An-Najah National University
Faculty of Graduate Studies

IMPACT OF CORPORATE GOVERNANCE MECHANISMS ON CORPORATE FAILURE PREDICTION: EMPIRICAL EVIDENCE FROM PALESTINE EXCHANGE

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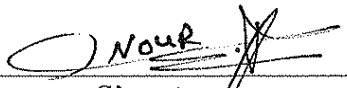
Prof. Abdulnaser Nour	
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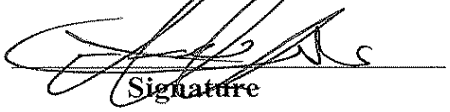
Dr. Muiz Abu Alia	
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Dedication

To the one who gave me everything he possesses so that I can fulfill his hopes, to the one whose love pushed me to achieve the desired, to the only one who stayed up for my knowledge with great sacrifices, translating his sanctification of knowledge and lofty, to the only person who wanted me better than him and redeemed me, to my first example and my first school, **my dear father**, God prolong your life and God bless your goodness.

To the one who gave me all of her giving and the flow of her tenderness and the sincerity of her prayer, who carried me and was patient with me and supported my disability, and her prayer which always preceded my mistakes until they paved my way, and her smile was my medicine and my cure, **my kind mother**, may God bless you with us.

To the honorable uncle, the second father, and the first supporter with his mind, knowledge and advices, **my uncle Abu Maher**, may God prolong your life.

To the people of sound opinion, long-term goodness, and my unique necklace determination and strength, bond and pride, **my dear brothers**, may God give you more than you hope and make you munition for me.

To the infinite goodness and the unconditional love, dear women, to the flowers of the heart and the jewels of tenderness, **my dear sisters**, may God protect you.

To the one who came asking for our closeness to the Sunnah of God and His Messenger, so he became our brother, to the one who entered the heart with his actions as is the custom of men, to the one who rejoiced at my success as he were a part of it, my brother and the guardian of my jewel, **Samer**, may God fulfill your wishes as soon as possible.

To my companion in my path, and my childhood friend, to the one who shared with me the details of my life and dreams, so he shared with me the meanings of happiness, and the hardships of fatigue, to my first reference in most matters, **dear to my heart, Dr. Monjed**, god bless you dear.

To the family, friends and colleagues who accompanied me and encouraged my steps when the days were overwhelmed, you have my love and gratitude.

Acknowledgment

At the beginning, I thank God, Lord of the Worlds, who created and guided the steps, so this work came out with his help and success, I praise him greatly in the beginning and the end, and based on his saying, peace be upon him, “He who does not thank people does not thank God.” I extend my sincere thanks and gratitude to my supervisors for this thesis, **Prof. Abdulnaser Nour** and **Dr. Saed Al Koni**, who gave me a lot of their time, and their generosity, high morals, and distinctive style in following up me on the thesis which was the greatest impact in helping to complete it. I also extend my sincere thanks and gratitude to the faculty members in the Master of Accountancy program at An-Najah National University, each in his name and title, for the abundance knowledge I gained from them and their rich experience until I reached what I am upon, so may Allah reward you on my behalf with the best reward

Declaration

I, the undersigned, declare that I submitted the thesis entitled:

IMPACT OF CORPORATE GOVERNANCE MECHANISMS ON CORPORATE FAILURE PREDICTION: EMPIRICAL EVIDENCE FROM PALESTINE EXCHANGE

I declare that 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.

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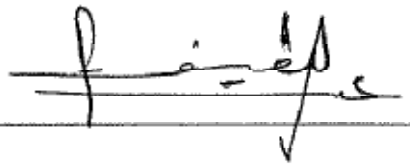
Signature: 

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IMPACT OF CORPORATE GOVERNANCE MECHANISMS ON CORPORATE FAILURE PREDICTION: EMPIRICAL EVIDENCE FROM PALESTINE EXCHANGE

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Abstract

The main objective of this study is to examine the impact of corporate governance mechanisms on corporate failure prediction of companies, the study employed the quantitative design where the secondary data were obtained from the annual reports of companies listed in the Palestine Exchange during the period 2010-2019. The sample of this study comprises of 35 companies.

In this study, three types of variables were used: (1) dependent variables, (2) independent variables, and (3) control variables. Corporate Failure represents the dependent variable. The corporate governance variables are the independent variables. Namely, Board Size, Board Meetings' Frequency, CEO Duality, Board of Directors'' Independency, Institutional Ownership, Quality of External Audit, Remuneration of Directors, and presence of an Audit Committee. Company-specific features such as company age, company size, and company leverage are included in the logistic regression model as control variables to avoid misspecification of the regression model.

The main results of the study indicated that there is a significant positive relationship between (Board of Directors'' Independency, and Institutional ownership) and corporate failure. There is a significant negative relationship between the quality of external audit and the corporate failure prediction, while there is no significant relationship between (Board Size, Board Meeting's Frequency, CEO Duality, Remuneration of directors, and Audit Committee Existence) and corporate failure prediction. The results show a significant negative relationship between the control variable (Company Size) and corporate failure prediction; however, there are no significant relationships between (Company Age, Company Leverage) and corporate failure prediction.

The researcher provides many recommendations, the most important of which are: each company must appoint a lawyer to follow up on the new legislation related to the company's work. Public shareholding companies should develop a practical plan to fully adhere to the principles of corporate governance, successful and large shareholding limited partnership companies should seek to transform into public shareholding companies to be listed in the Palestine Exchange, Issuance of a new Companies Law, organizing training courses to educate companies on the principles of governance and the benefits of adhering to them, generalizing and mainstreaming the experience of successful companies, so that other companies can benefit from it, the necessity for companies to activate their Boards of Directors, due to the positive impact such has on improving the performance of companies listed in the Palestine Exchange, developing and protecting them from failure, the regulatory authorities should activate the control over companies' compliance with the principles of corporate governance, and violating non-compliant companies, preparing various detailed studies as a means to enhance adherence to the principles of governance, by focusing on each of the principles of governance and by using the companies as case studies, in order to create a successful model for adherence to the principles of governance.

Key words: Corporate Governance; Corporate Failure prediction; Companies listed in the Palestine Exchange.

Chapter One

General Framework of Study

1.1 Introduction

In the part of the study that considers the background of the search, problem statement, research questions, and importance of the study. At the end of this chapter, the objectives that this study seeks to achieve are presented.

1.2 General Background

Recently, there has been an increasing interest from both academics and practitioners in corporate governance issues due to many factors including, but not limited to, the increasing number of corporate scandals and failures all over the word. To respond to these scandals and failures, there has been a growing interest in the development of models that can predict corporate failure (Oduro and Aseidu, 2017).

In this context, it is useful to recall that corporate governance refers to the set of relationships between company shareholders, the Board of Directors, the management, and the rest of stakeholders. It's a roadmap to achieve the company's goals and monitor its performance (OECD[1], 2015).

Generally, there are numerous components of corporate governance that are applicable to companies including (1) fair treatment of stakeholders, (2) independence, (3) responsibility and accountability, (4) disclosure and transparency, and (5) social responsibility (Chidoko and Mashavira, 2014).

Adhering to good corporate governance practices has several advantages to companies including, but not limited to, enhancing efficiency and effectiveness, providing answers to evolving problems, promoting integrity, accountability, and transparency, and protecting stakeholders' rights (OECD, 2015). These benefits, in turn, would enable companies to have access to capital, achieve financial stability, and ultimately succeed over the long run (Todorovic, 2013).

On the other hand, the main components of corporate governance (Transparency, ethics, accountability, integrity, leadership, competence, enterprise, fairness, commitment,

[1] OECD: Organisation for Economic Co-operation and Development.

confidence, and respect) and they are important for corporate's continuity, so that failure of adhering of all of them may cause to corporate failure (Choughri, 2018).

The literature regarding corporate failure focused on two critical issues as potential predictors: (1) financial problems and (2) weaknesses in corporate governance mechanisms. However, most of the previous empirical studies used financial ratios to develop models that predict corporate failure and just a few used corporate governance variables (Wijekoon and Abdul Azeez, 2015).

In this context, it is necessary to say that there is no consensus among researchers and academics on defining corporate failure. However, corporate failure can be defined as the situation in which the company reports losses or negative operating cash flows during the last three years (Lakshan and Wijekoon, 2012; Wijekoon and Abdul Azeez, 2015).

In the Palestinian context, many empirical studies have developed models to predict corporate failure using accounting and financial data (e.g. Abu Hijleh, 2019; Kutum, 2015). However, to the best knowledge of the author, none of these studies has incorporated corporate governance variables to predict corporate failure. To fill this knowledge gap, the researcher investigates the effect of various aspects of governance elements incorporating the firm's failure prediction in Palestine.

1.3 Problem of the Study

According to Wijekoon and Abdul Azeez (2015) in the business world, all firms try to achieve success. In this competitive business world vast number of firms succeeded while others struggled to achieve success, Survival of the firm becomes more complex in modern competitive business world, although firms try to survive, some of those failed. Therefore, more researchers focus on the predicting the failure based on the financial performances. Also they believed poor corporate governance can directly impact to the firm failure even though financially performed well (Wijekoon and Abdul Azeez, 2015).

Some of earlier researchers indicate that corporate failure or corporate collapse arise due to the weak governance structure and these researchers suggested corporate governance factors with the failure gaps should be identified and Improved. Therefore, the need of a

proper failure prediction model is increased among all those interested parties (Randika et al., 2019).

In the Palestinian context, there is a high rate of corporate failure. Numerically, it is estimated that 52% of non-banking listed companies have failed and 24% are in the grey zone (Kutum, 2015). Although some empirical studies investigated the variables that might predict corporate failure using financial data (e.g. Abu Hijleh, 2019; Kutum, 2015), none of these studies incorporated corporate governance variables as potential predictors of corporate failure.

To fill this knowledge gap, this study is carried out using a regression style that predicts the failure of companies listed on the Palestine Exchange using corporate governance variables. More specifically, this study is carried out to answer the question:

What is the impact of corporate governance mechanisms on corporate failure prediction of companies listed in the Palestine Exchange?

From this question, a number of questions are derived:

1. What is the impact of Board Size on corporate failure prediction of companies listed in the Palestine Exchange?
2. What is the impact of Board Meeting Frequency on corporate failure prediction of companies listed in the Palestine Exchange?
3. What is the impact of CEO duality on corporate failure prediction of companies listed in the Palestine Exchange?
4. What is the impact of Board of Directors'' independency on corporate failure prediction of companies listed in the Palestine Exchange?
5. What is the impact of institutional ownership on corporate failure prediction of companies listed in the Palestine Exchange?
6. What is the impact of quality of external audit on corporate failure prediction of companies listed in the Palestine Exchange?
7. What is the impact of remuneration of directors on corporate failure prediction of companies listed in the Palestine Exchange?
8. What is the role of Audit Committee Existence in corporate failure prediction of companies listed in the Palestine Exchange?

1.4 Study Significance

Study Significance emerges from following points:

1. Recently, there has been a growing interest in corporate governance issues due to an increase in the cases of corporate scandals and failures worldwide like Enron (Kutum, 2015).
2. In the Palestinian context, some empirical studies have examined the financial ratios that might predict corporate failure (e.g. Abu Hijleh, 2019; Kutum, 2015). However, none of the studies has investigated the corporate governance variables that might predict corporate failure. Therefore, it is important to predict corporate failure of listed companies in Palestine using corporate governance variables.

1.5 Objectives of the Study

The primary objective of this study is to examine the impact of corporate governance mechanisms on corporate failure prediction of companies listed in the Palestine Exchange. The specific objectives, however, are as listed below:

1. To examine the impact of Board Size on corporate failure prediction of companies listed in the Palestine Exchange.
2. To examine the impact of Board Meeting Frequency on corporate failure prediction of companies listed in the Palestine Exchange.
3. To examine the impact of CEO Duality on corporate failure prediction of companies listed in the Palestine Exchange.
4. To examine the impact of Board of Directors'' independency on corporate failure prediction of companies listed in the Palestine Exchange.
5. To examine the impact of institutional ownership on corporate failure prediction of companies listed in the Palestine Exchange.
6. To examine the impact of quality of external audit on corporate failure prediction of companies listed in the Palestine Exchange.
7. To examine the impact of remuneration of directors on corporate failure prediction of companies listed in the Palestine Exchange.
8. To examine the role of Audit Committee Existence in corporate failure prediction of companies listed in the Palestine Exchange.

Chapter Two

Theoretical Framework, Literature Review and Hypotheses Development

2.1 Theoretical Framework

This chapter explains the definition of corporate governance, its importance, and its mechanisms, corporate governance in Palestine. In addition to, the definition of corporate failure and its main causes, and finally corporate governance in relation to predicting corporate failure.

2.1.1 Corporate Governance

2.1.1.1 Definition of Corporate Governance

The ground of corporate governance framework, corporate governance principles established with regard to this approach is based on institutional theories that are titled institutionalization. The institution is termed as a social system that is relatively activates its existence by itself and continuously reproduced (Burak et al, 2017).

Wong, (2011) indicate that it is difficult to define the concept of corporate governance in a universally acceptable way because definitions vary from country to country. Moreover, countries differ from each other in terms of culture, legal systems and historical developments.

There are many definitions of the term corporate governance, and the most prominent of these definitions are:

"Corporate governance as the structures and processes by which companies are directed and controlled" (IFC, 2021).

Corporate Governance as "a set of relationships between corporate management, boards, shareholders, and other stakeholders" (Khurshid et al, 2018).

Corporate governance as "a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means o**f** attaining those objectives and monitoring performance are determined" (OECD, 2015).

Corporate governance as "conducting business operations with all integrity, fairness, and transparency and disclosing all necessary decisions in accordance with regulations and to be accountable and responsible towards shareholders" (Salami et al, 2014).

Corporate governance as "a system through which the direction and management of companies are decided, and determines which rights and responsibilities among the various parties; such as the Board of Directors, managers, shareholders and other stakeholders. It determines the decision-making rules and procedures concerning the company's affairs, as well as identifying the structure from the beginning to develop the company's goals and the means to achieve them as well as control mechanisms on performance" (Al_Sufy et al, 2013).

Corporate governance as "the rules, procedures, and administration of the firm's contracts with its shareholders, creditors, employees, suppliers, customers, and government. Governance is legally vested in a Board of Directors who has a fiduciary duty to serve the interests of the corporation rather than their own interests or those of the firm's management" (Lakshan and Wijekoon, 2012).

Finally, Corporate governance as "the responsibility of the board as a group. The board performs its duties with the support of management and staff, in line with members' wishes, the constitution and the law, and ideally in partnership with stakeholders" (Shill, 2008).

The researcher believe that corporate governance means adhering to laws, regulations, instructions, work ethics, and preserving the rights of shareholders (profits), company workers (salaries and training), consumers (product quality), suppliers, the state (taxes), and society (social responsibility). Board of Directors Performs the main task company's governance, discloses, and applies auditing rules and accounting standards.

2.1.1.2 Corporate Governance Mechanisms

Corporate governance mechanisms are an important and vital instrument, that's role focuses on protecting the rights of small shareholders, activating the role of the board of directors, holding the board accountable by the shareholders, the company's commitment to disclosure standards, and others. In addition, corporate governance is

not only useful for stockholders, but also for all parties of the stakeholders (Alabdullah et al, 2014).

