (2001) reported a significant positive association between social disclosure and COE for Canadian companies.

Khelif, Samaha and Soliman (2019) investigated the impact of the internal control quality on the COE, and whether internal control quality moderates the relationship between VD and COE in Egypt. While the study relied on the external auditors' perceptions to measure internal control quality, a content analysis by developing a checklist was employed to

proxy for the level of VD. The study also used the Capital Asset Pricing Model (CAPM) framework to estimate the COE. Findings reported a significant negative link between the internal control quality and COE. Further, the study reported that internal control quality moderates the relationship between VD and COE since this relationship was negative and significant only for firms with high internal control quality.

Poshakwale and Courtis (2005) investigated the influence of VD on the COE, using data collected from Australian, European and North American banks. They used a disclosure scoring model after controlling the cross-sectional variation in beta, firm size, price to book value and price to earnings ratios. They indicated that high level of disclosure has a relationship with low COE. According to the study results, disclosures on the practices related to risk management seem to have a high influence on the reduction in COE. Similarly, Richardson and Welker (2001) studied the association between the level of disclosure and the COE for Canadian companies from 1990 to 1992. Contrary to their expectation, they reported that COE was increased significantly by the increase in the level of social disclosures. The relationship is mitigated in high financial performance companies. The study argued that disclosure on social contribution may benefit companies through its effect on organizational stakeholders other than equity investors. Similarly, the relationship between the level of VD and COE was also addressed by Kristandl and Bontis (2007). They used two disclosure indices which were developed based on the temporal context (historical, forward-oriented) of the annual reports information.

The study includes 95 corporations from four European countries. Results indicated that while COE is negatively associated with the forward-oriented information, a positive relationship with the historical information was found.

In turn, Orens, Aerts, and Cormier (2010) examined how web-based non-financial disclosure is associated with COE within an international context. The results showed that web-based nonfinancial disclosure is negatively related with COE in American and European companies. Furthermore, results indicated that Continental European companies with higher levels of disclosure has low information asymmetry and low cost of debt, whereas North American companies do not. As well, Zhang and Ding (2006) analyzed the association between VD in Chinese companies and COE using. The results confirmed the negative relationship between the two variables.

Based on data related to non-financial Switzerland companies, Hail (2002) reported a highly significant negative relationship between disclosure quality and the COE.

Moreover, Clinch and Verrocchia (2015) examined the relationship between VD and the risk-related discount in price applied by investors. The main result of the study showed that the raise of risk aversion increases discount in price in the absence of any effect on disclosure.

Mulyati (2017) examined the effect of VD, among other factors, on the COE based on data related to Indonesian corporations. The results



indicated that VD did not impact the COE, the more VD had not been able to reduce the probability of COE occurrence.

#### **2.4 The relationship between corporate governance (CG) and the cost of equity (COE)**

The association between CG and the COE has been the focus of many studies in several markets. Chen et al. (2009), as an example, investigated how the level of CG impacts the COE in emerging markets, and how this relationship would be influenced by investors' legal protection available in each market. Four models developed in the prior research were used by the study to measure the COE. A significant negative association between a company's CG and its COE was reported after controlling for risk variables, mainly in companies from markets with relatively weak shareholder's protection. Also, Ashbaugh-Skaife et al. (2006) studied the role of US company governance features in determining the COE. According to the study results, four governance features were associated with the COE including the quality of financial reporting, ownership structure, shareholders' rights, and board structure. The overall result indicated that strong CG has a negative influence on a firm's COE.

Zhu (2014) investigated the relationship between a company's governance practice and cost of external financing. The study results suggest that companies with high levels of CG have less COE; this relationship is more prominent in markets with strong legal systems, extensive disclosure practices, and high governance quality. In turn,

Guedhami and Mishra (2009) reported strong and robust evidence that the COE is increasing with excess control. This result persists even after controlling legal institutions variables and other firm-level characteristics.

## **2.5 Research Hypotheses**

This study intends to investigate the influence of VD on the COE, and the moderating role of CG on the relationship between them. Bellow the study illustrates the development of the study hypotheses.

### **2.5.1 The relationship between voluntary disclosure (VD) and cost of equity (COE)**

A number of empirical studies examined the link between VD and the COE, as explained in the previous literature review section. High level of company disclosure increases investor's awareness of its performance and expands the investors' base. Accordingly, risk-sharing would be broaden and COE would be reduced (Merton, 1987; Lombardo and Pagano, 2002). Furthermore, greater disclosure decreases information asymmetry between investors and managers or between the shareholders themselves. Botosan (1997) suggested a negative relationship between the COE and disclosure level. According to Botosan and Plumlee (2002), two streams of studies showed the negative association between corporate disclosure and the COE. The first indicates that increased disclosure can reduce the COE through the reduction of information asymmetry (Diamond & Verrecchia 1991; Welker 1995). The second shows that high disclosure

minimizes COE by reducing the estimation risk. Relying on the aforementioned argument, the study hypothesized the following.

**H1:** Level of voluntary disclosure is associated negatively with the cost of equity in the Palestinian companies.

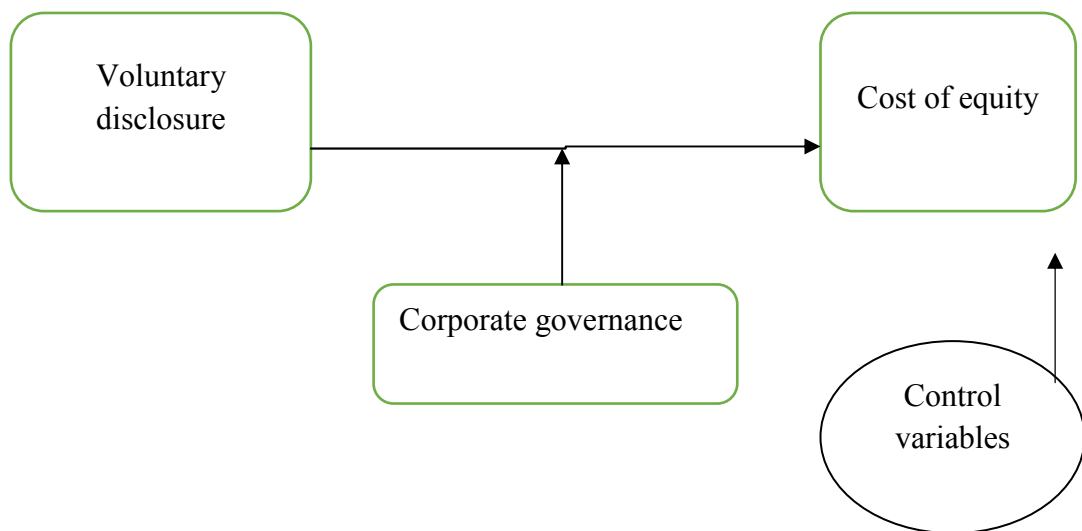
### **2.5.2 The interaction between the cost of equity (COE), voluntary disclosure (VD) and the level of corporate governance (CG)**

La Porta et al. (2000) defined CG as a set of mechanisms through which outside investors are able to protect themselves. Mitton (2002) and Durnev and Kim (2005) stated that transparency is among the mechanisms of CG. Disclosure could reduce monitoring cost by outsider and information asymmetry, and ultimately reduce the COE. Thereby adopting CG mechanisms is supportive for the relationship between information disclosure and the COE by reducing the non-diversifiable risk of the corporate insider. Moreover, CG can reduce the cost of external monitoring to ensure given payoff by management (Lombardo & Pagano, 2002). Reduction of the COE brings benefits to the firms by increasing the position of competition and increasing the share's value. Klif et al. (2015) stated that VD is negatively associated with the COE. Therefore, (Lokman, Cotter & Mula, 2012) have already documented that adopting strong governance mechanisms can provide signals to investors that the company financial reporting is credible. They found that higher CG increases the credibility of accounting information among investors and lead to a significant negative relationship between VD and the COE. According to all these deliberations, the following research hypothesis is developed.

**H2:** The relationship between the level of voluntary disclosure and the cost of equity is moderated by the level of corporate governance for Palestinian companies.

## 2.6 Research Model

Based on the previous studies and the theoretical perspective related to the COE, the researcher developed this framework to explain the influence of VD on the COE of the Palestinian corporations and the moderating role of CG on the association between VD and COE.



**Figure (2): The conceptual model of the study**

## 2.7 The disclosure and corporate governance in Palestine

The Palestine Exchange (PEX) was founded in 1995 as a private shareholding company and transformed into a public shareholding company in February 2010 responding to principles of transparency and good governance. The PEX operates under the supervision of the Palestine Capital Market Authority (PCMA). It strives to provide an environment

relevant for trading that is characterized by equity, transparency, competency, and that is serving and maintaining the interest of investors. PEX is very appealing in terms of market capitalization, and it is financially sound and well-capitalized to maintain a steady business in a volatile world, as it passed with a minimum level of impact during the global financial crisis compared to other MENA Exchanges (pex.ps, 2020).

There are 48 companies listed on PEX as of 31/03/2020 with a market capitalization of about \$3.758 billion. These companies are categorized into five main sectors; banking and financial services, insurance, investments, industry, and services. Most of the listed companies are profitable and trade in Jordanian Dinar, while few are traded in US Dollars (pex.ps, 2020).

The regulation and supervision of the financial system in Palestine is composed of the Palestine Monetary Authority (PMA) and the Palestine Capital Market Authority (PCMA). The PMA was established in 1995 as an independent public institution to maintain the stability and effectiveness of the Palestinian banking system in addition to money exchangers and microfinance institutions by adopting best international practices. The PCMA was established in 2005 and is responsible for regulating non-banking financial sectors. It oversees and regulates the securities market, insurance companies and real-estate institutions.

In 2009 Corporate Governance National Committee proposes a code for good CG. While the PCMA's "Code of Corporate Governance in

Palestine" applies to all firms with securities listed on the PEX, the PMA's "Corporate Governance Code for Banks" issued in 2014 applies to the banking sector. Both codes which are largely based on international standards contain mandatory requirements that firms must adhere to, along with additional guidelines representing good practices that are encouraged but not required.

Corporate Governance Code in Palestine consists of three different type rules: First Type: The rules that are based on explicit legislative texts. In this type the application by the companies is mandatory. The rules of the Code have been formulated using terminology in the imperative mode such as must, may not, not entitled to, committed and prohibited. Second Type: The rules that are in compliance with international practices in the field of corporate governance, and do not conflict with any of the explicit legislative text or at least be one of the possibilities allowed by any legislative text. So the application will be voluntary by the companies according to the quotation "Compliance and non-compliance". This type has been formulated using permissible advice and application terminology such as: favored, recommended, and may. Third Type: The rules that are in-compliance with the international practices in the field of corporate governance but are at variance with the explicit legislative texts. In this case, a recommendation has been bluntly given requesting the necessity for the amendment of the existing legislation to conform to the practices and rules (Code of corporate governance, 2009: 8).

