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The Impact of Board Characteristics on Financial Performance and the Moderating Role of Ownership Concentration: Evidence from the Jordanian banking sector

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Abbreviation	Meaning
ASE	Amman stock exchange
ROA	Return on Assets
ROE	Return on Equity
EPS	Earnings Per Share
BOD	Board of Directors
MENA	Middle East and North Africa
CEO	Chief Executive Officer
VIF	Variable Inflation Factor
STATA	Statistics and Data
OECD	Organization for Economic Co-operation and Development
CG	Corporate Governance

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1. CHAPTER I: Introduction

1.1. Background

Recently, in both developed and developing countries, corporate governance has become a highly debated issue. It encompasses several aspects of the government's structure, including capital, labor, market, and organization, as well as the regulatory procedures that control them. Corporate governance has evolved into a global issue, with the development of corporate governance practices becoming a topic of central focus in all countries (Palaniappan, 2017).

The corporate governance concept was established after the agency problem and the conflict between the management and stakeholders which leads to an increasing importance of regulations to organize the relationship between stakeholders and solve the problem of absence of trust between the two parties.

The Agency Problem was and still is the most common problem facing corporations at the present time, which is the separation of the company's ownership from its management and the consequent conflict of interest between the management and the owners (shareholders). To avoid or decrease the agency problem, companies implement corporate governance practices that aim to control, direct and regulate the actions of managers and guide their interests towards maximizing shareholder owners wealth (Denis, 2001).

There is no agreed definition by researchers about corporate governance. According to the Organization for Economic Co-operation and Development (OECD), corporate governance is defined as the "Procedures and processes according to which an organization is directed and controlled". And the researcher defines it as a set of practices, procedures, systems, and rules through which firms are operated, managed, and

controlled. Corporate governance is divided into two mechanism, internal and external. And one of the most important internal corporate governance mechanisms is the Board of Directors, because the board is considered as the body entrusted by shareholders to assume responsibility for managing and directing the company towards achieving its objectives (Akpan and Amran, 2014).

The board utilizes its power and authority in appointing and dismissing management, providing incentives, monitoring its behavior, correcting its performance, and drawing up the corporate strategy to provide rational and wise management practices that can maximize profitability and saves the corporation from bankruptcy, which leads to establishment's continuity and maximizing market value and improves its financial performance of the corporate and the effectiveness of the board of directors depends on the presence of many factors related to its characteristics, such as the size of the board, gender diversity, the number of board meetings, and board independence (Zied and Mohamed, 2013).

Thus, this research aimed to analyze the impact of board characteristics and its seven dimensions (board size, gender diversity, board meetings, board age, board independence, multiple directorships, and the academic specializations of the board members on financial performance and its four dimensions (return on asserts, return on equity, earnings per share, and Tobin's Q) with the moderating role of ownership concentration at the Jordanian banking sector.

1.2. Problem Statement

Globally, banks are the key component of the financial system. They play a significant part in the economy and are crucial in providing financing to firms that want to grow and expand. In the Jordanian economic system, banks are the key element. And the banking sector activity in Jordan grew by 5.3% year-on-year in 2019 to reach the equivalent of US$ 75.7 billion by the end of 2019, compared to lower growth of 3.7% the year before (Central Bank of Jordan).

Corporate governance practices are a key contributor to reducing risks that faces the banking sector since banks differ from other corporations because of the extremely risky nature of the banking sector in general, which makes it necessary to imply more intense regulations which raise the importance of corporate governance. Moreover, corporate governance practices are a key contributor to reducing risks that faces the banks such as the high leverage ratio, the responsibility of safeguarding depositors' rights, and guaranteeing the stability of the payment system (De Andres and Vallelado, 2008).

In both developed and developing economies, when there is a financial crisis the board of directors is always on the scene to be accountable for the diminishing wealth of shareholders (Abu, et al. 2016). Thus, considering the important role of the board of directors in any firm or corporation in general, the boards in banks must have the appropriate characteristics that enable them to perform their work in the best manner and achieve the desired goals. This research investigates board characteristics than can enhance the financial performance of the Jordanian banking sector since board characteristics are considered one of the most important representers of corporate governance internal mechanism.

Therefore, it is in the light of the above, that this research investigates the impact of board characteristics on the financial performance of Jordanian banks listed at the Amman Stock Exchange.

1.3. Research Questions

This research aimed to provide answers to the following questions:

Main Question: What is the impact of Board Characteristics on banks financial Performance?

Sub Question:

1- What is the impact of Board size on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

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2- What is the impact of Gender Diversity on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

3- What is the impact of Number of Board Meetings on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

4- What is the impact of Board Age on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

5- What is the impact of Board Independence on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

6- What is the impact of Ownership Concentration on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

7- What is the impact of Multiple Directorships on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

8- What is the impact of Academic Specialization on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

9- What is the Moderation impact of Ownership Concentration on the relationship between Board Independence and banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

10- What is the Moderation impact of Ownership Concentration on the relationship between Multiple Directorships and banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

1.4. Research Purposes and Objectives

The main purpose of this research is to investigate the impact of Board Characteristics Board size, Gender Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization on banks Financial Performance which will be measured by Return on Assets, Return on Equity, Earnings per Share and Tobin's Q. Therefore, this research aimed to achieve the following objectives:

Main Objective: To analyze the impact of Board Characteristics on banks financial performance.

Sub Objectives:

1- To analyze the impact of Board size on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q).

2- To analyze the impact of Gender diversity on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q).

3- To analyze the impact of Number of Board Meetings on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q).

4- To analyze the impact of Board Age on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q).

5- To analyze the impact of Board Independence on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q).

6- To analyze the impact of Ownership Concentration on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q).

7- To analyze the impact of Multiple Directorships on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q).

8- To analyze the impact of Academic Specialization on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q).

9- To analyze the Moderation impact of Ownership Concentration on the relationship between Board Independence and banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q).

10- To analyze the Moderation impact of Ownership Concentration on the relationship between Multiple Directorships and banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q).

1.5.   Significance of the Research

This research has both theoretical and practical importance:

From a theoretical viewpoint, we can see that there is an internationally growing awareness of the importance of board of directors and how they can improve firms' value. Many studies such as (Kaur and Vij, 2017; Mohammed, 2018) investigated this topic but there is a limited number of recent studies on the Jordanian banking sector. Therefore, presenting research on the characteristics of board of directors and their impact on banks financial performance can have important contribution to enrich previous studies and literature about this topic. Moreover, this research will enrich the financial sector and specifically the banking sector with useful information and guidelines and provide a path for new studies and research and finally understanding the degree to which Jordanian banks comply with the Jordanian corporate governance codes.

On the other hand, no one denies that banks have a major role in developing the economies of countries, whether they are developed or developing countries. Therefore, the practical importance of this research stems from the importance of banks and their impact on our daily lives and investors investment decisions. So, addressing the characteristics of the board of directors of banks and their impact on the financial performance enables us to reach practical and real results that will benefit many stakeholders and decision-makers (shareholders, prospective and current investors, suppliers, and creditors) to judge the bank's future financial performance through the characteristics of its board of directors.

1.6.   Conceptual Framework of the Research

The research conceptual framework clarifies the dimensions of each of the independent, moderating, dependent and controlling variable of this research. Moreover, three main hypotheses were developed (H01, H02 and H03) and 8 sub-hypotheses were derived from the first main hypothesis (H01.1-H01.8).

This framework was developed by the researcher based on the following previous studies: [Palaniappan, G. (2017); Akpan, E. O., & Amran, N. A. (2014); Dagsson, S., & Larsson, E. (2011); Ishtiaq, et al. (2017); Habtoor, (2020)].

1.7. Research Hypotheses

Based on the problem statement, research questions, research objectives and the conceptual framework the following hypothesis were developed:

Main Hypotheses:

1- H01: There is no significant impact of Board Characteristics on banks financial performance at level ($\alpha \leq 0.05$).

Eight *Sub-hypotheses* are derived from the first main hypothesis as follows:

H01.1: There is no significant impact of Board size on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.2: There is no significant impact of Gender Diversity on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.3: There is no significant impact of Board Meetings on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.4: There is no significant impact of Board Age on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.5: There is no significant impact of Board Independence on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.6: There is no significant impact of Multiple Directorships on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.7: There is no significant impact of Academic Specialization on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.8: There is no significant impact of Ownership Concentration on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

2- H02: Ownership Concentration does not Moderate the impact of Board Independence on Financial Performance at level (α≤0.05).

3- H03: Ownership Concentration does not Moderate the impact of Multiple Directorships on Financial Performance at level (α≤0.05).

1.8. Procedural Definitions

- *Board of Directors:* An elected or appointed body of members who are responsible for overseeing a firm's activities towards success.

- *Board Size:* It represents one of the characteristics of the board of directors, and it refers to the total number of board members who oversees the firm management.

- *Gender Diversity:* refers to the Percentage of women directors on the board of directors. It's calculated by dividing the total number of female members by the total number of the board member.

- *Board Meetings:* Refers to the number of official Meetings held by the board of directors within a fiscal year. the number of board Meetings mainly depends on the circumstances of the firm.

- *Board Age:* is the number of young directors of the board between the ages of 25 to 45 years divided by the total number of boards.

- *Board Independence:* Board of director independence is considered one of the most important qualitative characteristics of the board, and it represents the percentage or number of independent (non-executive) members on the board. A non-executive director is a member of the board of directors of a corporation. This board member is

not a corporate employee; hence they aren't involved in the day-to-day operations of the firm.

- *Ownership Concentration:* is an important external governance mechanism where the owners (shareholders) can control and influence the management of the firm to protect their interests. which can lead to the optimal selection of managers who represent the interests of the shareholders. It's often determined by the percentage of the total number of shares they own (owns at least 5% of the total number of outstanding shares).

- *Multiple Directorships:* Refers to the number of members who hold multiple memberships on the boards of directors of other firms.

- *Academic Specialization:* It is a field of knowledge that includes experience, studies, investigation, and areas of research that are closely related to that field of science to provide people with academic and scientific skills specialized in that field. In this context, it was expressed by members of the board of directors who have academic and scientific degrees in accounting, finance, economics, and management or business.

- *Financial performance:* A subjective measure (that is based on personal opinion) represents the firm ability to achieve its financial goals at the lowest possible costs and achieve financial balance.

- *Return on assets (ROA):* It is one of the important profitability ratios that measure the success of the firm. it indicates how profitable a firm is relative to its total assets. Its calculated by dividing a company's net income by total assets.

- *Return on equity (ROE):* Measure of financial performance represents the total return on equity and shows the company's ability to turn equity investments into profits. Its calculated by dividing net income by shareholders' equity.

- *Earnings per share (EPS):* An Indicator of the company's profitability. Represent the return achieved by the shareholder. It's calculated as a company's net income divided by the outstanding shares of its common stock.

- *Tobin's Q:* Known also by the (Q) ratio, technique of judging if a certain company is overpriced or underpriced by investigating the relationship between market valuation and intrinsic worth. Tobin's Q is calculated dividing (Market value of equity + book value of total liabilities) by book value of total assets.
- *Firm size:* as a control variable, its estimated as the logarithm of the total assets' book value.
- *Leverage:* as a control variable, its calculated by dividing the book value of total debt by the book value of total assets.

1.9. Limitations of the Research

Place limitations: This research is carried out in the Jordanian listed banks at Amman Stock Exchange (ASE).

Time Limitations: This research is carried out within the second semester of the academic year of 2021-2022.

Scientific Limitations: This research is based on secondary data (those data that are already collected before), and it is recommended for further studies to try to use more primary data which can have more authenticity and contain up-to-date data.

The period of the research covers only seven-year duration (from 2014 to 2020) due to the manually hard data collection process. Moreover, the findings of the research may differ from a financial proxy to another.

2. CHAPTER II: Literature Review and Previous Studies

2.1. Introduction

The first part of this chapter presents and summarizes literature about the research. In this part, the researcher seeks to clarify all concepts related to the research variables by addressing the corporate governance and its theories, moving to of the board of directors and its characteristics, to the financial performance, and ending with brief about Jordanian corporate governance and banking sector. The second part presents previous studies related to the subject of the research. Lastly, third part present the contribution of this research and conclusion.

2.2. Literature Review

Corporate governance

Corporate governance c includes the mechanisms, relationships, and processes by which a corporation is controlled and direct it with the aim of achieving balance between the interests of the various stakeholders. So, in other words, it's a system that aims to guide and monitor the corporation and achieve the goals to maximize shareholder ownership and balance the interests of shareholders and society as a whole through the board of directors, progress of laws and regulations, the distribution of rights and responsibilities among the various parties of the firm.

As a result of the growing worries about corporate fraud and dishonest financial reporting, corporate governance has suddenly gained popularity among professional organizations, regulators, and academics in both developed and developing countries. There is substantial disagreement over the meaning of corporate governance. However, the definitions are classified as narrow or wide. The narrow definitions are predicated on Meeting the needs of shareholders, the wide definitions, on the other hand, are based on serving the interests of stakeholders (Bhaumik, et al. 2019).

The definition is essentially concerned with the epistemological assumptions at work. For instance, corporate governance may be regarded from the perspective of the shareholders, which simply implies the motive of the principals to increase their wealth, or from the perspective of the organization, in terms of controlling mechanisms to regulate and sustain company operations. Likewise, Tricker (1984) states that management and governance differ from each other's in that it entails determining the company direction, participating in executive action, monitoring, and responsibility.

As it is often difficult for owners in a contemporary public corporation to be responsible for corporate activities, they appoint agents to handle the operations in their interests. Governance issues such as conflicts of interest arise in this environment, especially if shareholders are dissatisfied with their return on investment. Consequently, corporate governance challenges come because of the need to address agency issues, and more significantly, as a result of shareholders' efforts to defend themselves against the expropriation of their wealth (Ding et al., 2021).

Corporate governance theories

Corporate governance is becoming increasingly important, particularly in relation to corporate boards and their roles in managing the corporate function. Consequently, the theoretical viewpoints that are pertinent to this research are based on the governance structures which influence business performance. This chapter presents an overview of the theoretical viewpoints on corporate governance; agency theory, stewardship theory, resource dependency theory, and stakeholder theory; which is a major focus of this research.

Agency Theory

Agency theory is the base of most of the corporate governance research. The separation of control and ownership has been the focus of corporate governance from the early work of Berle and Means (1932), which result in the creation of the problems

of principal-agent. However, in order to decrease the challenges that come from the principal-agent relationship, the mechanism of corporate governance was presented as a method in which the board of directors plays an important role in monitoring. In this case, the managers are agents and the owners are the principals, with the board of directors serving as the monitoring mechanism (Ghaleb, et al., 2021).

The directors' agency role refers to how the board's governance operates in terms of serving shareholders via accepting and monitoring the execution of decisions made by managers. This field of research has a significant amount of literature (Thompson, et al., 2018; Cordeiro, et al. 2020; Boivie, et al. 2021). Since, according to agency theory, the major concern of the board of directors is the shareholder and maximizing their value, the majority of research has examined the board's composition in terms of the importance of its governance and monitoring functions (García-Meca and Palacio, 2018; McLeod, 2019; Naciti, 2019).

Using the principal-agent paradigm to conceptualize the board of directors has been used to describe how boards should be organized and how they should function (Boivie, et al. 2021). Corporate governance, according to agency theory, is a framework in which a board of directors serves as a monitoring instrument to solve the challenges generated by the relationship between the principal and the agent. Accordingly, the primary activity of the board is the internal control and governance function, but outside board members are thought to be more successful than internal directors at managing and protecting the interests of shareholders (Hillman and Dalziel, 2003). As a result, the composition of the board has an impact on monitoring mechanisms. For instance, the board's monitoring function is enhanced further if the CEO and the chairman have separate roles. When a CEO serves as both CEO and chairman of the board, the ensuing routes of communication and lines of power might impede and weaken the shareholder protection needed (Nicholson and Kiel, 2007). Another example is that boards with a larger number of independent directors who are focused on the interests of shareholders may effectively monitor managers and hence increase the company's value (Wang et al., 2012).

Stewardship Theory

Stewardship theory presents a distinct management paradigm in which managers are viewed as outstanding stewards who will act in the owners' best interests (Chrisman, 2019). Managers, as per stewardship theory, are essentially trustworthy individuals who are great stewards of the resources assigned to them (Kearns, 2022). The theory is largely anchored on social psychology, which focuses on executive behavior. The behavior of the steward is group-oriented and it is more useful than individualistic, self-serving behavior. Stewardship theory recognizes the shareholder-management relationship is founded on trust, which decreases the expenses of monitoring and controlling management behavior (Abdullah and Valentine, 2009).

Furthermore, the steward's behavior does not depart from the interests of the organization since the steward seeks to get what the organization desires. However, Smallman (2004) contends that if shareholder wealth is desirable, steward utility is likewise optimal since organizational performance meets most conditions and stewards have a clearly defined goal. Smallman (2004) went on to say that stewards help to reduce conflicts between diverse interest groups and beneficiaries. As a result, stewardship theory advocates for the performance of the firm that fulfils the requirements of all stakeholders involved, resulting in dynamic performance equilibrium in connection to balanced governance.

In order to decrease agency costs, stewardship theory advocates for CEO duality, saying that corporations should not split the dual functions of CEO and chairman. The CEO duality promotes harmony among the board, management, and shareholders, allowing the firm to be more efficient and successful in attaining its objectives (Fantl & McGrath, 2009). Furthermore, higher business performance, according to this theory, will be related to a higher number of inside directors, who will normally try hard to maximize

the value of shareholders since they spend their entire working life in the company, giving them a better understanding of the company's activities (Gaur et al., 2015).