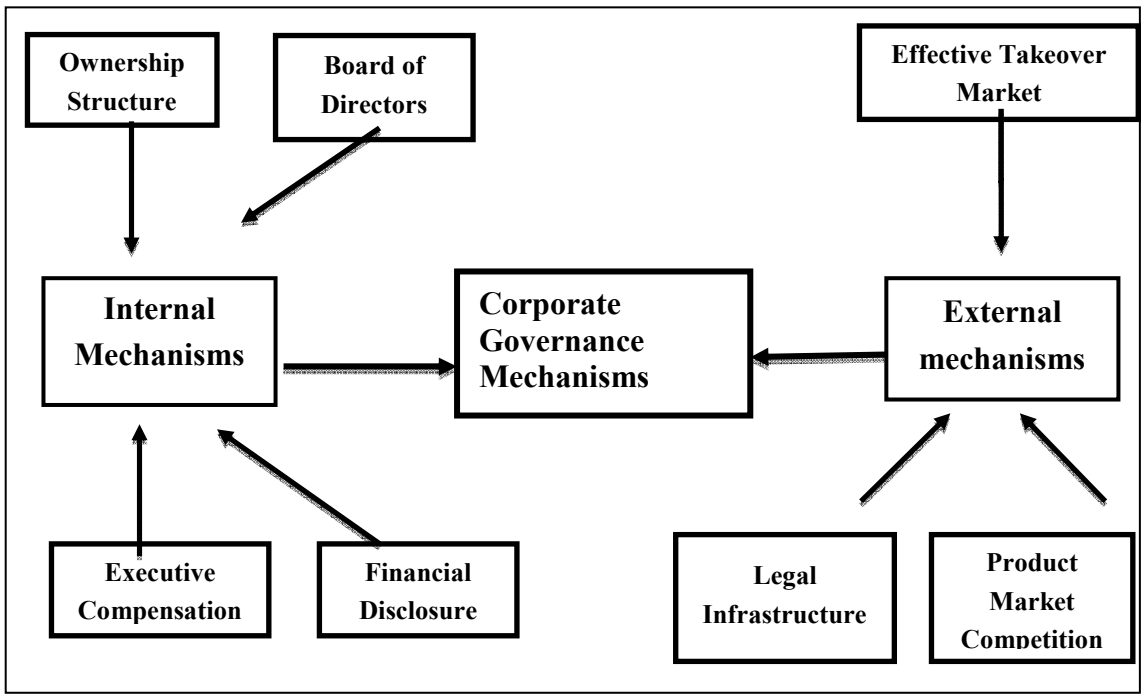
In general, there are two mechanisms of corporate governance to overcome the problems arising from agency theory as shown in Figure 1 (Ahmed et al, 2008):

The first one consists of various internal mechanisms, such as the ownership structure Board of Directors, executive compensation, and financial disclosure.

The second one includes external mechanisms, such as effective takeover market, legal infrastructure, and product market competition.

Figure 1:

Corporate Governance Mechanisms



Source: (Ahmed et al, 2008)

1. Internal Mechanisms

Consists of various variables

Ownership Structure: the ownership structure is important to maximize firm's value. The concentration of equity ownership gives the biggest shareholders a substantial power to use the firm's resources for personal profit at the expense of other shareholders (Claessens et al, 2002; Klungland and Sunde, 2009).

Board of Directors: the board is mainly responsible for monitoring management performance and achieving an acceptable return for shareholders, while preventing conflicts of interest between management and shareholders, and balancing competing demands on the firm (OECD).

Executive Compensation: big growth of CEO wages in big firms is an example for inequality cases, not only because it means a big amount of money is going to a little group of personals, but also because it affects the wages' structures throughout the firms and the economy as a whole. A large increase in the wages' of CEOs in large companies does not indicate that there is a significant increase in their productivity and maximization of shareholder profits. (Baker et al, 2019).

The large part of the problem is due to weak corporate governance. Researches have proved that Boards of Directors are more concerned with staying on their own positions than defensing for the interest of shareholders. Moreover, the positions of shareholders are not enough for corporate board accountability. Empower shareholders to overcome CEO wages will need reforming corporate governance by changing the policy that overcome agency problems and bad incentives which now prevent board of directors to work for shareholders' interests (Baker et al, 2019; Faulkender et al 2010).

Financial Disclosure: finally, transparency and disclosure (T&D) are important components of a strong framework of corporate governance as they supply the base for informed decision making by shareholders and other stakeholders about financial situation for firm to monitoring performance. A robust disclosure system that promotes transparency is axial feature of market-based monitoring of firms and is essential to shareholders’ ability to exercise their rights based on it. Researches show that disclosure can also be an important tool for influencing the companies' behavior about protecting investor's rights. A robust disclosure system can help to maximize capital and maintain confidence in the capital markets. By contrast, weak disclosure can promote to unethical behavior and less integrity of market, not only to the firm and its shareholders but also to the economy as a whole. The disclosure also assist improve public understanding of the firms activities, firms policies, and firms performance (OECD, 2015).

2. External Mechanisms

Consists of various variables

Effective acquisition market: It is necessary to have an effective market for strengthening corporate governance, where the rules of governance include the existence of an effective Board of Directors capable of developing the company and improving its performance. In the event of the failure of the Board of Directors, governance practices must ensure its change, the market must help achieve this in a short period (Nicolas, 2004).

An effective Takeover Market should have a good effect on a firm's overall corporate governance level for three reasons. First, governance rules dictate that shareholders (including small shareholders) must have a significant role in the company, through electing the Board of Directors and monitoring its performance as well as voting on major matters related to the company. Second, When the performance of the company's management is weak, the market efficiency of controlling the company is enhanced through the control of the major shareholders over the company, or the help of external shareholders to control the company. (Ahmed et al, 2008).

Chung et al, (2012) indicate that across countries, stock market liquidity varies with different legal system and environments for shareholder protection rights, and shows that countries with laws and regulatory environments to protect shareholder rights have more market liquidity than countries with weak laws and regulatory environments, and that companies with strong corporate governance frameworks have more liquidity in the market.

There is a peculiarity in Palestine with regard to Effective Takeover Market; since the financial market is small, there are only 48 listed companies in 2019, most of which are family companies, which mean that the family controls the company, and it is not easy for new shareholders to take over the company. In addition, the Companies Law (Article 106) prohibits - as will be clarified later - any shareholder from being nominated for the Board of Directors if he does not possess the legal quorum of shares. On the other hand, it is clear from the researcher's review of the annual reports of companies that some of them own others (that is, a company establishes another company).

Product Market Competition: Chou et al, (2011) found that firms working in low market competition power tend to have weak corporate governance structures. The overall evidence suggests that product market competition has a substantial impact on corporate governance and that it substitutes for corporate governance quality.

The Researcher believed that a company which operates in a strong competitive market is forced to improve and develop production quality, and to maintain employees, a strong Board of Directors, preserve the rights of other stakeholders, and others. All of this indicates its commitment to the principles of corporate governance.

Legal InfrasructureThe rule of law is one of the important elements to improve the investment environment in a country that adopts a market system. The rule of law benefits companies in several areas in terms of providing facilities to companies, providing protection, facilitating litigation procedures, collection of rights and cases of company liquidation, transactional trust, and ensures financial stability (Roxas et al, 2012).

Gomez, (2016) examined the impact of the legal environment and the rule of law on the performance of companies through the application of this study to 22 European countries, and the study found a significant impact of the availability of a safe legal environment and the rule of law on the performance of companies, as the availability of a safe legal environment encourages companies to grow continuously.

The main elements of the rule of law as they relate to business performance include: Independence of the judiciary, combating bribery, fair tax system, political stability, and quality of government services. Together, these elements make a legal environment to Encouraging investment, and helping to develop and grow companies (Roxas et al, 2012).

2.1.1.3 Importance of Corporate Governance

The commitment to implement the minimum mechanisms of corporate governance comes from the conviction of the Board of Directors that their implementation will beneficial to the company and that it is worth the effort expended for it. In order to benefit from improved corporate governance, including access to capital, it is crucial to

improve employee motivation, risk management, and managing growth (Centre for International Private Enterprise (CIPE), 2011).

The importance of corporate governance is demonstrated by overcoming the problems arising from the agency theory, which assumes the existence of a conflict of interest between shareholders and the executive management, as shareholders seek to maximize profits at the same time, the executive management seeks to achieve its own interests. Based on the agency theory, managers are employed by shareholders to do their part in managing and maximizing their investments, and since the management can access full information about the company's activity more than the shareholders, they can take this advantage to maximize their own wealth, and corporate governance comes as a mechanism to limit these behaviors by monitoring the performance of managers and their implementation of the company's goals that serve the public interest. (Chaghadari and Chaleshtori, 2011).

Compliance with the principles of corporate governance ensures that each part performs his role and ensures that he obtains all of his rights, which in turn leads to protect the rights of all parts and the prevention of abuses and cases of corruption, and thus protecting the company from failure, as the existence of strong corporate governance frameworks prevents all parts from doing unethical behavior (Choughri, 2018).

Mahzan and Yan (2013) found that the Board of Directors is responsible for leading the company through setting general policies, monitoring the executive management, determining the level of risks facing the company, and the mechanism for dealing with these risks. Internal controls and the company's commitment to corporate governance principles are important for risk management and the board should be committed to articulating, implementing, and reviewing it.

The researcher believes that the importance of companies' commitment to governance principles, lies in the fact that it leads to improvement of company performance, preserving shareholder rights, attracting new local or external shareholders, and preserving consumers' rights. The outcome includes improving the investment climate, increasing total investment, increasing state revenues, and achieving economic growth.

2.1.1.4 OECD Principles of Corporate Governance

The G20/OECD Principles of Corporate Governance assist competent authorities estimate and refinement corporate governance frameworks, for supporting economic efficiency, sustainable growth and financial stability.

It should work to improve the investment climate, encourage investment, help the financial markets do their duty in terms of encouraging companies to abide by the principles of governance, preserve the rights of the various parties related to the company, encourage companies to disclose, and the board of directors performs its role towards the company and holds the executive management accountable (OECD, 2015).

2.1.1.5 Corporate governance Theories

Agency Theory

This theory relies on the distinction between each of the owners (shareholders) in the company, who are called "The main parties" (the principals) and the other group of parties is the executive directors of the company's management (the agents). According to this theory, the principal parties appoint the agents (Managers) and authorize them to run the company on behalf of the stockholders. The stockholders expect the agents to act and take decisions in their favour, as they are responsible for their duties and responsibilities. On the contrary, hence, it is not necessary for the agent to make decisions in favour of the principal parties. Agents are likely to succumb to their own interests by violating the expectations of the clients and having an opportunistic behaviour (Vargas-Hernandez, & Cruz, 2018).

This theory presumes that financial incentives can help in maximizing profit margin by executives. In this theory, the Board of Directors is interested in carrying out his strict supervisory duties to protect the interests of principals. This means that the members of the board of directors have to be active and involved in the decision-making process in order to be held accountable by the shareholders, and the main feature of the agency theory is the separation between ownership and control of the company (Vargas-Hernandez, & Cruz, 2018).

The concept of corporate governance is linked to the joint management based on transparency and accountability, to reach the specific goals of the company. The

effective impact of corporate governance is through a balance between three main and important parties within the company, the owners, board of directors and the executive management. Achieving a balance between these parties leads to the progress and growth of the company and prosperity and thus affects the economic activity as a whole (Ujunwa, 2012).

Stewardship Theory

This theory assumes that the executive management of the company managing the company on behalf of the shareholders. Therefore, the two parties (the shareholders and the executive management) participate in maximizing and developing the company's profits. The role of executives here comes through achieving and maintaining profits for shareholders, and in this theory, unlike the agency theory, the function of the board of directors is to provide support to the executive management, not to monitor it to carry out their duties to the fullest and achieve the company to perform better (Abdullah & Valentine, 2009).

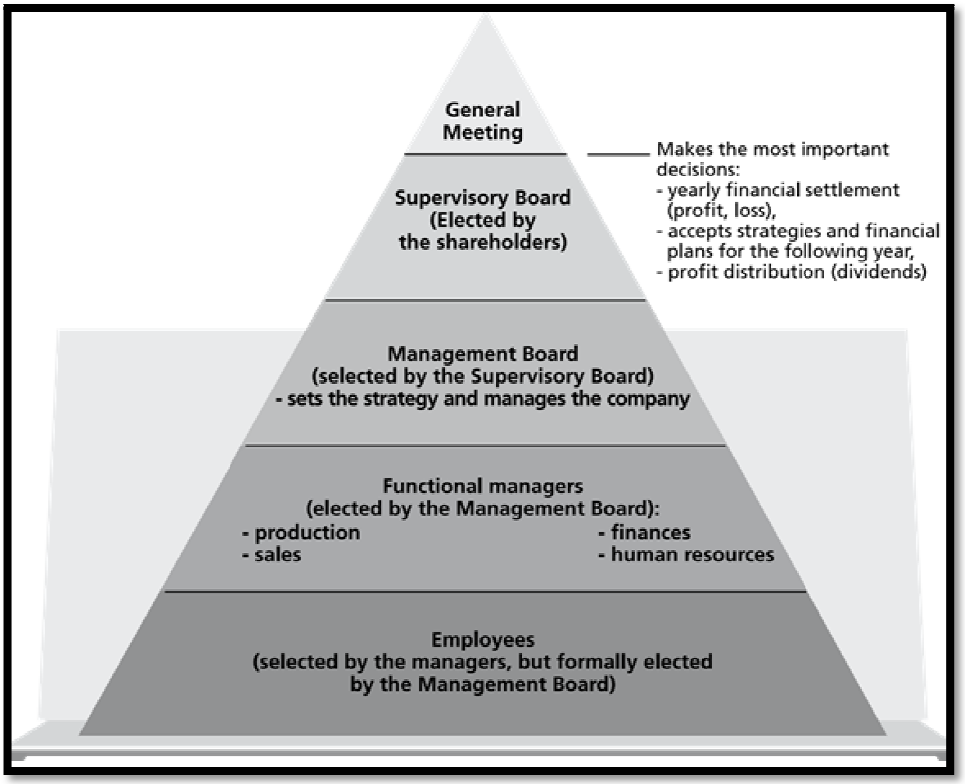
This theory states that expanding the scope of the duties and powers of the supervisory board is important to maintain its efficiency and effectiveness, especially concerning the prevention (diagnosing) and overcoming of crisis situations. It can point to the functions of the Supervisory Board that are summarized in supervisory functions, participation in decision-making and the exchange of information, and the significant expansion of the functions of this Board aims to benefit from the maximum skills, experience and qualifications of the Board of Directors (Glinkowska & Kaczmarek, 2015).

There are many definitions of corporate governance, but the basic concept of it is based on a set of rules for the management and supervision of companies. Statutory (formal) authorities in public shareholding companies consist of three bodies: a general assembly of shareholders, board of directors (supervisory board), and executive management (management board), as further illustrated in figure (2). It can be assumed that the general assembly of the company is the legislative owner, the board of directors (supervisory board) the controlling owner, and the executive management (management board) the executive body (Glinkowska & Kaczmarek, 2015).

In general, the main task of the supervisory board is its continuous supervision of all the company's activities in all areas, as this board does not have any authority over the way the executive management works, The most important duties of this board are to verify the financial statements and their conformity with the books of accounts and realistic conditions, follow up and evaluate the distribution of profits and losses by the management, and prepare a written report on the result of this evaluation and present it at the annual general assembly meeting It is also the task of appointing or dismissing members of the board of directors and determining the necessary number of members, their responsibilities and the scope of their duties. Hence, the supervisory board has two main functions, the founding function as well as the supervisory function (Glinkowska & Kaczmarek, 2015).

Figure 2

Authorities in Joint- stock companies.



Source: (Glinkowsk & Kaczmarek, 2015).

Resource –Dependence Theory

This theory concentrates on the role of the Board of Directors in Facilitate obtaining financing for the company through their various relationships, also, the appointment of

representatives of independent companies as a means for gaining access to resources critical to the firm's success. Directors can be classified into four categories (Abdullah & Valentine, 2009):

- Insiders (current and former executives), provide expertise in specific areas such as finance and law.
- Business experts (current and former senior executives and directors of other large for-profit firms), provide expertise on business strategy, decision-making, and problem-solving.
- Support specialists (lawyers, bankers), provide support in their individual specialized fields.
- Community influential are the political leaders, university faculty, members of the clergy, leaders of social or community organizations.