Based on the Code of Corporate Governance in Palestine, a publicly listed company deals with the fundamental aspects of Corporate Governance as per the broad definition that harps on the following aspects: General committee meeting shareholders, compatible rights, corporate management, auditing, disclosure and transparency and other interest-holders in the Company (Code of corporate governance, 2009: 9).

The PCMA issued several laws and instructions concerned with disclosure issues required from companies listed on the Palestine Exchange, such as disclosure instructions No. (2) issued by the provisions of Article (11) of the Securities Law No. (12) for the year 2008 to deal with many aspects, such as disclosure of information related to the board of directors, the general manager, employees, and the percentage of their ownership personally or in aggregation with their first degree relatives from the company's shares (Article 10 and Article 11). In addition to disclosing financial risks and market risks that face commercial activity (Article 1:18). Article (2:18) require companies to provide shareholders with a description as follows: (1) the duties of the board of directors towards shareholders, (2) the steps that the board of directors followed in protecting shareholders' rights, (3) the salaries and bonuses of board members and their allowances, (4) The strategic direction of the company, defining general objectives of the executive management, and supervising the realization of these goals, (5) the competitive position of the company and its plans, (6) the names and addresses of members of the board of

directors. As for Article (22), it focused on the insiders' disclosures and their trading operations (pcma, 2020).

In 2013, the board of directors of the Palestinian Capital Market Authority made important amendments to Instructions No. (2) for the year 2008, whereby companies are obligated under Article (2) of these amendments to provide a detailed statement, which includes all the amounts of money and benefits obtained by both the chairman and board members, in addition to executive management during the fiscal year, whether directly, such as allowances to attend the board of directors meetings, or indirectly, such as loans and guarantees. Also, these instructions obligated companies to disclose the names of the permanent and temporary committees emanating from the board of directors and the tasks and powers entrusted to them, and in the absence of any committees, this must be mentioned explicitly. As for companies disclosing their responsibility towards society and the environment, companies must disclose this in their annual report, and in case the company does not have any societal and environmental contributions, it is required to disclose this in its annual report as well. Article (3) indicated that the listed company is obliged to create its own website, through which all information, reports, and documents of interest to investors should be published (pcma, 2020).



# **Chapter Three**

# **Research Methodology**

## **Chapter Three**

### **Research Methodology**

#### **3.1 Introduction**

This study intends to investigate the influence of the VD on the level of COE, and how this relationship is affected by the CG practices for the Palestinian corporations. This chapter explains the data collection and methodology applied in this study. Firstly, it describes the study population and the source of data. Secondly, it constructs the measurement of variables. Thirdly, it explains the statistical methods employed to analyze the data. Finally, it explains the research models.

#### **3.2 Study population and sample**

The population of the study contains all Palestinian companies listed on Palestine Exchange (PEX) except the banking sector because banks are exposed to distinct regulations under the monitoring of the Palestinian Monetary Authority, and having their own special corporate governance code (Srivastava & Pattanayak, 2019). Therefore, the sample contains (41) companies of active listed companies in the study period (2009-2018). The total firm-year observations are 396 but the actual data used in analysis vary depending on the availability of observations for each variable in each analysis.

#### **3.3 Data**

The study examines the impact of the VD on COE, and also the moderating influence of CG on the relationship between VD and COE.

Data was collected mainly from companies' annual reports for ten years from 2009 to 2018. The collected data includes both financial and non-financial data. Data was collected based on a panel data (longitudinal data) that includes cross-sectional and time series dimensions (Gujarati, 2012).

Panel data has several advantages, as discussed by Hsiao (2007). It has a more accurate inference of model parameters, greater capacity for capturing the complexity of human behavior than a single cross-section or time-series data, and it simplifies computation and statistical inference. Furthermore, Hsiao (1985) argues that panel data usually gives a larger number of data points for the researcher, increasing the degree of freedom and reducing the multicollinearity among explanatory variables and improving the efficiency of economic estimates. Moreover, longitudinal data allow a researcher to analyze several important questions that cannot be addressed using cross-sectional or time-series data sets.

### **3.4 Variables measurement**

This section explains the variables measurement of the study. It describes the dependent variable, independent variable, moderating variable, and control variables respectively.

#### **3.4.1 Dependent variable**

Cost of equity (COE) represents the dependent variable of this study and is defined as the rate of return required by investors to compensate the risk of providing capital (Botosan, 1997). It is also the expected return on

the firm's stock as defined by Fama et al. (1972). There are many models developed for the estimation of the COE, but according to the existing literature, a consensus on the best model is absent (Gupta, Krishnamurti, & Tourani-Rad, 2018). Examples of models used in the literature are Claus and Thomas (2001), Gebhardt et al. (2001), Gode and Mohanram (2003), Easton (2004) and Ohlson and Juettner-Nauroth (2005). Hail et al. (2006) use the average of at least three models for the estimation of the COE to eliminate the estimation errors and increase the robustness of data. Gebhardt et al. (2001) and Claus and Thomas (2001) models are based on Edward-Bell-Ohlson residual income valuation model, while the models of Easton (2004) and Ohlson and Juettner-Nauroth (2005) are based on abnormal earnings growth. The equations of these models are presented below:

1. Gebhardt et al. (2001):

$$P_t = BV_t + \sum_{i=1}^{12} \frac{FEPS_{t+i} - (R_{GLS} * BV_{t+i-1})}{(1 + R_{GLS})^i} + \frac{FEPS_{t+12} - (R_{GLS} * BV_{t+11})}{R_{GLS}(1 + R_{GLS})^{12}}$$

2. Claus and Thomas (2001):

$$P_t = BV_t + \sum_{i=1}^5 \frac{FEPS_{t+i} - (R_{CT} * BV_{t+i-1})}{(1 + R_{CT})^i} + \frac{FEPS_{t+5} - (R_{CT} * BV_{t+4}) * (1 + g_U)}{(R_{CT} - g_U)(1 + R_{CT})^5}$$

3. Easton (2004)

$$P_t = \frac{FEPS_{t+2} - FEPS_{t+1} + (R_{Easton} * FEPS_{t+1} * DPOUT)}{R_{Easton}^2}$$

4. Ohlson and Juettner-Nauroth (2005):

$$P_t = \frac{FEPS_{t+1}}{R_{OJ}} + \frac{FEPS_{t+2} - FEPS_{t+1} - (R_{OJ} * FEPS_{t+1} * (1 - DPOUT))}{R_{OJ} (R_{OJ} - g_{1t})}$$

which can be further written as

$$R_{OJ} = A + \sqrt{A^2 + \frac{FEPS_{t+1}}{P_t} \left( \frac{FEPS_{t+2} - FEPS_{t+1}}{FEPS_{t+1}} - g_{1t} \right)}$$

where

$$A = \frac{1}{2} \left( g_{1t} + \frac{DPOUT * FEPS_{t+1}}{P_t} \right)$$

**Where:**

$P_t$  = Market price of a firm's stock at time t.

$BV_t$  = Most recent available book value per share of a firm.

$BV_{t+1}$  = Expected book value per share of a firm assuming “clean surplus” relationship holds.

$FEPS_{t+i}$  = Forecasted EPS of a firm for i years after time t.

$DPOUT$  = Forecasted dividends pay-out ratio calculated from firm-specific historical three-year median dividends pay-out ratio.

$g_{1t}$  = Expected (perpetual or long-term) earnings growth rate.

The models listed above require forecasted data such as dividends, dividends growth rate and earning per share. However, extensive forecasted future data are difficult to measure and are not available for PEX listed companies. Therefore, the CAPM framework was used since it is suitable for emerging markets, as suggested by other researchers (e.g. Hearn, 2010).

And the profitability ratio was used as an alternative measure for the COEC, to compare results.

The study used three different CAPM models with different ways of calculating risk. These models are presented below:

### 1- The classical CAPM model.

This model was developed in 1960s by Sharpe (1964), Lintner (1965) and Mossin (1966). The equation of this models is:

Cost of Equity = risk-free rate+ premium for systemic risk

$$COE_{it} = R_f + B_{it}(R_m - R_f) \quad (1)$$

where

$COE_{it}$ = represents the COE for a firm i, in year t.

$R_f$ = represents risk-free rate corresponds to the interest rate on deposits.

$R_m$ = represents market return and is computed as the average market return.

$B_{it}$ = is the systemic risk measures for a firm i, at year t. It is calculated as

$$B_{it} = \frac{cov(r_{it}, r_{mt})}{\sigma_m^2}$$

### 2-The Estrada models: Non-CAPM Cost of Equity

In the classical CAPM, the beta coefficient is not appropriate to calculate COE for emerging markets. Therefore, Estrada (2001) suggested

two alternative risk variables which are total risk and downside risk. Total risk is measured by standard deviation of returns, and downside risk is measured by semi-deviation of returns as shown in the following equations:

1. Standard deviation of return (total risk): analogous to the CAPM model the cost of equity using standard deviation can be given as:

Cost of Equity = risk-free rate+ premium for systemic risk

$$COE_{it} = R_f + \sigma_{it}(R_m - R_f) \quad (2)$$

where the total risk can be measured by a standard deviation of return

$$\sigma_{it} = \sqrt{\frac{1}{T} \sum_{t=1}^T (r_{it} - \bar{r}_i)^2}$$

2. Semi-deviation of return (downside risk): the COE in this framework is

Cost of Equity = risk free rate+ premium for systemic risk

$$COE_{it} = R_f + \delta_{R_{mt,i}}(R_m - R_f) \quad (3)$$

where the semi-deviation measures the average deviation of returns below the market return:

$$\delta_{R_{mt,i}} = \sqrt{\frac{1}{T} \sum_{t=1}^T (\min\{r_{it} - r_{mt}, 0\})^2}$$

Furthermore, the study used profitability ratio (return on equity) to measure the cost of equity. It is measured by dividing net income of the firm by its total book value of equity as follows.

$$ROE1 = \frac{NI}{BVOE} (4)$$

Since ROE can have negative values but the cost of equity can never be negative, an additional measure of the cost of equity is used where all negative values are set to zero (ROE2). In total, cost of equity was peroxide by five measures (COE1, COE 2, COE 3, ROE 1 and ROE 2)

### **3.4.2 Independent variable**

The independent variable in this study is Voluntary Disclosure (VD). It means disclosing information more than what is required by laws, standards, and regulations for the company stakeholders to help them make appropriate decisions (Meek, Roberts, and Gray, 1995; Ghazali and Weetman, 2006; Armadi and Anggraeni, 2010). Following the prior studies (Haniffa and Cooke, 2002; Barako et al., 2006; Rouf, 2011; Khlif et al., 2015; Habbash et al., 2016), this study used a checklist to measure the level of VD derived from previous studies. The checklist is based on the previous studies and adjusted to reflect the Palestinian context that includes PCMA instructions and Palestinian Code of Corporate Governance. Each item of the checklist is scored one (1) if the information is disclosed and zero (0) if not. The irrelevant items for any industry were dropped. The VD index for each company was estimated by computing the ratio of the



disclosed items to the maximum possible score appropriate for that company. The checklist is categorized into eight types: general company information, corporate strategy, financial performance, employee information, segmental information, director's information, capital market data and forward-looking information (see Appendix 1).