Resource Dependency Theory

Lawrence and Lorsch (1967) were among the first to recognize a relationship between corporate governance and resource dependence theory. They said that successful organizations have internal structures that are in accordance with their environmental reliance, which was reinforced by Pfeffer's (1972) argument that both size and composition of the board are a predictable organizational reaction to the conditions of the external environment. Furthermore, because dealing with uncertainty effectively is critical for a company's existence, directors may choose to bring in outside resources to help the firm adapt to uncertainty (Hillman, et al, 2000).

The resource dependence role implies that the directors provide resources that minimize uncertainty, such as skills, information, essential relationships, and legitimacy (Gales & Kesner 1994). As a result, Hillman et al. (2000) claimed that linking the company with outside environmental elements and reducing uncertainty might result in lower transaction costs concerning external linkage. This hypothesis supports the assumption that it is helpful for companies when individuals serve as directors on many boards because it increases their capacity for acquiring information and networking for the benefit of all the organizations with which they are involved.

Stakeholder Theory

Stakeholder theory expands on the notion of stakeholders and their relationship to any corporate company. According to Freeman (1984), a stakeholder is any group or individual who may impact or is affected by the fulfilment of the organization's objectives. According to Friedman and Miles (2006), the organization should be viewed

as a collection of stakeholders that the organization's main goal is to manage their interests, requirements, and points of view. Managers of commercial enterprises must grasp, respect, and diligently apply the propositions of stakeholders' theory in order to attain overall company objectives. For every stockholder in the organization, the agents must try to safeguard and defend their interests for the companies to survive.

Agency problem

The agency problem has been and remains one of the most common problems facing corporations in our recent time. Berle and Means (1932) introduced the theory of modern firms where ownership is separated from management. The term of "agency problem" developed from the "agent problem" which is conceptualized by (Jensen and Meckling 1976). In general, we can define agency problem as the conflicts of interest inherent in any relationship where someone is expected to act in another's interests, which is unlikely to be true. In corporate world its defined as the separation of corporate ownership from its management which leads to the conflict of interest between the two parties. To avoid the agency problem, owners (shareholders) accept costs called the agency costs. According to (Jensen and Meckling, 1976) there are three types of agency costs which are monitoring cost, bonding cost and residual cost. The first occurs when shareholders (owners) pay to monitor the administrative actions taken by the management. According to Depken, et al (2006) "Bonding cost are those the manager takes upon himself to reduce agency conflict; that is, efforts undertaken at the expense of his own utility." While residual cost is the remaining cost after taking both monitoring and bonding cost in consideration.

Board of directors

The board of directors is one of the most effective internal mechanisms for corporate governance. One of the board main tasks is to supervise the executive management in the

representation of shareholders, where the boards use their time and available resources to monitor the performance of the firm and the behavior of executives (Pucheta-Martínez and Gallego-Álvarez, 2020). In one way or another, board of directors remains the first and last responsible for leading the organization towards the best levels of performance.

The boards of directors are the basis and critical aspect of corporate performance. The board serves a strategic purpose by establishing the organization's vision, mission, and goals. The boards of directors are in charge of establishing work policies, plans, programs, and objectives, defining responsibilities and procedures for performance evaluation. Consequently, the effectiveness of the boards of directors is determined by a collection of factors that influence company performance. As a result, the significance of this research is to uncover these traits in order to aid in the strategies of building company boards in a way that assures increasing performance to the max.

Many scholars have focused their attention on the boards of directors' features. Since then, scholars' perspectives have shifted to address the essential aspects of the boards of directors via research and analysis, as well as their impact on financial performance. The present business environment difficulties and the COVID-19 pandemic have piqued the interest of academics and governing agencies in improving company financial performance and quantifying boards of director efficiency. As a result, corporate governance guidelines recognize the significance of these activities and the features of a company's board of directors are considered as an important component of these guidelines, as well as the major component of corporate governance initiatives (Gardazi et al., 2020).

Board characteristics

The importance of the studying board characteristics lies on the fact that the characteristics of the board of directors are considered one of the most important internal practices of corporate governance, which can correct and enhance the decisions of the firm management, create value to firm and maximizing the wealth of shareholders.

According to Yermack (2006), investors and other shareholders have noticed that board members have the ability to increase or decrease a company's value. The problem arises when it comes to determining how to choose the best board of directors to operate a company. Many aspects were seen to influence the board's operation, including the abilities and competency of its members, as well as contextual considerations such as size. Recently, studies have explored various features of the board, such as its size, age, and gender, and conflicting opinions have been expressed concerning their influence on performance.

Board size

Board size refers to the total number of directors in the board. According to the Jordanian corporate governance code, the number of board members in Jordan listed banks ranges from five to thirteen. Board size considered as an important factor that determine the effectiveness of the board. Aalthough there are much research that have examined the relationship between board size and company performance, the results have been shown to be different. Shakir (2008) and Al-Matari, et al (2012) find a negative relationship between board size and financial performance and they argued that firms which have a small board tend to be more effective in monitoring. On the other hand, Badu and Appiah (2017) finds significant and positive relationship between the board size and firms' financial performance and supports who argued that large board tends to have more variety of skills, and which can let to better decision making and better performance.

The number of directors serving on the board determines the size of the board. Previously, academics attempted to establish a relationship between board size and performance and the results were conflicting, some came with negative relation (Bonn, et al. 2004) and others with positive relation (Adams and Mehran, 2008). Furthermore, in certain circumstances, board size has no meaningful effect on performance (Bermig & Frick 2009). According to Coles et al. (2008), the firm's complexity may impact how the

board size and performance are related. Al-Manaseer et al. (2012) contend that large-sized boards have coordination issues in deciding.

According to Dalton (2005), small board sizes lack the benefit of having varied expert viewpoints, whereas large boards are related to diversity in terms of experience, gender, and skills. A lack of variety in viewpoints can have a detrimental impact on performance. Jensen (1993) utilized an OLS regression model to discover a negative association between the size of the board and the performance. Jensen (1993) argued the coordination difficulty with huge boards, will inevitably exceed the benefits of having more directors, while smaller board size is preferable since it allows for better industrial and managerial operations, which finally leads to cost reduction and downsizing.

Adam and Mehran (2008) investigated that relationship in the United States banking industry as assessed by Tobin's Q but no relationship with Return on Assets (ROA). The findings, such a performance link may be industry-specific, showing that larger boards operate effectively for particular types of organizations based on their organizational structures.

Gender diversity

Gender diversity refers to the percentage of woman on board of directors. There are many researchers who studied the relation of gender diversity on enhancing financial performance such as Kang et al, (2010). Based on a study done by Smith et al. (2006) it found that gender diversity brings more quality and creativity in board decision-making and may lead to better performance.

Gender diversity is a subset of the larger idea of board diversity. Boards are concerned with ensuring that they have the correct composition to give varied opinions. Greater female presence on boards brings certain extra skills and views that male boards may not be able to deliver (Imuetinyan, 2021). Diversity on the board encourages

more problem-solving and effective monitoring as females will offer varied perspectives to the boardroom and would spark exciting boardroom arguments (Terjesen, et al, 2016).

Dagsson and Larsson (2011) employed regression analysis to investigate the association between gender diversity and business performance. The sample of the study was the listed companies on the OMX Stockholm exchange. The study analysed performance implications of age diversity on the board and concluded that the board size, director tenure, and gender diversity may all have an impact on performance

Judge published a paper titled "Women on Board: Help or Hindrance?" in 2003. The influence of women on boards of UK FTSE 100 firms was investigated in this article. It stated that firms with more women on their boards perform worse than the typical FTSE 100 company. Companies with no women on their boards, on the other hand, outperform the FTSE average.

On the other hand, Rose (2007) discovered no significant association between the ratio of female board members and Danish business performance in research conducted in Denmark. According to a Harvard University study conducted in 2010, women on boards are particularly curious about some essential governance problems such as analysing their board performance and giving help on supervisory tasks of the board.

Board Meetings

Refers to the total number of meetings held by the board within a fiscal year. According to Jordanian corporate governance code, the number of meetings of the board should not be less than six meeting during the fiscal year, and that no more than two months elapse without holding a meeting. Board meetings are an effective way to measure the efforts of the Board of Directors in the process of monitoring and advising the firm (Buchdadi et al, 2015). The results of studying number of board meetings seems to be dissimilar. Some studies find a negative relationship between board meetings and

performance such as (Ilaboya and Obaretin, 2015). Others believe that frequent meeting will enhance the financial performance.

Board meetings is defined as a gathering of the board's directors to address matters concerning the firm (Min and Chizema, 2018). Similarly, a board meeting acts as a method or a channel for a company's successful decision-making. According to agency theory, boards with frequent Meetings have substantial capacities in terms of counselling, disciplining, and supervising management activities, hence improving performance.

Liang et al. (2013) discovered a positive impact of board meetings on asset quality and performance of China's 50 biggest banks from 2003 to 2010. Similarly, Al-Matari et al. (2014) discovered that board size is positively connected to performance using 81 businesses listed on the Muscat Security Market (MSM) in Oman for two years (2011 and 2012).

In contrast, Khatib and Nour (2021) discovered that board meetings are inversely connected to performance in Cyprus. While Harvey et al. (2015) discovered that the frequency of board meetings and performance is negatively related by a study conducted in South Africa.

Board age

Board age is another important characteristic of board of directors, and it refer to percentage the young board members of the board of directors. We can say board that have different age groups are great benefit to corporations. Hambrick and Mason (1984) argued that corporation with more younger managers experience a higher growth rate than corporation with more older managers.

There have been few studies done on the implications of age on company performance. According to Wegge et al. (2008), diverse age is beneficial when the work is complicated since it increases the capacity of solving high complex challenges. On the

other hand, a study by According to McIntyre et al. (2007), a firm's performance will be worse in the situation of low or high variability in the ages of directors. The research used data from TSE 300 Composite Index companies in Canada, and Tobin's Q was used to assess performance. However, no recommendations are made regarding the ideal degree of age diversity.

Board Independence

The number of non-executive directors on a company's board is referred to as its board Independence (Bencomo, 2021). Non-executive director presence on the board, according to Fama and Jensen (1983), boosts board independence, objectivity, and competence. In addition, according to agency theory, a higher number of non-executive directors on the board improve the performance and achieve the best interests of the shareholders (Pham et al., 2021). Similarly, according to the assumption of resource dependency theory, corporations that invite and appoint influential community members to their boards obtain crucial resources from the external environment, which may contribute to increased performance.

CEO duality

The Separation of roles is one of the main things in the process of ensuring a balance of power between two parties and to avoid conflicts of interest that may occur between them in the absence of a separation between decision management and decision control, it will be difficult to monitor and evaluate the CEO effectively. Chief Executive Officer (CEO) duality is a situation that occurs when the same person holds both the CEO and board chairperson positions in a corporation (Rechner and Dalton, 1991). The findings from previous studies shown to be mixed. According to Yang and Zhao (2014) find that duality firms outperform non-duality firms. On the other hand, CEO duality shows negative impact on financial performance (Dogan et al, 2013).

One main role of the CEO is to establish the agenda in order to discuss important matters and provides information to the board, but if he was the chairman his split personality creates some information issues due to his double role if the duality occurs. The complexity of boards derives from a desire to pursue institutionalized procedures derived from cultural and social conventions, which postpone responsiveness to bad outcomes. Kang and Zardkoohi (2005) found no significant association between duality and business value when controlling for moderating variables. Both separation and duality have no discernible influence on financial performance, and this relationship is dependent on the board's composition (Hsu et al., 2021).

According to Kang and Zardkoohi (2005), duality is a non-random phenomenon that is influenced by appropriate conditions such as: "a reward for a CEO's good performance; a solution to environmental resource scarcity, complexity and dynamism; conformity to institutional pressures; a result of social exchange reciprocity, and an imposition by a powerful CEO".

Furthermore, the two positions should be separated and filled by different people, according to Jordanian corporate governance codes (Central Bank of Jordan).

Multiple Directorships

Board expertise is critical to ensure that the board's oversight job is achieved properly (Yatim, 2010). According to Nadarajan et al. (2015), serving on the boards of more than one firm will enhance the skill and the knowledge of the board member. Theoretically, resource dependency theory contends that directors who serve on multiple boards rely on external resources to help the firm and ensure effective business operations, which ultimately improves firm performance (Kiel and Nicholson, 2007).

Similarly, Yatim (2010) thinks that board knowledge is critical in ensuring that the board's oversight job is properly carried out. Andreou et al. (2014) found that the proportion of directors serving on the boards of other businesses has a positive

correlation with company performance and financial management choices using a sample of 33 maritime enterprises listed in the US for 12 years (1999-2010). Furthermore, Dass et al. (2014) discovered that directors from different industries had a considerable influence on the value of US enterprises. Saleh, (2020), on the other hand, reveals a no significant impact of multiple directorships on firm performance.

Academic Specialization

The difference in the educational specialization of the members of the board of directors may affect the board in finding innovative solutions and a greater ability to deal with complex issues to provide the possibility of greater flexibility and greater opportunities to accept and adopt new ideas

Academic specialization directors are often regarded as role models, mentors, and intellectual leaders in their respective fields of specialty or study (Macfarlane, 2011). Besides, academic directors are outside directors with a somewhat better reputation who are taught to be independent, analytical, and fair thinkers with their thoughts and judgments, are less swayed by others and maybe assertive when necessary (Jiang & Murphy, 2007). Academic directors are individuals who have an academic work life and academic habits, with significant experience in many aspects of academic activity, such as research, teaching, and service activities that include leadership and managerial responsibilities. A professor's major tasks, for example, include providing leadership and professional support activities such as research and teaching, mentoring, and representing the institution in interactions with the larger community (Meyer, 2012).

However, current corporate governance research argues that the nomination of academics to the board can result in effective monitoring and advising function of the board, as well as the availability of significant knowledge resources for strategic choices (Bammens et al., 2011; Ayuso and Argandoña, 2009).

Ownership Concentration as Moderating Variable.

Managerial hegemony theory, which is largely founded on the idea that management has unrestricted authority to pick and appoint board members, is claimed to be irrelevant in a situation of ownership concentration. There are two possible reasons for this; firstly, for starters, a concentrated shareholder ship causes a shift in power dynamics and large shareholders, as opposed to scattered small owners, have direct control over firms and may influence management's decisions (Denis and McConnell, 2003). As a result, concentrated shareholder ship leads to a tendency toward shareholder control at the expense of management. Secondly, a key characteristic of the Belgian corporate governance system is that the appointment and removal of directors is still the legal duty of shareholders (Van Der Elst, 2006). This legislative provision limits management's ability to influence the selection of directors and so capture the board of directors.

Agency theory, on the other hand, remains important in the setting of closely owned businesses, but from a different perspective. The issue here is not a conflict of interest between owners and managers, but rather a conflict of interest between the majority shareholder and smaller shareholders. The challenge of managerial control is less severe in a situation where shareholders own a big portion of the stock than it is in a scenario with dispersed ownership. Outside block holder ownership, on the other hand, is not an absolute good factor from the perspective of other shareholders since holders of large blocks of shares can participate in actions that benefit them at the expense of minority shareholders (La Porta, 2000). The use of a significant shareholder's control position to get special benefits is referred to as "private benefits" (Van den Berghe et.al., 2002). To put it succinctly, with scattered ownership at one end of the spectrum of ownership and control and concentrated ownership at the other, the form of agency conflicts will differ depending on who is in charge. While scattered ownership produces weak shareholders and strong managers, the concentration of ownership produces powerful majority shareholders, weak managers, and weak minority shareholders (Gugler, 2003).

In both circumstances, an unequal power structure develops, posing the risk of misappropriation of company resources and the formation of conflicts of interest. As a result, boards of directors might be considered as an essential governance monitoring instrument. Furthermore, boards are regarded as important for safeguarding a company's interests in general, and the interests of minority shareholders in particular.

Financial performance

There is no clear definition of financial performance because it is a subjective term that is based on personal opinion. However, financial performance can be defined as the results of the comprehensive activity practiced by the corporation, which determines the level of its achievement and its exploitation of its resources and capabilities. In other words, financial performance evaluates and reflects both firms' capabilities and abilities towards achieving their objectives. Evaluating financial performance is important because firstly, determining the relative preference of the investment opportunities following the concept of commercial profitability, and choosing the opportunity that achieves the investor's goal. Secondly, it considers a practical method to help investors decide to invest in a specific project. Thirdly, a means of persuading creditors to provide appropriate financing under appropriate terms.

Although assessing financial performance is seen to be an easier undertaking, it does have its own set of complexities. There is also limited agreement on the measuring tool to use in this case. Some studies employ market measurements (Barauskaite and Streimikiene, 2021), while others propose accounting measures (Otley, 2002). However, the two measurements, reflect alternative approaches to evaluate the financial performance and have different theoretical consequences.

Accounting measurements, in other words, only record past characteristics of corporate performance and are prone to prejudice because of administrative manipulation and discrepancies in accounting methods.

To evaluate a firm's financial performance financial analysts, use a set of mixed calculations called ratios. The financial ratio can be defined as a quantitative indicator of how well a company performs. In the case of this research, three profitability indicators which are the return on assets, return on equity and earnings per share and one market value indicator which is Tobin's Q will be utilized as proxy's financial performance. Information concerning return on assets, return on equity, earnings per share and Tobin's Q is expected to be able to provide an appropriate assessment of bank's financial performance.

Return on Assets

Return on assets (ROA) is one of the most widely used and valuable financial ratios that indicates how profitable a company is concerning its total assets (Jewell and Mankin, 2011). Managers, analysts, and investors can use ROA to determine how successfully a company uses its assets to generate a profit. The value of ROA is frequently expressed as a percentage by combining a company's net income and average assets. A higher value of ROA indicates that a company is more successful and productive in managing its balance sheet to generate profits, whilst a lower value of ROA indicates that there is still room for improvement.