The view of this theory in corporate governance stems from considering the elements of corporate governance as vital sources for the company, as the company's boards of directors are considered through their experiences, qualifications and relationship with other companies, the positive evaluation of the company, and the company's reputation as a major source of various resources, based on human and social capital, The board of directors has an impact on the performance of the company, and this confirms making this theory a basic theory in corporate governance (Udayasankar, 2008).

Stakeholder theory

This theory assumes that the executive management has sufficient experience and extensive relationships, and that it works to serve stakeholders, including employees, creditors and suppliers (Abdullah & Valentine, 2009).

This theory attempts to address the group of stakeholders deserving and requiring management's attention. All parties related to the company aim to achieve their interests, so the company is a system that aims to achieve the interests of all parties. The existence of these relationships between many groups within the company would affect the decision-making processes, accordingly the stakeholder theory focuses on the nature of these relationships in terms of operations and results for the company, and this theory

also focuses on the management decision-making mechanism, so that all stakeholders ensure their rights without the domination of one group over another (Abdullah & Valentine, 2009).

This theory assumes that the company's executive management has optimal moral values and a great ability to achieve maximum profit, and thus is able to understand, absorb and anticipate the needs of the various parties associated with the company, where dealing with stakeholders is a responsibility to meet their legitimate claims (Silvia et al, 2014).

Thus, the stakeholder theory is also related to corporate social responsibility, which is one of the important mechanisms of corporate governance, as this theory considers the company as a public association formed through political and legal processes to achieve collective goals, and therefore the success of the company is not limited only to achieving profits, but rather its commitment to social responsibility towards society (Silvia et al, 2014).

2.1.1.6 Corporate Governance in Palestine

Several factors including, but not limited to, the Israeli occupation practices that hinder the work of companies, the Israeli companies' competition, globalization, and advances in communication technologies have made companies operating in Palestine under special conditions, great challenges, are faced increasing competition locally and internationally. The Palestinian Authority has tried to regulate the work of companies by issuing many legislations such as: Law No. (2) of 1997 on the Palestinian Monetary Authority, Presidential Decree No. (9) of 2010 on Banking Law, Law on the Encouragement of Investment in Palestine No (1) of 1998, Capital Market Authority Law No. (13) of 2004, Securities Law No. (12) of 2004, Auditing Profession Law No. 9 of 2004, Palestinian Insurance Law No. (20) of 2005, and Anti-Money Laundering and terrorism financing Decree Law No. (20) of 2015.

Some of these legislations include texts that promote corporate governance principles that are applicable worldwide. However, due to increasing interest in corporate governance issues in Palestine and all over the world, the private sector has participated in many activities related to spreading the culture of governance, integrity, transparency

and accountability through its various frameworks and in partnership with civil society institutions, local government bodies and relevant ministries, which can be summarized as follows:

Instructions No. (4) of the year 2007 concerning the professional code of conduct for insurance companies No. (7 / T) of the year 2007.

Manual Rules and Best Practices for Banking Governance in Palestine in 2008, and it was amended in 2017, prepared by The Palestine Monetary Authority.

Code of Conduct for Private Sector Workers.

A Guide to Family Business Governance in Palestine, prepared by the Palestinian Governance Institute.

The Palestine Capital Market Authority in cooperation with the Palestine Exchange, the Palestinian Monetary Authority and the IFC drafted the Code of Corporate Governance in 2009.

To accomplish this task, a National Committee for Corporate Governance in Palestine was formed. The committee consists of representatives of regulators, economic, legal, and academic parties. The committee decided to form a technical team to draft the Code of Corporate Governance in Palestine. The goal of the team was to draft the rules of Corporate Governance in Palestine taking into consideration the conditions and legislations existing in Palestine as well as the best practices of regional and international corporate governance.

The provisions of corporate governance in Palestine aim particularly at improving the quality of board practices and corporate performance, improving the ability to compete, increasing the value of the company, and enhancing the confidence of other stakeholders in the company. Corporate governance also helps in improving the investment climate, improving the performance of the securities market, raising the competitiveness of the economy, and strengthening the country's ability to cope with threats.

The provisions of corporate governance apply to the public shareholding companies that are under the supervision of the Palestine Capital Market Authority. More specifically, these rules apply to these companies (whether listed or not), the Palestine Exchange, the mortgage companies, the financial lease companies, and the securities firms.

The code of corporate governance consists of three types of rules: mandatory rules, voluntary rules, and rules that are in accordance with international best practices in the arena of corporate governance but are inconsistent with some legislation in Palestine.

Finally, it is worth saying that the code of corporate governance in Palestine consists of six main aspects: general assembly meetings, equitable rights of shareholders, corporate management, auditing, disclosure, transparency, and interests of other stakeholders (Corporate Governance National Committee, 2009).

2.1.2 Corporate Failure

2.1.2.1 Definition of Corporate Failure

The term failure has multiple meanings; hence, there is no agreement between researchers as to what is meant by the term "corporate failure". There are, many definitions of corporate failure, including:

Corporate failure is businesses in insolvency. A company is considered insolvent when it is unable to pay its debts. Accordingly, the insolvency of the company in practice tends towards the legal definition of insolvency proceedings, namely: compulsory or voluntary liquidation, administration, administrative receivership, and/or dissolution. (Appiah, 2019).

Failure is the failure of the company to abide by the principles of governance, mainly the failure of the board of directors to carry out its duties. One of the most important tasks of the Board of Directors is to maintain the company's continuity (Farhat, 2014).

The company is considered a failure in one of two cases: sustained losses for three years or more, and a persistent negative cash flow situation for three years (Lakshana and Wijekoon, 2012).

Failure is the inability of financial resources available for the firm to maintain the requirements for the continuity of the firm activity (Martin et al, 2011).

The economic conception of insolvency: Insolvency can be defined as a set of financial failures such as the inability to pay the debt, the inability of the company to pay dividends to its shareholders, financial distress, etc., which can reach the beginning of a judicial proceeding (Ross, et al 1998).

From a legal point of view: Legally, failure is defined based on judicial bases and standards in the country in which the company is located in a certain period, and in general legal standards consider the company bankrupt when the judge issues a decision that it is unable to pay its obligations when they are due (Levratto, 2013).

2.1.2.2 Causes of Corporate Failure

Bradley and Rubach, (2002) indicate that the problem of financial failure of firms is a dangerous phenomenon and a burden on the national economy. Therefore, many researchers have studied this phenomenon, and have built many models that include a number of financial indicators that anticipate the occurrence of failure by observing these indicators carefully over time. Causes that lead to the failure of companies can be divided into internal and external causes:

1. Internal reasons include weak executive management, ineffective operational policies, unnecessary expenses, failure to follow up on the collection of company debts, accumulated losses, and others.
2. External causes include: intense competition and economic volatility, production costs have risen above what was expected during project implementation, such as higher material prices, failure of shareholders to pay their shares in the capital or lack of liquidity, intense competition and entry of higher quality and lower price goods. The development in technology, production methods or new products affects the demand for the company's products, and the political situation and its implications for the plans and on the conditions for importing or exporting in the state.

2.1.3 Business Failure Prediction

2.1.3.1 Definition of Business Failure Prediction

The field of business failure prediction has many terms, such as business failure prediction, financial distress prediction, and bankruptcy prediction. As the name suggests, business failure prediction includes attempts to build and develop models that predict corporate failure before it occurs (Gepp et al, 2010).

Forecasting the company's exposure to financial distress plays a key role in the continuity and growth of companies in their competitive environment, as forecasting financial distress is the main point for their recovery and thus protecting it from bankruptcy. (Khurshid et al 2018). Accordingly, in recent years, interest has increased in developing models to predict corporate failures, especially with the increase in corporate failures at the global level (Wijekoon and Abdul Azeez, 2015).

With the development of corporate failure prediction models, financial institutions, commercial and investment banks will be better able to assess the risks of credit granting and customer default. Moreover, investors will be more able to manage their investments by selling the shares they own in companies that may be exposed to failure and investing in companies Other (Gepp et al, 2010).

2.1.3.2 Quantitative models used in predicting financial failure

Many studies have dealt with the development of models to predict the failure of companies, especially in the recent period, and these studies all aim to reach highly efficient models to predict the failure of companies before it occurs.

The most prominent of these models of corporate failure prediction are Beaver's (1966) univariate model and the Altman's (1968) Z-score model using multiple discriminant analysis (MDA) (Wijekoon and Abdul Azeez, 2015).

Beaver, (1966) Model

This model is considered the most important for predicting the failure of firms. It is the oldest model that used financial indicators in 79 failed firms, compared to 79 other non-failing establishments in the period (1954-1964). It was concluded that the more the

ratio is calculated from a year closer to the year of failure, the more accurate the forecast, and it uses the following financial indicators for financial failure.

1. Cash flow / total liabilities
2. Net profit before interest and taxes / total assets
3. Debt / total assets
4. Networking capital / total assets
5. Trading
6. Turnover rate

Altman, (1968) Model

He used the method of multiple linear differential analysis, multivariate analysis, to find the best financial ratios capable of predicting financial failure. He used a study sample consisting of 66 industrial companies listed in the financial market, half of them have failed and the other half were non-failing. The sample is characterized by similarity in terms of industry and assets. The Altman model restricted five financial ratios, including:

The final discriminant function is as follows:
$Z = 0.012X1 + 0.014X2 + 0.033X3 + 0.006X4 + 0.999X5$ where:
X1 = working capital / total assets,
X2 = retained earnings / total assets,
X3 = earnings before interest and taxes / total assets,
X4 = market value equity / book value of total liabilities,
X5 = sales / total assets, and
Z = overall index.

The coefficients (1.0, 0.6, 3.3, 1.4, 1.2) represent the weights of the function variables and express the relative importance of each variable. Altman has classified companies into three sections as follows:

Red Zone (Firm will go bankrupt) if the model result is less than ($Z < 1.8$)

Blurry Area (The model cannot accurately judge whether or not the company will go bankrupt If the score ranges from ($1.9 < Z < 2.9$)

Green Zone (the company will not go bankrupt (if the score is greater than 3 (Z> 3)

2.1.4 Relation between Corporate Governance and Corporate Failure

The primary purposes of corporate governance are (Burak et al, 2017):

1. To ensure that the company's financial statements and all its data relating to its actual financial position are submitted in a timely manner.
2. The most important concern of management is to take care of the interests of shareholders.

On the other hand, In response to companies facing an increasingly complex business environment, especially recently, and the increase in competition between companies and the increasing pressures on companies from key stakeholders, the importance of establishing a strong corporate governance framework that ensures effective participation by board members and effective internal control has increased to help companies To better assess the risks you are exposed to and improve its response to rapid changes in the business environment (Centre for International Private Enterprise (CIPE), 2011).

Many studies have focused on the relationship between corporate governance and corporate performance. On the other hand, a few studies searched the relation between corporate governance and corporate failure. Even though interest in corporate governance has grown rapidly in recent years with the global increase in the number of corporate failures such as Enron, WorldCom, and Lehman Brothers, the effect of corporate governance on corporate failure has been largely neglected. A study of the above-failed companies found that there was a lack of consistent policies, control procedures, guidelines, and mechanisms to ensure accountability and fiduciary duty. Weak corporate governance can increase the probability of corporate failure even for firms with good financial performances (Lakshana and Wijekoon, 2012). And provide an indication that accounting data can be influenced to disguise deteriorating financial performance. Moreover, Platt and Platt (2012) concur, emphasizing that corporate governance failures of firms may provide one possible explanation of corporate failure.

As explained previously, the emergence of governance was a result of problems that arose due to agency theory; therefore, Appiah (2019) believed that: First, considered the

independence of outside directors, from the company's management, it may enhance the company's survival by accountability to the CEO. However, secondly, practical experience does not show that there is the independence of external managers from the management of the company. Hence, thirdly, these members may not be effective. Therefore, fourthly, when the incentives align with the interests of the shareholders, so will effective the boards of directors, and corporate failures will be avoided. Finally, if external managers fail to monitor the CEO, external mechanisms such as bankruptcy will emerge to control the CEO. Thus, Appiah found that bankruptcy may be the legal solution to strong disagreements between shareholders and senior management.

2.1.5 Conclusions Related to Theoretical Framework

The researcher believes that most of the problems that companies face, which may lead to bankruptcy, are primarily the result of failure to adhere to governance principles. Therefore, the concept of governance has evolved to the point that there are governance principles to ensure the development of a company's performance and continuity. On the other hand, the researcher found that the company’s failure is an old matter because companies are part of the societies facing various challenges that may lead to companies falling into financial hardship or financial failure and possibly bankruptcy.

Once again, the importance of companies adhering to governance principles; as this helps them avoid failure or bankruptcy. Therefore, the various parties must perform their duties towards the company, whether the shareholders, the Board of Directors, or the creditors. Perhaps the most important element is the company's Board of Directors, as it bears legal responsibility, as well as a moral responsibility towards the company.

2.2 Literature Review and Hypotheses Development

There are many previous studies that have addressed the effect of corporate governance on corporate failure in many countries. In this chapter, the literature is aligned with the study questions, to derive the hypotheses based on the previous studies.

Eight hypotheses are developed, based on the theoretical foundation discussed below.

2.2.1 Effect of corporate Governance

The objective of some studies (Wijekoon and Abdul Azeez, 2015; Randika et al., 2019; Lakshan and Wijekoon 2012; Abou El Sood, 2008; AL-Momani and Abou-Moghli, 2012) is to develop an integrated model to predict corporate failure of listed companies. The empirical studies emphasized improving failure prediction accuracy by incorporating both financial ratios and corporate governance variables.

While other studies explore some mechanisms of corporate governance in listed companies and their impact on the likelihood of financial distress, such studies did not reach the same results:

Manzaneque et al., 2016; Ahmad and Adhariani, 2017, found that corporate governance mechanisms as board ownership, the proportion of independent directors, and Board Size reduce the financial distress likelihood.

Khurshid et al., (2018) concluded that reduction of financial distress plays a very vibrant role in the survival and long-term growth of firms in the competitive global environment. Recovery from financial distress can protect the firm from bankruptcy.

Miglani et al, 2015; Luqman et al, 2018, found that the voluntary adoption of certain corporate governance mechanisms is beneficial for firms, as reflected in a reduced likelihood of financial distress.

Shah, (2016) conclusions indicate an insignificant association between corporate governance practices and the probability of financial distress. However, in the cross-sectional analysis, some corporate governance factor has a significant impact on financial distress during different periods of observation. He emphasized that empirical studies show the contradicted results in various geographical areas, some of the studies show positive and others show some negative relationship between corporate governance and financial distress.

A study by (Noor and Iskandar, 2012) aimed to estimate the probability of corporate survival to a specified time from 2005 to 2011 for 56 financially distressed firms. The results show that only two variables (administrative ownership and company size) can be expected to survive at a specific time. The study found that de-listed firms had lower

management ownership and larger volumes than remaining firms such as PN17[2] firms. However, the study is unable to obtain the relationship between other institutional and financial variables with the likelihood of financially distressed firms surviving. Although this result conflicts with expectations, the explanation for this is that companies could have achieved unsustainable growth rates in their total assets. A large company may have inflexible management and therefore have problems in controlling managers and employees; The company may have ineffective communication and thus face financial difficulties.

While, Johnson, (2012) found that corporate governance was negatively correlated with the risk of insolvency. The strange fact is that paradigms of corporate governance differ on the basis of national boundaries rather than on the basis of the indigenous characteristics of the firms being governed.