### **3.4.3 Moderating variable**

CG is related to methods in which all groups interested in the well-being of the firm try to make sure that management takes measures or adopt mechanisms that protect the stakeholder's interests. Sharman and Copnell (2002, p.23) defined CG as "The system and process through which guide and help the entities to enhance performance and sustainable value for shareholders, and it's dealing with the effective management structure and the efficiency and reliability of company reports and effective risk management systems". Also, La Porta et al. (2000) defined it as a set of mechanisms through which outside investors protect themselves against expropriation by insiders.

Corporate governance was considered as a moderating variable in this study; it refers to a variable that impacts the direction and/or strength of the relationship between the independent and the dependent variables (Baron and Kenny, 1986; Namazi and Namazi, 2016). Corporate governance was employed to modify the strength and direction of the association between the firm's level of VD and its COE. The study used a checklist to measure the corporate governance for the selected sample

companies following prior studies (e.g. Chen et al., 2003; Da Silva et al., 2005; Munisi & Randoy, 2013; Zhu, 2014; Gupta et al., 2018;). The checklist is developed based on the Palestinian Code of Corporate Governance issued in 2009 to reflect the Palestinian setting. Each item in the checklist is scored one (1) if it is found in the company and zero (0) if not. The irrelevant items were dropped. The corporate governance index of a company was estimated by computing the ratio of the total items committed to the maximum possible score appropriate for that company. **Appendix 2** lists the items included in the checklist, which was categorized into three types: board of directors, audit committee, disclosure, and transparency.

#### **3.4.4 Control variables**

In consistent with existing literature, the study considered four control variables namely: company size, financial leverage, future growth opportunities, and quality of auditors. First, we assume that company size represented by the natural logarithm of total assets are negatively associated with COE (Fama and French, 1992). Rajan and Zingales (1995) claimed that large companies are more likely to provide extra information to outsiders than small companies. Also, large companies are often more diversified and have further stable cash flows. So, cost of issuing equity is negatively associated to company size. Second, the financial leverage of the company as measured by total liabilities to the total assets is positively related to the COE (Botosan & Plumlee, 2002; Richardson & Welker,

2001). Modigliani and Miller (1963) argue that a firm's financial leverage might increase financial cost and risk of bankruptcy. Therefore, investors demand a risk premium. Despite the benefit from tax-saving the cost of equity may increase. Third, the opportunities of the companies for future growth, measured by the market to book ratio, is negatively associated with the COE (Easton, 2004). Companies with higher growth opportunities may be able to take more advantage if they issue equity to financing their options in the future than low growth firm (Myers,1977). Finally, the quality of the auditor is included as a dummy variable that equals to one (1) if the company is audited by one of the Big Four audit firms<sup>1</sup> and zero otherwise. The quality of the auditor is expected to have a negative relationship with COE. The value of auditing arises because auditing serves as monitoring that constrains managerial reporting discretion and verifies the validity of the financial statements that improves information about firm performance, therefore, reduces information risk faced by investors, and reduce the risk premium of return (Chen et al., 2011).

---

<sup>1</sup> The Big Four audit firms are: Deloitte, Ernst & Young, KPMG and PricewaterhouseCoopers.  
[WWW.big4accountingfirms.org](http://WWW.big4accountingfirms.org).

**Table (1): The study variables, their abbreviations and operational definitions.**

<b>Variables</b>	<b>Abbreviations</b>	<b>Operational detentions</b>
<b>Voluntary Disclosure</b>	VD	A checklist to measure the level of voluntary disclosure
<b>Corporate Governance</b>	CG	A checklist to measure the level of corporate governance
<b>Cost of Equity</b>	COE1	CAPM framework using B as a risk measure.
	COE2	CAPM framework using standard deviation as a risk measure.
	COE3	CAPM framework using semi-deviation of return as a risk measure.
	ROE1	Net income divided by equity book value.
	ROE2	Net income divided by equity book value. All negative ROE's are set to zero.
<b>Firm Size</b>	SIZE	The natural log of total assets of the firm
<b>Financial Leverage</b>	LEVERAGE	The total debt to total assets
<b>Future Growth Opportunities</b>	MB	The ratio between the market value of assets and the book value of assets
<b>Auditor Type</b>	Quality of Auditor	A dummy variable which equals 1, if the company is audited by Big Four audit firm and 0 otherwise.

### **3.5 Statistical methods used to analyse data**

Given the nature of the study variables, the study adopted panel multiple regression as a statistical method to examine the study hypotheses. Furthermore, to avoid the probability of multicollinearity in multiple linear regression, a mean-centering procedure has been adopted by subtracting the sample mean from each observed value of the predictor and moderator variables (Belsley, Kuh, and Welsch, 1980; Belsley, 1991; Fox and

Monette,1992). Mean centering can also decrease covariance and correlation between the predictor variables and their interaction term (Shieh, G., 2011). In sum, the researcher applied the following statistical techniques to analyze the data.

1. *Descriptive statistics*: include measures to describe central tendency such as mean, median, standard deviation, minimum value, maximum value, skewness, kurtosis, and Jarque-Bera test for normality have been used for each variable.
2. *Pearson correlation matrix*: is used to show the correlation coefficient between variables.
3. *Regression analysis*: attempts to examine the direction and strength of the relationship between one dependent variable (usually denoted by Y) and a series of other changing variables (known as independent variables).

### 3.6 Research models

The main argument of the study is to investigate the relationship between VD and COE and whether CG has an influence on the relationship between VD and COE of the Palestinian companies listed on PEX during the period 2009-2018. In order to examine the study hypotheses, a regression model was developed as follows:

$$COE_{ti} = \beta_0 + \beta_1VD_{ti} + \beta_2CG_{ti} + \beta_3VD_{ti} * CG_{ti} + \beta_4SIZE_{ti} + \beta_5LEVERAGE_{ti} + \beta_6MB_{ti} + \beta_7QUALITY\ OF\ AUDITOR_{ti} + e_{it} \dots(1)$$

**where**

$e_{it}$ : is the error term

$\beta_j$ : are the regression coefficients

and the remaining variables are as presented in Table 1.

# **Chapter Four**

## **Results and Discussion**

## Chapter Four

### Results and Discussion

#### 4.1 Introduction

This chapter presents the results obtained from the data analysis. The objective of this study is to investigate the relationship between VD and COE and the moderating role of CG on that relationship for the firms listed in PEX covering the period from 2009 to 2018. The chapter reports the descriptive statistics for the variables in the second section. The third section presents the correlation analysis. The fourth section presents the estimation results and the last section discusses the results.

#### 4.2 Descriptive statistics of variables

**Table (2): Descriptive statistics of the study variables**

<b>MEASURE</b>	<b>Mean</b>	<b>Median</b>	<b>Maximum</b>	<b>Minimum</b>	<b>Std. Dev.</b>	<b>Observations</b>
<b>COE1</b>	0.070	0.020	1.150	0.004	0.144	358
<b>COE2</b>	0.014	0.010	0.188	0.001	0.018	359
<b>COE3</b>	0.012	0.010	0.056	0.001	0.008	359
<b>ROE1</b>	0.027	0.047	0.557	-2.632	0.243	396
<b>ROE2</b>	0.073	0.047	0.557	0.000	0.088	396
<b>VD</b>	0.375	0.371	0.743	0.029	0.164	374
<b>GOVER</b>	0.613	0.611	1.000	0.056	0.210	378
<b>VD*GOVER</b>	0.255	0.229	0.686	0.008	0.165	370
<b>LEVEARGE</b>	0.376	0.357	1.057	0.000	0.236	396
<b>MB</b>	0.968	0.925	2.471	0.055	0.375	396
<b>SIZE</b>	17.141	17.160	20.744	13.711	1.535	396
<b>QUALITY OF AUDITOR</b>	0.692	1.000	1.000	0.000	0.462	396



The descriptive indicators of the variables of this study are summarized in Table 2. The mean score of the COE varies between different measures. COE1 ranges from 0.004 to 1.15 with a mean of 0.07 and COE2 ranges from 0.001 to 0.188 with a mean of 0.014, while COE3 ranges between 0.001 and 0.056 with a mean of 0.012. On the other hand, ROE1 ranges from -2.632 to 0.557 with a mean is 0.027 and ROE2 ranges from 0.0 to 0.557 with a mean of 0.073. Also, VD ranges from 0.029 to 0.743 with a mean of 0.375. CG mean score is 0.613 which means that these firms have a fair commitment to corporate governance whereas the interaction term has a 0.255 mean.

Regarding the dispersion of the variables, table 2 also reveals that standard deviations of COE1, COE2, COE3, ROE1 and ROE2 are 0.144, 0.018, 0.008, 0.243 and 0.088, respectively. The standard deviation of the VD and CG are 0.164 and 0.210, respectively. For the interaction variable, it has a standard deviation of 0.165

For control variables, we can see that LEVERAGE has a minimum value of 0.00 and maximum value of 1.057 with a mean of 0.376 and a standard deviation of 0.236. MB varies from 0.055 to 2.471 with an average of 0.968 and a standard deviation of 0.375. SIZE varies from 13.711 to 20.744 with a mean of 17.141 and a standard deviation of 1.535. Finally, QUALITY OF AUDITOR ranges from 0.00 to 1.00, has a mean of 0.692 and a standard deviation of 0.462.

### 4.3 Pearson Correlation Matrix

**Table (3): Pearson correlation matrix between variables**

	COE1	COE2	COE3	ROE1	ROE2	VD	CG	VD* CG	LEVE ARGE	MB	SIZE	QUALITY OF AUDITOR
COE1	1.000											
COE2	0.156	1.000										
COE3	-0.213	0.541	1.000									
ROE1	0.016	-0.050	-0.082	1.000								
ROE2	-0.011	-0.023	-0.029	0.579	1.000							
VD	0.020	0.062	0.001	0.132	0.285	1.000						
CG	0.059	0.065	0.013	-0.017	0.128	0.616	1.000					
VD*CG	0.026	0.071	0.007	0.083	0.227	0.913	0.838	1.000				
LEVEARGE	0.053	0.066	0.042	-0.156	0.129	0.218	0.286	0.254	1.000			
MB	0.062	0.176	0.075	-0.019	0.262	0.128	0.084	0.130	0.145	1.000		
SIZE	0.012	0.059	0.042	0.200	0.147	0.241	0.318	0.310	0.254	-0.054	1.000	
QUALITY OF AUDITOR	0.088	0.048	-0.008	-0.037	-0.014	0.099	0.304	0.211	0.064	0.129	0.385	1.000

**All correlations in the table are based on original data. Mean-centering of variables is used to reduce multicollinearity problem. The centering of variables does not affect the correlations above except for the interaction term. After centering the correlation between the interaction term and VD is 0.151 and the correlation between the interaction term and CG is 0.092.**

To find out the multicollinearity problem between independent variables and to evaluate the relationship between independent and dependent variables in term of strength and direction, the correlation coefficients were presented in Table (3). As expected, the highest correlation was between interaction variable  $VD*CG$  and  $VD$ , which amounts to 91.3%, which impose a multicollinearity problem in the estimation. This problem is usually solved by mean-centering procedure where the mean of each variable is subtracted from each observation. This procedure does not affect the relationship between variables except the interaction term.