Return on Equity

Return on equity (ROE) is a financial metric that indicates how the company is profitable and efficient in producing profits. ROE is determined by dividing net income by shareholders' equity. The value of ROE is defined as the return on net assets since shareholders' equity equals a company's assets less its debt. ROE is derived as a two-part ratio by combining the balance sheet and the income statement, where net income or profit is compared to shareholders' equity. The ratio measures the firm's capacity to transform equity investments into profits. In another word, ROE evaluates the profits earned from shareholders' equity for every invested dollar.

Earnings per Share

Earnings per share (EPS) typically is used to calculate the profitability of a business by dividing a company's earnings by the number of outstanding common stock shares. It is common for a company to report EPS that have been modified for unexpected items and potential share loss.

Tobin's Q

Tobin's Q or (the Q ratio) is a technique of judging if a certain company is overpriced or underpriced by investigating the relationship between market valuation and intrinsic worth. Tobin's Q (the Q ratio) is calculated by dividing a company's market value by the replacement cost of its assets. As a consequence, when the market value matches replacement cost, equilibrium is reached. This indicator provides us with information on the expectations of performance in the future of the invested assets.

Previous empirical research and studies has employed several metrics of corporate governance-based company performance: for example, Babatunde and Olaniran (2009) use ROA and Tobin's Q as measures of firm performance in 62 Nigerian Stock Exchange-listed enterprises. Likewise, Haat, Rahman, and Mahenthiran (2008) present empirical evidence for the influence of corporate governance standards on business performance by utilizing ROA and ROE as performance proxies among a sample of 50 non-finance firms listed on Pakistani stock markets.

Heenetigala and Armstrong (2012) explore the impact of corporate governance standards on business performance and use ROA, ROE, and Tobin's Q to quantify performance using data from annual reports of 37 Sri Lankan enterprises between 2003 and 2007. As a result, the conceptual framework employs comprehensive measurements of financial performance based on accounting formulas (ROA and ROE) and Tobin's Q.

Corporate governance in Jordan

According to the Jordanian corporate governance code (Central Bank of Jordan). The board of directors' structure should be small enough (minimum 5) to allow for quick decision-making, yet large enough (maximum 13) to allow directors to contribute their diverse experiences and insights. To ensure the capacity to make decisions by majority vote, the board should consider having an odd number of directors or ensuring that the chairman with the casting vote is an independent director. All board members must be shareholders, and legal entities may serve on boards, which is a typical practice. However, gender diversity on the board is quite low.

Banks must follow the Central Bank's Corporate Governance Instructions ("CG Instructions for Banks"), which require them to have independent directors. Independence is defined in at least three places: "The Corporate Governance Code for Unlisted Companies, the Corporate Governance Code for Listed Companies, and the CG Instructions for Banks". The CG Instructions for Banks state that directors who possess less than 5% of the company's capital may nevertheless be deemed independent; the Code for Listed Companies raises this level to 10%. The Board of Directors of Unlisted Companies has the authority to set this criterion under the Code for Unlisted Companies.

Listed businesses must form an audit committee, while banks must also establish nomination and remuneration and risk management committees. The board of directors should hold one meeting every two months so that the number of its meetings during the fiscal year is not less than six to review a variety of key matters relevant to the organization, such as management performance and the company's overall performance. The number of meetings is disclosed in the company's annual report for each bank. While the positions of Chairman and CEO are separated in the Jordanian banks, they have separate tasks, and to prevent competing interests and maintain efficient management supervision, the two roles should be filled by different persons. If feasible, the Chairman should be appointed by the Board of Directors, particularly from among the Independent Directors.

The codes for listed and unlisted companies both prescribe that board members have sufficient expertise and experience. Board members of financial organizations are obliged to have knowledge in the banking sector or a related field. At least one-third members of a bank must be independent. It is also advised that at least one-third of the board members of publicly traded businesses to be independent, while unlisted companies should have at least two independent directors.

Listed firms and banks are required to form an audit committee comprised of non-executive members with financial and accounting skills and experience. The majority of these members must be independent in the case of banks; for other firms, this is just advised. Banks are also required to form nomination and remuneration committees, with independent directors making up most of the membership. These committees should be formed by both listed and unlisted firms. Only five of the ten largest publicly traded corporations report having an audit committee in existence. Banks are also expected to establish governance and risk committees, which must include at least some independent directors.

Jordanian banking sector

Jordan has a highly developed banking sector by regional standards, with a diverse range of commercial, investment, and retail services. Jordan's banking sector is the most powerful in the country's financial services industry, going back to 1948 when Arab Bank

relocated its headquarters from Jerusalem to Amman. Banking accounted for 18.82 % of GDP in mid-2015, making it one of Jordan's main economic sectors.

Despite persistent regional volatility, low oil prices, and decreasing domestic GDP growth, the banking industry remains robust, reliable, and appealing to investors which benefit from no taxes on capital gains, unrestricted repatriation of investment and income and no cap on foreign equity participation and privatization.

The number of banks operating in Jordan reached 24 at the end of 2020, these banks are divided into sixteen Jordanian banks, three of which are Islamic banks and eight branches of foreign banks, including one branch of an Islamic bank. These banks practice their activities through 871 branches and 70 offices (Central Bank of Jordan, Annual Report, 2020).

Jordan has an extensive legal framework "Central Bank of Jordan Law, Banking Law and Anti-Money Laundering and Combating Financing of Terrorism Law, the Money Exchange Business Law, The Public Debt Law, Foreign Currency Control Law, Electronic Transactions Law".

2.3.   Previous Studies:

1.   Taufik and *Chua, (2022)*

BOD characteristics and firm performances: Evidence from Indonesia: This research empirically determined the impact of board characteristics such as gender diversity, the board size, independence, meetings, tenure, turnover, and remuneration on the financial performances of 237 Indonesia Stock Exchange-listed companies during 2016-2019. The finding of the study revealed that there is a positive relationship between the board size and board remuneration on the financial performance measured by ROA, and ROE. However, other variables such as gender diversity and independency were ineligible for stewardship since corporations did not support them, while tenure, board meetings, and turnover did not show any impact on

the financial performance. The findings of the study highlighted the ideal board size, that could be used as a guideline for regulatory modifications. In addition, the findings provide empirical evidence for the authorities on the presence of female board members and board independence in regulation, as well as recommendations for corporations to assess director tenure and recruiting systems.

2. *Benvolio and Ironkwe, (2022)*

Board Composition and Firm Performance of Quoted Commercial Banks in Nigeria: The purpose of this research is to investigate the association between board composition and company performance in Nigerian listed commercial banks. From 2011 to 2021, data on multiple factors of board composition and firm market value were gathered from the annual financial reports of all fourteen Nigerian commercial banks that are publicly traded. In order to analyze the data, researchers used ordinary least square regression analysis, descriptive statistics, Hausman specification test, likelihood ratio test, panel stationarity test, lagrange multiplier test, lag length selection criterion, and panel auto-regressive distribution lag brand test. The empirical findings showed that board composition has a significant impact on business performance, accounting for about 85.1 percent of the entire variance in firm market value. The research concluded that board composition has a significant impact on firm performance and recommends that a strong and mandatory corporate governance structure be implemented to ensure that the board of directors is made up primarily of members who are both, directly and indirectly, independent of the firm.

3. *Altass, (2022)*

Board diligence, independence, size, and firm performance: Evidence from Saudi Arabia: The purpose of this research is to investigate whether there is a relationship between the board of directors' effectiveness and performance. The data for this research comes from companies in the Tadawul All Share Index of the Saudi

Exchange Market. The results show that the frequent board meetings may not contribute to higher performance when using pooled OLS regression analysis using the dependent variables of ROA and ROE as a proxy for performance, and board meetings, independence, and board size as explanatory variables. Furthermore, the findings revealed that the frequency of board meetings is inversely related to performance. Independent members do not add to the efficiency of the group, resulting in improved performance. When it comes to board size, the data showed that larger boards are linked to worse performance. These studies shed light on how the size of a board affects performance which Decision-makers, politicians, and investors will be interested in.

4. *Waheed and Malik, (2021)*

Institutional Ownership Board Characteristics and Firm Performance: A Contingent Theoretical Approach: This research used the Arellano-Bond dynamic panel-data approach under the conditions of generalized techniques of moments to evaluate the moderating influence of 287 non-financial sector enterprises listed on the Pakistan Stock Exchange (PSX) concerning corporate governance and firm performance characteristics during the period from 2005 to 2015. The financial institutions' moderating influence on corporate governance and performance was validated by the suggested framework of this study. According to the study findings, larger institutional ownership in a firm's ownership structure opposes the increased size of the board but supports a greater proportion of independent directors in the governing body. The findings of the study give a better knowledge of the role of Pakistani financial institutions in corporate governance and performance mechanisms.

5. *Bekiaris, (2021)*

Board structure and firm performance: An empirical study of Greek systemic banks: The impact of board features such as board size, board independence, CEO duality, female directors, and foreign directors on the financial performance of the bank during the Greek financial crisis from 2008 to 2018, is investigated in this

research. According to the findings, the board structure, board size, board independence, and chairman independence, in particular, have a significant impact on performance, while the impact of diversity on performance was unclear, as female directors had a positive impact whereas foreign directors had a negative impact. By considering the factors identified as crucial in this study, these findings may be able to assist banks in improving their performance. Furthermore, authorities might use the findings to create new guidelines to support and enhance performance.

6. *Sobhan, (2021)*

Board Characteristics and Firm Performance: Evidence from the Listed Non-Banking Financial Institutions of Bangladesh: This study investigated the impact of board characteristics namely, the board size, number of meetings, the proportion of independent directors, gender diversity, and directors' ownership on the financial performance of Bangladesh's listed non-banking financial firms. The regression findings demonstrate that gender diversity and the size of the board are both positively and significantly related to the financial performance. However, the findings showed that the other board characteristics such as the ownership proportion, the percentage of independency in the board of directors, and the number of board meetings do not influence the financial performance. The findings of the study will guide authorities and politicians in their attempt to unify Bangladesh's corporate governance practices with those of developed nations.

7. *Amedi and Mustafa, (2020)*

Board Characteristics and Firm Performance: Evidence from Manufacture Sector of Jordan: The purpose of this study is to examine the influence of the board of directors' characteristics such as (board size, board independence, and board diversity) on firms' financial performance which was measured by (ROE). The study used publicly

listed firms in the Jordan stock exchange from manufacture sector for the period 2016-2018. This study utilized secondary data approach and utilized a Cross-sectional time-series PCSEs regression to meet the objectives of this study. In addition, leverage has been used as a control variable in this study. The result of the study reflects that there is a strong relationship between board features and company performance. The study recommended that companies to have a small board of directors, more independent and female directors, which is suggested and found in this research to have important implications on company performance.

8. *Saleh, et al, (2020)*

The impact of multiple directorships, board characteristics, and ownership on the performance of Palestinian listed companies: This research explores the effect of board characteristics such as board gender, board size, board meetings and multiple directorships on the performance of 25 non-financial firms listed on the Palestine Security Exchange (PSE) between 2009 - 2016. The study utilized ROA as a measure for the financial performance. The study used leverage and firm size as control variables. Descriptive analysis, Univariate analysis, Regression analysis and Robust regression analysis were conducted in this study. The result of this study highlights the negative effect of having large board and with no influence of multiple directorships on the firm performance.

9. *Freihat, Farhan and Shanikat, (2019)*

Do board of directors´ characteristics influence firm performance? Evidence from the emerging market: This study aims to investigate the impact of board characteristics (ownership concentration, board meetings, board independence, board size, and CEO duality) on firms' financial performance were (Tobin's Q) was used to measure firm's financial performance. For this purpose, an empirical analysis of a dataset of listed manufacturing firms on Amman stock exchange (ASE) Between 2011-2014 was

conducted by applying OLS regression analyses. Firm size and firm leverage used as control variables. The finding of the research suggests that firms with frequent board meeting, smaller board, with higher proportion of both CEO duality and board ownership seems to perform better. While the board independence didn't show an improving in firm's performance.

10. Mohammed, (2018)

Board characteristics and firm performance: empirical evidence from turkey: The main purpose of this study is to understand the connection between board characteristics such as education level and the board size and performance of the firm which measured by ROA and ROE. The study consisted of 146 public listed firms in Istanbul stock exchange (ISE) between 2011 to 2015. To estimate the relationship the study utilized cross sectional (GLS) regression. The controlling variables of this study were Firm size, Leverage and Firm age. the finding of research suggested that the firm should have more interlocking directorships, higher education level and smaller board size. On the other hand, the independence of board members showed no effect of the firm's financial performance.

11. Borlea, Achim and Mare, (2017)

Board characteristics and firm performances in emerging economies. Lessons from Romania: This study aims to investigate the relation between board characteristics and firm's financial performance. The study took 55 of listed non-financial Romanian companies in Bucharest stock exchange (BSE) for the year of 2012 as a sample. To evaluate the correlation of the study 6 of board characteristics where tested (equilibrium between non-executive and executive of board members, selection of board members by Nomination Committee, improving the accountability and transparency by the Audit Committee, the independence of board, training the members' competences and remuneration policy of board members by the Remuneration Committee) on firms'

financial performance which measured by Tobin's Q and ROA. The study utilized both of leverage and firm size as control variables. The finding of this research shows that none of the six board characteristics have a significant impact on Tobin's Q or ROA.

12. Kaur and Vij, (2017)

Board Characteristics and Firm Performance: Evidence from Banking Industry in India: This Study main object is to infer the link between governance (Board size and gender diversity, board annual meetings, attendance in board meetings and the percentage of independent directors) and banks performance (ROA, ROE, Tobin's Q and Net Income). The data collected from 28 banks in India between the of 2008 to 2014 at National Stock Exchange of India. Pooled OLS and GLS estimation were used to understand the connection between board characteristics and the financial performance of banks the controlling variables were the bank's growth rate, bank size and bank leverage. The findings of this research highlight the importance of having small board with higher female percentage and having more board meeting on the efficient bank's performance.

2.4.   The Difference between the Current Research and Previous Studies

Since the beginning of the twenty-first century Many researchers have become increasingly interested in studying the characteristics of boards of directors and their impact on financial performance. Mohammed, (2018) investigated the academic level and board size characteristics and their relationship on the return of assets and return of equity Saleh, et al, (2020) on the other hand studied the board size, board gender, board

meetings and multiple directorships and their impact on the return of assets on of 25 Palestinian listed companies. However, despite the hundreds of searches and studies that conducted on this topic, there are few studies that covered most of the board characteristics with variety of financial proxies.

In summary, the following differentiates the current research from other research and studies:

1) The majority of other research took place outside Jordan with a different sector (industrial and nonfinancial companies), while the current research is being carried out Jordanian banking sector and covered a recent period.

2) This research might be considered one of the few pieces of research that explores the impact of board characteristics on the financial performance that covered up to seven different characteristics (board size, gender diversity, board meetings, board age, board independence, multiple directorships and the academic specializations of the board members) with a moderating variable (ownership concentration).

3) It was noticed that only few research used several financial performance proxies to judge the financial performance. However, the current research used four proxies, three accounting proxies (ROA, ROE, and EPS) and one market proxy (Tobin's Q) to judge the financial performance fairly.

3. CHAPTER III: Research Methodology

Research methodology describes how a researcher builds a research design to obtain a reliable and valid result that can achieve the devoted purposes and objectives of the research by implementing the practical side of the research. This chapter discusses the research design, research population and sample, procedure for data collection, research instrument, measurement of the research variable and statistical techniques in data analysis.

3.1. Research Design

To achieve the research main purpose which is investigating the impact of Board Characteristics: Board size, Board Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization on banks Financial Performance which measured by Return on Assets, Return on Equity, Earnings per Share and Tobin's Q the research follows a mixture of descriptive, cause-effect analytical quantitative approach and will rely on secondary sources. Therefore, Multiple Regression Analysis would be suitable to test the research hypotheses and to examine the impact of this research's variables. since regression analysis are usually used to measure the cause-effect relationship between variables.

3.2. Population and Sample

The population of this research is comprised of all listed Jordanian banks in Amman Stock Exchange (ASE).

The sample contains all the Jordanian banks listed at Amman Stock Exchange (ASE).

Table 3-1: Name of Jordanian banks listed at Amman stock exchange.

Jordanian Listed Banks			
Number	**Name of the bank**	**Symbol of the bank**	**Date of establishment**
1	Arab Bank	ARBK	1930
2	Jordan Ahli Bank	AHLI	1956
3	Cairo Amman Bank	CABK	1960
4	Bank Of Jordan	BOJX	1960
5	The Housing Bank for Trade and Finance	THBK	1974
6	Jordan Kuwait Bank	JOKB	1977
7	Jordan Islamic Bank	JOIB	1978
8	Jordan Commercial Bank	JCBK	1978
9	Arab Jordan Investment Bank	AJIB	1978
10	Arab Banking Corporation /(Jordan)	ABCO	1989
11	Invest Bank	INVB	1989
12	Bank Al Etihad	UBSI	1991
13	Société Générale De Banque - Jordanie	SGBJ	1993
14	Capital Bank of Jordan	EXFB	1996
15	Safwa Islamic Bank	SIBK	2009

3.3. Procedure for Data Collection

To achieve the research purpose and obtain all the necessary information and data for the research variables, this research relied on secondary sources using the Cross-sectional

time-series data (panel data). Panel data consists of the number of variables and of multiple time periods when estimating the regression equation.