A study by Bruce, (2009) aimed to verify the effects that corporate governance has on firm valuation, productive efficiency, profitability and growth. This study analysis firms that use similar inputs and outputs to verify the relationship that corporate governance has on firm performance. Bruce collected data from seventeen OECD countries, sixteen of which are in the European Union and the other being the USA is utilised. These countries have similar or different legal origins and different levels of investor protection. The results show that concentrating ownership leads to decreased market valuation but increased technical efficiency and mixed effects on profitability. Board Size has a negative effect on most of the performance proxies but it exhibits a concave relationship with valuation. Separating the duties of the CEO and board chairman is of no import to firm performance. Board outsiders exert a positive impact on market valuation, a negative impact on technical efficiency and insignificant influence on the other performance measures. The number of governance codes introduced by a country has adjustment implications for firms, a negative influence on firm performance is observed.

Burak et al, (2017) found that governance principles significantly and positively affect business performance. While Martin, and Herrero, (2018) analysed the structure of

[2] **PN17**: stands for Practice Note 17/2005 and is issued by Bursa Malaysia; relating to companies that are in financial distress. Companies that fall within the *definition of PN17* will need to submit their proposal to the Approving Authority to restructure and revive the company in order to maintain the listing status.

boards of directors and its impact on business performance (the profitability and value of the company), yet it failed to obtain definitive conclusions.

2.2.1.1 Board Size

Researchers and academics do not agree on the suitable number of board members. Some of them argue for large boards while others argue for small ones (Fich and Slezak, 2008). More specifically, when the board is few, members became more active, and involved in the decision-taking process, thus ensuring efficient monitoring of management and better communication (Ciampi, 2015), therefore, decreasing corporate failure prediction (Fich and Slezak, 2008).

Manzaneque et al, 2016; Johnson 2012; Khurshid et al, 2018; Bruce, 2009; Ahmad and Adhariani, 2017; LI, 2014; Appiah, 2019 found a negative relationship between Board Size and the likelihood of financial distress. The evidence shows that more size could contribute to a greater diversity of opinion or, alternatively, improved access to information and the increased ability to control the management. Appiah, (2019) found that it easy for the CEO to take control of the small board of directors to his advantage. And thus increases the possibility of failure of the company.

Lakshan and Wijekoon, 2012; Randika et al, 2019; Mokarami and Motefares, 2013 found that a Board's Size is not significant for the failure prediction in listed companies. Hence, It cannot be said that the size of the board of directors affects the probability of failure of the company, meaning that a larger number of board members can reduce the probability of failure of the company, while a smaller number of members can increase the probability of failure of the company.

Furthermore, LI, (2010) found that the size of the Board of Directors decreases the Board Meeting Frequency significantly. An increase in board size leads to less effective board activities and poorer market performance.

Farhat, (2014) found a positive association between Board Size and firm performance.

While Martin and Herrero, (2018) concluded there is an inverted U-shaped relationship between Board Size and firm performance. If we focus on the impact of the size of the board on the performance of the firm, we can state that is not related to Tobin’s Q.

However, we do find a significant relationship if we use R.O.A. as an indicator of business performance and, in addition, its behaviour is not linear. In other words, if we accept that directors provide knowledge and advice to the company, the incorporation of new members to the board will have a positive effect on its economic profitability.

According to the Code of Corporate Governance in Palestine, Article 20 stipulates that "the Determine the number of the board of directors from 5 to 11 members. It is preferable that the board represents the company's shareholders, the capital distribution ratio, and the small shareholders who hold up to 10% of the company's shares may elect their representative in the Board of Directors provided they nominate a number of candidates to this position. Moreover, the board's term in office should not exceed 4 years and it should come to an end when a new board is elected" (Code of corporate governance in Palestine, 2009).

Accordingly, the following hypothesis is developed:

H_1: Board Size has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.

2.2.1.2 Board Meeting Frequency

Board meeting frequency is a proxy of board activity. Bredart, 2014; Khurshid et al, 2018; AL-Momani and Abou-Moghli, 2012; LI, 2010 found a positive, statistically significant effect between frequency of board meetings and revealing of financial failure, which means that an increase in the frequency of board meetings effects a positive change in probability of financial distress.

While Noor and Iskandar, (2012) found that the active (total number of board meetings for the year) is insignificant.

Appiah, (2019) Contrary to expectations, found that the number of board meetings has a positive and significant association with corporate failure (this refutes the proposition by the agency theory); more board meetings increase the cost (e.g. directors' meeting fees, managerial time), thereby reducing shareholder's value, and in this way, increasing the probability of a firm's failure. In addition, the frequency of Board meetings does not correctly measure the board's monitoring. Put differently, board meetings are used

mainly for “legal compliance activities” and “information dissemination” rather than control of the CEO. This means that fruitful deliberations are not possible at board meetings, due in part to boards’ passivity and unproductive routine task, which absorbs most of the limited meeting time.

In Palestine, Article (41) of (CCGP) states "that it is preferable for the board of directors to meet several times to meet the volume of work in the company. The Companies Law (12) of 1964 stipulated that the Board of Directors meet at least 4 times annually. Moreover, it is preferable that the board of directors evaluate itself at least once a year. It is important to know the member's contribution to discussions and to making decisions" (code of corporate governance in Palestine, 2009). Accordingly, the following hypothesis is developed:

H_2: Board Meeting Frequency has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.

2.2.1.3 CEO Duality

Agency theory requires the CEO not to be a board member. CEO duality tends to decrease the independence of the board, adversely affecting the decision-making process and therefore increasing corporate failure prediction. In contrast, when the CEO is outside board, the accountability of management is enhanced, reducing corporate failure prediction (Wijekoon and Abdul Azeez, 2015).

Johnson, 2012; Randika et al, 2019; Khurshid et al, 2018; Lakshan and Wijekoon, 2012; Mokarami, and Motefares, 2013; Moghaddam and Filsaraei, 2016; Farhat, 2014, found that CEO duality was positively related to insolvency risk. This means that when the CEO doubles as acts Chairman of the board, then the insolvency risk rises. Randika et al, (2019), concluded that CEO duality practices are found more in the failed companies than in non-failed companies. When the CEO and Chairman positions are held by the same person, the potential for frauds to occur is higher. On the other hand, centralization of the power in CEO duality leads to overcoming the board's decision, work driven by personal interest, easier committing of fraud, and easier to cover the perpetrators of fraud.

Wijekoon and Abdul Azeez, 2015; Manzaneque et al, 2016; Noor and Iskandar, 2012; Bruce, 2009; Luqman et al, 2018; Miglani et al, 2015; Li, 2014, found that CEO duality is not a significant predictor of corporate failure.

Abou El Sood, 2008; Shah, 2016, found it to be negatively associated with failure. The negative association could be explained as follows: the CEO who is also sitting as a Chairman for the Board of Directors might be a deterrent to the high probability of failure.

In Palestine, Article (28) of the (CCGP) stipulates "that it is preferable for the board's director or any board member not to practice executive functions in the company. This is also better for accountability reasons since the board's director cannot question himself" (code of corporate governance in Palestine, 2009).

Accordingly, the following hypothesis is developed:

H3: CEO duality has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.

2.2.1.4 Board Independency

Outside directors are more likely to make decisions that are in the best interests of shareholders, especially minority shareholders, thus minimizing the agency problem and ultimately reducing corporate failure prediction (Haji, 2014; Miglani et al, 2015). In addition, outside directors are abler to supervise and control the actions of management, finally, outside directors tend to focus more on internal control procedures (Haji, 2014).

Randika et al, 2019; Wijekoon and Abdul Azeez, 2015; Lakshan and Wijekoon, 2012; Ahmad and Adhariani, 2017; Appiah, 2019, found that the outside director ratio is significantly negative. Non-failed companies have employed more outside directors on the board than the failed companies. Increasing the number of outside directors on the board increases their domination over that board, leading to the reduction in the occurrence of self-interest decisions as well as the probability of occurring frauds. Appiah (2019), concluded that outside directors may decrease the probability of a firm’s failure by encouraging managers to pursue shareholder value-enhancing strategies. This implies that outside-dominated boards are less likely to collide with the CEO to

expropriate shareholders' funds, thereby reducing the probability of a firm's failure. Therefore, findings suggest that an additional outside director on the board increases shareholder value.

Khurshid et al, 2018; Burak et al, 2017; Martin and Herrero, 2018; LI, 2010; Bruce, 2009, found a positive influence of the board's independence on the likelihood of financial distress. board's independence leads to an increase in the probability of firms being in financial distress.

Bruce, 2009; Shah, 2016; Miglani et al, 2015; Moghaddam and Filsaraei, 2016; Luqman et al, 2018; Li, 2014, found insignificant influences of board outsiders on financial distress.

In Palestine, Article (25) of the (CCGP) stipulates "that it is preferable to have two independent members among the board members. The independent member should have at least the following minimum requirements: Have a four-year university degree and has good experience in the company's sphere of work, have not worked for the last three years in the company, has no salary from the company except the money he receives for his membership and has no family relation to the second degree with any member or any senior manager in the company" (code of corporate governance in Palestine, 2009).

Must not be a board member of any other company that deals with the current one except in terms of services that take place through the regular normal type of work according to the company's customers provided that no preferential conditions prevail.

Accordingly, the following hypothesis is developed:

H_4: Board of Directors' Independency has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.

2.2.1.5 Institutional Ownership

Institutional investor: An entity with large amounts to invest, such as investment companies, mutual funds, brokerages, insurance companies, pension funds, investment banks, and endowment funds (Harasheh, 2008). Institutional investors provide money for expansion and use their relations to help the companies in which they invest. In

addition, institutional investors use their management skills, proficient knowledge, and voting rights to make managers improve efficiency and corporate governance practices, thus reducing corporate failure prediction (Lin and Fu, 2017).

Manzaneque et al, 2016; Randika et al, 2019; Ahmad and Adhariani, 2017, found that institutional or non-institutional large shareholders have no significant impact on the likelihood of financial distress. This raises important issues regarding what factors condition the exercise of power by institutional investors and what kind of interests they may have in the company. Meanwhile, Khurshid et al, 2018; Noor and Iskandar, 2012; Luqman et al, 2018; Miglani et al, 2015, emphasized that an increase in managerial ownership has a negative impact on the probability of financial distress.

Shah, 2016; Luqman et al, 2018; Moghaddam and Filsaraei, 2016; Li 2014 found a negative significant relationship between institutional shareholders' ownership and company's financial distress. In other words, the institutional shareholders' ownership can lead to a reduction in financial distress, and increase management efficiency. Li, (2014) found the institutional investors to have expertise and skills in detecting companies' worthiness of investment.

In Palestine, Article (19) of the (CCGP) stipulated that "the Board of Directors will guarantee for each shareholder, including small shareholders and shareholders who live outside Palestine, all rights conferred upon them by law, regulations, and the applicable instructions, including the right of nomination to the Board of Directors' membership. The Companies' Law however, does not permit the election of members for the Board of Directors who do not have that quorum of shares that qualifies them for candidacy in accordance with the company rules dictated by law" (code of corporate governance in Palestine, 2009).

Accordingly, the following hypothesis is developed:

H_5: Institutional ownership has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.

2.2.1.6 Quality of External Audit

Audit quality is generally defined as consisting of two important attributes: competence (expertise) and independence (objectivity) (Knechel, 2016). Audit quality is one of the key measures of corporate governance (Khurshid et al, 2018).

Noor and Iskandar, (2012) found that audit quality (BIG4) (High-quality audit services) is insignificant.

While Khurshid et al, (2018) demonstrate that an increase in audit quality can decrease the probability of financial distress. In addition, AL-Momani and Abou-Moghli, (2012) concluded a statistically significant effect of disclosure on revealing financial failure.

Luqman et al, (2018) found that audit opinion has a significant positive relationship with the probability of financial distress; if firms have unsatisfactory audit opinion, then it will lead towards a high probability of financial distress.

In Palestine, Article (57) of the (CCGP) stipulated "that shareholders, in their annual meeting, are required to appoint an external auditor, in accordance with the recommendation given by the Board of Directors and the Audit Committee Existence and to approve their fees based on the following criteria:

- Should be licensed by the authorities and should possess the adequate professional credentials to complete its tasks.
- Independent from the company, board members, and the management.
- The external auditor or any of its employees should not be engaged in performing the audit for the same firm for 5 consecutive years.
- The engagement of the external auditors should not be terminated during the calendar year, except in the case of the death of the auditor, or the decision of the governing board for the audit firms, or in the case that the courts and the audit board issued penalties against the external auditor" (code of corporate governance in Palestine, 2009).

Accordingly, the following hypothesis is developed:

H_6: Quality of External Audit has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.

2.2.1.7 Remuneration of Directors

Paying generous remuneration to directors motivates them to manage the company in the best interest of the shareholders, resulting in improved performance, which reduces corporate failure prediction. Empirical evidence indicates that failed companies pay less remuneration to directors in comparison with other companies (Alabdullah, 2018).

Wijekoon and Abdul Azeez, (2015) found that remuneration of board members to profit and loss is not a significant predictor of corporate failure when it is combined with financial ratios. It is evident that most of the failed companies did not pay remuneration to their directors due to insufficient earnings. Furthermore, some of the non-failed companies also did not pay remuneration due to the same reason. Therefore, it was not possible to find a direct relationship between directors' remuneration and the probability of corporate failure or survival.

Meanwhile, Randika et al, (2019) found director remuneration to be negatively significant in one year before failure. It is evident that an increase in the director remuneration leads to a decrease in the firm failure in one year before failure. Higher director remuneration increases the motivation of the directors and reduces the occurrence of frauds as well as failure. On the other hand, a decrease in the director remuneration leads to an increase in the firm failure in one year before failure as a result of demotivated directors. The important point of the analysis though is that directors' remuneration is not significant in failure prediction within two and three-years periods prior to failure (Randika et al, 2019).

Lakshan and Wijekoon, (2012) reveal that failed firms pay their directors less compared to non-failed firms, as evident by the negative and significant association between director's remuneration and corporate failure status. It can be seen that the sign of this variable is not positive as expected. It was expected that directors' remuneration as a percentage of profit and loss for failed companies are significantly higher than their non-failed companies. However, results revealed that directors' remuneration as a percentage of profit and loss for non-failed companies are significantly higher than those of failed ones.

Li, (2014), found that if the salary cost of an independent director is large, the company has a high risk of financial distress. There may be two reasons for this. First, the salary cost for an independent director places a burden on a company's financial status. Second, more importantly, when an independent director is paid a lot of money, he or she tends not to speak negatively against or disagree with the management. When there is a more unpaid senior staff, it is a possible indicator that the company's future is promising. Unpaid senior staff who may be the founders of the company can then be rewarded by the growth of the company or by share ownership.

In Palestine, the (CCGP) showed much interest in the topic; Article (34) stipulated "that it is preferable for the Board of Directors to form committees, one of which is the Remuneration Committee, with members including at least one of the independent members and the others will be board members who are not on full-time duty at the company. This committee helps the Board of Directors set the remuneration policy of the board based on the performance of the members taking into account the interest of the company and that of the shareholders. This policy should be presented to the public/general assembly for the taking the appropriate decision" (code of corporate governance in Palestine, 2009).

Accordingly, the following hypothesis is developed:

H_7: Remuneration of directors has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.

2.2.1.8 Audit Committee Existence

An Audit Committee Existence is an important governance tool. Empirical evidence confirms that the existence of an audit committee reduces corporate failure prediction by strengthening the internal control system and thus detecting the potential failures companies might face. In addition, the presence of an Audit Committee Existence decreases the probability of companies having financial and accounting problems that may cause corporate failure (Lakshan and Wijekoon, 2012).