We can see from Table 3 that the relationship between  $VD$  and the three measures of the cost of equity ( $COEC1$ ,  $COE2$ ,  $COE3$ ) is positive but weak. While the relationship between  $VD$  and return on equity ( $ROE1$ ,  $ROE2$ ) is positive but stronger. This means that when the  $VD$  increases the  $COE$  will also increase. We can also notice that the relationships between  $CG$  and the measures of the  $COE$  are positive except for the  $ROE1$  which is negative but weak. This means that the application of  $CG$  may lead to an increase in the  $COE$ .

Regarding the interaction variable  $CG*VD$ , the relationships between this variable and all measures of the cost of equity ( $COE1$ ,  $COE2$ ,  $COE3$ ,  $ROE1$ ) were positive but weak whereas for  $ROE2$  which is strong. All other control variables have a weak relationship with the  $COE$  except the relationship of  $MB$  with  $COE2$  and  $ROE2$ , and the relationship between  $ROE1$  with  $SIZE$  which was slightly higher.

#### 4.4 Estimation Results

Two hypotheses were proposed by this study and investigated using five proxies for the COE (COE1, COE2, COE3, ROE1 and ROE2). The relationship between the dependent variable (measures of the COE), the independent variable (VD), the moderating variable (CG and its interaction with VD) and control variables (firm size, financial leverage, future growth opportunities, and quality of auditors) were estimated using panel OLS regression with robust standard errors.

**Table (4): Estimation results for the model with COE1 as a dependent variable**

Variable	Coefficient	t-Statistic	Prob.
$CG_{(-1)}$	-0.057	-0.948	0.344
$VD_{(-1)}$	0.016	0.771	0.441
$VD*CG_{(-1)}$	-0.381	-1.862	<b>0.064</b>
$LEVEARGE_{(-1)}$	0.017	0.890	0.374
$MB_{(-1)}$	0.050	2.229	<b>0.027</b>
$SIZE_{(-1)}$	-0.001	-0.147	0.883
$QUALITY\_OF\_AUDITOR_{(-1)}$	0.032	1.461	0.145
<b>Number of observations</b>	278		
<b>R-squared</b>	0.043		
<b>Adjusted R-squared</b>	0.015		
<b>Durbin-Watson stat</b>	2.157		
<b>F-statistic</b>	1.520		
<b>Prob(F-statistic)</b>	0.150		
<b>Notes</b>			
- Panel OLS with White cross-section standard errors & covariance (d.f. corrected) are used			
- The model includes a constant and an AR (1) terms			
- All variables are centered and lagged by one period			
- ***significant at 1%, ** significant at 5%, *significant at 10%			

The results of regression analysis where the proxy for the cost of equity is COE1 are included in Table 4. It is observed that there is no

significant relationship between the VD and COE1 ( $c=0.016$ ,  $p=0.441$ ). This means that VD doesn't influence the COE. This result does not correspond with our expectation about the association between VD and COE.

As well, there is an insignificant effect of CG on the COE1 whereas the interaction term has a negative effect on COE1 ( $c=-0.381$ ,  $P=0.064$ ) indicating that our expectation about its role as a moderating variable of the relationship between the level of VD and the COE was true. However, the overall insignificance of this model makes it hard to build conclusions based on it.

**Table (5): Estimation results for the model with COE2 as a dependent variable**

Variable	Coefficient	t-Statistic	Prob.
$CG_{(-1)}$	0.006	1.603	0.110
$VD_{(-1)}$	0.002	0.372	0.710
$VD*CG_{(-1)}$	0.007	0.491	0.624
$LEVEARGE_{(-1)}$	0.002	0.867	0.387
$MB_{(-1)}$	0.012	2.108	<b>0.036</b>
$SIZE_{(-1)}$	0.001	1.626	0.105
$QUALITY\_OF\_AUDITOR_{(-1)}$	-0.001	-0.740	0.460
<b>Number of observations</b>	278		
<b>R-squared</b>	0.067		
<b>Adjusted R-squared</b>	0.039		
<b>Durbin-Watson stat</b>	2.044		
<b>F-statistic</b>	2.419		
<b>Prob(F-statistic)</b>	<b>0.015</b>		
<b>Notes</b>			
- Panel Least Squares with White cross-section standard errors & covariance (d.f. corrected) are used			
- The model includes a constant and an AR (1) terms			
- All variables are centered and lagged by one period			
- ***significant at 1%, ** significant at 5%, *significant at 10%			

In Table 5, the regression results of the model where COE2 was used as a proxy for the cost of equity capital are presented. The results show that the VD has no significant relationship with COE2 ( $c=0.02$ ,  $p=0.710$ ). This means that VD did not influence the COEC. This result contradicts our expectation of association between the level of VD and COE.

Consistently, we notice that there is an insignificant influence of the interaction term on the relationship between the level of VD and the COE2 ( $c=0.007$ ,  $P=0.624$ ). This result contradicts our expectation of the moderating role of this variable on the relationship between the level of VD and the COE. The only significant result of this model is the effect of growth options which is found to be positive.

**Table (6): Estimation results for the model with COE3 as a dependent variable**

Variable	Coefficient	t-Statistic	Prob.
$CG_{(-1)}$	0.006	2.247	<b>0.025</b>
$VD_{(-1)}$	-0.003	-2.911	<b>0.004</b>
$VD*CG_{(-1)}$	0.007	0.986	0.325
$LEVEARGE_{(-1)}$	0.001	1.669	<b>0.096</b>
$MB_{(-1)}$	0.002	2.407	<b>0.017</b>
$SIZE_{(-1)}$	0.000	3.064	<b>0.002</b>
$QUALITY\ OF\ AUDITOR_{(-1)}$	-0.001	-3.213	<b>0.002</b>
<b>Number of observations</b>	278		
<b>R-squared</b>	0.056		
<b>Adjusted R-squared</b>	0.028		
<b>Durbin-Watson stat</b>	1.530		
<b>F-statistic</b>	2.007		
<b>Prob(F-statistic)</b>	<b>0.046</b>		
<b>Notes</b>			
- Panel OLS with White cross-section standard errors & covariance (d.f. corrected) are used			
- The model includes a constant and an AR (1) terms			
- All variables are centered and lagged by one period			
- ***significant at 1%, ** significant at 5%, *significant at 10%			

Table 6 presents the estimation results of the model where COE3 is used as a proxy for the cost of equity. From the results, we can see that there is a significant negative relationship ( $c=-0.003$ ,  $p0.004$ ) between the VD and COE. This means that the higher the level of VD, the lower the COEC. This result is consistent with our expectation of the association between the level of VD and COEC.

On the other hand, CG is positively related to COE whereas the moderating effect of the interaction term on the relationship between the level of VD and COE is insignificant. This result does not support our expectation of the role of the moderating variable on the relationship between the level of VD and the COE. The effects of control variables are presented in Table 6.

**Table (7) Estimation results for the model with ROE1 as a dependent variable**

Variable	Coefficient	t-Statistic	Prob.
$CG_{(-1)}$	-0.148	-2.254	<b>0.025</b>
$VD_{(-1)}$	0.278	2.234	<b>0.026</b>
$VD*CG_{(-1)}$	-0.370	-2.265	<b>0.024</b>
$LEVEARGE_{(-1)}$	-0.103	-1.369	0.172
$MB_{(-1)}$	0.046	1.324	0.187
$SIZE_{(-1)}$	0.036	2.840	<b>0.005</b>
$QUALITY\_OF\_AUDITOR_{(-1)}$	-0.053	-1.706	0.089
<b>Number of observations</b>	288		
<b>R-squared</b>	0.376		
<b>Adjusted R-squared</b>	0.358		
<b>Durbin-Watson stat</b>	2.729		
<b>F-statistic</b>	20.974		
<b>Prob(F-statistic)</b>	<b>0.000</b>		
<b>Notes</b>			
- Panel OLS with White cross-section standard errors & covariance (d.f. corrected) are used			
- The model includes a constant and an AR (1) terms			
- All variables are centered and lagged by one period			
- ***significant at 1%, ** significant at 5%, *significant at 10%			

Table 7 displays the regression results of the model in which ROE1 is used as a proxy for the COE. According to table 7, the coefficient of VD is positive and significant ( $c=0.278$ ,  $p=0.026$ ). This means that the level of VD influences the COE (ROE1) positively. This result contradicts our expectation of association between the level of VD and the COE.

Table 7 also shows CG is negatively related to ROE1 and the moderating variable affects the relationship between the level of VD and the COE negatively also. This result is consistent with our expectation of the role of the moderating variable on the relationship between the level of VD and the COE.

**Table (8): Estimation results for the model with ROE2 as a dependent variable**

<b>Variable</b>	<b>Coefficient</b>	<b>t-Statistic</b>	<b>Prob.</b>
<b>CG<sub>(-1)</sub></b>	-0.064	-1.421	0.157
<b>VD<sub>(-1)</sub></b>	0.217	3.926	<b>0.000</b>
<b>VD*CG<sub>(-1)</sub></b>	-0.419	-2.569	<b>0.011</b>
<b>LEVEARGE<sub>(-1)</sub></b>	0.028	0.744	0.458
<b>MB<sub>(-1)</sub></b>	0.037	3.116	<b>0.002</b>
<b>SIZE<sub>(-1)</sub></b>	0.006	1.493	0.137
<b>QUALITY OF AUDITOR<sub>(-1)</sub></b>	-0.017	-0.892	0.373
<b>Number of observations</b>	288		
<b>R-squared</b>	0.396		
<b>Adjusted R-squared</b>	0.379		
<b>Durbin-Watson stat</b>	2.425		
<b>F-statistic</b>	22.890		
<b>Prob(F-statistic)</b>	0.000		
<b>Notes</b>			
- Panel OLS with White cross-section standard errors & covariance (d.f. corrected) are used			
- The model includes a constant and an AR (1) terms			
- All variables are centered and lagged by one period			
- ***significant at 1%, ** significant at 5%, *significant at 10%			



Table 8 displays the results when ROE2 is used as a proxy for the COE. It is noticed that there is a direct and significant relationship ( $c=0.217$ ,  $p=0.0$ ) between the VD and ROE2. This indicates that the level of VD influences the COE (ROE2) positively. The result contradicts our expectations of association between the level of VD and COE.

Table 8 also shows that CG negatively affect ROE2 and the moderating variable affect the relationship between the level of VD and the COE negatively. This result is consistent with our expectations about the effect of the moderating variable on the relationship between the level of VD and the COE.