Research data were gathered from three sources: firstly, Amman Stock Exchange website, secondly, Banks' websites and annual reports for the period of (2014-2020) by analysing the content of the annual financial reports of Jordanian banks disclosed through the Amman stock exchange website and the official websites of the banks to obtain the necessary data for the independent and dependent variables of the research. Finally, the missing data were collected manually through Securities Depository Center website.

3.4.   Research Model, Research Variables and Measurement

In order to examine the impact of the independent variable (board characteristics) on the dependent variable (financial performance) and test the hypotheses of the research three regression models were developed and formulated as follow:

Model   1:   Financial   Performance   (ROE,   ROE,   EPS,   TQ)   = $\beta_0 + \beta_1 BS + \beta_2 GD + \beta_3 BM + \beta_4 BA + \beta_5 BI + \beta_6 OC + \beta_7 MD + \beta_8 AS + \beta_9 FZ + \beta_{10} LEV + \varepsilon$

Where:
- β_0: Constant
- β_1- β_{10}: Coefficients of the independent variables
- BS: Board Size
- GD: Gender Diversity
- BM: Board Meetings
- BA: Board Age
- BI: Board Independence
- OC: Ownership Concentration
- MD: Multiple Directorships
- AS: Academic Specialization
- FZ: Firm Size
- LEV: Leverage
- ε: Error term

This model aims to investigate the impact of board characteristics Board size, Board Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization on Financial Performance Return on Assets, Return on Equity, Earnings per Share and Tobin's Q by testing the First main hypothesis *H01: There is no significant impact of Board Characteristics on banks financial performance at level (α≤0.05).* and its 8 sub-hypotheses.

Model 2: Financial Performance (ROE, ROE, EPS, TQ) = $\beta_0 + \beta_1 BS + \beta_2 GD + \beta_3 BM + \beta_4 BA + \beta_5 BI + \beta_6 OC + \beta_7 MD + \beta_8 AS + \beta_9 OC*BI + \beta_{10} FZ + \beta_{11} LEV + \varepsilon$

Where:

- OC*BI: Ownership Concentration * Board Independence

This model aims to investigate the moderation role of Ownership Concentration between Board Independence and Financial Performance by testing the second main hypothesis *(H02: Ownership Concentration does not Moderate the impact of Board Independence on Financial Performance at level (α≤0.05).*

Model 3: Financial Performance (ROE, ROE, EPS, TQ) = $\beta_0 + \beta_1 BS + \beta_2 GD + \beta_3 BM + \beta_4 BA + \beta_5 BI + \beta_6 OC + \beta_7 MD + \beta_8 AS + \beta_9 OC*MD + \beta_{10} FZ + \beta_{11} LEV + \varepsilon$

Where:

- OC*MD: Ownership Concentration * Multiple Directorships

This model aims to investigate the moderation role of Ownership Concentration between Multiple Directorships and Financial Performance by testing the third main

hypothesis *(H03: Ownership Concentration does not Moderate the impact of Multiple Directorships on Financial Performance at level (α≤0.05).*

Notice that ROA, ROE, EPS and Tobin's Q are proxies for the Financial Performance (Dependent variable).

Table 3-2: definition of Variables

Variable	Definition and measurement
ROA	Return on Assets (Dependent variable): it's calculated by dividing a company's net income (after tax) divided by total assets.
ROE	Return on Equity (Dependent variable): it's calculated by dividing net income by shareholders' equity.
EPS	Earnings per Share (Dependent variable): it's calculated as a company's profit divided by the outstanding shares of its common stock.
TQ	Tobin's Q (Dependent variable): it's calculated by dividing (Market value of equity + book value of total liabilities) by book value of total assets.
BS	Board Size (Independent variable): is the total number of directors on the board.
GD	Gender Diversity (Independent variable): refers to the Percentage of women directors on the board (total number of female members divided by the total number of the board member).
BM	Board Meetings (Independent variable): Refers to the number of meetings held by the board within a fiscal year.
BA	Board Age (Independent variable): The number of young directors (age range from 25 to 45 divided by total number of the board).
BI	Board Independence (Independent variable): The number of independence board members divided by the total number of the board.
OC	Ownership Concentration (Moderator variable): Percentage of shares held by shareholders with at least 5% of the total firm ordinary shares.
MD	Multiple Directorships (Independent variable): The number of board members who hold a position on other boards (previous or current) divided by the total number of board members.

AS	Academic Specialization (Independent variable): The number of board members holding a degree in the following academic specialization (accounting, finance, economics, management, or business) divided by the total number of board members. The academic specialization of the members of the board of directors was calculated, whether the degree was taken in the undergraduate stages or postgraduate stages.
FZ	Firm Size (Control variable): Logarithm of book value of total assets.
LEV	Leverage (Control variable): The ratio of book value of total debt to total assets.
ε	Error term

3.5.   Control Variable

Researchers use control variables along with independent and dependent variables in regression analyses to isolate the control variable effect from the research variable to obtain more accurate results. In accordance with the previous research by Al-Matari et al. (2012) firm size (Logarithm of book Value of total assets) and leverage (The ratio of Book value of total debt to total asset) were utilized as control variables.

3.6.   Statistical Techniques in Data Analysis

Several statistical methods have been adopted in this research so that each test fits with the purpose for which it was set. These statistical methods are:

1- Descriptive statistics test, which describes the research variables statistically by calculating the mean, standard deviation, median, minimum value, maximum value.

2- Correlation analysis is the statistical tool that can be utilized to determine and examine the relationship between the research variables.

3- Multicollinearity tests which used to check that there is multicollinearity problem between the independent research variables.

4 - Multiple regression analysis tests are used to examine and test the research hypotheses.

The statical software program Statistics and Data (STATA) was utilized to analyse the multiple regression equations, test hypotheses and examine the impact of independent variable on the dependent variable.

4. CHAPTER IV: Data Analysis and Empirical Results

This chapter presents the empirical side of the research to achieve the research objectives by answering the research questions, testing hypotheses and coming up with the appropriate results and recommendations. The data of the research were collected from the Jordanian banks listed at Amman Stock Exchange (ASE) from the period (2014-2020).

This chapter includes four main parts. The first part contains the descriptive analysis using descriptive statistical measures (mean, median, standard deviation, minimum and maximum values). The second part discusses the correlation and the relationship between the research variables which is shown in table (3-2). While the third part deals with the multicollinearity issue. Finally, the fourth part includes testing the hypotheses of the research by relying on the multiple regression analysis.

4.1.   Descriptive Statistics

The table 4.1 illustrate the descriptive statistics of all the research variables by calculate the mean, median, standard deviation and the minimum and maximum values.

Table 4-1: descriptive statistics of the research variables

Variable	Mean	Std.Dev	Min	Median	Max
Board Size	11.73	1.21	7.00	12.00	13.00
Gender Diversity	8.20%	6.70%	0.00%	8.30%	25.00%
Board Meetings	8.07	2.53	5.00	7.00	19.00
Board Age	15.70%	13.30%	0.00%	9.10%	46.20%
Board Independence	35.80%	13.00%	0.00%	36.40%	63.60%
Multiple Directorships	77.50%	15.60%	8.30%	81.80%	100.00%
Academic Specialization	78.70%	13.60%	45.50%	81.80%	100.00%
Ownership Concentration	62.50%	20.60%	16.00%	66.01%	87.90%
Return on Assets	1.02	0.49	-0.16	1.06	2.05
Return on Equity	8.00	3.62	-0.99	8.35	15.99
Earnings Per Share	0.18	0.13	-0.03	0.15	0.68
Tobin's Q	0.99	0.06	0.90	0.98	1.19
Firm Size (Log Assets)	21.66	0.84	20.30	21.57	24.03
Leverage (Debt Ratio)	86.30%	4.00%	72.80%	86.72%	92.50%

Table 4-1 illustrate the following:

The average of board size reached (11.73) member, which is around (12) member, while the minimum value of board members reached (7) and the maximum value (13), which indicates that Jordanian banks comply with the corporate governance instructions regarding the number of board members, which stats that the minimum size The Board of Directors (5) members and the maximum (13) members.

The average of gender diversity percentage reached (8.2%) while the minimum and maximum values were (0%), (25%) respectively, which indicates that the percentage of female representatives on boards in Jordanian banks is still low and there is a huge gap in females' participation in boards compared to males.

The average of board meetings reached (8.067) yearly, which is around (8) meetings per year, while the minimum number of board meetings reached (5) and the maximum number of meetings was (19), which indicates that Jordanian banks comply with the corporate governance codes regarding the number of board meetings. which stats that board of director must hold a meeting every two months, so the total number of board meetings in a fiscal year is not less than 6.

Board age average was (15.7%) with a minimum value of (0%) and maximum value of (46.2%) which indicates a small percentage of young board members.

The maximum and minimum percentage of independence board members were (63.6%) (0%) respectively, with an average of (35.8%) which comply with the Jordanian corporate governance code that stats at least one-third of the members of the board must be independent. The minimum value of (0%) refers to both of (the Housing bank for trade

and finance and Jordan Kuwait bank) since both didn't have any independent board member in (2015).

The average percentage of board members who hold multiple directorships on the boards of directors in other firms was (77.5%), while the minimum and maximum value reached (8.3%) (100%), respectively, which indicates that most of Jordanian banks board members hold position in other firm's board, which could increase their experience in dealing with administrative and financial issues.

The minimum and maximum percentage of academic specialization were (45.5%) (100%) respectively, with an average of (78.7%) which indicates that most of the board members of the Jordanian banks have degree (in the undergraduate stage at least) in the major of (accounting, finance economic and management).

Ownership concentration average was (62.5%) with a minimum value of (16%) and a maximum value of (87.9%) while the standard deviation was (20.6%), which indicates that the percentage of ownership concentration in the hands of major shareholders (who own 5% or more of the bank's shares) is high in Jordanian banks.

The minimum and maximum values of the return on assets were (-0.16) (2.05) respectively, with an average of (1.02) and standard deviation of (0.49) which imply that there are no big differences in the return on assets in the Jordanian banking sector.

The return on equity average were (7.99) with a minimum and maximum values (0.99) (15.99) respectively, while the standard deviation scored (3.62) which indicate a huge variation between the Jordanian banks return on equity.

The earnings per share average were (0.18) with a minimum and maximum values (-0.03) (0.68) respectively.

Tobin's Q minimum and maximum values were (0.904) (1.18) respectively, the standard deviation and average were (0.06) (0.99) respectively, which indicate the small differences in the Tobin's Q s between the Jordanian banks.

Firm size (Log Assets) and minimum and maximum values were (20.3) (24.03) respectively, the standard deviation and average were (0.84) (21.66) respectively, which indicate the small differences in the size (total assets) between the Jordanian banks.

Leverage average was (86.30%) with a minimum value of (72.80%) and a maximum value of (92.50%) while the standard deviation was (4.00%), which indicates that the high percentage of leverage in Jordanian banks.

4.2. Correlation Analysis

Pearson's correlation matrix (table 4.2) was used to examine the relationship between all the research variables which comprises of board characteristics dimensions: Board size, Board Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization, Financial Performance dimensions: Return on Assets, Return on Equity, Earnings per Share and Tobin's Q and the Control Variable dimension: Firm Size and Leverage.

Table 4-2 illustrate the following:

The results reveal a significant positive relationship between the dependent variable [Financial performance (ROA, ROE, EPS and Tobin's Q)] which range from 0.8672 to 0.2820 which indicates that they represent an excellent proxy to measure the financial performance.

The relationship between the independent variable dimensions shows no high correlation, as it detailed maximum correlation value of (42.37%) and did not exceed 60%, which indicates no multicollinearity issue. Moreover, to prove the absence multicollinearity issues both of variable inflation factor (VIF) and Tolerance test are utilized in the next test.

Table 4-2: Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
ROA(1)	1.000													
ROE(2)	0.8672*	1.000												
EPS(3)	0.6663*	0.6521*	1.000											
TobinsQ(4)	0.5841*	0.2820*	0.4766*	1.000										
Boards-S(5)	-0.1629	-0.2063*	-0.111	0.068	1.000									
Gender-D(6)	-0.2803*	-0.2474*	-0.3360*	-0.3167*	0.2216*	1.000								
Board-M(7)	-0.1544	-0.084	-0.2903*	-0.2968*	0.113	0.132	1.000							
board-A(8)	-0.0683	-0.071	-0.108	-0.013	0.3213*	0.4237*	0.078	1.000						
Board-I(9)	-0.1207	0.055	0.005	-0.2814*	0.059	0.053	-0.001	-0.142	1.000					
Mulit-D(10)	0.0684	0.074	0.080	0.035	-0.172	-0.004	0.046	0.032	0.094	1.000				
Acade-(11)	-0.3650*	-0.091	-0.057	-0.3687*	0.158	0.2215*	0.090	0.4287*	0.093	-0.043	1.000			
Owners-C(12)	-0.1725	-0.062	-0.115	-0.078	-0.122	0.098	0.005	0.030	-0.2101*	-0.159	0.2468*	1.000		
L(Assets)(13)	0.0988	0.153	0.6402*	0.2009*	0.039	-0.140	-0.2607*	0.006	0.180	0.126	0.1959*	-0.3719*	1.000	
Leverge(14)	-0.2348*	0.150	-0.172	-0.5552*	-0.046	0.2985*	0.2820*	0.163	0.2192*	0.102	0.4041*	0.072	0.043	1.000

*. Correlation is significant at the 0.05 level

4.3. Multicollinearity test

The issue of multicollinearity may appear if two or more of the independent variables are highly correlated. To test the assumption of multiple multicollinearities, this research used both a Variable Inflation Factor (VIF) and a Tolerance test for each independent variable. According to Grekousi (2020), The problem of Multicollinearity appears when the value of VIF is greater than five, and the value of Tolerance is less than 0.2

The results of Table 4.3 show that all the variables with VIF values less than 5 and more than 0.2 Tolerance values, which implies that the independent variables in this research are not multicollinearity by confirming the absence of the multicollinearity issue.

Table 4-3: Multicollinearity test matrix

Variable	VIF	1/VIF(Tolerance)
Board Size	1.28	0.782
Gender Diversity	1.39	0.719
Board Meetings	1.24	0.803
Board Age	1.67	0.599
Board Independence	1.22	0.822
Multiple Directorships	1.11	0.9
Academic Specialization	1.8	0.555
Ownership Concentration	1.5	0.667
log (Assets)	1.52	0.658
leverage	1.49	0.671
Mean	1.42	

4.4.   Multiple Regression Analysis and hypotheses test

To test the hypotheses and the sub-hypotheses of the research and to know the extent of the impact of the independent variable (board characteristics) which is represented by Board size, Board Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization on the dependent variable (financial performance) which is represented by Return on Assets, Return on Equity, Earnings per Share and Tobin's Q, a multiple regression analysis was utilized according to the following rules:

The null hypothesis (H0) is rejected, and the alternative hypothesis (Ha) is accepted if the level of significance is less than or equal to 5% **($\alpha \leq 0.05$).**

The null hypothesis (H0) is accepted, and the alternative hypothesis (Ha) is rejected if the level of significance is more than 5% **($\alpha > 0.05$).**

Please notice that <u>Tobin's Q</u> is selected as a main proxy to test the financial performance, while the regression analysis of the return on assets, return on equity and earnings per share are tested in the *<u>Appendix (A)</u>*.

Table 4-4 illustrate the result of the multiple regression analysis, Model 1 aims to test the first hypothesis and its sub-hypotheses, while Model 2 aims to test the second hypothesis and finally, Model 3 tests the third hypothesis.

Table 4-4: Regression Analysis

Dependent variable: Tobin's Q		Model 1	Model 2	Model 3
Board Size	coefficient	0.011	0.013*	0.013*
	t-value	(1.874)	(2.266)	(2.233)
Gender Diversity	coefficient	-0.198	-0.188	-0.210
	t-value	(-1.831)	(-1.761)	(-1.955)
Board Meetings	coefficient	-0.003	-0.003	-0.004
	t-value	(-1.204)	(-1.231)	(-1.412)
Board Age	coefficient	0.118*	0.107	0.100
	t-value	1.989	1.826	1.678
Board Independence	coefficient	-0.096	0.256	-0.089
	t-value	(-1.878)	1.317	(-1.760)
Multiple Directorships	coefficient	0.047	0.037	-0.138
	t-value	1.164	0.915	(-1.129)
Academic Specialization	coefficient	-0.215*	-0.218*	-0.212*
	t-value	(-3.574)	(-3.664)	(-3.556)
Ownership Concentration	coefficient	0.075*	0.265*	-0.2
	t-value	2.135	2.473	(-1.139)
Concentration*Independence	coefficient		-0.537	
	t-value		(-1.873)	
Mulitdirect*concentration	coefficient			0.349
	t-value			1.601
log assets	coefficien	0.037*	0.028*	0.035*

	t			
	t-value	4.201	2.798	4.085
leverage (debt ratio)	coefficient	-0.752	-0.675*	-0.758*
	t-value	-4.212	(-3.735)	(-4.284)
Constant	coefficient	1.196*	1.180*	1.349*
	t-value	4.938	4.937	5.22
Observations		105	105	105
Adjusted R-squared		0.543	0.555	0.551
Year Dummies		yes	yes	yes
Prob<F (Sig)		0.001	0.001	0.001

(*. Indicate that the coefficient Significant level at 0.05).

Appendix (B) **shows all output of the multiple regression test.**

Table 4.4 illustrate the following:

First main hypothesis H01: There is no significant impact of Board Characteristics on banks financial performance at level (α≤0.05).

- According to the value of **(prob<F) = (0.001)** which is less than (0.05), which reveal that there is a significant impact of board characteristics on banks financial performance at level (α≤0.05). Then the **first main null hypothesis** (H01) must be rejected, and the alternative hypothesis is accepted.