Wijekoon and Abdul Azeez, 2015; Burak et al, 2017; Lakshan and Wijekoon, 2012; Ahmad and Adhariani, 2017; Luqman et al, 2018; Miglani et al, 2015; Appiah 2019; found that the company's Audit Committee has a significant predictive ability of

corporate failure. Burak et al, (2017) found that accountability directly and positively affects business performance. Lakshan and Wijekoon (2012), concluded that the absence of an Audit Committee in failed companies emphasizes that there is no such monitoring mechanism to oversee the firm's financial reporting process and credibility of audited financial statements. Additionally, Ahmad and Adhariani, (2017) witnessed that the existence of Audit Committee can assist the Board of Directors in fulfilling statutory and mandatory responsibilities, namely maintaining the quality of financial statements and maintaining the quality of internal control systems in a company.

Randika et al, 2019; Noor and Iskandar, 2012 found the presence of an Audit Committee as not significant for the failure prediction in listed companies.

In Palestine, the (CCGP) showed interest in the topic; Article (34) stipulated "that it is preferable for the Board of Directors to form committees, one of which is the Audit Committee Existence; in order to ensure the transparency of the company's accounts and inform the shareholders and other stakeholders of the degree of the risk that faces the company. Article (55) stipulates that the Audit Committee prepares and sends its reports to the Board of Directors concerning all issues related to its mandate, in order to enable them to exercise their oversight over the executive management and to provide them with clear and verifiable data to be disbursed to shareholders and investors" (code of corporate governance in Palestine, 2009).

Accordingly, the following hypothesis is developed:

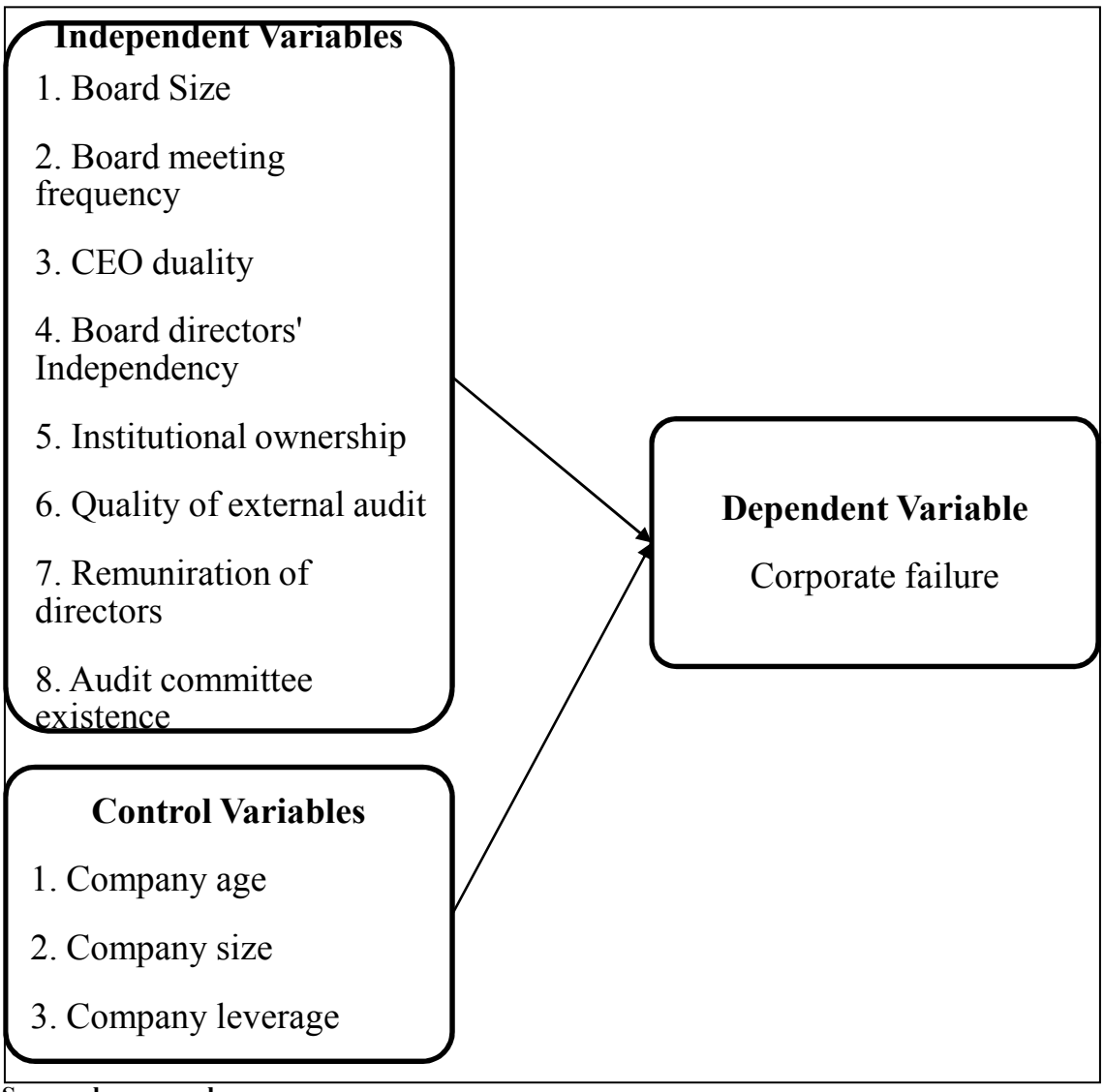
H_8: Existence of Audit Committee has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.

2.3 Conceptual Model

Figure (3) shows the conceptual model of the study where each of the corporate governance variables is hypothesized to predict corporate failure of companies listed in the Palestine Exchange. More specifically, corporate failure is the dependent variable and corporate governance variables are the independent. The model also includes company-specific features as control variables.

Figure 3

Conceptual Model of Study



Source: by researcher

Chapter Three

Research Methodology

3.1 Overview

This chapter is devoted to clarifying the methodology of the study. More specifically, the research design is identified, the sources of data are specified, the population of the study is selected and the sample selection criteria are clarified, the variables and their measurement are illustrated, and finally the data analysis techniques are debated in this chapter.

3.2 Research Design

In social sciences, studies could be qualitative, quantitative, or mixed (Saunders et al, 2015). This study employed the quantitative design where the secondary data was obtained from the annual reports of companies listed in the Palestine Exchange during the period 2010-2019.

3.3 Sources of Data

Data sources could be primary or secondary. The source of data in this study was secondary on the dependent variable (i.e. corporate failure), independent variables (i.e. corporate governance), and control variables (i.e. company-specific features) were obtained from the published annual reports of the companies listed in the Palestine Exchange during the period 2010-2019.

3.4 Population and Sample

The population of a given study is the set including all individuals, objects, events, things, and so on that the researcher is interested in studying. In addition to, the sample of the study is a subset of the whole population (Sekaran and Bougie, 2016).

The main objective of this study is to examine the impact of corporate governance mechanisms on corporate failure prediction of companies listed in the Palestine Exchange. Thus, the population of the study consists of all the companies listed in the Palestine Exchange during the period 2010-2019.

It should be noted here that the Palestine Exchange is a very small market, all the currently listed companies are 48 companies, a sample of the whole population will be

purposively selected according to three criteria: (1) the company should be listed in the Palestine Exchange during the period 2010-2019, (2) all annual reports of the company for the ten-year must be published, and (3) all data on the dependent, independent and control variables of the company for the ten-year must be both available and accessible. Based on those criteria, the sample of this study is determined from 35 companies and the remaining 13 companies are excluded. Table (1) shows the distribution of listed companies by economic sector.

Table 1

Companies listed in the Palestine Exchange by economic sector

Sector	Total companies in the sector	companies selected	Companies selected ratio
Banks and financial services	7	6	85.7%
Insurance	7	5	71%
Industry	13	9	69%
Investment	10	7	70%
Services	11	8	73%
Total	48	35	73%

The researcher found that banks are the most among the listed companies in compliance with the Securities Law and the Companies Law. This is because banks must abide by the Basel principles in addition to local laws, and they must also work to increase shareholders' profits on the one hand, and preserve depositors' money on the other.

3.5 Variables and Their Measurement

In this study, three types of variables are used: (1) dependent variable, (2) independent variables, and (3) control variables. Corporate failure represents the dependent variable. This variable is measured using a dummy variable that is equal to 1 if the company is expected to fail and 0 otherwise.

According on prior research (Abou El Sood, 2008; Lakshan and Wijekoon, 2012; Sori and Jalil, 2009; Wijekoon and Azeez, 2015) the company is considered to be failed if it meets one of the following two criteria: (1) the company has reported losses for the last three years, or (2) the company has reported negative operating cash flows for the last three years.

The corporate governance variables are the independent variables. Namely, Board Size, Board Meetings Frequency, CEO duality, Board of Directors'' Independency, institutional ownership, quality of external audit, remuneration of directors, and Audit Committee existence.

Finally, company-specific features such as company age, company size, and company leverage are included in the logistic-regression model as control variables to avoid misspecification of the regression model.

The aforementioned variables and their measurement are explained in Table (2).

Table 2

Variables and their Measurement

Variable	Measurement	Reference
Dependent variable (Corporate failure)		
Corporate failure	1 if the company is failed, 0 otherwise.	(Abou El Sood, 2008)
Independent variables (Corporate governance mechanisms)		
Board Size	The total number of members in the board.	(Randika et al, 2019)
Board Meeting Frequency	The total number of board meetings during the year.	(Brédart, 2014)
CEO duality	1 if CEO is also a board member, 0 otherwise.	(Lakshan and Wijekoon, 2012)
Board of Directors'' independency	Ratio of outside directors to total board members.	(Brédart, 2014)
Institutional ownership	Ratio of institutional shares to total shares outstanding.	(Ahmad and Adhariani, 2017)
Quality of external audit	1 if audit is conducted by any of the big four, 0 otherwise.	(Wijekoon and Azeez, 2015)
Remuneration of directors	Directors' remuneration as a percentage of profit or loss.	(Luqman et al, 2018)
Audit Committee Existence	1 if there is an Audit Committee Existence, 0 otherwise.	Manzaneque et al, 2016)
Control variables (Company-specific features)		
Company age	The total number of years since incorporation.	(Appiah, 2019)
Company size	Natural logarithm of total assets.	(Ahmad and Adhariani, 2017)
Company leverage	Percentage of total liabilities to total assets.	(Wijekoon and Azeez, 2015)2012)

3.6 Data Analysis Techniques

This study used two types of data analysis techniques: (1) descriptive statistics and (2) inferential statistics. Descriptive statistics, such as minimum values, maximum values, standard deviations and means used to describe the dependent, independent and control

variables of the study. In addition, correlations were used to evaluate the strength of linear relationship between the different variables of the study.

On the other hand, the variance inflation factor (VIF) is used to test if the problem of multi-collinearity exists. Moreover, the binary logistic-regression was used to develop a model that predicts corporate failure of companies listed in the Palestine Exchange using corporate governance variables. This type of regression is selected since the dependent variable (i.e. corporate failure) has only two groups (i.e. 1 if the company is failing and 0 otherwise) whereas the independent and control variables are either continuous or dichotomous. The following binary logistic-regression model will be estimated:

$$\text{Logit } P_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BMF_{it} + \beta_3 CEOD_{it} + \beta_4 BDI_{it} + \beta_5 IO_{it} + \beta_6 QEA_{it} + \beta_7 RD_{it} + \beta_8 AC_{it} + \beta_9 Age_{it} + \beta_{10} Size_{it} + \beta_{11} LEV_{it} + u$$

Where

β: Slope coefficients

$_i$: ith company

$_t$: Time period

P: Probability of corporate failure

BS: Board Size

CEOD: CEO duality

BDI: Board of Directors'' independency

IO: Institutional Ownership

QEA: Quality of External Audit

RD: Remuneration of Directors

AC: Audit Committee Existence

Age: Company Age

Size: Company Size

LEV: Company Leverage

u: the error term of the regression model

Chapter Four

Data Analysis and Discussion

4.1 Overview

This chapter displays data analysis and discussion. It begins with descriptive analysis of the study variables (i.e. corporate governance mechanisms variables, corporate failure variables, and control variables). In addition, the Panel Data Diagnostic Tests and LR Test for Pooled OLS / Random Effects Model are estimated. Finally, the eight study hypotheses were tested using the developed logistic-regression model.

4.2 Descriptive Statistics

Table (3) shows the results of the study quantitative variables: the Board size (BS) values ranged (4-15) with mean value (9.1571), the Board of Directors'' independency (BDI) values ranged (0-0.272727) with a mean value of (0.0137), the Board Meeting Frequency (BMF) values ranged (1-12) with a mean value of (6.0457), the Institutional ownership (IO) values ranged (0-94.44) with a mean value of (46.9145), the Remuneration of directors (RD) values ranged (-0.31149-12.80243) with a mean value of (0.0854), the Company age (AGE) values ranged (14-74) with a mean value of (29.2571), the Company size (SIZE) values ranged (551261- 5264944640) with a mean value of (219075753.257), and the Company leverage (LEVERAGE) values ranged (0.00881-1.057188) with a mean value of (0.4209).

The results of Jarque-Bera test in Table (4) show that most of the study variables are not normally distributed since (most of P-values are less than 0.05).

Table 3

Summary results of the study quantitative variables

	Mean	**Median**	**Maximum**	**Minimum**
BS	9.157143	9	15	4
BDI	0.013708	0	0.272727	0
BMF	6.045714	6	12	1
IO	46.91445	44.47	94.44	0
RD	0.085378	0.018089	12.80243	-0.31149
AGE	29.25714	24	74	14
LnSIZE	17.34045	17.32935	22.38434	13.21996
LEVERAGE	0.420861	0.363738	1.057188	0.00881
	Std. Dev.	**Jarque-Bera**	**Probability**	
BS	2.169307	3.884353	0.143392	
BDI	0.051245	2631.659	0	
BMF	1.545183	560.0154	0	
IO	28.51339	21.64646	0.00002	
RD	0.707383	1306246	0	
AGE	14.2055	268.3643	0	
LnSIZE	1.926382	2.247969	0.324982	
LEVERAGE	0.265347	18.67749	0.000088	

The following tables show a descriptive summary of the study qualitative variables based on company failed.

The results of Chi-square test in the Appendix "B" show that there is significant relationship between CEOD and CF (Chi-square=3.981, P-value=0.046 < 0.05). The results also show that the frequency of (Failed company) with (CEO being also a Board member) is 7 (2%) of the whole study sample.

The results of Chi-square test in the Appendix "C" show that there is no significant relationship between QEA and CF (Chi-square=0.006, P-value=0.94 > 0.05). The results also show that the frequency of (Failed company) with (Audit is conducted by any of the big four) is 46 (13.1%) of the whole study sample.

The results of Chi-square test in the Appendix "D" show that there is significant relationship between AC and CF (Chi-square=4.828, P-value=0.028 < 0.05). The results also show that the frequency of (Failed company) with (There is an audit committee) is 49 (14%) of the whole study sample.

The results in the Appendix "E" show that there are significant differences between the non-failed companies and the failed companies in the mean values of the variables

(BDI, IO, RD, AGE) since the P-values are less than 0.05 for these variables. The mean values of the BDI and IO in failed companies are higher than the mean values in the non-failed companies, while the mean values of the RD and Age in the non-failed companies are higher than the mean values in the failed ones.

4.3 Panel data Diagnostic Tests

Prior to undertaking any statistical analysis, some panel data specification tests were conducted to determine suitability of the data. The tests were to verify if the panel data meet the basic logistic-regression requirements. The tests undertaken are: panel unit root test, multi-collinearity test, and panel co-integration test to know if a long-run association of the study variables exists. If any violation of these basic requirements was detected, necessary correction measures should be applied. Furthermore, some unnecessary tests were conducted such as normality test of residuals, panel-level heteroscedasticity test and serial correlation test of residuals. These conditions are not essential requirements in logistic-regression, (Menard, 2002؛ Kutner et al. 2005).

4.3.1 Panel Unit Root Test

To determine the stationarity of the panel data, Appendix "F" provides a summary of the panel unit root test which was applied on the study variables.