#### **4.5 Discussion of Results**

The two hypotheses intended to be investigated in this thesis were as follows:

**H1:** There is a negative relationship between the level of voluntary disclosure and the cost of equity for Palestinian companies.

**H2:** The relationship between the level of voluntary disclosure and the cost of equity is moderated by the level of corporate governance for Palestinian companies.

To conclude about the relationships found from the analyses, Table 9 summarize the results of previous models.

**Table (9): Summary of the relationships from the study findings**

Dependent variable:	COE1	COE2	COE3	ROE1	ROE2	Conclusion
<b>Independent variables</b>						
CG			+	-		Mixed
VD			-	+	+	Mixed
VD*CG	-			-	-	Negative
LEVEARGE			+			Positive
MB	+	+	+		+	Positive
SIZE			+	+		Positive
QUALITY_OF_AUDITOR			-			Negative
Only significant results are presented in this table. All insignificant results are left empty.						

The results presented in Table 9 show that the relationship between VD and the COE is sensitive to the proxies used to measure the COE.

The results include the classical beta CAPM (COE1), standard deviation CAPM (COE2), downside risk CAPM (COE3), return on equity (ROE), and return on equity after setting all negative values to zero (ROE2). The right estimate of required return is essential for capital structure planning, firm valuation, and business evaluation. Where the results displayed an insignificant relationship between the VD with the COE when the risk factor was measured by beta (COE1) or standard deviation (COE2), while a significant negative relationship was found when it was measured using down-side risk (COE3). (Hail, 2002) show that the insignificant statistical and economic association between information disclosure and cost of equity might be the result of the estimation issue for the reason that both variables are not directly observed and proxies are required to be used. Also, the differences can be explained by many factors.

Firstly; the beta is not proper to estimate risk in emerging markets. Harvey (1995) assessed betas in 5 emerging markets and found it too low to explain the high cost of equity. Estrada (2000) reveals the causes for the detected small beta may not lie just with the lack of market integration. There might be more significant reasons for instability and the classical CAPM not being relevant to emerging market circumstances.

Estrada (2003) considers the practical and empirical reasons that clarify the plausibility of difference. Investors don't avoid favorable volatility; they just avoid downside or unfavorable volatility that can be measured by the semi deviation that include information about variance, and skewness. The semi deviation is at least a beneficial measure of risk as the standard deviation when the underlying distribution is symmetric and more beneficial than the standard deviation when the underlying distribution of returns is asymmetric (Estrada, 2003). The semi deviation as an appropriate measure of risk is supported by previous empirical results that explain the variation in returns of emerging markets (Estrada, 2003; Harvey, 2000).

To confirm the results that emerged we used the profit indexes ROE1 and ROE2 to measure the COE, which exhibited a significant positive relationship between VD and the COE. This may be explained as disclosure of information may attract more temporary investors whose transactions would raise price volatility, (Bushee & Noe, 2000). Botosan and Plumlee (2002) suggest that higher disclosure may have an unexpected

influence on the COE by increasing return volatility and used this to explain the positive association between COE and disclosure.

The interaction term (VD\*CG) is negatively related to the cost of equity when using ROE1, and ROE2 proxies. There is importance for the moderating role of the CG on the relationship between VD and the COE which is consistent with our hypothesis.

These results reveal that using corporate governance mechanisms reduces the information asymmetry, agency cost, boosts transparency of financial information, enhances the investors' confidence, and attracts them to provide financial resources for the firms that are required for future investments. This result encourages management to improve performance by adopting good corporate governance mechanisms to decrease risk and information asymmetry between market participants in the Palestinian environment. These results are consistent with Adnan and Qubbaja (2019), Bozec and Bozec (2011), Mazzotta and Veltri (2012), Teti et al. (2016), Gupta et al. (2018), Zhu (2014), Srivastava et al. (2019), but are inconsistent with those of McInnis (2010) and Juniarti and Natalia (2012).

The significant results of this study concerning the size of the company (SIZE) found that it has a significant positive relationship with COE according to both measures (COE3, ROE1). The size of the company plays an essential role in influencing an investor's impression of the expected risk. This result contradicts the results of theoretical and empirical research (Botosan & Plumlee, 2002) where a good measure of COE should

correlate negatively with the company size. The larger firms disclose more information, which leads to lower risk of the investor compared to smaller firms. Moreover, previous research shows that larger firms have a larger and more extensive information setting than smaller firms (Atiase, 1985; Bamber, 1987; Llorente et al., 2002). However, Banz (1981) was the first to note the influence of company size on return on equity. He explained that small firms are correlated with higher returns than large firms. The modified Fama and French CAPM model observed a negative relationship between firm size and revenue (Annin, 1997). While Davis and Desai (1998) show that the relationship between firm size and yield depends on market situation and Morelli (2007) notices that there is little correlation between them.

The results of this study may be explained as the size of the firm is related to business risk and volatility, the small firm usually have limited transactions and slightly stable activities, which leads to reducing risk and thus decreasing the required rate of return. While large firms expand their operations, expand their financial relationships and transactions, in addition to growing their financial obligations, that causes vulnerability to any fluctuation in the surrounding conditions, this is reflected in the business risk and the high required rate of return.

Theoretical and empirical literature (Botosan & Plumlee, 2002; Fama & French, 1995) shows that the COE inversely relates to market to book ratio (MB) that represent the growth opportunities. However, this study

found a significant positive relationship with the COE when the following measures are used (COE1, COE2, COE3, and ROE2).

This result can be explained as the firm in the growth stage is deemed to be riskier for investors. Among the factors that increase the risk when there is a future growth opportunities are: the presence of competitors, especially in the small market of Palestine, and the possibility of increasing the conflict of interests with managers when implementing a growth strategy. In addition, the unexpected political risks in the surrounding environment of Palestinian companies may contribute to increasing risk for growth firms.

According to previous research (Lintner, 1965; Modigliani & Miller, 1958), there is a positive relationship between financial leverage (LEVERAGE) and the COE. This result is consistent with (Vitolla et al., 2020) since the company's dependence on financial leverage requires the company to bear the costs of debt, the risk for investors increases when the company is not able to meet the debt costs, thereby faces the risk of bankruptcy. Suffian et al., (2015) found that firms that have high financial leverage are predicted to do earnings management because the company is threatened of default.

Finally, the results indicated a significant inverse relationship between the QUALITY OF AUDITOR and COE, is consistent with previous studies (House et al, 2017). Most Palestinian corporations hire one of the Big Four auditing firms. Audit services by one of the Big Four firms

ensure the provision of high quality services that enhance the effectiveness and reliability of information and enforcing compliance with requirements for timely and accurate disclosure.

**Chapter Five**  
**Summary and Conclusions**



## **Chapter Five**

### **Summary and conclusions**

#### **5.1 Introduction**

This study investigates the impact of the VD on the COE and the moderating role of CG on this relationship. The study is primarily motivated by the lack of prior research on VD and the COE relationship within the Palestinian context.

This study assumes that less commitment to CG requirements reduces the financial reporting quality. Thus, the information risk for investors may increase and accordingly raises the COE.

The data of this study was collected manually from the annual reports of the Palestinian listed companies in PEX from 2009 to 2018. All Palestinian companies listed on the Palestine Exchange (PEX) were considered in the study except the banking sector, totalling 396 firm- year observations.

Following the prior studies, the COE was measured in this study using both the CAPM framework and the profitability ratio. The study employed three different CAPM-like models with different ways of risk calculation. These models are the classical CAPM model (COE1) in which B is used as a risk measure, in addition to the Estrada models which include two alternative risk variables. These are the total risk (COE2) which uses standard deviation as a risk measure and downside risk (COE3) using semi-deviation of return as a risk measure. With regards to the profitability ratio,

it is measured by return on equity (ROE1) calculated by dividing net income by equity book value. While ROE can have negative values, the COE (rate of return) can never be negative values. Therefore, an additional measure for the profitability was used where all negative values are set to zero (ROE2).

On the other hand, the level of VD was estimated by using a checklist with 35 items developed based on the existing literature after considering the Palestinian context. Similarly, a second checklist with 19 items was also employed to measure the commitment of the Palestinian companies with corporate governance requirements.

## **5.2 Results Summary**

The main objective of this study is to test the effect of voluntary disclosure on the cost of equity and the moderating role of corporate governance on the relationship between voluntary disclosure and cost of equity. Several models were used to measure the cost of equity to ensure the most appropriate model in the emerging markets (Palestine Exchange) as there was no consensus on the best model.

Results of regression show that the most significant results emerged when using CAPM- downside risk (COE 3). This can be explained that beta (COE 1) is not proper to estimate risk in emerging markets and investors do not avoid favorable volatility (COE 2); they just avoid downside or unfavorable volatility that can be measured by the semi deviation.

Our findings highlight a negative and significant relationship between voluntary disclosure and cost of equity (COE 3), confirming the research hypothesis. The results highlight the importance of using the right estimate of required return is essential for capital structure planning, firm valuation, and business evaluation.

We noticed that the interaction moderating term (VD\* CG) has no significant result when used proxy (COE 3) thus we used another proxy (ROE1 and ROE2) to verify this result. The results provide evidence that CG moderates the associations between VD and COE since a negative and significant relationship between both variables exist only under commitment to good corporate governance mechanisms.

These results have important managerial implications, in light of the significant negative impact on the cost of equity, the study suggests the following:

1. Manager should use a proper measure for the cost of equity for financing decisions.
2. Firms should lower their cost of equity to increase their value hence, firms should be familiar enough with the contributing factors to the cost of equity.
3. Managers must pay more attention to disclosure, in particular, they must increase the quality of voluntary disclosure through commitment to good corporate governance practice.

4. Managers must provide advantageous information disclosure containing significant information that can satisfy investors' information needs and influence their decisions and behavior. This information can both reduce information asymmetry and influence investors' investment decisions.
5. These results additionally suggests that by employing a powerful corporate governance system, by declining the information asymmetry (increasing transparency) and agency conflict, we would be able to improve the quality of financial reports and by strengthening the capital market and attracting financial suppliers and investors, absorb the required financial resources of the firm by a lower rate.

### **5.3 Conclusion**

The study results provide evidence that CG moderates the associations between VD and COE since a negative and significant relationship between both variables exists only under commitment to good corporate governance mechanisms.

However, mixed results were found regarding the pure relationship between the VD and the COE. While no significant relationship was found between the two variables when using (COE1, COE2), but the proxies (COE3, ROE1 and ROE2) showed a significant relationship with VD.

The findings contribute to the growing literature on the economic consequences of VD and its impact on the COEC in the emerging markets.

The results report that commitment to corporate governance mechanisms is a cornerstone for the improvement of corporate disclosure and enhancement of investors' confidence. Ultimately, this increases the liquidity of firm's equity. In addition, our findings boost the important role that CG plays in reducing the information asymmetry among market participants, either directly by affecting the value relevance of the VD, or indirectly by effecting the COE.