- The **Adjusted R-squared** It refers to the explanatory power of the model. Which is equal to (54.3%) in this research. this indicates that the independent and control variables can explain (54.3%) of variance that occurs in the dependent variable (Financial performance) and the remining effect is duo to other independent variable that have not been addressed in this research.

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Eight sub-hypotheses are derived from the first main hypothesis (ranges from A to H) to examine the impact of **each** board characteristics alone (Board size, Board Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization) on the financial performance.

- **H01.1: There is no significant impact of Board size on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board size on financial performance at level (0.05).

- **H01.2: There is no significant impact of Gender Diversity on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of gender diversity on financial performance at level (0.05).

- **H01.3: There is no significant impact of Board Meetings on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board meetings on financial performance at level (0.05).

- **H01.4: There is no significant impact of Board Age on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the alternative hypothesis is accepted** and there is significant **positive** (coefficient =0.118) impact of board age on financial performance at level (0.05).

- **H01.5: There is no significant impact of Board Independence on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board independence on financial performance at level (0.05).

- **H01.6: There is no significant impact of Multiple Directorships on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board independence on financial performance at level (0.05).

- **H01.7: There is no significant impact of Academic Specialization on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the alternative hypothesis is accepted** and there is significant **negative** (coefficient = -0.215) impact of academic specialization on financial performance at level (0.05).

- **H01.8: There is no significant impact of Ownership Concentration on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the alternative hypothesis is accepted** and there is significant **positive** (coefficient = 0.075) impact of ownership concentration on financial performance at level (0.05).

Second main hypothesis H02: Ownership Concentration does not Moderate the impact of Board Independence on Financial Performance at level (α≤0.05).

- Before the incremental effect of ownership concentration, the board independence coefficient was (0.256) with no significant impact on the financial performance. Moreover, ownership concentration coefficient was (0.265) with a positive significant impact. Lastly, when the ownership concentration moderates the impact of board independence on the financial performance, the incremental effect coefficient recorded (-0.573) but with no significant impact at level (0.05). The results show that ownership concentration incremental effect on the impact of board independence on financial performance is (-0.573). Meaning that ownership concentration decreases the impact of board independence on financial performance, however, it is not statistically significant. Therefore, the **null hypothesis is accepted.**

Third main hypothesis H03: Ownership Concentration does not Moderate the impact of Multiple Directorships on Financial Performance at level (α≤0.05).

- Before the incremental effect of ownership concentration, the multiple directorships coefficient was (-0.138) with no significant impact on the financial performance. Moreover, ownership concentration coefficient was (-0.200) with a negative not significant impact. Lastly, when the ownership concentration moderates the impact of multiple directorships on the financial performance, The incremental effect coefficient recorded (0.349) but with no significant impact at level (0.05). The results show that ownership concentration incremental effect on the impact of board independence on financial performance is (0.349) Meaning that ownership concentration increases the impact of multiple directorships on financial performance, however, it is not statistically significant. Therefore, the **null hypothesis is accepted.**

5. CHAPTER V: Discussion, Conclusions and Recommendations

After conducting the necessary statistical analysis and regression tests that were presented in the fourth chapter, this chapter highlights the most important results to sum up with conclusion that can provide a useful recommendation to future research and to the banking sector.

5.1. Discussion

The current research tested the impact of the board characteristics of on the financial performance of Jordanian banks listed on the Amman Stock Exchange, in an attempt to understand the impact of these characteristics on the financial performance of Jordanian listed banks. The sample contain 15 listed Jordanian banks covered from (2014-2020). As a result of utilizing the descriptive statistics analysis and the results testing the hypotheses, the research concludes the following:

First, regarding to the first main hypothesis which shows a significant impact of board characteristics on banks financial performance **H01: There is a significant impact of Board Characteristics on banks financial performance at level (α≤0.05)** and its sub-hypothesis (H01.$_{1-8}$):

1- Regarding to the first sub-hypothesis (H01.$_1$), the result shows no significant impact of the board size on the financial performance at level (α≤0.05). which comply with the research of (Bermig & Frick 2009) and (Saleh 2020).

2- Regarding to the second sub-hypothesis (H01.$_2$), the result shows no significant impact of the gender diversity on the financial performance at level (α≤0.05). However, the result is complying with the research of Rose (2007) which discovered no significant relationship between the percentage of female board members and Danish business performance.

3-Regarding to the third sub-hypothesis (H01.$_3$), the result shows no significant impact of the board meetings on the financial performance at level (α≤0.05). Moreover, the researcher suggest that the board meetings is calculated by the percentage of the achievement during the meetings not by the number of meeting and this is supported by the research of (Aryani et al. 2017).

4- Regarding to the fourth sub-hypothesis (H01.$_4$), the result shows a significant positive impact of the board age on the financial performance at level (α≤0.05). Moreover, the researcher suggests that having more young members in the board of director can increase the financial performance of the Jordanian banks, which comply inversely with the research of (Akpan & Amran 2014). The researcher sees that the result is different because due to the period and sample in which it was conducted and because the different financial performance proxies.

5- Regarding to the fifth sub-hypothesis (H01.$_5$), the result shows no significant impact of the board independence on the financial performance at level (α≤0.05). That

could be due to the idea that independent members may lack experience and knowledge in the Bank's operational matters. Which comply with the research of (Shan 2019) and (Akpan & Amran 2014).

6- Regarding to the sixth sub-hypothesis (H01.6), the result shows no significant impact of the multiple directorships on the financial performance at level (α≤0.05). which is comply with the research of (Hasnan, et al. 2020) and (Saleh 2020).

7- Regarding to the seventh sub-hypothesis (H01.7), the result shows a significant negative impact of the academic specialization on the financial performance at level (α≤0.05). Which indicate that board members with more variety of academic specialization can perform better.

8- Regarding to the eighth sub-hypothesis (H01.8), the result shows a significant positive impact of the ownership concentration on the financial performance at level (α≤0.05). which is in comply with the research of (Freihat, et al 2019).

Second, regarding to the second hypothesis which shows no significant moderating impact (incremental effect) of the ownership concentration on the board independence and financial performance. **H02: Ownership Concentration does not Moderate the impact of Board Independence on Financial Performance at level (α≤0.05).** The result concluded that ownership concentration incremental effect on the impact of board independence on financial performance have a negative coefficient. Meaning that ownership concentration decreases the impact of board independence on financial performance Which comply with the research of (Habtoor, 2020). however, it is not statistically significant.

Third, regarding to the third hypothesis which shows no significant moderating impact (incremental effect) of the ownership concentration on the multiple directorships and financial performance. **H03: Ownership Concentration does not Moderate the impact of Multiple Directorships on Financial Performance at level (α≤0.05).** The

results concluded that ownership concentration incremental effect on the impact of board independence on financial performance have a positive coefficient. Meaning that ownership concentration increases the impact of multiple directorships on financial performance, however, it is not statistically significant.

5.2. Conclusions

The purpose of the present research is to examine the impact of board characteristics on the financial performance of the Jordanian listed banks. Seven board characteristics were studied board size, board diversity, number of board meetings, board age, board independence, multiple directorships, academic specialization with four proxies to the financial performance the return on assets, return on equity, earnings per share and Tobin's Q. The data were collected from 15 Jordanian listed bank in Amman Stock Exchange covering the period of (2014-2020). Moreover, the current research follows a quantitative descriptive design which utilized the multiple regression analysis to test its hypotheses. The result of regression analysis finds a positive significant impact of board characteristics (in general) on the financial performance. Moreover, two board characteristics, board age and ownership concentration, were found to have a significant positive impact. However, academic specialization records a significant negative impact, while the ownership concentration incremental effect showed a decreases impact of board independence on financial performance and an increases impact of multiple directorships on financial performance but with no significant impact.

5.3. Recommendation

For academics and future research:

The researcher suggests that future researcher to imply the same research variable on another Jordanian sector. Or to conduct the research on the banking sector but with larger population and broader scope such as MENA (Middle East and North Africa) region or group of countries to generalize the result. Moreover, the researcher suggests testing

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more board characteristics (like CEO duality) on different financial performance proxies. Finally, the research covered the specific and limited period of (2014-2020) and the researcher recommend repeating this research after a period to see the development, improvement or weakness that may happened to the financial performance of the Jordanian banking sector.

For Jordanian banking sector:

Encouraging to increase the ownership concentration in the hands of the major shareholders who own more than 5% of the bank's shares because of its positive significant impact on the financial performance of Jordanian banks.

Increasing the number of young board members as the result find a positive significant impact of the financial performance of the Jordanian banks.

For the Jordanian policy maker:

The researcher suggests that to add the board age attribute as requirement to the board of directors which stats that the board should have at least 2 young board members which is based on the positive significant impact on this research.

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7. Appendices

7.1. Appendix A, Regression Analysis for the financial performance proxies.

Regression analysis of the return on assets (ROA)

Table 7-1: Regression Analysis for ROA

Dependent variable: ROA		Model 1	Model 2	Model 3
Board Size	coefficient	-0.047	-0.051	-0.038
	t-value	(-1.221)	(-1.279)	(-0.941)
Gender Diversity	coefficient	-1.185	-1.201	-1.234
	t-value	(-1.629)	(-1.640)	(-1.691)
Board Meetings	coefficient	-0.007	-0.007	-0.01
	t-value	(-0.424)	(-0.419)	(-0.543)
Board Age	coefficient	0.783	0.799	0.712
	t-value	(1.962)	(1.985)	(1.753)
Board Independence	coefficient	-0.094	-0.64	-0.068
	t-value	(-0.275)	(-0.481)	(-0.198)
Multiple Directorships	coefficient	-0.022	-0.006	-0.77
	t-value	(-0.081)	(-0.022)	(-0.927)
Academic Specialization	coefficient	-1.322*	-1.318*	-1.310*
	t-value	(-3.262)	(-3.237)	(-3.231)

Ownership Concentration	coefficient	-0.019	-0.314	-1.129
	t-value	(-0.080)	(-0.427)	(-0.950)
Concentration*Independence	coefficient		0.833	
	t-value		(0.424)	
Mulitdirect*concentration	coefficient			1.41
	t-value			0.954
log assets	coefficient	0.109	0.123	0.104
	t-value	(1.865)	(1.826)	(1.775)
leverage (debt ratio)	coefficient	-0.389	-0.508	-0.415
	t-value	(-0.324)	(-0.410)	(-0.346)
Constant	coefficient	0.856	0.881	1.475
	t-value	(0.526)	(0.538)	(0.841)
Observations		105	105	105
Adjusted R-squared		0.322	0.316	0.321
Year Dummies		yes	yes	yes
Prob<F (Sig)		0.001	0.001	0.001

(. Indicate that the coefficient Significant level at 0.05)*

First main hypothesis H01: There is no significant impact of Board Characteristics on banks financial performance (ROA) at level ($\alpha \leq 0.05$).

- According to the value of **(prob<F) = (0.001)** which is less than (0.05), which reveal that there is a significant impact of board characteristics on banks financial performance at level ($\alpha \leq 0.05$). Then the **first main null hypothesis** (H01) must be rejected, and the alternative hypothesis is accepted.

- The **Adjusted R-squared** It refers to the explanatory power of the model. Which is equal to (32.2%) in this research. this indicates that the independent and control variables can explain (32.2%) of variance that occurs in the dependent variable (Financial performance) *ROA* and the remining effect is duo to other independent variable that have not been addressed in this research.

Eight sub-hypotheses are derived from the first main hypothesis (ranges from A to H) to examine the impact of **each** board characteristics alone (Board size, Board Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization) on the financial performance.

- **H01.1: There is no significant impact of Board size on Financial Performance (ROA) at level (α≤0.05).**

The multiple regression results in table 7-1 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board size on financial performance at level (0.05).

- **H01.2: There is no significant impact of Gender Diversity on Financial Performance (ROA) at level (α≤0.05).**

The multiple regression results in table 7-1 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of gender diversity on financial performance at level (0.05).

- **H01.3: There is no significant impact of Board Meetings on Financial Performance (ROA) at level (α≤0.05).**

The multiple regression results in table 7-1 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board meetings on financial performance at level (0.05).

- **H01.4: There is no significant impact of Board Age on Financial Performance (ROA) at level (α≤0.05).**

The multiple regression results in table 7-1 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the alternative hypothesis is accepted** and there is significant **positive** (coefficient =0.118) impact of board age on financial performance at level (0.05).

- **H01.5: There is no significant impact of Board Independence on Financial Performance (ROA) at level (α≤0.05).**

The multiple regression results in table 7-1 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board independence on financial performance at level (0.05).

- **H01.6: There is no significant impact of Multiple Directorships on Financial Performance (ROA) at level (α≤0.05).**

The multiple regression results in table 7-1 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board independence on financial performance at level (0.05).

- **H01.7: There is no significant impact of Academic Specialization on Financial Performance (ROA) at level (α≤0.05).**

The multiple regression results in table 7-1 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the alternative hypothesis is accepted** and there is significant **negative** (coefficient = -1.322) impact of academic specialization on financial performance at level (0.05).

- **H01.8: There is no significant impact of Ownership Concentration on Financial Performance (ROA) at level (α≤0.05).**

The multiple regression results in table 7-1 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of ownership concentration on financial performance at level (0.05).

Second main hypothesis H02: Ownership Concentration does not Moderate the impact of Board Independence on Financial Performance (ROA) at level (α≤0.05).

- Before the incremental effect of ownership concentration, the board independence coefficient was (-0.64) with no significant impact on the financial performance. Moreover, ownership concentration coefficient was (-0.314) with a negative no significant impact. Lastly, when the ownership concentration moderates the impact of board independence on the financial performance, the incremental effect coefficient recorded (0.833) but with no significant impact at level (0.05). The results show that ownership concentration incremental effect on the impact of board independence on financial performance is (0.833). Meaning that ownership concentration increases the impact of board independence on financial performance, however, it is not statistically significant. Therefore, the **null hypothesis is accepted.**

Third main hypothesis H03: Ownership Concentration does not Moderate the impact of Multiple Directorships on Financial Performance (ROA) at level (α≤0.05).

- Before the incremental effect of ownership concentration, the multiple directorships coefficient was (-0.77) with no significant impact on the financial performance. Moreover, ownership concentration coefficient was (-1.129) with a negative not significant impact. Lastly, when the ownership concentration moderates the impact of multiple directorships on the financial performance, The incremental effect coefficient recorded (1.41) but with no significant impact at

level (0.05). The results show that ownership concentration incremental effect on the impact of multiple directorships on financial performance is (1.41) Meaning that ownership concentration increases the impact of multiple directorships on financial performance, however, it is not statistically significant. Therefore, the **null hypothesis is accepted.**

Regression analysis of the return on equity (ROE)

Table 7-2: Regression Analysis for ROE

Dependent variable: ROE		Model 1	Model 2	Model 3
Board Size	coefficient	-0.328	-0.427	-0.229
	t-value	(-1.112)	(-1.419)	(-0.753)
Gender Diversity	coefficient	-12.123*	-12.530*	-12.632*
	t-value	(-2.189)	(-2.274)	(-2.284)
Board Meetings	coefficient	-0.083	-0.082	-0.105
	t-value	(-0.617)	(-0.614)	(-0.783)
Board Age	coefficient	3.336	3.771	2.599
	t-value	(1.098)	(1.244)	(0.845)
Board Independence	coefficient	2.204	-12.184	2.476
	t-value	(0.844)	(-1.215)	(0.949)
Multiple Directorships	coefficient	-0.555	-0.137	-8.319
	t-value	(-0.268)	(-0.066)	(-1.322)
Academic Specialization	coefficient	-5.127	-5.029	-5.007
	t-value	(-1.662)	(-1.641)	(-1.629)

Ownership Concentration	coefficient	1.242	-6.536	-10.281
	t-value	(0.689)	(-1.181)	(-1.141)
Concentration*Independence	coefficient		21.948	
	t-value		(1.486)	
Mulitdirect*concentration	coefficient			14.635
	t-value			(1.305)
log assets	coefficient	0.854	1.224*	0.804
	t-value	(1.915)	(-2.408)	(-1.803)
leverage (debt ratio)	coefficient	26.796*	23.653*	26.524*
	t-value	(2.931)	(2.537)	(2.912)
Constant	coefficient	-24.113	-23.454	-17.691
	t-value	(-1.944)	(-1.903)	(-1.331)
Observations		105	105	105
Adjusted R-squared		0.275	0.285	0.281
Year Dummies		yes	yes	yes
Prob<F (Sig)		0.001	0.001	0.001

(. Indicate that the coefficient Significant level at 0.05)*

First main hypothesis H01: There is no significant impact of Board Characteristics on banks financial performance (*ROE*) at level (α≤0.05).

- According to the value of **(prob<F) = (0.001)** which is less than (0.05), which reveal that there is a significant impact of board characteristics on banks financial performance at level (α≤0.05). Then the **first main null hypothesis** (H01) must be rejected, and the alternative hypothesis is accepted.

- The **Adjusted R-squared** It refers to the explanatory power of the model. Which is equal to (27.5%) in this research. this indicates that the independent and control variables can explain (27.5%) of variance that occurs in the dependent variable (Financial performance) **(ROE)** and the remining effect is duo to other independent variable that have not been addressed in this research.

Eight sub-hypotheses are derived from the first main hypothesis (ranges from A to H) to examine the impact of **each** board characteristics alone (Board size, Board Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization) on the *ROE* financial performance.

- **H01.1: There is no significant impact of Board size on Financial Performance (*ROE*) at level (α≤0.05).**

The multiple regression results in table 7-2 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board size on financial performance at level (0.05).