The results in Appendix "F" show the outcomes of the stationarity tests based on Levin-Lin-Chu (LLC), Im-Pesaran & Shin W-stat (IPS), Fisher-Chi Square-ADF (Fisher ADF), and the Phillips-Perron Fisher-Chi Square-PP (Fisher PP). All these test, which are based on null hypothesis, indicate that the panel data is non-stationary with alternative hypothesis that the data is stationary. The null hypotheses are rejected when the p-values of the test statistics are less than 0.05. These tests assume that individual processes are cross-sectional independent, (Baltagi, 2005). Based on these tests, the results show that most of study variables are stationary and the null hypothesis is rejected at level 0.05 when taking the level of the series, while all study variables are stationary when taking the first difference. Therefore, the conclusion is that all of the study variables are stationary at the first difference, meaning that variables are integrated at order 1, (I (1)), and result in indicating that a co-integration relationship may exist between the study variables.

To test for possibility of existence of co-integration relationship between these variables, Kao (Engle-Granger based) co-integration test was used. Table (4) shows the results, the null hypothesis of no co-integration is rejected (P-Value<0.05), (Baltagi,2005).

Table 4

Co-integration Test Results

Variables in Equation	Statistic	P-Value
CF BS BDI BMF CEOD IO QEA RD AC LNSIZE LEVERAGE	-5.8836	0.0000

4.3.2. Panel Multi-Collinearity Test

Panel multi-collinearity test was conducted to eliminate the possibility of having collinear explanatory variables used in the study. Pair-wise Pearson correlation coefficient matrix for the entire study variables was estimated, if correlation coefficient between any two variables is greater than 0.8 or 0.9, then multi-collinearity is considered a serious problem (Senaviratna and Cooray, 2019). The results of Pair-wise Pearson correlation coefficients are presented in Appendix "G".

Appendix "G" provides summary of the pairwise coefficients of correlation for all the explanatory variables, the control variables, and the dependent variable. The results show significant correlations between the independent variables themselves and between them and the control variables (P-values < 0.05). However, the highest values of correlation coefficient were (0.467) between (CEOD) and (AGE) variables, (0.458) between the (lnsize) and (BDI) variables, (0.449) between (lnsize) and (Leverage) variables, and (0.430) between (AC) and (QEA). The values of correlation are moderate, which means that the results of Pearson Correlations indicate that the problem of multi- collinearity is absent.

To emphasize the existence or the absence of multi-collinearity, Variance Inflation Factors (VIF) were computed for the study model based on the method of Panel Least Squares. These factors show the inflation magnitude of the estimated coefficients of regressors due to collinearity with other regressors. The problem of multi-collinearity is assumed to be severe when having VIF values greater than 2.5 in logistic-regression (Senaviratna & Cooray, 2019), and the value of VIF greater than 10 indicates a serious collinearity problem (Menard, 2002). Table (5) shows that all VIF values are less than

2.5, indicating that the problem of multi-collinearity does not exist, so no remedies are necessary to be made.

Table 5

Variance Inflation Factors (VIF) results

Explanatory Variables	VIF
BS	1.266740
BDI	1.369598
BMF	1.202429
CEOD	1.811580
IO	1.762215
QEA	1.735784
RD	1.064672
AC	1.585449
AGE	1.794023
LNSIZE	1.690829
LEVERAGE	1.936269

4.3.3 The LR Test for Pooled / Random Effects Model Estimation

To decide which is the most appropriate model between the Pooled Model (Population-Averaged) and Random Effect model (REM) for this study, the likelihood-ratio test (LR-test) was used due the binary discrete nature of the dependent variable. The null hypothesis states that Random Effects Model is appropriate, compared to the alternative hypothesis stating that the Pooled (Population- Averaged) model is appropriate at 5% significance level (Stata Reference Manual, 2019). Based on LR chi-square test statistics and the corresponding p-value, null hypothesis is accepted or rejected. The results are shown in the Table (6).

Table 6

LR Test for Model Effects Estimation

Model	LR Chi-Sq. Statistic	Prob.
Panel Logit Model	65.7	0.000

***Null Hypothesis: Random Effects Model is Appropriate.**

****The results of LR test conducted by STATA.**

The Results of LR test displayed in Table (6) show the Chi-Square test statistics and their corresponding degrees of freedom and p-value for the Panel Logit model equation. The results show that the P-value is statistically significant, indicating that the null hypothesis is rejected in favor of the Pooled (Population- Averaged) model, so the conclusion is that the Logistic Pooled (Population- Averaged) model is more appropriate for the study data at 0.05 significance level.

It is important to note here that according to Baltagi (2005), if there are no random effects in the limited dependent variables and Panel data, such as binary dependent variables in our case, the researcher can proceed to the Logistic Pooled (Population-Averaged) model estimation. Moreover, there is no need to test for the Fixed Effect Model (FEM), Hsiao, (2014) proved that estimation of FEM produces inconsistent estimators in the case of limited dependent variables (binary dependent). This indicates that the Logistic Pooled (Population- Averaged) model estimation is already better than that of the Fixed effect model.

4.4 Panel Model Logistic Regression Results

After conducting the necessary diagnostic tests of the panel data, and taking the necessary remedial actions to correct any violation of the required conditions for using the logistic-regression analysis, the study undertook a binary logit-regression analysis for the study's (Model Equation) as discussed in this section. Table (7) summarizes the results of the estimated Binary logistic-regression model.

Table 7

Coefficients of the Binary Logistic-Regression Model

Dependent Variable: CF(Corporate Failure)					
Method: ML - Binary Logit (Newton-Raphson)					
Sample: 2010 2019					
Included observations: 350					
QML (Huber/White) standard errors & covariance					
Variable	**Coefficient**	**Std. Error**	**z-Statistic**	**Prob.**	**Odd Ratio Exp. (Coefficient)**
C	-1.3663	1.0435	-0.6516	0.5147	0.2558
BS	-0.0456	0.0895	-0.5092	0.6106	0.9554
BDI	11.5515	3.1184	3.7044	0.0002	103930.7405
BMF	0.0756	0.1617	0.4676	0.6400	1.0786
CEOD	-0.7828	0.5481	-1.4282	0.1532	0.4571
IO	0.0340	0.0085	4.0234	0.0001	1.0346
QEA	-1.3805	0.4867	-2.8368	0.0046	0.2514
RD	-0.1764	0.1726	-1.0217	0.3069	0.8383
AC	0.4577	0.4537	1.0089	0.3130	1.5805
AGE	0.0144	0.0169	0.8497	0.3955	1.0145
LNSIZE	-0.3036	0.1034	-2.9370	0.0033	0.7381
LEVERAGE	1.9272	1.0494	1.8365	0.0663	6.8705
Goodness of Fit Statistics					
McFadden R-squared	0.1401		H-L statistic	12.2718	
Count R-squared	0.6657		Prob. (LR-statistic)	0.1395	
LR statistic	45.9862				
Prob. (LR statistic)	0.0000				

The asterisk * represent significance at 5% level.

The objective of studying the Model Equation in this study is to examine the impact of corporate governance mechanisms on corporate failure prediction of companies listed in the Palestine Exchange.

This was achieved by estimating pooled (Population-averaged) panel model as guided by the Likelihood Ratio (LR) test results. In order to estimate the study model by logistic-regression, a Quasi-Maximum Likelihood Huber/White standard errors and covariance technique will be used to handle with heteroscedasticity and autocorrelation problems (Wooldridge, 2010). No evidence of multi-collinearity among the explanatory variables was found based on the results of the Variance Inflation Factors test, so no remedial procedures will be taken for this problem.

4.4.1 Testing model goodness of fit

The results of the estimated logistic regression model in the exhibits a significant LR-test statistic result (LR-statistic=45.9862, Prob. (LR-statistic) <0.05), which measures the overall significance of the estimated regression, indicating rejection of the null hypothesis, which means that all slope coefficients are simultaneously zero. The moderate value of the McFadden R^2 is (14.01%) while the count R^2 value is about 66.57%, which is high and represents the percentage of correct predictions indicating a reasonable model goodness of fit (Gujarati & Porter, 2009).

The results also show the Hosmer and Lemeshow test results, which is useful in testing the difference between model predicted values and observed values, the HL statistic (H-L statistic =12.27, Prob (LR-statistic) >0.05) is not significant, so the null hypothesis confirm that the predicted values equal observed values and will be accepted, indicating that the model is good enough.

4.4.2 Coefficients of the Binary Logistic regression model

In this part of the study, the researcher analyses the results of examining the hypotheses of the study in line with the reality of the listed companies in Palestine.

4.4.2.1 Board Size

The results show that there is no significant relationship between Board Size and corporate failure prediction; P-values are more than 0.05, which supports the rejection

of the study hypothesis **H_1: Board Size has a significant statistical impact on Corporate Failure prediction of companies listed in the Palestine Exchange.**

This result is consistent with: Lakshan and Wijekoon (2012), Randika et al. (2019), Mokarami and Motefares (2013) found that Board Size is not significant for failure prediction in listed companies. Hence, it cannot be stated that a larger board can decrease the probability of corporate failure, whereas smaller boards can increase the probability of corporate failure.

This result contradicts with: Manzaneque et al. (2016), Johnson (2012), Khurshid et al. (2018), Bruce (2009), Ahmad and Adhariani (2017), (LI, 2014), Appiah (2019).

In general, researchers and academics do not agree on the appropriate number of board members. Some of them advocate for large boards while others advocate for small ones (Fich and Slezak, 2008). More specifically, when the board is small, board members are likely to be more involved in the decision-taking process, thus ensuring efficient monitoring of management and better communication (Ciampi, 2015), resulting in decreasing corporate failure prediction (Fich and Slezak, 2008).

According to (CCGP) and the Companies' Law in Palestine, public shareholding companies must be administered by a Board of Directors whose members must not be less than 5 and not more than 11. However, in practice, in 2010, most companies listed in the Palestine Exchange adhered to this principle, as only two companies (each with a total number of board members exceeding 11) violated it. Meanwhile, in 2019, a decline in compliance with this principle was noticed, as the number of non-compliant companies reached 7 (with two companies having less than 5 board members, and the remaining 5 with more than 11 members). Some of the non-compliant companies are successful and has a large size, while others are small.

4.4.2.2 Board Meeting Frequency

The results show that there is no significant relationship between Board Meeting Frequency and corporate failure prediction, as P-values are more than 0.05, which supports the rejection of the study hypothesis **H_2: Board Meeting Frequency has a significant statistical impact on Corporate Failure prediction of companies listed in the Palestine Exchange.**

This result is consistent with Noor and Iskandar (2012) who found that active board (total number of board meetings for the year) is insignificant in predicting corporate failure.

Other studies found a positive, statistically significant effect between frequency of board meetings and revealing of financial failure (AL-Momani and Abou-Moghli, 2012; LI, 2010), which means that an increase in the frequency of board meetings affects a positive change in the potential for financial distress.

Appiah (2019), contrary to expectations, found that number of board meetings has a positive and significant association with corporate failure (this refutes proposition from agency theory); more board meetings increase the cost (e.g. directors' meeting fees, managerial time), thereby reducing shareholder value, and in this way, increase the potential of a firm's failure.

In Palestine, Articles (41) of the (CCGP) stipulates "that in order to have a proper follow-up of the work undertaken by the company, it is preferable for the board to convene several times to meet the volume of work at the company in concord with the company's by-laws" (code of corporate governance in Palestine, 2009). Meanwhile, the Companies' Law (12) of 1964 specified that the Board of Directors should meet at least 4 times annually.

In practice, 15 companies adhered to this principle in 2010, and then, the number of committed companies increased to 32 in 2019. In practical terms, this means that the number of board meetings does not affect the company's failure or non-failure. Perhaps this is related to the ownership structure of the company and the family's control over it, or to the fact that decisions are made without organizing a meeting of the Board of Directors.

4.4.2.3 CEO Duality

The results show that there is no significant relationship between CEO duality and corporate failure prediction; P-values are more than 0.05, which supports the rejection of the study hypothesis **H_3: CEO Duality has a significant statistical impact on Corporate Failure prediction of companies listed in the Palestine Exchange.**

This result is consistent with: Wijekoon and Abdul Azeez (2015), Manzaneque et al, (2016), Noor and Iskandar (2012) Bruce, (2009), Luqman et al, (2018), Miglani et al, (2015), Li, (2014) who provided evidence that CEO duality is not a significant predictor of corporate failure.

While Johnson (2012), Randika et al, (2019), Khurshid et al, (2018), Lakshan and Wijekoon (2012), Mokarami, and Motefares (2013), Moghaddam and Filsaraei (2016), Farhat (2014), found that CEO duality was positively related to insolvency risk. This means that when a CEO doubles as the Chairman of the board, then the insolvency risk rises (in this study CEO duality is measured as: 1 if CEO is also a board member, 0 otherwise). Randika et al, (2019) detected that CEO duality practices are more present in failed companies than non-failed ones.

But Abou El Sood (2008), Shah (2016) found a negative association with failure.

In Palestine, the Companies' Law (Article (127)) allows CEO Duality, but (CCGP) stipulates "that it is preferable for the chairman of board of directors or any board member not to practise executive functions in the company or give the impression that he does in order to maintain the distribution of authority and responsibility rather than having it centralized in one person's hand. This is also better for accountability reasons since the chairman of board of directors cannot question himself" (code of corporate governance in Palestine, 2009). In practice, 12 companies adhered to this principle in 2010, which increased to reach 22 companies in 2019. In addition, there are successful companies that achieve high profits despite CEO Duality, and there are companies who face problems or achieve losses without having any CEO Duality.

4.4.2.4 Board's Director Independency

The results show a significant positive relationship between (the Board's Director Independency) and (corporate failure prediction); the P-value=0.0002 is less than 0.05, and the estimated odd ratio is about 103931. Such indicates that for every 1% increase in the Board's director Independency ratio, the company is about 103931 times more likely to fail than to be not to, while the other values remain constant. This result supports accepting the study hypothesis **H_4: Board's Director Independency has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange**.

The results are consistent with: Khurshid et al, (2018), Burak et al, (2017), Martin and Herrero (2018), LI (2010), Bruce (2009). Meanwhile, the results are in contradiction with the findings of studies: Randika et al, (2019), Wijekoon and Abdul Azeez (2015), Lakshan and Wijekoon (2012), Ahmad and Adhariani (2017), Appiah (2019).

Bruce (2009), Shah (2016), Miglani et al, (2015), Moghaddam and Filsaraei (2016), Luqman et al, (2018), Li (2014) found that the board outsiders have insignificant influence on financial distress.

In Palestine, the number of companies that adhered to the principle of independency is very small. Since the peculiarity in Palestine, due to the conflict between the CCGP and Companies' Law, CCGP made companies' commitment to the principle of independency optional, and limited independent members to two members only. Articles (106) and (107) of the Companies' Law do not allow any shareholder to be nominated for the Board of Directors' membership unless he owns the number of shares specified in the company's bylaw, and the membership of any member whose shares are less than that specified, number during the membership period shall automatically be revoked. The quorum of shares qualifying for membership out of the total shares of the members of the Board of Directors hold remains reserved as long as the person has been a member until the last six months prior to the expiry date of their term, and it is not permissible to trade in it during that period.

Based on this analysis, there is no real commitment to the principle of independency. In practice, the independent members took the place of other members who may have had a greater influence on the Board of Directors, which increasing the potential for failure.

4.4.2.5 Institutional Ownership

The results of this study found a significant positive relationship between (institutional ownership) and the (corporate failure prediction); the P-value=0.0001 is less than 0.05, and the estimated odd ratio is 1.0346. This indicates that for every 1-unit increase in institutional ownership, the company is about 3.46% (1.0346-1=1.0346=3.46%) more likely to fail than not to, with the other values of variables holding constant. Such result supports accepting the study hypothesis **H_5: Institutional ownership has a significant statistical impact on corporate failure prediction of companies listed in the**

Palestine Exchange.