#### **5.4 Limitation of the study**

These results extended the prior literature results related to the voluntary disclosures and their impact on the COE. However, this study faced many limitations that should be taken into consideration when drawing the conclusions. Firstly, the study excluded banks sector since it has a different corporate governance code. Secondly, the study neglected the alternative proxies of the COE models used by Gebhardt et al. (2001) and Easton (2004) because these proxies depend on the forecasting future information, such as expected earnings per share and expected dividends, which is not available in the Palestinian Exchange.

#### **5.5 Recommendations for future research**

There are several ways that can extensively contribute to the extant literature related to the VD and COE in Palestine and other emerging countries. Future research is suggested to investigate the impact of VD on the COE for Palestinian banks listed on the Palestine Exchange. In

addition, other moderators of this relationship are in need to be studied for instance, the moderating role of internal control quality and the moderating effect of ownership structure are of interest for future research.

## References

- Abbadi, S. M., & Abu-Rub, N. (2012). The effect of capital structure on the performance of Palestinian financial institutions. *British Journal of Economics, Finance and Management Sciences*, 3(2), 92-101.
- Abdelkarim, N., & Ijbara, K. B. (2010). Evidence on corporate governance compliance by Palestine securities exchange listed firms. *Global Journal of Business Research*, 4(3), 73-88.
- Abid, G. Khan, B. Rafiq, Z. and Ahmad, A. (2014). Theoretical Perspective of Corpornance. *Bulletin of Business and Economics*, 3(4), 166-175.
- Abu Alia, M. & Awwad, O. (2020). The Effect of Corporate Governance and Disclosure Quality on the Information Asymmetry in the Palestine Exchange. *An-Najah National University. Nablus. Palestine*, 36.
- Abu Alia, M. & Mardawi, Z. (2018). The Impact of Ownership Structure and Board Characteristics on Corporate Social Responsibility Disclosed by Palestinian Companies. *An-Najah National University. Nablus. Palestine*, 17.
- Abu Mouamer, F. M. (2011). The determinants of capital structure of Palestine-listed companies. *The Journal of Risk Finance*, 12(3), 226-241.
- Adnan, A., & Qubbaja, A. (2019). Impact of Corporate Governance Quality on the Cost of Equity Capital: Evidence from Palestinian Firms. *Research Journal of Finance and Accounting*, 9(8), 151- 159.

- Akerlof, G. A. (1970). The market for Lemons': Quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84(3), 488–500.
- Albarrak, M. S., Elnahass, M., Papagiannidis, S., & Salama, A. (2020). The effect of twitter dissemination on cost of equity: A big data approach. *International Journal of Information Management*, 50, 1-16.
- Alkababji, M. W. (2014). Voluntary disclosure on Corporate Social Responsibility: A study on the Annual reports of Palestinian corporations. *European Journal of Accounting Auditing and Finance Research*, 2(4), 59-82.
- Annin, M. (1997). Fama-French and small company cost of equity calculations. *Business Valuation Review*, 16(1), 3-13.
- Appuhami, R. (2018). The signalling role of audit committee characteristics and the cost of equity capital: Australian evidence. *Pacific Accounting Review*, 30(3), 387-406.
- Ardillah, K. (2020). The Impact of Environmental Performance and Financing Decisions to Sustainable Financial Development. In *3rd Asia Pacific Management Research Conference (APMRC 2019)* (pp. 134-140). Atlantis Press.
- Ashbaugh-Skaife, H., Collins, D. W., & LaFond, R. (2006). The effects of corporate governance on firms' credit ratings. *Journal of accounting and economics*, 42(1-2), 203-243.



- Atiase, R. (1985). Pre-disclosure information, firm capitalization, and security price behavior around earnings announcements. *Journal of Accounting Research*, 23(1), 21-36.
- Bamber, L. (1987). Unexpected earnings, firm size, and trading volume around quarterly earnings announcements. *Accounting Review*, 62(3), 510-32.
- Banz, R. W. (1981). The relationship between return and market value of common stocks. *Journal of financial economics*, 9(1), 3-18.
- Barako, D. G., Hancock, P., & Izan, H. Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: an international review*. 14(2), 107-125.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*. 51(6), 1173.
- Barry, C. B., & Brown, S. J. (1985). Differential information and security market equilibrium. *Journal of Financial and Quantitative Analysis*, 20(4), 407-422.
- Belsley, D, A. (1991). A guide to using the collinearity diagnostics. *Computer Science in Economics and Management*. 4(1), 33-50.
- Belsley, D. A., Kuh, E., & Welsch, R. E. (1980). Identifying influential data and sources of collinearity. *Regression Diagnostics*.

- Beyer, A., Cohen, D., Lys, T. and Walther, B. (2010). The financial reporting environment: review of the recent literature. *working paper, Stanford University, Palo Alto, CA.*
- Bontis, N., Bart, C., Wakefield, P., & Kristandl, G. (2007). Constructing a definition for intangibles using the resource based view of the firm. *Management decision.*
- Botosan, C. A. (1997). Disclosure level and the cost of equity capital. *Accounting review*, 323-349.
- Botosan, C. A., & Plumlee, M. A. (2002). A re-examination of disclosure level and the expected cost of equity capital. *Journal of accounting research*, 40(1), 21-40.
- Bozec, Y., & Bozec, R. (2011). Corporate governance quality and the cost of Capital. *International Journal of Corporate Governance*, 2(3/4), 217-236.
- Brockett, A., & Rezaee, Z. (2013). Corporate Sustainability: Integrating Performance and Reporting. *John Wiley and Sons, Inc*, 630.
- Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. *Journal of accounting research*, 171-202.
- Byun, S. K., & Oh, J. M. (2018). Local corporate social responsibility, media coverage, and shareholder value. *Journal of Banking & Finance*, 87, 68-86.

- Chen, H., Chen, J. Z., Lobo, G. J., & Wang, Y. (2011). Effects of audit quality on earnings management and cost of equity capital: Evidence from China. *Contemporary Accounting Research*, 28(3), 892-925.
- Chen, K. C., Chen, Z., & Wei, K. J. (2009). Legal protection of investors, corporate governance, and the cost of equity capital. *Journal of Corporate Finance*, 15(3), 273-289.
- Chen, K. C., Wei, K. C., & Chen, Z. (2003). Disclosure, corporate governance, and the cost of equity capital: evidence from Asia's emerging markets.
- Clarkson, P., Guedes, J., & Thompson, R. (1996). On the diversification, observability, and measurement of estimation risk. *Journal of Financial and Quantitative analysis*, 31(1), 69-84.
- Claus, J., & Thomas, J. (2001). Equity premia as low as three percent? Evidence from analysts' earnings forecasts for domestic and international stock markets. *Journal of Finance*, 56, 1629–1666.
- Clinch, G., & Verrecchia, R. E. (2015). Voluntary disclosure and the cost of capital. *Australian Journal of Management*, 40(2), 201-223.
- Cotter, J., Lokman, N. and Najah, M.M. (2011). Voluntary disclosure research: which theory is relevant. *The Journal of Theoretical Accounting Research*, 6 (2), 77-95.

- Da Silva, A. L. C., & Leal, R. P. C. (2005). Corporate governance index, firm valuation and performance in Brazil. *Brazilian Review of Finance*. 3(1), 1-18.
- Daraghma, Z. M., & Alsinawi, A. A. (2010). Board of directors, management ownership, and capital structure and its effect on performance: The case of Palestine securities exchange. *International journal of business and management*, 5(11), 118.
- Darroug, M. N., & Stoughton, N. M. (1990). Financial disclosure policy in an entry game. *Journal of accounting and economics*, 12(1-3), 219-243.
- Daske, H., & Gebhardt, G. (2006). International financial reporting standards and experts' perceptions of disclosure quality. *Abacus*, 42(3-4), 461-498.
- Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *The journal of Finance*, 46(4), 1325-1359.
- Durnev, A., & Kim, E. H. (2005). To steal or not to steal: Firm attributes, legal environment, and valuation. *The Journal of Finance*. 60(3), 1461-1493.
- Dutta, S., & Nezlobin, A. (2017). Information disclosure, firm growth, and the cost of capital. *Journal of Financial Economics*, 123(2), 415-431.
- Dye, R. A. (1985). Disclosure of non-proprietary information. *Journal of accounting research*. 123-145.

- Dzaraly, M., Lokman, N., & Othman, S. (2018). Corporate Governance Mechanisms and Voluntary Disclosure of Strategic and Forward Looking Information in Annual Reports. *International Journal of Accounting*, 3(15), 86-104.
- Easley, D., & O'hara, M. (2004). Information and the cost of capital. *The journal of finance*. 59(4), 1553-1583.
- Easton, P. D. (2004). PE ratios, PEG ratios, and estimating the implied expected rate of return on equity capital. *The accounting review*. 79(1), 73-95.
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of management review*, 14(1), 57-74.
- El Ghoul, S., Guedhami, O., Kwok, C. C., & Mishra, D. R. (2011). Does corporate social responsibility affect the cost of capital? *Journal of Banking & Finance*, 35(9), 2388-2406.
- Embong, Z., Mohd-Saleh, N., & Hassan, M. S. (2012). Firm size, disclosure and cost of equity capital. *Asian Review of Accounting*.
- Estrada, J. (2001). The cost of equity in emerging markets: A downside risk approach.
- Estrada, J. (2003). Mean-semivariance behavior: An alternative model of behavior.
- Fama, E. F., & French, K. R. (1995). Size and book-to-market factors in earnings and returns. *The journal of finance*, 50(1), 131-155.