- **H01.2: There is no significant impact of Gender Diversity on Financial Performance (*ROE*) at level (α≤0.05).**

The multiple regression results in table 7-2 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the alternative hypothesis is accepted** and there is significant **negative** (coefficient =-12.123) impact of gender diversity on financial performance at level (0.05).

- **H01.3: There is no significant impact of Board Meetings on Financial Performance (*ROE*) at level (α≤0.05).**

The multiple regression results in table 7-2 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board meetings on financial performance at level (0.05).

- **H01.4: There is no significant impact of Board Age on Financial Performance (*ROE*) at level (α≤0.05).**

The multiple regression results in table 7-2 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board age on financial performance at level (0.05).

- **H01.5: There is no significant impact of Board Independence on Financial Performance (*ROE*) at level (α≤0.05).**

The multiple regression results in table 7-2 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board independence on financial performance at level (0.05).

- **H01.6: There is no significant impact of Multiple Directorships on Financial Performance (*ROE*) at level (α≤0.05).**

The multiple regression results in table 7-2 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board independence on financial performance at level (0.05).

- **H01.7: There is no significant impact of Academic Specialization on Financial Performance (*ROE*) at level (α≤0.05).**

The multiple regression results in table 7-2 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and

there is no significant impact of Academic Specialization on financial performance at level (0.05).

- **H01.8: There is no significant impact of Ownership Concentration on Financial Performance (*ROE*) at level (α≤0.05).**

The multiple regression results in table 7-2 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of ownership concentration on financial performance at level (0.05).

Second main hypothesis H02: Ownership Concentration does not Moderate the impact of Board Independence on Financial Performance (*ROE*) at level (α≤0.05).

- Before the incremental effect of ownership concentration, the board independence coefficient was (-12.184) with no significant impact on the financial performance. Moreover, ownership concentration coefficient was (-6.536) with a negative no significant impact. Lastly, when the ownership concentration moderates the impact of board independence on the financial performance, the incremental effect coefficient recorded (21.948) but with no significant impact at level (0.05). The results show that ownership concentration incremental effect on the impact of board independence on financial performance is (21.948). Meaning that ownership concentration increases the impact of board independence on financial performance, however, it is not statistically significant. Therefore, the **null hypothesis is accepted.**

Third main hypothesis H03: Ownership Concentration does not Moderate the impact of Multiple Directorships on Financial Performance (*ROE*) at level (α≤0.05).

- Before the incremental effect of ownership concentration, the multiple directorships coefficient was (-8.319) with no significant impact on the financial performance. Moreover, ownership concentration coefficient was (-10.281) with a

negative not significant impact. Lastly, when the ownership concentration moderates the impact of multiple directorships on the financial performance, The incremental effect coefficient recorded (14.635) but with no significant impact at level (0.05). The results show that ownership concentration incremental effect on the impact of multiple directorships on financial performance is (14.635) Meaning that ownership concentration increases the impact of multiple directorships on financial performance, however, it is not statistically significant. Therefore, the **null hypothesis is accepted.**

Regression analysis of the earnings per share (EPS)

Table 7-3: Regression Analysis for EPS

Dependent variable: EPS		Model 1	Model 2	Model 3
Board Size	coefficient	-0.005	-0.003	-0.007
	t-value	(-0.601)	(-0.360)	(-0.853)
Gender Diversity	coefficient	-0.300	-0.292	-0.288
	t-value	(-1.960)	(-1.907)	(-1.881)
Board Meetings	coefficient	-0.001	-0.001	-0.001
	t-value	(-0.329)	(-0.334)	(-0.188)
Board Age	coefficient	0.066	0.058	0.083
	t-value	0.79	0.687	0.975
Board Independence	coefficient	0.009	0.287	0.003
	t-value	0.124	1.031	0.038

Multiple Directorships	coefficient	-0.003	-0.011	0.174
	t-value	(-0.057)	(-0.197)	0.997
Academic Specialization	coefficient	-0.175*	-0.177*	-0.178*
	t-value	(-2.061)	(-2.084)	(-2.094)
Ownership Concentration	coefficient	0.158*	0.308*	0.421*
	t-value	3.173	2.006	1.687
Concentration*Independence	coefficient		-0.424	
	t-value		(-1.035)	
Mulitdirect*concentration	coefficient			-0.334
	t-value			(-1.075)
log assets	coefficient	0.123*	0.116*	0.124*
	t-value	10.013	8.229	10.078
leverage (debt ratio)	coefficient	-0.283	-0.223	-0.277
	t-value	(-1.124)	(-0.860)	(-1.100)
Constant	coefficient	-2.079*	-2.092*	-2.226*
	t-value	(-6.075)	(-6.111)	(-6.047)
Observations		105	105	105
Adjusted R-squared		0.596	0.596	0.597
Year Dummies		yes	yes	yes
Prob<F (Sig)		0.001	0.001	0.001

(*. Indicate that the coefficient Significant level at, 0.05)

First main hypothesis H01: There is no significant impact of Board Characteristics on banks financial performance (EPS) at level ($\alpha \leq 0.05$).

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- According to the value of **(prob<F) = (0.001)** which is less than (0.05), which reveal that there is a significant impact of board characteristics on banks financial performance at level ($\alpha \leq 0.05$). Then the **first main null hypothesis** (H01) must be rejected, and the alternative hypothesis is accepted.

- The **Adjusted R-squared** It refers to the explanatory power of the model. Which is equal to (59.6%) in this research. this indicates that the independent and control variables can explain (59.6%) of variance that occurs in the dependent variable (Financial performance) and the remining effect is duo to other independent variable that have not been addressed in this research.

Eight sub-hypotheses are derived from the first main hypothesis (ranges from A to H) to examine the impact of **each** board characteristics alone (Board size, Board Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization) on the financial performance (EPS).

- **H01.1: There is no significant impact of Board size on Financial Performance (EPS) at level ($\alpha \leq 0.05$).**

The multiple regression results in table 7-3 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board size on financial performance at level (0.05).

- **H01.2: There is no significant impact of Gender Diversity on Financial Performance (EPS) at level ($\alpha \leq 0.05$).**

The multiple regression results in table 7-3 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of gender diversity on financial performance at level (0.05).

- **H01.3: There is no significant impact of Board Meetings on Financial Performance (EPS) at level ($\alpha \leq 0.05$).**

The multiple regression results in table 7-3 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board meetings on financial performance at level (0.05).

- **H01.4: There is no significant impact of Board Age on Financial Performance (EPS) at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the alternative hypothesis is accepted** and there is significant **positive** (coefficient =0.118) impact of board age on financial performance at level (0.05).

- **H01.5: There is no significant impact of Board Independence on Financial Performance (EPS) at level (α≤0.05).**

The multiple regression results in table 7-3 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board independence on financial performance at level (0.05).

- **H01.6: There is no significant impact of Multiple Directorships on Financial Performance (EPS) at level (α≤0.05).**

The multiple regression results in table 7-3 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board independence on financial performance at level (0.05).

- **H01.7: There is no significant impact of Academic Specialization on Financial Performance (EPS) at level (α≤0.05).**

The multiple regression results in table 7-3 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the**

alternative hypothesis is accepted and there is significant **negative** (coefficient = -0.175) impact of academic specialization on financial performance at level (0.05).

- **H01.8: There is no significant impact of Ownership Concentration on Financial Performance (EPS) at level (α≤0.05).**

The multiple regression results in table 7-3 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the alternative hypothesis is accepted** and there is significant **positive** (coefficient = 0.158) impact of ownership concentration on financial performance at level (0.05).

Second main hypothesis H02: Ownership Concentration does not Moderate the impact of Board Independence on Financial Performance (EPS) at level (α≤0.05).

- Before the incremental effect of ownership concentration, the board independence coefficient was (0.287) with no significant impact on the financial performance. Moreover, ownership concentration coefficient was (0.308) with a positive significant impact. Lastly, when the ownership concentration moderates the impact of board independence on the financial performance, the incremental effect coefficient recorded (-0.424) but with no significant impact at level (0.05). The results show that ownership concentration incremental effect on the impact of board independence on financial performance is (-0.424). Meaning that ownership concentration decreases the impact of board independence on financial performance, however, it is not statistically significant. Therefore, the **null hypothesis is accepted.**

Third main hypothesis H03: Ownership Concentration does not Moderate the impact of Multiple Directorships ono Financial Performance (EPS) at level (α≤0.05).

- Before the incremental effect of ownership concentration, the multiple directorships coefficient was (-0.003) with no significant impact on the financial performance. Moreover, ownership concentration coefficient was (0.421) with a

negative not significant impact. Lastly, when the ownership concentration moderates the impact of multiple directorships on the financial performance, The incremental effect coefficient recorded (-0.334) but with no significant impact at level (0.05). The results show that ownership concentration incremental effect on the impact of board independence on financial performance is (-0.334) Meaning that ownership concentration increases the impact of multiple directorships on financial performance, however, it is not statistically significant. Therefore, the **null hypothesis is accepted.**

7.2.   Appendix B, all the multiple regression outputs.

Each dependent variable has 3 models sorted as (ROA, ROE, EPS)

1-Return on assets:

```
     Source |       SS           df       MS      Number of obs   =       105
------------+------------------------------       F(16, 88)       =      4.09
      Model |  10.7178096         16  .669863102   Prob > F        =    0.0001
   Residual |  14.428733          88  .163962875   R-squared       =    0.4262
------------+------------------------------       Adj R-squared   =    0.3219
      Total |  25.1465427        104  .241793679   Root MSE        =    .40492   (MODEL 1)


--------------------------------------------------------------------------------
              ROA |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+--------------------------------------------------------------
        boardsize |   -.047339   .0387738    -1.22   0.225    -.1243938    .0297159
   genderdiversity |  -1.185099   .7274885    -1.63   0.107    -2.630829    .2606319
      boardmeeting |  -.0074408   .0175692    -0.42   0.673    -.0423558    .0274743
          boardage |   .7825763   .3988071     1.96   0.053     -.009969    1.575122
 boardindependence |  -.0942787   .3428729    -0.27   0.784    -.7756664    .5871091
 mulitpledirectorship | -.0218456  .2712759   -0.08   0.936    -.5609496    .5172583
academicspecialization | -1.321695  .4051343  -3.26   0.002    -2.126814   -.5165753
          logassets |   .1092733   .0585938     1.86   0.066    -.0071695    .2257162
  leveragedebtratio |  -.3890693  1.200683    -0.32   0.747    -2.775175    1.997036
ownershipconcentration | -.0189866  .2369129  -0.08   0.936    -.4898012     .451828
                  |
             year |
             2015 |  -.0625404   .1539547    -0.41   0.686    -.3684929    .2434121
             2016 |  -.0495112   .1588423    -0.31   0.756    -.3651769    .2661545
             2017 |  -.1725832   .1582915    -1.09   0.279    -.4871542    .1419879
             2018 |  -.0772601   .1593163    -0.48   0.629    -.3938679    .2393477
             2019 |  -.1742434   .1624975    -1.07   0.287    -.4971731    .1486863
             2020 |  -.6643441   .1587164    -4.19   0.000    -.9797595   -.3489286
                  |
            _cons |   .8561384    1.62869     0.53   0.600     -2.38054    4.092817
```

```
      Source |       SS           df       MS      Number of obs   =       105
-------------+----------------------------------   F(17, 87)       =      3.82
       Model |  10.7475926        17  .632211332   Prob > F        =     0.0001
    Residual |    14.39895        87  .165505173   R-squared       =     0.4274
-------------+----------------------------------   Adj R-squared   =     0.3155
       Total |  25.1465427       104  .241793679   Root MSE        =    .40682   (MODEL 2)


------------------------------------------------------------------------------------
                ROA |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
--------------------+---------------------------------------------------------------
          boardsize | -.0510613   .0399318    -1.28   0.204    -.1304301    .0283075
     genderdiversity | -1.200509   .7318042    -1.64   0.105    -2.655049    .2540314
        boardmeeting | -.0074033   .0176518    -0.42   0.676    -.0424882    .0276816
            boardage |  .7990939   .4025659     1.99   0.050    -.0010494   1.599237
   boardindependence | -.6400614   1.331912    -0.48   0.632    -3.287381   2.007258
  mulitpledirectorship | -.0060018   .275096     -0.02   0.983    -.5527849    .5407813
academicspecialization | -1.317989   .407129    -3.24   0.002    -2.127202   -.5087758
            logassets |  .1232925   .0675107     1.83   0.071    -.0108923    .2574773
   leveragedebtratio | -.5082881   1.238622    -0.41   0.683    -2.970183   1.953607
ownershipconcentration | -.3140481   .7351585    -0.43   0.670    -1.775255   1.147159
concentrationxindependence |  .8325602   1.962624     0.42   0.672    -3.068368   4.733488
                    |
               year |
               2015 | -.0630674    .154682    -0.41   0.684    -.3705147    .2443798
               2016 | -.0538235   .1599111    -0.34   0.737     -.371664    .2640171
               2017 | -.1735037    .159049    -1.09   0.278    -.4896309    .1426234
               2018 | -.0747006   .1601776    -0.47   0.642    -.3930708    .2436697
               2019 | -.1749327   .1632681    -1.07   0.287    -.4994457    .1495803
               2020 | -.6660005   .1595089    -4.18   0.000    -.9830417   -.3489593
                    |
              _cons |  .8811328   1.637392     0.54   0.592    -2.373361   4.135627
------------------------------------------------------------------------------------


      Source |       SS           df       MS      Number of obs   =       105
-------------+----------------------------------   F(17, 87)       =      3.89
       Model |  10.8670421        17  .639237769   Prob > F        =     0.0001
    Residual |  14.2795006        87  .164132191   R-squared       =     0.4321
-------------+----------------------------------   Adj R-squared   =     0.3212
       Total |  25.1465427       104  .241793679   Root MSE        =    .40513   (MODEL 3)


------------------------------------------------------------------------------------
                ROA |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
--------------------+---------------------------------------------------------------
          boardsize | -.0377265   .0400823    -0.94   0.349    -.1173944    .0419413
     genderdiversity | -1.234122   .7296775    -1.69   0.094    -2.684435    .2161911
        boardmeeting |  -.009623   .0177266    -0.54   0.589    -.0448565    .0256105
            boardage |   .711531   .4059098     1.75   0.083    -.0952586   1.518321
   boardindependence | -.0680153   .3441538    -0.20   0.844    -.7520582    .6160276
  mulitpledirectorship | -.7700745   .8303069    -0.93   0.356    -2.420399    .8802504
academicspecialization | -1.310154   .405524    -3.23   0.002    -2.116177   -.5041311
            logassets |   .104444   .0588424     1.77   0.079    -.0125117    .2213996
   leveragedebtratio | -.4152394   1.201616    -0.35   0.731    -2.803582   1.973103
ownershipconcentration | -1.129442   1.188451    -0.95   0.345    -3.491617   1.232732
mulitdirectxconcentration |   1.41042   1.479155     0.95   0.343    -1.529561   4.350401
                    |
               year |
               2015 | -.0563009   .154173    -0.37   0.716    -.3627365    .2501347
               2016 | -.0578315   .1591637    -0.36   0.717    -.3741865    .2585235
               2017 | -.1679495   .1584477    -1.06   0.292    -.4828815    .1469824
               2018 | -.0525775   .1614867    -0.33   0.746    -.3735499    .2683948
               2019 | -.1606912   .1632014    -0.98   0.328    -.4850718    .1636893
               2020 | -.6512611   .1593899    -4.09   0.000    -.9680659   -.3344564
                    |
              _cons |  1.474994   1.754021     0.84   0.403    -2.011312    4.9613
------------------------------------------------------------------------------------
```

2-Return on equity

```
      Source |       SS           df       MS        Number of obs   =       105
-------------+----------------------------------       F(16, 88)       =      3.47
       Model |  527.58605          16  32.9741281       Prob > F        =     0.0001
    Residual |  836.610204         88  9.50693413       R-squared       =     0.3867
-------------+----------------------------------       Adj R-squared   =     0.2752
       Total |  1364.19625        104  13.1172717       Root MSE        =     3.0833    (MODEL 1)


------------------------------------------------------------------------------------------
                  ROE |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------------+-------------------------------------------------------------------
            boardsize |  -.3284497   .2952476    -1.11   0.269    -.9151922    .2582928
       genderdiversity | -12.12334   5.539539    -2.19   0.031    -23.13201   -1.114671
          boardmeeting |  -.0825986   .1337824    -0.62   0.539    -.3484629    .1832658
              boardage |   3.335815   3.036759     1.10   0.275    -2.699106    9.370736
      boardindependence |   2.203901   2.610842     0.84   0.401    -2.984599     7.3924
    mulitpledirectorship |  -.5545284   2.06566     -0.27   0.789    -4.659593    3.550536
  academicspecialization |  -5.126841   3.084938    -1.66   0.100    -11.25751    1.003826
              logassets |   .8543924   .4461687     1.91   0.059     -.032274    1.741059
      leveragedebtratio |   26.79571   9.142731     2.93   0.004     8.626453    44.96496
   ownershipconcentration |   1.242172   1.803999     0.69   0.493    -2.342896     4.82724
                       |
                  year |
                  2015 |  -.4484789   1.172304    -0.38   0.703    -2.778187    1.881229
                  2016 |   -.947014   1.209522    -0.78   0.436    -3.350684    1.456656
                  2017 |   -1.71363   1.205327    -1.42   0.159    -4.108965    .6817045
                  2018 |  -.9984737   1.213131    -0.82   0.413    -3.409317     1.41237
                  2019 |  -1.793776   1.237355    -1.45   0.151    -4.252758     .665207
                  2020 |  -5.482049   1.208563    -4.54   0.000    -7.883813   -3.080284
                       |
                 _cons |  -24.11301   12.40183    -1.94   0.055    -48.75904    .5330251
------------------------------------------------------------------------------------------
```