This result contradicts with: Shah, (2016), Luqman et al, (2018), Moghaddam and Filsaraei (2016), Li (2014), who found a negative significant relationship between institutional shareholders' ownership and company's financial distress. Li (2014) found that institutional investors have expertise and skills in detecting companies' worthiness of investment.

Mheanwhile, Manzaneque et al, (2016), Randika et al, (2019), Ahmad and Adhariani (2017) found that both institutional and non-institutional large shareholders have no significant impact on the likelihood of financial distress. This raises important issues regarding what factors condition the exercise of power by institutional investors and what kind of interests they are likely to have in the company.

This means that with an increase in institutional ownership, the company is more likely to fail than not to. Such result is acceptable in Palestine because most companies in Palestine are family businesses. This ownership structure greatly limits the impact of institutional ownership, which is evident in the control limited to the hands of some people on boards of directors in companies. Therefore, the presence of people outside the family or the narrow circle of ownership of the company may lead to conflicts over control and may lead to its bankruptcy or financial distress. This is consistent with the analysis of Ahmad and Adhariani (2017) who found that impact of institutional shareholders regarding what factors condition the exercise of power by institutional investors and what kind of interests they keep in the company.

In addition, this situation in Palestine, contradicts with (CCGP) which emphasized that the Board of Directors will guarantee all rights of all shareholders, including small shareholders and those who live outside Palestine, as conferred upon them by law, regulations, and the applicable instructions. Any shareholder has the right of candidacy for the Board of Directors' membership.

4.4.2.6 Quality of External Audit

The study found a significant negative relationship between the (quality of external audit) and (corporate failure prediction); the P-value=0.0046 is less than 0.05, and the estimated odd ratio is 0.2514. This indicates that the company is about (1/0.2514=3.98)

4 times less likely to fail than not to, if the audit is conducted by any of the big four for the company, holding the values of other variables constant. This result supports accepting the study hypothesis **H6: Quality of external audit has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.**

This result is consistent with Khurshid et al, (2018), who demonstrates that an increase in audit quality can decrease the probability of financial distress. Moreover, AL-Momani and Abou-Moghli (2012) concluded a positive effect of disclosure on revealing financial failure.

Meanwhile, Noor and Iskandar (2012), found that the audit quality (BIG4) (High-quality audit services) is insignificant.

The results are consistent with the (CCGP) and Companies' Law in Palestine, which stipulate that the shareholders, in their annual meeting, are required to appoint an external auditor based on the recommendation presented by the Board of Directors and the Audit Committee and to approve their fees. The results were also consistent with (Khurshid et al, 2018) who found that Audit quality is one of the key measures of corporate governance.

4.4.2.7 Remuneration of Directors

The results show that there is no significant relationship between the remuneration of directors and corporate failure prediction; the P-values are more than 0.05, which supports the rejection of the study hypothesis **H_7: Remuneration of Directors has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.**

This result is consistent with Wijekoon and Abdul Azeez (2015) who found that remuneration of board members to profit and loss is not a significant predictor of corporate failure when it is combined with financial ratios. Meanwhile, (Randika et al, 2019) found that directors' remuneration is not significant in failure prediction within the two and three-years periods preceding failure.

Randika et al, (2019), found director remuneration to be negatively significant within one year preceding failure, whereas Lakshan and Wijekoon (2012) reveal that failed firms pay their directors less than non-failed firms do as evident by the negative and significant association between director's remuneration and corporate failure status. Li (2014), however, found that if the salary cost of an independent director is large, the company has a high risk of financial distress.

In Palestine, as the Companies' Law in effect is old, the value of the remuneration for the Chairman and members of the Board of Directors has become very little. It is stipulated that these rewards do not exceed (750) dinars annually per member. However, there is interest in this topic in the (CCGP), as it stipulated that it is preferable for the Board of Directors to form committees, one of which is the Remuneration Committee. In practice, most companies disclose the size of remuneration, but some of them do not detail it.

4.4.2.8 Audit Committee Existence

The results show that there is no significant relationship between the Audit Committee Existence and corporate failure prediction; the P-values are more than 0.05, which supports the rejection of the study hypothesis **H_8: Existence of Audit Committee has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.**

This result is consistent with: Randika et al, (2019), Noor and Iskandar (2012) who found the presence of the Audit Committee as not significant for failure prediction in listed companies.

Wijekoon and Abdul Azeez (2015), Burak et al, (2017), Lakshan and Wijekoon (2012), Ahmad and Adhariani (2017), Luqman et al, (2018), Miglani et al, (2015), Appiah (2019) found that the company Audit Committee has a significant predictive ability of corporate failure. Burak et al, (2017) found that accountability to directly and positively affect business performance. Lakshan and Wijekoon (2012) concluded that the absence of an Audit Committee in failed companies emphasizes that there is no such a monitoring mechanism to oversee the firm's financial reporting process and credibility of audited financial statements. In addition, Ahmad and Adhariani (2017) deemed the

existence of Audit Committees to assist the Board of Directors in fulfilling statutory and mandatory responsibilities, namely maintaining the quality of financial statements and maintaining the quality of internal control systems in a company.

In Palestine, the Companies' Law does not mention the Audit Committee, but there is more interest and focus on this topic in the (CCGP), which stipulated that it is preferable for the Board of Directors to form committees, one of which is the Audit Committee Existence. The Audit Committee prepares and submits its reports to the Board of Directors concerning all issues related to its mandate, in order to enable them to exercise their oversight over the executive management and to provide them with clear and verifiable data to be disbursed to shareholders and investors.

Control Variables

The results show a significant negative relationship between the control variable (company size) and (corporate failure); the P-value=0.0033 is less than 0.05, and the estimated odd ratio is 0.7381. This indicates that for every 1% decrease in the company size, the company is about 35.5% (1/0.7381=1.3548, 1.3548-1=0.3548=35.5%) more likely to fail than not to, holding the values of other variables constant.

Results show no significant relationships between the (company age, company leverage) and (corporate failure); the P-values are more than 0.05.

4.4.3 Classification Accuracy of the Fitted Model

The classification accuracy of the Fitted Model is assessed by calculating the percentages of correct predictions and expectations for binary specifications, and the results are summarized in Table (8), exhibit approximately 66.57% total prediction accuracy indicating that the total classification ability of our Fitted Model is high and acceptable.

Table 8

*Classification and Prediction Accuracy of the Fitted Binary Logistic Model**

Company	Prediction Accuracy
Failed	66.13%
Non Failed	66.67%
Total	66.57%

*** calculations are based on success cutoff 0.177 = percent of the failed companies in the sample.**

4.4.4 Error terms Normality Test

According to (Schreiber-Gregory et al, 2018), the error terms (residuals) in logistic-regressions do not need to be normally distributed because the nature of the dependent variable make the residuals have other distributions, such as binomial distribution. According to (Menard, 2002), if the residuals in the logistic-regression is normally distributed, we can be more confident about our inferential statistics, however, if they are not and the sample is large, the residuals are approximately normal because the normal and the binomial distributions are about the same for large samples.

In order to test normality of residuals, the Jarque-Bera test is usually used for this purpose. Jarque-Bera residual normality test examines the third and fourth moments of the residuals in comparison to the residuals from normal distribution under the null hypothesis of normal distribution. If the residual is found to be normally distributed, its histogram should be bell-shaped while Jarque-Bera test statistics should not be statistically significant (Jarque & Bera, 1987).

Table (9) presents the Jarque-Bera test statistics and their corresponding P-value for the residuals of the study logistic models. The results as expected support the rejection of null hypotheses, so that the residuals of the study model are not normally distributed since Jarque-Bera test statistics had corresponding p-value less than 0.05.

Table 9

Normality Test Results for the residuals of logistic model

Model	Jarque-Bera Statistic	P-Value
Panel Model	1824.347	<0.001

Null Hypothesis: Normal Distribution at 5 % significance level

4.4.5 Serial Correlation (Autocorrelation) and Heteroscedasticity Tests

For an estimated model to be robust, its error terms should not be correlated with each other. This means that any individual error term of an observation should not be influenced by the error term of any other observation. If the opposite of this situation occurs, it is referred to as serial correlation or autocorrelation problem. Presence of serial correlation leads to generation of smaller standard errors, hence inaccurate hypothesis testing (Baltagi, 2005). Testing for autocorrelation in the case of estimation Logistic models can be acheived by Ljung-Box Q-statistic test for serial correlation of

residuals, and the null hypothesis in this test stated that there is no autocorrelation. The results of serial correlation test for 9 lags of residuals are shown in the Appendix "H".

The results of Ljung-Box Q-statistic test in Appendix "H" indicate the rejection of the null hypothesis, which stated that there is no autocorrelation for all lags of residuals (all Prob. values of Q-statistic are less than 0.05), so the conclusion is that the problem of serial correlation exists.

The problem of heteroscedasticity happened when the disturbances or the error terms of the model have not the same variances. The problem of heteroscedasticity is always existing in logistic-regression, so no need to test whether this problem exits or not (Kutner et al. 2005).

To address the heteroscedasticity and autocorrelation problems in the study panel logistic model, the study followed Wooldridge (2010) recommendation of using a special technique of model estimation called Quasi-Maximum Likelihood Huber/White standard errors and covariance which allows the estimation of Logistic panel data models when having both heteroscedasticity and autocorrelation.

4.5 Summary of Hypotheses Testing

Table (10) summarize the results of hypotheses testing.

Table 10

The results of hypotheses testing

Hypotheses	Result of testing
H_1: Board size has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.	Reject
H2: Board Meeting Frequency has a significant statistical impact on Corporate Failure prediction of companies listed in the Palestine Exchange.	Reject
H3: CEO duality has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.	Reject
H4: Board of Directors'' independency has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.	Accept
H5: Institutional Ownership has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.	Accept
H6: Quality of external audit has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.	Accept
H7: Remuneration of Directors has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.	Reject
H8: Existence of Audit Committee has a significant statistical impact on corporate failure prediction of companies listed in the Palestine Exchange.	Reject

Chapter Five

Conclusions and Recommendations

5.1 Overview

In this chapter, the key conclusions of the study are presented and the main recommendations are provided.

5.2 Conclusions

Based on the analysis results, the research found the following relations between corporate governance mechanisms and corporate failure prediction: Empirical Evidence from Palestine Exchange:

1. There is a significant positive relationship between (Board's Director Independency) and (corporate failure prediction), the P-value=0.0002 is less than 0.05.
2. There is a significant positive relationship between (institutional ownership) and (corporate failure prediction), the P-value=0.0001 is less than 0.05.
3. There is a significant negative relationship between the (quality of external audit) and (corporate failure prediction), the P-value=0.0046 is less than 0.05
4. There are no significant relationships between (Board Size, Board Meeting Frequency, CEO duality, Remuneration of Directors, and the Audit Committee Existence) and corporate failure prediction, the P-value is more than 0.05.
5. The results show a significant negative relationship between the control variable (company size) and (corporate failure prediction), the P-value=0.0033 is less than 0.05.
6. There are no significant relationships between (company age, company leverage) and (corporate failure prediction), the P-values are more than 0.05.

5.3 Recommendations

In light of the study findings, the researcher proposes the following recommendations:

1. Each company must appoint a lawyer to follow up on the new legislation related to the company's work to ensure adhering to these legislations on the one hand and to benefit from them in developing the company's work on the other hand.
2. Public shareholding companies should develop a practical plan for fully adhering to the principles of corporate governance, including the principles of disclosure.

3. Successful and large shareholding limited partnership companies should seek to transform into public shareholding companies to be listed in the Palestine Exchange.
4. The Palestinian government should draft a new Companies' Law, which keeps pace with the various developments in Palestine, contributes to the organization of the companies' work, and is more consistent with the principles of governance.
5. Organizing training courses (by Chambers of Commerce, the Businessmen Association) to educate companies on the principles of governance and the benefits of adhering to them.
6. It is necessary to take advantage of the best practices in the world especially with regard to companies' commitment to the rules of (independence of board members) in Palestine. This was also confirmed by the Code of Corporate Governance in Palestine.
7. The necessity for companies to activate their Boards of Directors, especially with regard to (Board Size, Board Meeting Frequency, CEO Duality, Remuneration of directors, and the Audit Committe Existence), due to the positive impact such has on improving the performance of companies listed in the Palestine Exchange, developing and protecting them from failure.
8. The regulatory authorities (the Ministry of National Economy and the Capital Market Authority) should activate the control over companies' compliance with the principles of corporate governance, and over those non-compliant companies in violation.
9. The names of companies committed to the principles of governance should be published on the websites of the official authorities.
10. Preparing many studies by universities at the detailed level, as a way to enhance adherence to the principles of governance, including:
    - Sectorial studies, at the level of economic sectors.
    - Preparing studies focusing on each of the principles of governance, and the extent of adherence to it by companies, highlighting weaknesses in adherence and suggesting ways to address such weaknesses.
    - Engaging various companies as case studies, to create a successful model for adherence to the principles of governance.

List of Abbreviations

Abbreviation	Meaning
CEO	Chief executive officer
CCGP	Code of Corporate Governance in Palestine
PEX	Palestine Exchange
OECD	Organisation for Economic Co-operation and Development
Sig.	Significance
Std. dev.	Standard deviation
Std. error	Standard error

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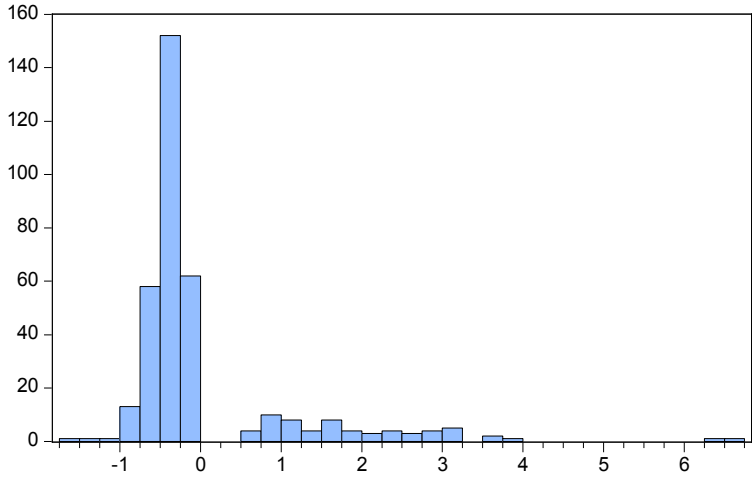
Appendices

Appendix (A): Binary Logistic regression model results

Dependent Variable: CF				
Method: ML - Binary Logit (Newton-Raphson)				
Sample: 2010 2019				
Included observations: 350				
Convergence achieved after 5 iterations				
QML (Huber/White) standard errors & covariance				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
BS	-0.045594	0.089535	-0.509229	0.6106
BDI_RATIO	11.55148	3.118352	3.704354	0.0002
BMF	0.075622	0.161708	0.467648	0.6400
CEOD	-0.782844	0.548140	-1.428182	0.1532
IO	0.034019	0.008455	4.023369	0.0001
QEA	-1.380532	0.486658	-2.836761	0.0046
RD_RATIO	-0.176354	0.172606	-1.021717	0.3069
AC	0.457728	0.453679	1.008924	0.3130
AGE	0.014380	0.016924	0.849694	0.3955
LNSIZE	-0.303648	0.103386	-2.937033	0.0033
LEVERAGE	1.927236	1.049416	1.836485	0.0663
C	1.266324	1.943525	0.651561	0.5147
McFadden R-squared	0.140664	Mean dependent var		0.177143
S.D. dependent var	0.382336	S.E. of regression		0.355527
Akaike info criterion	0.871249	Sum squared resid		42.72303
Schwarz criterion	1.003521	Log likelihood		-140.4685
Hannan-Quinn criter.	0.923898	Deviance		280.9371
Restr. deviance	326.9233	Restr. log likelihood		-163.4617
LR statistic	45.98624	Avg. log likelihood		-0.401339
Prob(LR statistic)	0.000003			
Obs with Dep=0	288	Total obs		350
Obs with Dep=1	62			



Series: Standardized Residuals
Sample 2010 2019
Observations 350

Mean	0.014811
Median	-0.335702
Maximum	6.717040
Minimum	-1.517450
Std. Dev.	1.056376
Skewness	2.785353
Kurtosis	12.69873
Jarque-Bera	1824.347
Probability	0.000000

Sample: 2010 2019						
Included observations: 350						
Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.|*** |	.|*** |	1	0.470	0.470	77.881	0.000
.|** |	.|. |	2	0.224	0.005	95.717	0.000
.|* |	.|. |	3	0.142	0.045	102.89	0.000
.|* |	.|. |	4	0.125	0.052	108.42	0.000
.|* |	.|. |	5	0.111	0.034	112.85	0.000
.|. |	.|. |	6	0.061	-0.020	114.19	0.000
.|. |	.|. |	7	0.030	-0.006	114.51	0.000
.|. |	.|. |	8	0.004	-0.020	114.52	0.000
.|. |	.|. |	9	0.009	0.011	114.54	0.000

Appendix (B): Results of Cross tabulation (Frequencies and Percentages) of CEOD based on company failed (CF)

CEOD * CF Cross tabulation					
			CF		Total
			Non Failed Company	Failed Company	
CEOD	Otherwise	Count	225	55	280
		% within CEOD	80.4%	19.6%	100.0%
		% within CF	78.1%	88.7%	80.0%
		% of Total	64.3%	15.7%	80.0%
	CEO is also a board member	Count	63	7	70
		% within CEOD	90.0%	10.0%	100.0%
		% within CF	21.9%	11.3%	20.0%
		% of Total	18.0%	2.0%	20.0%
Total		Count	288	62	350
		% within CEOD	82.3%	17.7%	100.0%
		% within CF	100.0%	100.0%	100.0%
		% of Total	82.3%	17.7%	100.0%
Chi-Square test statistic= 3.981, P-value= 0.046					

Appendix (C): Results of Cross tabulation (Frequencies and Percentages) of QEA based on company failed (CF).