- Fama, E. F., & Miller, M. H. (1972). *The theory of finance. Holt Rinehart & Winston.*
- Firth, M. (1980). Takeovers, shareholder returns, and the theory of the firm. *The Quarterly Journal of Economics*, 94(2), 235-260.
- Fox, J., & Monette, G. (1992). Generalized collinearity diagnostics. *Journal of the American Statistical Association*. 87(417), 178-183.
- Francis, J. R., Khurana, I. K., & Pereira, R. (2005). Disclosure incentives and effects on cost of capital around the world. *The accounting review*, 80(4), 1125-1162.
- Gebhardt, W., Lee, C., & Swaminathan, B. (2001). Toward an implied cost of equity capital. *Journal of Accounting Research*, 39, 135–176
- Ghazali, N. A. M., & Weetman, P. (2006). Perpetuating traditional influences: Voluntary disclosure in Malaysia following the economic crisis. *Journal of International Accounting, Auditing and Taxation*, 15(2), 226-248.
- Gode, D., & Mohanram, P. (2003). Inferring cost of capital using the Ohlson-Juettner model. *Review of Accounting Studies*, 8, 399–431.
- Guedhami, O., & Mishra, D. (2009). Excess control, corporate governance and implied cost of equity: International evidence. *Financial Review*, 44(4), 489-524.
- Gujarati, D.N. (2003). *Basic econometrics: McGraw Hill, New York, NY.*

- Gupta, K. (2018). Environmental sustainability and implied cost of equity: international evidence. *Journal of Business Ethics*, 147(2), 343-365.
- Gupta, K., Krishnamurti, C., & Tourani-Rad, A. (2018). Financial development, corporate governance and cost of equity capital. *Journal of Contemporary Accounting & Economics*.14(1), 65-82.
- Habbash, M., Hussainey, K., & Ibrahim, A. (2016). The determinants of voluntary disclosure in Saudi Arabia: an empirical study. *International Journal of Accounting, Auditing and Performance Evaluation*. 12(3), 213-236.
- Hail, L. (2002). The impact of voluntary corporate disclosures on the ex-ante cost of capital for Swiss firms. *European Accounting Review*. 11(4), 741-773.
- Hail, L., & Leuz, C. (2006). International differences in the cost of equity capital: Do legal institutions and securities regulation matter? *Journal of accounting research*, 44(3), 485-531.
- Handa, P., & Linn, S. C. (1993). Arbitrage pricing with estimation risk. *Journal of Financial and Quantitative Analysis*, 28(1), 81-100.
- Haniffa, R.M & Cooke, T.E. (2002). Culture, corporate governance and disclosure in Malaysian corporation. *Abacus*. 38(3), 317-349.
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical

- disclosure literature. *Journal of accounting and economics*, 31(1-3), 405-440.
- Hearn, B. A. (2010). Costs of Equity in North Africa's equity markets: An Industrial Sector Study. *Emerging Markets Review*, *Forthcoming*.
- Hossain, M., Perera, M.H.B., & Rahman, A.R. (1995). Voluntary disclosure in the annual reports of New Zealanda companies. *Journal of International Financial Management and Accounting*, 6(1), 69-87.
- Houqe, M. N., Ahmed, K., & Van Zijl, T. (2017). Audit quality, earnings management, and cost of equity capital: evidence from India. *International Journal of Auditing*, 21(2), 177-189.
- Hsiao, C. (1985). Benefits and limitations of panel data. *Econometric Reviews*, 4(1), 121-174.
- Hsiao, C. (2007). Panel data analysis advantages and challenges. *Test*, 16(1), 1-22.
- Huang, R., & Ritter, J. R. (2009). Testing theories of capital structure and estimating the speed of adjustment. *Journal of Financial and Quantitative analysis*, 44(2), 237-271.
- Hughes JS, Liu J, Liu J. (2007). Information asymmetry, diversification, and cost of capital. *The Accounting Review*, 82: 705–730.
- Indayani, D. M. (2013). Effect of asymmetric information and voluntary disclosure on the cost of capital in manufacturing companies listed on



- the Indonesia Stock Exchange. *Journal of Accounting and Financial Review*, 3 (1).
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.
- Jones, D. A. (2007). Voluntary disclosure in R&D-intensive industries. *Contemporary Accounting Research*, 24(2), 489-522.
- Juniarti, A., & Natalia, T.L. (2012). Corporate Governance Perception Index (CGPI) and Cost of Debt. *International Journal of Business and Social Science*, 3(18), 223–232.
- Kalay, A. (2015). Investor sophistication and disclosure clienteles. *Review of Accounting Studies*. 20(2), 976-1011.
- Kanagaretnam, K., Lobo, G. J., & Whalen, D. J. (2007). Does good corporate governance reduce information asymmetry around quarterly earnings announcements? *Journal of Accounting and Public Policy*, 26(4), 497-522.
- khan, H. (2011). A literature review of corporate governance. *In International Conference on E-business, management and Economics*, 25, 1-5.
- Khelif, H., Samaha, K., & Azzam, I. (2015). Disclosure, ownership structure, earnings announcement lag and cost of equity capital in emerging

- markets: The case of the Egyptian stock exchange. *Journal of Applied Accounting Research*, 16(1), 28-57.
- Khelif, H., Samaha, K., & Soliman, M. (2019). Internal control quality, voluntary disclosure, and cost of equity capital: The case of an unregulated market. *International Journal of Auditing*, 23(1), 144-160.
- Kim, D., & Qi, Y. (2010). Accruals quality, stock returns, and macroeconomic conditions. *The Accounting Review*, 85(3), 937-978.
- Kole, S. R., & Lehn, K. M. (1999). Deregulation and the adaptation of governance structure: the case of the US airline industry. *Journal of Financial Economics*, 52(1), 79-117.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of financial economics*, 58(1-2), 3-27.
- Lambert, R., Leuz, C., & Verrecchia, R. E. (2007). Accounting information, disclosure, and the cost of capital. *Journal of accounting research*, 45(2), 385-420.
- Leuz, C., & Verrecchia, R. (2004). Firms' Capital Allocation Choices. Information Quality, and the Cost of Capital.
- Lev, B. (1989). On the usefulness of earnings and earnings research: Lessons and directions from two decades of empirical research. *Journal of accounting research*, 27, 153-192.

- Levin, J. (2001). Information and the Market for Lemons. *RAND Journal of Economics*, 657-666.
- Li, X., Luo, J., & Chan, K. C. (2018). Political uncertainty and the cost of equity capital. *Finance Research Letters*, 26, 215-222.
- Lintner, J. (1965). Security prices, risk, and maximal gains from diversification. *The Journal of Finance*, 20(4), 587–615
- Llorente, G., Michaely, R., Saar, G. and Wang, J. (2002). Dynamic volume-return relation of individual stocks. *Review of Financial Studies*, 15 (4), 1005-47.
- Lokman, N., Cotter, J., & Mula, J. (2012). Corporate governance quality, incentive factors and voluntary corporate governance disclosures in annual reports of Malaysian publicly listed companies. *Corporate Ownership and Control*. 10(1), 329-352.
- Lombardo, D., & Pagano, M. (2002). Law and equity markets: a simple model, published in *Corporate Governance Regimes: Convergence and Diversity*.
- Majeed, M. A., Zhang, X., & Umar, M. (2018). Impact of investment efficiency on cost of equity: evidence from China. *Journal of Asia Business Studies*, 12(1), 44-59.
- Mallisa, M., & Kusuma, H. (2017). Capital structure determinants and firms' performance: empirical evidence from Thailand, Indonesia and Malaysia. *Polish Journal of Management Studies*, 16.

- Mazzotta, R., & Veltri, S. (2012). The relationship between corporate governance and the cost of equity Capital: evidence from the Italian stock exchange. *Journal of Management and Governance*, 18(2), 419-448.
- McInnis, J. (2010). Earnings smoothness, average returns, and implied cost of equity capital. *The Accounting Review*, 85(1), 315-341.
- Meek, G. K., Roberts, C. B., & Gray, S. J. (1995). Factors influencing voluntary annual report disclosures by US, UK and continental European multinational corporations. *Journal of international business studies*, 26(3), 555-572.
- Merkley, K.J. (2014). Narrative disclosure and earnings performance: evidence from R&D disclosures. *The Accounting Review*, Vol. 89 No. 2, pp. 725-757.
- Merton, R. C. (1987). A simple model of capital market equilibrium with incomplete information. *The journal of finance*, 42(3), 483-510.
- Migdad, A. M. (2017). Role of Palestinian Islamic banks in financing economic development. *Journal of Global Studies*, 7, 77-92.
- Mitton, T. (2002). A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis. *Journal of financial economics*. 64(2), 215-241.
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American*, 1, 3.

- Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: a correction. *The American economic review*, 53(3), 433-443.
- Morelli, D. (2007). Beta, size, book-to-market equity and returns: A study based on UK data. *Journal of Multinational Financial Management*, 17(3), 257-272.
- Morris, R. D. (1987). Signalling, agency theory and accounting policy choice. *Accounting and business Research*, 18(69), 47-56.
- Mossin, J. (1966). Equilibrium in a capital asset market. *Econometrica: Journal of the econometric society*, 768-783.
- Mulyati, Y. (2017). The influence of voluntary disclosure, stock beta, and firms size on cost of equity capital. *Jurnal Keuangan dan Perbankan*, 21(3), 387-396.
- Mulyati, Y. (2017). The influence of voluntary disclosure, stock beta, and firms size on cost of equity capital. *Jurnal Keuangan dan Perbankan*, 21(3).
- Munisi, G., & Randoy, T. (2013). Corporate governance and company performance across Sub-Saharan African countries. *Journal of Economics and Business*, 70, 92-110.
- Murni, S. A. (2004). The wide influence of voluntary expression and information asymmetry on the cost of equity capital in public

companies in Indonesia. *The Indonesian Journal of Accounting Research*, 7 (2).

Myers, S.C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, 5,147-75

Namazi, M., & Namazi, N. R. (2016). Conceptual analysis of moderator and mediator variables in business research. *Procedia Economics and Finance*. 36(16), 540-554.

O'Dwyer, B. (2002). Managerial perceptions of corporate social disclosure: An Irish story. *Accounting, Auditing & Accountability Journal*, 15(3), 406-436.

Ohlson, J., & Juettner-Nauroth, B. (2005). Expected EPS and EPS growth as determinants of value. *Review of Accounting Studies*, 10, 349–365.

Orens, R., Aerts, W., & Cormier, D. (2010). Web-based non-financial disclosure and cost of finance. *Journal of Business Finance & Accounting*, 37(9–10), 1057-1093.

Pcma.Ps(2020). Retrived from [www.pcma.ps](http://www.pcma.ps):  
<https://www.pcma.ps/securitiesSector/Pages/Instructions.aspx>.

Pex.Ps(2020). Retrived from [www.pwx.ps](http://www.pwx.ps):  
<http://www.pex.ps/PSEWebSite/AboutPSE.aspx?TabIndex=0>.

Pham, P.K., Suchard, J. A., & Zein, J. (2012). Corporate governance and the cost of Capital: evidence from Australian companies. *Journal of Applied Corporate Finance*, 24(3), 84-93.

- Pike, R., & Neale, B. (2009). *Corporate finance and investment: decisions and strategies* (6th ed.). *Pearson Education*.
- Poshakwale, S., & Courtis, J. K. (2005). Disclosure level and cost of equity capital: evidence from the banking industry. *Managerial and Decision Economics*, 26(7), 431-444.
- Raimo, N., de Nuccio, E., Giakoumelou, A., Petruzzella, F., & Vitolla, F. (2020). Non-financial information and cost of equity capital: an empirical analysis in the food and beverage industry. *British Food Journal*.
- Rajan, G.R. and Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *Journal of Finance*, Vol. 50, pp. 1421-60
- Reverte, C. (2009). Do better governed firms enjoy a lower cost of equity capital? Evidence from Spanish firms. *Corporate Governance: The International Journal of Business in Society*, 9(2), 133-145.
- Richardson, A. J., & Welker, M. (2001). Social disclosure, financial disclosure and the cost of equity capital. *Accounting, organizations and society*, 26(7-8), 597-616.
- Ross, S. A. (1977). The determinants of financial structure: The incentive signaling approach. *Bell Journal of Economics*, 8, 23-40.