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```
      Source |       SS           df       MS       Number of obs   =       105
-------------+----------------------------------     F(17, 87)       =      3.44
       Model |  548.283441        17  32.2519671     Prob > F        =    0.0001
    Residual |  815.912813        87  9.37830819     R-squared       =    0.4019
-------------+----------------------------------     Adj R-squared   =    0.2850
       Total |  1364.19625       104  13.1172717     Root MSE        =    3.0624     (MODEL 2)


-------------------------------------------------------------------------------------
               ROE |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------------+-----------------------------------------------------------------
         boardsize |  -.4265764   .3005906    -1.42   0.159    -1.024033    .1708799
     genderdiversity| -12.52957   5.508728    -2.27   0.025    -23.47877   -1.580381
       boardmeeting |  -.0816099   .1328759    -0.61   0.541    -.3457152    .1824955
           boardage |   3.771246   3.030355     1.24   0.217    -2.251912    9.794404
     boardindependence| -12.18386  10.0261     -1.22   0.228    -32.11182    7.744097
  mulitpledirectorship| -.1368586  2.070813    -0.07   0.947    -4.252823    3.979105
academicspecialization|  -5.02915  3.064704    -1.64   0.104    -11.12058    1.06228
           logassets |   1.223962  .5081935     2.41   0.018     .2138729    2.234052
     leveragedebtratio|  23.6529   9.323847     2.54   0.013     5.120744    42.18505
ownershipconcentration|  -6.536152 5.533979    -1.18   0.241    -17.53553    4.463229
concentrationxindependence| 21.94771 14.77385  1.49   0.141    -7.416914    51.31233
                   |
              year |
              2015 |  -.4623726   1.164384    -0.40   0.692    -2.776712    1.851967
              2016 |  -1.060692   1.203746    -0.88   0.381    -3.453268    1.331884
              2017 |  -1.737899   1.197257    -1.45   0.150    -4.117577    .6417795
              2018 |  -.9310003   1.205752    -0.77   0.442    -3.327564    1.465563
              2019 |  -1.811946   1.229017    -1.47   0.144     -4.25475    .6308572
              2020 |  -5.525715   1.200719    -4.60   0.000    -7.912274   -3.139156
                   |
             _cons |  -23.45411   12.32563    -1.90   0.060    -47.95264    1.044416
-------------------------------------------------------------------------------------
```

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```
      Source |       SS           df       MS      Number of obs   =       105
-------------+----------------------------------   F(17, 87)       =      3.39
       Model |  543.654576        17   31.979681   Prob > F        =    0.0001
    Residual |  820.541677        87  9.43151353   R-squared       =    0.3985
-------------+----------------------------------   Adj R-squared   =    0.2810
       Total |  1364.19625       104  13.1172717   Root MSE        =    3.0711    (MODEL 3)


-----------------------------------------------------------------------------------
                 ROE |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
---------------------+-------------------------------------------------------------
           boardsize |  -.2287049   .3038408    -0.75   0.454    -.8326213    .3752116
      genderdiversity |  -12.63204   5.531269    -2.28   0.025    -23.62603   -1.638041
         boardmeeting |  -.1052422   .1343752    -0.78   0.436    -.3723275     .161843
            boardage |   2.598604   3.07697      0.84   0.401    -3.517208    8.714416
    boardindependence |   2.476426   2.608833     0.95   0.345    -2.708913    7.661765
 mulitpledirectorship |  -8.318624   6.294083    -1.32   0.190     -20.8288    4.191548
academicspecialization |  -5.00709   3.074046    -1.63   0.107    -11.11709     1.10291
            logassets |   .8042803   .4460507     1.80   0.075    -.0822938    1.690854
    leveragedebtratio |   26.52415   9.108769     2.91   0.005     8.419487    44.62882
 ownershipconcentration | -10.28062   9.008967    -1.14   0.257    -28.18692    7.625677
mulitdirectxconcentration |  14.63541  11.21263     1.31   0.195     -7.65091    36.92173
                     |
                year |
                2015 |  -.3837339   1.168698    -0.33   0.743    -2.706648     1.93918
                2016 |   -1.03335   1.206529    -0.86   0.394    -3.431457    1.364757
                2017 |  -1.665549   1.201102    -1.39   0.169    -4.052869    .7217708
                2018 |  -.7423518   1.224139    -0.61   0.546     -3.17546    1.690757
                2019 |   -1.65315   1.237137    -1.34   0.185    -4.112094    .8057939
                2020 |  -5.346291   1.208244    -4.42   0.000    -7.747808   -2.944775
                     |
               _cons |  -17.69137   13.29623    -1.33   0.187    -44.11907    8.736326
-----------------------------------------------------------------------------------
```

3- Earnings per share

95

```
      Source |       SS           df       MS       Number of obs   =       105
-------------+----------------------------------   F(16, 88)       =     10.58
       Model |  1.22563623         16   .076602264   Prob > F        =    0.0001
    Residual |   .637038715        88   .007239076   R-squared       =    0.6580
-------------+----------------------------------   Adj R-squared   =    0.5958
       Total |  1.86267494        104   .017910336   Root MSE        =    .08508  (MODEL 1)


------------------------------------------------------------------------------------
              EPS |      Coef.    Std. Err.      t     P>|t|    [95% Conf. Interval]
------------------+-----------------------------------------------------------------
         boardsize |  -.004899    .0081472     -0.60   0.549    -.0210898    .0112919
    genderdiversity | -.2995782    .1528604     -1.96   0.053    -.6033561    .0041997
       boardmeeting | -.0012139    .0036916     -0.33   0.743    -.0085503    .0061225
          boardage |  .0662069    .0837976      0.79   0.432    -.1003233    .232737
   boardindependence |  .0089344    .0720447      0.12   0.902    -.1342392    .1521081
  mulitpledirectorship | -.0032513    .0570007     -0.06   0.955    -.1165282    .1100256
 academicspecialization | -.1754691    .0851271     -2.06   0.042    -.3446413   -.0062969
          logassets |  .1232826    .0123118     10.01   0.000     .0988155    .1477496
   leveragedebtratio | -.2834558    .2522884     -1.12   0.264    -.7848259    .2179144
 ownershipconcentration |  .1579365    .0497803      3.17   0.002     .0590086    .2568644
                  |
              year |
             2015  | -.0162815    .0323491     -0.50   0.616    -.0805685    .0480054
             2016  | -.0249418    .0333761     -0.75   0.457    -.0912697    .0413861
             2017  | -.0516152    .0332603     -1.55   0.124    -.1177131    .0144827
             2018  | -.0198846    .0334757     -0.59   0.554    -.0864105    .0466412
             2019  | -.0359246    .0341441     -1.05   0.296    -.1037789    .0319296
             2020  | -.1500296    .0333496     -4.50   0.000    -.2163049   -.0837543
                  |
             _cons | -2.07913     .3422214     -6.08   0.000    -2.759223   -1.399036


      Source |       SS           df       MS       Number of obs   =       105
-------------+----------------------------------   F(17, 87)       =     10.03
       Model |  1.23337809         17   .072551652   Prob > F        =    0.0001
    Residual |   .629296856        87   .007233297   R-squared       =    0.6622
-------------+----------------------------------   Adj R-squared   =    0.5961
       Total |  1.86267494        104   .017910336   Root MSE        =    .08505  (MODEL 2)


------------------------------------------------------------------------------------
              EPS |      Coef.    Std. Err.      t     P>|t|    [95% Conf. Interval]
------------------+-----------------------------------------------------------------
         boardsize | -.0030011    .008348      -0.36   0.720    -.0195937    .0135914
    genderdiversity | -.2917215    .152988      -1.91   0.060    -.5958016    .0123587
       boardmeeting |  -.001233    .0036902     -0.33   0.739    -.0085677    .0061017
          boardage |  .0577855    .0841588      0.69   0.494    -.1094892    .2250601
   boardindependence |  .2871991    .278444       1.03   0.305    -.2662386    .8406368
  mulitpledirectorship | -.0113292    .0575104     -0.20   0.844    -.1256374    .102979
 academicspecialization | -.1773585    .0851127     -2.08   0.040    -.3465292   -.0081878
          logassets |  .116135     .0141135      8.23   0.000     .0880828    .1441871
   leveragedebtratio | -.2226727    .2589411     -0.86   0.392    -.7373462    .2920008
 ownershipconcentration |  .3083721    .1536892      2.01   0.048     .0028982    .6138461
 concentrationxindependence | -.4244768    .4102981     -1.03   0.304    -1.239989    .3910351
                  |
              year |
             2015  | -.0160128    .0323372     -0.50   0.622    -.0802865    .0482609
             2016  | -.0227433    .0334303     -0.68   0.498    -.0891897    .0437032
             2017  | -.0511459    .0332501     -1.54   0.128    -.1172341    .0149424
             2018  | -.0211896    .0334861     -0.63   0.529    -.0877467    .0453676
             2019  | -.0355732    .0341322     -1.04   0.300    -.1034146    .0322681
             2020  | -.1491851    .0333463     -4.47   0.000    -.2154644   -.0829058
                  |
             _cons | -2.091873    .3423064     -6.11   0.000    -2.772244   -1.411502
```

```
      Source |       SS           df       MS        Number of obs   =       105
-------------+----------------------------------      F(17, 87)       =     10.04
       Model |  1.23398634         17  .072587432     Prob > F        =    0.0001
    Residual |  .628688602         87  .007226306     R-squared       =    0.6625
-------------+----------------------------------      Adj R-squared   =    0.5965
       Total |  1.86267494        104  .017910336     Root MSE        =    .08501   (MODEL 3)


--------------------------------------------------------------------------------------
                 EPS |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
---------------------+----------------------------------------------------------------
            boardsize | -.0071727   .0084103    -0.85   0.396    -.0238892    .0095437
       genderdiversity | -.287982    .153106    -1.88   0.063    -.5922968    .0163328
          boardmeeting | -.0006977   .0037195    -0.19   0.852    -.0080906    .0066952
              boardage |  .0830123   .0851708     0.97   0.332    -.0862739    .2522985
      boardindependence |  .0027219   .0722127     0.04   0.970    -.1408087    .1462526
   mulitpledirectorship |  .1737388   .1742208     1.00   0.321    -.1725439    .5200214
 academicspecialization | -.1781989   .0850899    -2.09   0.039    -.3473243   -.0090736
              logassets |  .1244249   .0123467    10.08   0.000     .0998845    .1489654
       leveragedebtratio | -.2772654   .2521315    -1.10   0.275    -.7784041    .2238733
   ownershipconcentration |  .4206097    .249369     1.69   0.095    -.0750381    .9162576
 mulitdirectxconcentration | -.3336284   .3103666    -1.07   0.285    -.9505157    .2832589
                       |
                  year |
                  2015 | -.0177574   .0323497    -0.55   0.584    -.0820559     .046541
                  2016 | -.0229737   .0333968    -0.69   0.493    -.0893535    .0434061
                  2017 | -.0527113   .0332466    -1.59   0.116    -.1187925    .0133699
                  2018 | -.0257232   .0338843    -0.76   0.450    -.0930718    .0416255
                  2019 | -.0391303   .0342441    -1.14   0.256    -.1071941    .0289334
                  2020 | -.1531243   .0334443    -4.58   0.000    -.2195985   -.0866501
                       |
                 _cons | -2.225517   .3680408    -6.05   0.000    -2.957038   -1.493996
--------------------------------------------------------------------------------------
```

8. Thesis Summary

The Impact of Board Characteristics on Financial Performance and the Moderating Role of Ownership Concentration: Evidence from the Jordanian banking sector

By:

Rashed Abdelfattah Alkhawaja

Abstract

This current research aimed to investigate the impact of board characteristics on the financial performance of Jordanian banks listed at Amman Stock Exchange (ASE). Seven board characteristics were studied: the board size, gender diversity, board meetings, board age, board independence, multiple directorships and the academic specializations of the board members. To measure the financial performance of Jordanian banks four financial ratios were utilized: return on assets, return on equity, earnings per share, and Tobin's Q. Moreover, the ownership concentration moderation role is tested on both board Independence and multiple directorships. The research sample consisted of all 15 Jordanian banks listed on the Amman Stock Exchange during the period of (2014-2020). This research relied on the descriptive-analytical method. Research results showed that there was a positive significant impact of the ages of the board of directors and ownership concentration on the financial performance of Jordanian banks, and there was a negative significant impact of the academic specialization on the financial performance of Jordanian banks. The research recommended increasing the number of young board members and increasing the ownership concentration because of its positive impact on financial performance.

Keywords: Board characteristics, Ownership Concentration, Financial Performance, Jordanian listed banks, Amman Stock Exchange.

INTRODUCTION:

Recently, in both developed and developing countries, corporate governance has become a highly debated issue. It encompasses several aspects of the government's structure, including capital, labor, market, and organization, as well as the regulatory procedures that control them. Corporate governance has evolved into a global issue, with the development of corporate governance practices becoming a topic of central focus in all countries (Palaniappan, 2017).

The corporate governance concept was established after the agency problem and the conflict between the management and stakeholders which leads to an increasing importance of regulations to organize the relationship between stakeholders and solve the problem of absence of trust between the two parties.

The Agency Problem was and still is the most common problem facing corporations at the present time, which is the separation of the company's ownership from its management and the consequent conflict of interest between the management and the owners (shareholders). To avoid or decrease the agency problem, companies implement corporate governance practices that aim to control, direct and regulate the actions of managers and guide their interests towards maximizing shareholder owners wealth (Denis, 2001).

There is no agreed definition by researchers about corporate governance. According to the Organization for Economic Co-operation and Development (OECD), corporate governance is defined as the "Procedures and processes according to which an organization is directed and controlled". And the researcher defines it as a set of practices, procedures, systems, and rules through which firms are operated, managed, and controlled. Corporate governance is divided into two mechanism, internal and external. And one of the most important internal corporate governance mechanisms is the Board of Directors, because the board is considered as the body entrusted by shareholders to

assume responsibility for managing and directing the company towards achieving its objectives (Akpan and Amran, 2014).

The board utilizes its power and authority in appointing and dismissing management, providing incentives, monitoring its behavior, correcting its performance, and drawing up the corporate strategy to provide rational and wise management practices that can maximize profitability and saves the corporation from bankruptcy, which leads to establishment's continuity and maximizing market value and improves its financial performance of the corporate and the effectiveness of the board of directors depends on the presence of many factors related to its characteristics, such as the size of the board, gender diversity, the number of board meetings, and board independence (Zied and Mohamed, 2013).

Thus, this research aimed to analyze the impact of board characteristics and its seven dimensions (board size, gender diversity, board meetings, board age, board independence, multiple directorships, and the academic specializations of the board members on financial performance and its four dimensions (return on asserts, return on equity, earnings per share, and Tobin's Q) with the moderating role of ownership concentration at the Jordanian banking sector.

RESEARCH QUESTIONS:

This research aimed to provide answers to the following questions:

Main Question: What is the impact of Board Characteristics on banks financial Performance?

Sub Question:

1- What is the impact of Board size on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

2- What is the impact of Gender Diversity on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

3- What is the impact of Number of Board Meetings on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

4- What is the impact of Board Age on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

5- What is the impact of Board Independence on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

6- What is the impact of Ownership Concentration on banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

7- What is the impact of Multiple Directorships on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

8- What is the impact of Academic Specialization on banks financial performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

9- What is the Moderation impact of Ownership Concentration on the relationship between Board Independence and banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

11- What is the Moderation impact of Ownership Concentration on the relationship between Multiple Directorships and banks Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q)?

RESEARCH HYPOTHESES:

Based on the problem statement, research questions, research objectives and the conceptual framework the following hypothesis were developed:

Main Hypotheses:

1- H01: There is no significant impact of Board Characteristics on banks financial performance at level ($\alpha \leq 0.05$).