QEA * CF Cross tabulation					
			CF		Total
			Non Failed Company	Failed Company	
QEA	Otherwise	Count	73	16	89
		% within QEA	82.0%	18.0%	100.0%
		% within CF	25.3%	25.8%	25.4%
		% of Total	20.9%	4.6%	25.4%
	Audit is conducted by any of the big four	Count	215	46	261
		% within QEA	82.4%	17.6%	100.0%
		% within CF	74.7%	74.2%	74.6%
		% of Total	61.4%	13.1%	74.6%
Total		Count	288	62	350
		% within QEA	82.3%	17.7%	100.0%
		% within CF	100.0%	100.0%	100.0%
		% of Total	82.3%	17.7%	100.0%
Chi-Square test statistic= 0.006 , P-value= 0.94					

Appendix (D): Results of Cross tabulation (Frequencies and Percentages) of AC based on company failed (CF)

AC * CF Cross tabulation					
			CF		Total
			Non Failed Company	Failed Company	
AC	Otherwise	Count	102	13	115
		% within AC	88.7%	11.3%	100.0%
		% within CF	35.4%	21.0%	32.9%
		% of Total	29.1%	3.7%	32.9%
	There is an audit committee	Count	186	49	235
		% within AC	79.1%	20.9%	100.0%
		% within CF	64.6%	79.0%	67.1%
		% of Total	53.1%	14.0%	67.1%
Total		Count	288	62	350
		% within AC	82.3%	17.7%	100.0%
		% within CF	100.0%	100.0%	100.0%
		% of Total	82.3%	17.7%	100.0%
Chi-Square test statistic= 4.828 , P-value= 0.028					

Appendix (E): Results of Means and Standard Deviations of the study's quantitative variables based on company failed (CF)

CF	Non Failed Company		Failed Company		Mann-Whitney U test Prob.
	Mean	Std. Deviation	Mean	Std. Deviation	
BS	9.188	2.182	9.016	2.123	0.676
BDI	0.010	0.043	0.033	0.076	0.001
BMF	6.052	1.578	6.016	1.397	0.658
IO	44.176	28.292	59.634	26.185	0.000
RD	0.090	0.767	0.062	0.308	0.000
AGE	30.132	14.985	25.194	8.815	0.000
SIZE	223493605.646	670300428.209	198554116.355	367772615.309	0.363
LnSIZE	17.358	1.903	17.257	2.044	0.363
LEVERAGE	0.414	0.271	0.452	0.235	0.119

Appendix (F): Panel Unit Root Test Results*

Variables	Test	Level		First Difference	
		Statistic	p-Value	Statistic	p-Value
CF	Levin-Lin-Chu	-3.5047	0.0002	-6.5619	0.0000
	Im, Pesaran and Shin W-stat	-1.2049	0.1141	-3.4390	0.0003
	Fisher-Chi Square-ADF	26.8988	0.1381	32.9563	0.0003
	Fisher-Chi Square-PP	51.4661	0.0001	44.2518	0.0000
BS	Levin-Lin-Chu	-8.4704	0.0000	-8.0762	0.0000
	Im, Pesaran and Shin W-stat	-1.4590	0.0723	-2.6821	0.0037
	Fisher-Chi Square-ADF	71.8611	0.0050	59.2513	0.0011
	Fisher-Chi Square-PP	53.2904	0.1591	109.3660	0.0000
BDI	Levin-Lin-Chu	-0.0731	0.4709	-2.2603	0.0119
	Im, Pesaran and Shin W-stat	0.9223	0.8218	-0.7094	0.2391
	Fisher-Chi Square-ADF	3.2631	0.9168	3.8955	0.1426
	Fisher-Chi Square-PP	1.9965	0.9811	11.0165	0.0041
BMF	Levin-Lin-Chu	-1.4918	0.0679	-15.1971	0.0000
	Im, Pesaran and Shin W-stat	0.0768	0.5306	-6.4591	0.0000
	Fisher-Chi Square-ADF	21.0446	0.7397	95.4440	0.0000
	Fisher-Chi Square-PP	45.2530	0.0110	163.7810	0.0000
CEOD	Levin-Lin-Chu	-1.6103	0.0537	-4.1886	0.0000
	Im, Pesaran and Shin W-stat	-0.6956	0.2433	-0.7830	0.2168
	Fisher-Chi Square-ADF	3.4047	0.1823	5.9615	0.0508
	Fisher-Chi Square-PP	10.0270	0.0066	5.4618	0.0652
IO	Levin-Lin-Chu	-236.0610	0.0000	-528.7050	0.0000
	Im, Pesaran and Shin W-stat	-87.8728	0.0000	-63.1358	0.0000
	Fisher-Chi Square-ADF	144.1820	0.0000	187.0690	0.0000
	Fisher-Chi Square-PP	134.4630	0.0000	192.8540	0.0000

Variables	Test	Level		First Difference	
		Statistic	p-Value	Statistic	p-Value
RD	Levin-Lin-Chu	-9230.1700	0.0000	-6985.6700	0.0000
	Im, Pesaran and Shin W-stat	-1213.8900	0.0000	-999.6580	0.0000
	Fisher-Chi Square-ADF	166.4960	0.0000	288.0130	0.0000
	Fisher-Chi Square-PP	229.8270	0.0000	420.3880	0.0000
AC	Levin-Lin-Chu	-2.2707	0.0116	-4.0582	0.0000
	Im, Pesaran and Shin W-stat	0.1011	0.5403	-2.0347	0.0209
	Fisher-Chi Square-ADF	13.6910	0.6217	8.4823	0.0144
	Fisher-Chi Square-PP	33.1001	0.0072	7.4442	0.0242
Size	Levin-Lin-Chu	-2.6625	0.0039	-16.5225	0.0000
	Im, Pesaran and Shin W-stat	2.7670	0.9972	-7.4415	0.0000
	Fisher-Chi Square-ADF	51.6286	0.9512	194.5740	0.0000
	Fisher-Chi Square-PP	53.6603	0.9262	248.0000	0.0000
Leverage	Levin-Lin-Chu	-3.6955	0.0001	-23.5967	0.0000
	Im, Pesaran and Shin W-stat	-0.0216	0.4914	-9.4806	0.0000
	Fisher-Chi Square-ADF	82.6652	0.1429	222.2790	0.0000
	Fisher-Chi Square-PP	65.3915	0.6337	260.3280	0.0000

*** Company age was not tested for stationarity, because it is constant among years within each company (cross-section) for all cross sections while it is varying only between the cross-sections.**

Appendix (G): Pairwise Pearson Correlation Matrix of the Dependent and Explanatory Variables

Correlation (Probability)	CF	BS	BDI	BMF	CEOD	IO	QEA	RD	AC	AGE	LNSIZE
CF	1										

BS	-0.030	1									
	0.573	-----									
BDI	0.171	0.259	1								
	0.001	0.000	-----								
BMF	-0.009	0.018	0.026	1							
	0.868	0.744	0.633	-----							
CEOD	-0.101	-0.099	-0.134	0.369	1						
	0.059	0.065	0.012	0.000	-----						
IO	0.207	0.026	0.019	-0.188	-0.352	1					
	0.000	0.627	0.728	0.000	0.000	-----					
QEA	-0.004	0.336	0.156	-0.068	-0.364	0.383	1				
	0.940	0.000	0.003	0.206	0.000	0.000	-----				
RD	-0.015	-0.067	-0.019	0.114	0.105	0.060	0.004	1			
	0.776	0.208	0.721	0.034	0.049	0.262	0.934	-----			
AC	0.117	0.087	0.187	-0.054	-0.259	0.167	0.430	-0.070	1		
	0.028	0.103	0.000	0.312	0.000	0.002	0.000	0.190	-----		
AGE	-0.133	-0.088	-0.121	0.163	0.467	-0.446	-0.152	-0.049	-0.160	1	
	0.013	0.100	0.024	0.002	0.000	0.000	0.004	0.359	0.003	-----	
LNSIZE	-0.020	0.237	0.458	0.011	0.020	-0.031	0.208	-0.056	0.274	0.098	1
	0.707	0.000	0.000	0.839	0.711	0.565	0.000	0.294	0.000	0.066	-----
LEVERAGE	0.054	0.201	0.242	0.157	0.146	-0.251	0.084	0.060	0.378	-0.093	0.449
	0.315	0.000	0.000	0.003	0.006	0.000	0.118	0.263	0.000	0.081	0.000

*** Correlation is significant at the 0.05 level.**

Appendix (H): Ljung-Box Q-statistic test for serial correlation of Model Residuals*

Residual Lag	Autocorrelation (AC)	Partial AC	Q-statistic	Prob.
1	0.4700	0.4700	77.8810	0.0000
2	0.2240	0.0050	95.7170	0.0000
3	0.1420	0.0450	102.8900	0.0000
4	0.1250	0.0520	108.4200	0.0000
5	0.1110	0.0340	112.8500	0.0000
6	0.0610	-0.0200	114.1900	0.0000
7	0.0300	-0.0060	114.5100	0.0000
8	0.0040	-0.0200	114.5200	0.0000
9	0.0090	0.0110	114.5400	0.0000

جامعة النجاح الوطنية
كلية الدراسات العليا

أثر اليات حوكمة الشركات على التنبؤ بفشل الشركات: دليل تجريبي من بورصة فلسطين

إعداد
عبد اللطيف طالب محمد أبودياك

إشراف
أ. د. عبد الناصر نور
د. سائد الكوني

قُدّمت هذه الأطروحة استكمالًا لمتطّلبات الحصول على درجة الماجستير في المحاسبة بكليّة الدراسات العليا في جامعة النجاح الوطنيّة في نابلس، فلسطين.
2022م

أثر آليات حوكمة الشركات على التنبؤ بفشل الشركات: دليل تجريبي من بورصة فلسطين

إعداد

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إشراف

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د. سائد الكوني

الملخص

هدفت هذه الدراسة إلى دراسة تأثير آليات حوكمة الشركات على التنبؤ بفشل الشركات المدرجة في بورصة فلسطين، استخدمت الدراسة تصميم بحث اختبار الفرضيات الكمي؛ حيث تم الحصول على البيانات الثانوية من التقارير السنوية للشركات المدرجة في بورصة فلسطين خلال الفترة 2010–2019. شملت عينة الدراسة 35 شركة.

استخدمت الدراسة ثلاثة أنواع من المتغيرات: (1) متغير تابع، (2) متغيرات مستقلة، (3) متغيرات ضابطة. يمثل فشل الشركة المتغير التابع. أما متغيرات حوكمة الشركات فهي المتغيرات المستقلة وهي: حجم مجلس الإدارة، وتكرار اجتماعات مجلس الإدارة، وازدواجية الرئيس التنفيذي، واستقلالية أعضاء مجلس الإدارة، والملكية المؤسسية، وجودة مراجعة الحسابات الخارجية، ومكافآت أعضاء مجلس الإدارة، ووجود لجنة التدقيق. وتم تضمين الميزات الخاصة بالشركة مثل عمر الشركة وحجم الشركة وسيطرة الشركة في نموذج الانحدار اللوجستي كمتغيرات ضابطة لتجنب الخطأ في تحديد نموذج الانحدار.

أشارت النتائج الرئيسية للدراسة إلى وجود علاقة إيجابية ذات دلالة إحصائية بين (استقلالية أعضاء مجلس الإدارة، والملكية المؤسسية) و (فشل الشركة)، وهناك علاقة سلبية ذات دلالة

إحصائية بين (جودة مراجعة الحسابات الخارجية) و (فشل الشركة). بينما لا توجد علاقات ذات دلالة إحصائية بين (حجم مجلس الإدارة، وتكرار اجتماعات مجلس الإدارة، وازدواجية الرئيس التنفيذي، ومكافآت أعضاء مجلس الإدارة، ولجنة التدقيق) وفشل الشركة. وتظهر النتائج علاقة سلبية مهمة بين متغير السيطرة (حجم الشركة) و(فشل الشركة)، ولا توجد علاقات ذات دلالة إحصائية بين (عمر الشركة، وسيطرة الشركة) و (فشل الشركة).

يقدم الباحث العديد من التوصيات، التي من أهمها: على كل شركة تعيين محامٍ لمتابعة التشريعات الجديدة المتعلقة بعمل الشركة، وعلى الشركات المساهمة العامة وضع خطة عملية للالتزام التام بمبادئ حوكمة الشركات، وعلى شركات المساهمة الخصوصية الناجحة والكبيرة أن تسعى إلى التحول إلى شركات مساهمة عامة، تمهيداً لإدراجها في بورصة فلسطين، وإصدار قانون شركات جديد، وتنظيم دورات تدريبية لتثقيف الشركات بمبادئ الحوكمة والالتزام بها، وتعميم تجربة الشركات الناجحة حتى تستفيد منها الشركات الأخرى، وضرورة تفعيل الشركات لمجالس إدارتها، لما لذلك من أثر إيجابي على تحسين أداء الشركات المدرجة في بورصة فلسطين في تطويرها وحمايتها من الفشل، على الجهات الرقابية تفعيل الرقابة على التزام الشركات بمبادئ حوكمة الشركات، ومخالفة الشركات غير الملتزمة، وإعداد دراسات تفصيلية كوسيلة لتعزيز الالتزام بمبادئ الحوكمة، من خلال التركيز على كل مبدأ من مبادئ الحوكمة، وإعداد دراسات على بعض الشركات بأسلوب دراسة الحالة، من أجل خلق نماذج ناجحة للالتزام بمبادئ الحوكمة.

الكلمات المفتاحية: حوكمة الشركات؛ فشل الشركات، الشركات المدرجة في بورصة فلسطين.