- Rouf, D. (2011). The corporate social responsibility disclosure: A study of listed companies in Bangladesh. *Business and Economics Research Journal*. 2(3), 19-32.
- Samaha, K., &Dahawy, K. (2010). An empirical analysis of corporate governance structures and voluntary corporate disclosure in volatile capital markets: The Egyptian experience. *International Journal of Accounting, Auditing and Performance Evaluation*, 7(1-2), 61-93.
- Sengupta, P. (1998). Corporate disclosure quality and the cost of debt. *Accounting review*, 459-474.
- sharman, R., &Copnell, T. (2002). Performance from Conformance: The practical application of corporate governance and risk management. *Managing risk to enhance stakeholder value*, 1-5.
- Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *The journal of finance*. 19(3), 425-442.
- Shieh, G. (2011). Clarifying the role of mean centring in multicollinearity of interaction effects. *British Journal of Mathematical and Statistical Psychology*. 64(3), 462-477.
- Solomon, J. & Solomon, A. (2004). Corporate Governance and Accountability. *Chichester: Wiley*.
- Spence, A. (1973). Job market signalling. *Quarterly Journal of Economics*, 87, 355-379.



- Srivastava, V., Das, N., & Pattanayak, J. (2019). Impact of corporate governance attributes on cost of equity: Evidence from an emerging economy. *Managerial Auditing Journal*, 18(2), 1-22.
- Suffian, M. T. M., Sanusi, Z. M., Osman, A. H., & Azhari, M. I. M. (2015). Manipulation of earnings: The pressure of opportunistic behavior and monitoring mechanisms in Malaysian Shariah-compliant companies. *Procedia Economics and Finance*, 31, 213 – 227
- Sweiti, I. M., & Attayah, O. F., (2016). Critical Factors Influencing Voluntary Disclosure: The Palestine Exchange “PEX”. *Global Journal of Management and Business Research Finance*, 13(6), 8-16.
- Teti, E., Dell’Acqua, A., Etrò, L., & Resmini, F. (2016). Corporate governance and cost of equity: empirical evidence from Latin American companies. *Corporate Governance: The International Journal of Business in Society*, 16(5), 831-848
- Titman, S., & Wessels, R. (1988). The determinants of capital structure choice. *The Journal of Finance*, 43(1), 1-19.
- Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32(1-3), 97-180.
- Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32(1-3), 97-180.
- Villadsen, B., Vilbert, M. J., Harris, D., & Kolbe, L. (2017). Risk and Return for Regulated Industries. *Academic Press*.

- Vitolla, F., Salvi, A., Raimo, N., Petruzzella, F., & Rubino, M. (2020). The impact on the cost of equity capital in the effects of integrated reporting quality. *Business Strategy and the Environment*, 29(2), 519-529.
- Wagenhofer, A. (1990). Voluntary disclosure with a strategic opponent. *Journal of accounting and economics*, 12(4), 341-363.
- Welker, M. (1995). Disclosure policy, information asymmetry, and liquidity in equity markets. *Contemporary accounting research*, 11(2), 801-827..
- Williams, S. M. (2001). Is intellectual capital performance and disclosure practices related? *Journal of Intellectual capital*.
- Zhang, L., & Ding, S. (2006). The effect of increased disclosure on cost of capital: evidence from China. *Review of Quantitative Finance and Accounting*, 27(4), 383-401.
- Zhu, F. (2014). Corporate Governance and the cost of capital: An International study. *International Review of Finance*, 14(3), 393-429.

# Appendices

### Appendix (1): voluntary disclosure checklist

<b><u>general company information</u></b>
1. Company's mission statement.
2. Brief history of the company.
3. Corporate structure/chart.
<b><u>corporate strategy:</u></b>
1. Statement of corporate strategy and objectives –general.
2. Statement of corporate strategy and objectives –financial
3. Statement of corporate strategy and objectives –marketing
4. Statement of corporate strategy and objectives –social.
5. Impact of strategy on current performance.
<b><u>financial performance:</u></b>
1. Liquidity ratios.
2. Debt / equity ratio.
3. Profitability ratios
4. Return on equity.
5. Return on assets
6. Financial history or summary (3 or more years)
<b><u>Employee information</u></b>
1. Number of employees trained.
2. Policy on employee training.
3. Women empowerment.

4. Employees' appreciation
5. Amount spent on training
6. Equal opportunity policy statement
<b><u>Segmental information</u></b>
1. Competitor analysis – qualitative
2. Competitor analysis – quantitative
3. market share analysis - qualitative
4. market share analysis – quantitative
<b><u>Corporate governance/directors information</u></b>
1. Shares held by board directors of the company.
2. Meeting held and Attendance.
3. Educational qualifications of the directors.
4. Experience of the directors.
5. Other directorship held by executive directors.
6. Statement of internal control
<b><u>Capital market data</u></b>
1. the market value of shares at the end of the year
<b><u>Forward-looking information</u></b>
1. Factors that may affect future performance
2. Earnings per share forecast
3. Sales revenue forecast
4. Profit forecast

**Appendix (2): corporate governance checklist.**

<b><u>Sub-Index – Board of Directors</u></b>
1. Chairperson of board and CEO are two different individuals
2. Chairperson is a non-executive director
3. The composition of the Board of Directors has two independent directors.
4. Board has a corporate governance committee
5. All directors attended 75% of board meetings or had a valid excuse.
6. company has remuneration committee
7. Board size is greater than 5 but less than 11
<b><u>Sub-Index – Audit Committee</u></b>
1. Company has an audit committee
2. Chairperson of committee is a non-executive director
3. All members of committee are non-executive directors
4. Chairperson of the board is not the chairman or a member of the audit committee
<b><u>Sub-Index - Disclosure and Transparency</u></b>
1. Company discloses composition of audit committee
2. Company releases its annual reports within 3 months of year-end
3. Company discloses share ownership
4. Company states its commitment to effective corporate governance
5. company discloses remuneration of board directors

6. Company discloses remuneration of executive directors
--

7. Company reports on CSR activities
--------------------------------------

8. Shareholders vote on directors selected to fill vacancies
--

جامعة النجاح الوطنية  
كلية الدراسات العليا

الدور الوسيط لحوكمة الشركات في العلاقة بين الإفصاح  
الإختياري وتكلفة حقوق الملكية للشركات الفلسطينية  
المدرجة في بورصة فلسطين

إعداد

سارة عماد حسين جلاّد

إشراف

د. معز أبو عليا

د. إسلام عبد الجواد

قدمت هذه الأطروحة إستكمالاً لمتطلبات الحصول على درجة الماجستير في المحاسبة  
بكلية الدراسات العليا في جامعة النجاح الوطنية في نابلس، فلسطين.

2020م



ب

## الدور الوسيط لحوكمة الشركات في العلاقة بين الإفصاح الإختياري وتكلفة حقوق الملكية للشركات الفلسطينية المدرجة في بورصة فلسطين

إعداد

سارة عماد حسين جلاذ

إشراف

د. معز أبو عليا

د. إسلام عبد الجواد

### الملخص

بعد الحصول على التمويل من القرارات المهمة التي تتخذها إدارة الشركات، وتعتبر تكلفة حقوق الملكية عنصراً أساسياً في تحديد مصدر تمويلها، حيث تتأثر تكلفة حقوق الملكية بالإفصاح الإختياري وقد يؤدي الإفصاح عن معلومات إضافية إلى تقليل عدم تناسق المعلومات، وتقليل المخاطر وتقليل تكلفة حقوق الملكية.

تهدف هذه الدراسة لفحص العلاقة بين الإفصاح الإختياري وتكلفة حقوق الملكية من جهة، ومن جهة أخرى، فإنها تدرس أيضاً الدور الوسيط لتأثير حوكمة الشركات على العلاقة بين الإفصاح الإختياري وتكلفة حقوق الملكية.

لتحقيق أهداف الدراسة تم استخدام المقاييس المناسبة بمتغيرات الدراسة، حيث تم قياس الإفصاح الإختياري من خلال تطوير قائمة تحقق بناءً على الدراسات السابقة والظروف السائدة في فلسطين. ولقياس تكلفة حقوق الملكية تم استخدام نموذج تسعير الأصول الرأسمالية (CAPM) ونسبة الربحية (ROE). واستخدمت الدراسة ثلاثة نماذج لتسعير الأصول الرأسمالية CAPM بما في ذلك نموذج CAPM التقليدي (COE1)، والانحراف المعياري للعائد (COE2)، وشبه الانحراف المعياري للعائد (COE3)، وتم قياس نسبة الربحية من خلال العائد على حقوق الملكية. حيث تم قياسه أولاً (ROE1) بقسمة صافي دخل الشركة على إجمالي القيمة الدفترية لحقوق الملكية. ونظراً لوجود قيم سالبة عند قياس العائد على حقوق الملكية، ولكنه لا يمكن أن تكون قيم العائد سالبة أبداً، تم استخدام مقياس إضافي لتكلفة حقوق الملكية

حيث تم تحويل جميع القيم السالبة إلى صفر (ROE2). كما تم تطوير قائمة تحقق ثانية لقياس المتغير الوسيط (حوكمة الشركات).

تم جمع بيانات الدراسة بشكل أساسي من التقارير المالية السنوية للشركات المدرجة في بورصة فلسطين لمدة عشر سنوات من 2009 إلى 2018. وتم أخذ 41 شركة مدرجة في بورصة فلسطين بعد استثناء قطاع البنوك. تم جمع بيانات القطاع المالية وغير المالية؛ وتضمنت على بيانات مقطعية- زمنية.

تشير نتائج الانحدار إلى أن أهم النتائج ظهرت عند قياس عامل المخاطرة باستخدام الجانب السلبي (3 COE) CAPM، يمكن تفسير ذلك بأن قياس عامل المخاطرة باستخدام بيتا (CAPM-COE1)، ليس مناسباً لتقدير المخاطر في الأسواق الناشئة، ولا يتجنب المستثمرون التقلبات الإيجابية (2 COE)؛ هم فقط يتجنبون الانخفاض عن العائد المتوقع أو التقلبات غير المواتية التي يمكن قياسها بشبه الانحراف المعياري.

لذا فإن النتائج التي توصلنا إليها تسلط الضوء على وجود علاقة سلبية وهامة بين الإفصاح الاختياري وتكلفة حقوق الملكية (3 COE)، وهذا ما يؤكد فرضية البحث الأولى، وتقدم النتائج أيضاً دليلاً عند استخدامها (ROE1 and ROE2) إلى أن CG تؤثر على العلاقة بين VD و COE نظراً لوجود علاقة سلبية وهامة بين كلا المتغيرين فقط في ظل الالتزام بالآليات حوكمة الشركات الجيدة.

تقترح الدراسة مجموعة من التوصيات، بما في ذلك يجب على المديرين استخدام مقياس مناسب لتكلفة حقوق الملكية عند اتخاذ قرار التمويل، كما يجب على المديرين زيادة الاهتمام بالإفصاح، وعلى وجه الخصوص، زيادة جودة الإفصاح الاختياري من خلال الالتزام بممارسات حوكمة الشركات الجيدة.