Eight *Sub-hypotheses* are derived from the first main hypothesis as follows:

H01.1: There is no significant impact of Board size on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.2: There is no significant impact of Gender Diversity on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.3: There is no significant impact of Board Meetings on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.4: There is no significant impact of Board Age on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.5: There is no significant impact of Board Independence on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.6: There is no significant impact of Multiple Directorships on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).
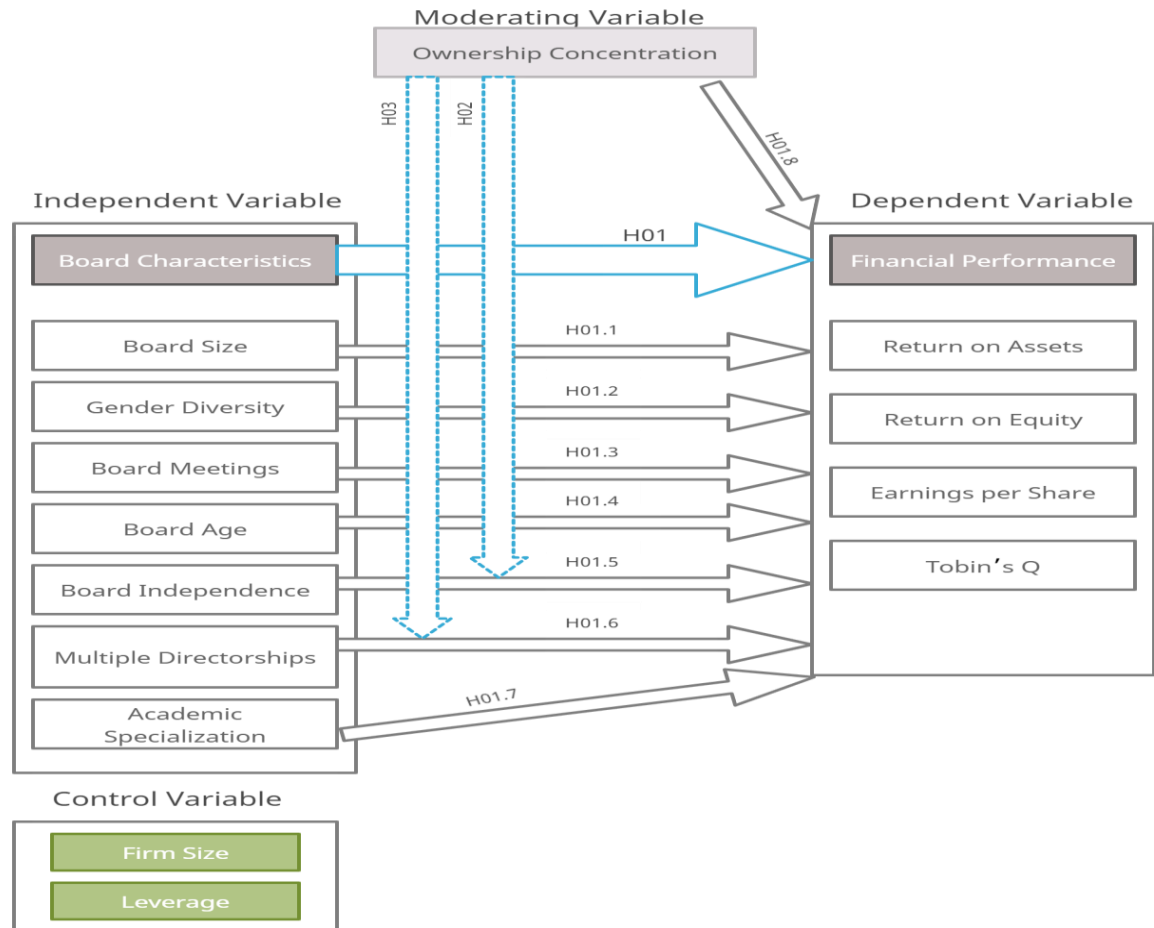
H01.7: There is no significant impact of Academic Specialization on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

H01.8: There is no significant impact of Ownership Concentration on Financial Performance (Return on Assets, Return on Equity, Earnings per Share and Tobin's Q) at level ($\alpha \leq 0.05$).

2- H02: Ownership Concentration does not Moderate the impact of Board Independence on Financial Performance at level ($\alpha \leq 0.05$).

3- H03: Ownership Concentration does not Moderate the impact of Multiple Directorships on Financial Performance at level ($\alpha \leq 0.05$).

CONCEPTUAL FRAMEWORK:

RESEARCH DESIGN:

To achieve the research main purpose which is investigating the impact of Board Characteristics: Board size, Board Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization on banks Financial Performance which measured by Return on Assets, Return on Equity, Earnings per Share and Tobin's Q the research follows a mixture of descriptive, cause-effect analytical quantitative approach and will rely on secondary sources. Therefore, Multiple Regression Analysis would be suitable to test the research

hypotheses and to examine the impact of this research's variables. since regression analysis are usually used to measure the cause-effect relationship between variables.

POPULATION AND SAMPLE:

The population of this research is comprised of all listed Jordanian banks in Amman Stock Exchange (ASE).

The sample contains all the Jordanian banks listed at Amman Stock Exchange (ASE).

Table 3-1: Name of Jordanian banks listed at Amman stock exchange.

Jordanian Listed Banks			
Number	Name of the bank	Symbol of the bank	Date of establishment
1	Arab Bank	ARBK	1930
2	Jordan Ahli Bank	AHLI	1956
3	Cairo Amman Bank	CABK	1960
4	Bank Of Jordan	BOJX	1960
5	The Housing Bank for Trade and Finance	THBK	1974
6	Jordan Kuwait Bank	JOKB	1977
7	Jordan Islamic Bank	JOIB	1978
8	Jordan Commercial Bank	JCBK	1978
9	Arab Jordan Investment Bank	AJIB	1978
10	Arab Banking Corporation /(Jordan)	ABCO	1989
11	Invest Bank	INVB	1989
12	Bank Al Etihad	UBSI	1991
13	Société Générale De Banque - Jordanie	SGBJ	1993
14	Capital Bank of Jordan	EXFB	1996

15	Safwa Islamic Bank	SIBK	2009

PROCEDURE FOR DATA COLLECTION:

To achieve the research purpose and obtain all the necessary information and data for the research variables, this research relied on secondary sources using the Cross-sectional time-series data (panel data). Panel data consists of the number of variables and of multiple time periods when estimating the regression equation.

Research data were gathered from three sources: firstly, Amman Stock Exchange website, secondly, Banks' websites and annual reports for the period of (2014-2020) by analysing the content of the annual financial reports of Jordanian banks disclosed through the Amman stock exchange website and the official websites of the banks to obtain the necessary data for the independent and dependent variables of the research. Finally, the missing data were collected manually through Securities Depository Center website.

STATISTICAL TECHNIQUES IN DATA ANALYSIS:

Several statistical methods have been adopted in this research so that each test fits with the purpose for which it was set. These statistical methods are:

1- Descriptive statistics test, which describes the research variables statistically by calculating the mean, standard deviation, median, minimum value, maximum value.

2- Correlation analysis is the statistical tool that can be utilized to determine and examine the relationship between the research variables.

3- Multicollinearity tests which used to check that there is multicollinearity problem between the independent research variables.

4 - Multiple regression analysis tests are used to examine and test the research hypotheses. The statical software program Statistics and Data (STATA) was utilized to

analyse the multiple regression equations, test hypotheses and examine the impact of independent variable on the dependent variable.

MULTIPLE REGRESSION ANALYSIS AND HYPOTHESES TEST:

To test the hypotheses and the sub-hypotheses of the research and to know the extent of the impact of the independent variable (board characteristics) which is represented by Board size, Board Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization on the dependent variable (financial performance) which is represented by Return on Assets, Return on Equity, Earnings per Share and Tobin's Q, a multiple regression analysis was utilized according to the following rules:

The null hypothesis (H0) is rejected, and the alternative hypothesis (Ha) is accepted if the level of significance is less than or equal to 5% **(α≤0.05).**

The null hypothesis (H0) is accepted, and the alternative hypothesis (Ha) is rejected if the level of significance is more than 5% **(α>0.05).**

Please notice that <u>Tobin's Q</u> is selected as a main proxy to test the financial performance, while the regression analysis of the return on assets, return on equity and earnings per share are tested in the *<u>Appendix (A)</u>*.

Table 4-4 illustrate the result of the multiple regression analysis, Model 1 aims to test the first hypothesis and its sub-hypotheses, while Model 2 aims to test the second hypothesis and finally, Model 3 tests the third hypothesis.

Table 4-4 Regression Analysis

Dependent variable: Tobin's Q		Model 1	Model 2	Model 3
Board Size	coefficient	0.011	0.013*	0.013*
	t-value	(1.874)	(2.266)	(2.233)

Gender Diversity	coefficient	-0.198	-0.188	-0.210
	t-value	(-1.831)	(-1.761)	(-1.955)
Board Meetings	coefficient	-0.003	-0.003	-0.004
	t-value	(-1.204)	(-1.231)	(-1.412)
Board Age	coefficient	0.118*	0.107	0.100
	t-value	1.989	1.826	1.678
Board Independence	coefficient	-0.096	0.256	-0.089
	t-value	(-1.878)	1.317	(-1.760)
Multiple Directorships	coefficient	0.047	0.037	-0.138
	t-value	1.164	0.915	(-1.129)
Academic Specialization	coefficient	-0.215*	-0.218*	-0.212*
	t-value	(-3.574)	(-3.664)	(-3.556)
Ownership Concentration	coefficient	0.075*	0.265*	-0.2
	t-value	2.135	2.473	(-1.139)
Concentration*Independence	coefficient		-0.537	
	t-value		(-1.873)	
Mulitdirect*concentration	coefficient			0.349
	t-value			1.601
log assets	coefficient	0.037*	0.028*	0.035*
	t-value	4.201	2.798	4.085
leverage (debt ratio)	coefficient	-0.752	-0.675*	-0.758*
	t-value	-4.212	(-3.735)	(-4.284)
Constant	coefficient	1.196*	1.180*	1.349*
	t-value	4.938	4.937	5.22
Observations		105	105	105
Adjusted R-squared		0.543	0.555	0.551
Year Dummies		yes	yes	yes
Prob<F (Sig)		0.001	0.001	0.001

(*. Indicate that the coefficient Significant level at 0.05).

Appendix (B) **shows all output of the multiple regression test.**

Table 4.4 illustrate the following:

First main hypothesis H01: There is no significant impact of Board Characteristics on banks financial performance at level (α≤0.05).

- According to the value of **(prob<F) = (0.001)** which is less than (0.05), which reveal that there is a significant impact of board characteristics on banks financial performance at level (α≤0.05). Then the **first main null hypothesis** (H01) must be rejected, and the alternative hypothesis is accepted.

- The **Adjusted R-squared** It refers to the explanatory power of the model. Which is equal to (54.3%) in this research. this indicates that the independent and control variables can explain (54.3%) of variance that occurs in the dependent variable (Financial performance) and the remining effect is duo to other independent variable that have not been addressed in this research.

Eight sub-hypotheses are derived from the first main hypothesis (ranges from A to H) to examine the impact of **each** board characteristics alone (Board size, Board Diversity, Number of Board Meetings, Board Age, Board Independence, Ownership Concentration, Multiple Directorships, Academic Specialization) on the financial performance.

- **H01.1: There is no significant impact of Board size on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board size on financial performance at level (0.05).

- **H01.2: There is no significant impact of Gender Diversity on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of gender diversity on financial performance at level (0.05).

- **H01.3: There is no significant impact of Board Meetings on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board meetings on financial performance at level (0.05).

- **H01.4: There is no significant impact of Board Age on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the alternative hypothesis is accepted** and there is significant **positive** (coefficient =0.118) impact of board age on financial performance at level (0.05).

- **H01.5: There is no significant impact of Board Independence on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board independence on financial performance at level (0.05).

- **H01.6: There is no significant impact of Multiple Directorships on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is more than (0.05) which disclose that the **null hypothesis is accepted** and there is no significant impact of board independence on financial performance at level (0.05).

- **H01.7: There is no significant impact of Academic Specialization on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the alternative hypothesis is accepted** and there is significant **negative** (coefficient = -0.215) impact of academic specialization on financial performance at level (0.05).

- **H01.8: There is no significant impact of Ownership Concentration on Financial Performance at level (α≤0.05).**

The multiple regression results in table 4.4 indicate that significant level of the coefficient is less than (0.05) which disclose that the **null hypothesis is rejected, and the alternative hypothesis is accepted** and there is significant **positive** (coefficient = 0.075) impact of ownership concentration on financial performance at level (0.05).

Second main hypothesis H02: Ownership Concentration does not Moderate the impact of Board Independence on Financial Performance at level (α≤0.05).

- Before the incremental effect of ownership concentration, the board independence coefficient was (0.256) with no significant impact on the financial performance. Moreover, ownership concentration coefficient was (0.265) with a positive significant impact. Lastly, when the ownership concentration moderates the impact of board independence on the financial performance, the incremental effect coefficient recorded (-0.573) but with no significant impact at level (0.05). The results show that ownership concentration incremental effect on the impact of board independence on financial performance is (-0.573). Meaning that ownership concentration decreases the impact of board independence on financial performance, however, it is not statistically significant. Therefore, the **null hypothesis is accepted.**

Third main hypothesis H03: Ownership Concentration does not Moderate the impact of Multiple Directorships on Financial Performance at level (α≤0.05).

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- Before the incremental effect of ownership concentration, the multiple directorships coefficient was (-0.138) with no significant impact on the financial performance. Moreover, ownership concentration coefficient was (-0.200) with a negative not significant impact. Lastly, when the ownership concentration moderates the impact of multiple directorships on the financial performance, The incremental effect coefficient recorded (0.349) but with no significant impact at level (0.05). The results show that ownership concentration incremental effect on the impact of board independence on financial performance is (0.349) Meaning that ownership concentration increases the impact of multiple directorships on financial performance, however, it is not statistically significant. Therefore, the **null hypothesis is accepted.**

RESULT DISCUSSION:

The current research tested the impact of the board characteristics of on the financial performance of Jordanian banks listed on the Amman Stock Exchange, in an attempt to understand the impact of these characteristics on the financial performance of Jordanian listed banks. The sample contain 15 listed Jordanian banks covered from (2014-2020). As a result of utilizing the descriptive statistics analysis and the results testing the hypotheses, the research concludes the following:

First, regarding to the first main hypothesis which shows a significant impact of board characteristics on banks financial performance **H01: There is a significant impact of Board Characteristics on banks financial performance at level ($\alpha \leq 0.05$)** and its sub-hypothesis ($H01._{1-8}$):

1- Regarding to the first sub-hypothesis ($H01._{1}$), the result shows no significant impact of the board size on the financial performance at level ($\alpha \leq 0.05$). which comply with the research of (Bermig & Frick 2009) and (Saleh 2020).

2- Regarding to the second sub-hypothesis (H01.2), the result shows no significant impact of the gender diversity on the financial performance at level (α≤0.05). However, the result is complying with the research of Rose (2007) which discovered no significant relationship between the percentage of female board members and Danish business performance.

3-Regarding to the third sub-hypothesis (H01.3), the result shows no significant impact of the board meetings on the financial performance at level (α≤0.05). Moreover, the researcher suggest that the board meetings is calculated by the percentage of the achievement during the meetings not by the number of meeting and this is supported by the research of (Aryani et al. 2017).

4- Regarding to the fourth sub-hypothesis (H01.4), the result shows a significant positive impact of the board age on the financial performance at level (α≤0.05). Moreover, the researcher suggests that having more young members in the board of director can increase the financial performance of the Jordanian banks, which comply inversely with the research of (Akpan & Amran 2014). The researcher sees that the result is different because due to the period and sample in which it was conducted and because the different financial performance proxies.

5- Regarding to the fifth sub-hypothesis (H01.5), the result shows no significant impact of the board independence on the financial performance at level (α≤0.05). That could be due to the idea that independent members may lack experience and knowledge in the Bank's operational matters. Which comply with the research of (Shan 2019) and (Akpan & Amran 2014).

6- Regarding to the sixth sub-hypothesis (H01.6), the result shows no significant impact of the multiple directorships on the financial performance at level (α≤0.05). which is comply with the research of (Hasnan, et al. 2020) and (Saleh 2020).

7- Regarding to the seventh sub-hypothesis (H01.7), the result shows a significant negative impact of the academic specialization on the financial performance at level (α≤0.05). Which indicate that board members with more variety of academic specialization can perform better.

8- Regarding to the eighth sub-hypothesis (H01.8), the result shows a significant positive impact of the ownership concentration on the financial performance at level (α≤0.05). which is in comply with the research of (Freihat, et al 2019).

Second, regarding to the second hypothesis which shows no significant moderating impact (incremental effect) of the ownership concentration on the board independence and financial performance. **H02: Ownership Concentration does not Moderate the impact of Board Independence on Financial Performance at level (α≤0.05).** The result concluded that ownership concentration incremental effect on the impact of board independence on financial performance have a negative coefficient. Meaning that ownership concentration decreases the impact of board independence on financial performance Which comply with the research of (Habtoor, 2020). however, it is not statistically significant.

Third, regarding to the third hypothesis which shows no significant moderating impact (incremental effect) of the ownership concentration on the multiple directorships and financial performance. **H03: Ownership Concentration does not Moderate the impact of Multiple Directorships on Financial Performance at level (α≤0.05).** The results concluded that ownership concentration incremental effect on the impact of board independence on financial performance have a positive coefficient. Meaning that ownership concentration increases the impact of multiple directorships on financial performance, however, it is not statistically significant.

CONCLUSION:

The purpose of the present research is to examine the impact of board characteristics on the financial performance of the Jordanian listed banks. Seven board characteristics were studied board size, board diversity, number of board meetings, board age, board independence, multiple directorships, academic specialization with four proxies to the financial performance the return on assets, return on equity, earnings per share and Tobin's Q. The data were collected from 15 Jordanian listed bank in Amman Stock Exchange covering the period of (2014-2020). Moreover, the current research follows a quantitative descriptive design which utilized the multiple regression analysis to test its hypotheses. The result of regression analysis finds a positive significant impact of board characteristics (in general) on the financial performance. Moreover, two board characteristics, board age and ownership concentration, were found to have a significant positive impact. However, academic specialization records a significant negative impact, while the ownership concentration incremental effect showed a decreases impact of board independence on financial performance and an increases impact of multiple directorships on financial performance but with no significant impact.

RECOMMENDATION:

The researcher suggests that future researcher to imply the same research variable on another Jordanian sector. Or to conduct the research on the banking sector but with larger population and broader scope such as MENA (Middle East and North Africa) region or group of countries to generalize the result. Moreover, the researcher suggests testing more board characteristics (like CEO duality) on different financial performance proxies. Finally, the research covered the specific and limited period of (2014-2020) and the researcher recommend repeating this research after a period to see the development, improvement or weakness that may happened to the financial performance of the Jordanian banking sector. Encouraging to increase the ownership concentration in the

hands of the major shareholders who own more than 5% of the bank's shares because of its positive significant impact on the financial performance of Jordanian banks.

Increasing the number of young board members as the result find a positive significant impact of the financial performance of the Jordanian banks.