

**T.C.
ISTANBUL OKAN UNIVERSITY
INSTITUTION OF GRADUATE EDUCATION**

**THESIS FOR THE DEGREE OF
PhD OF BUSINESS ADMINISTRATION
IN ENGLISH BUSINESS PROGRAM**

HAMZA AHMAD MAHMOUD TANASH

**The Impact of Ownership Structure as A Corporate
Governance Mechanism on Earning Quality in The Jordanian
Banks Listed in The Amman Stock Exchange (ASE) From
(2009 – 2019)**

SUPERVISOR

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ISTANBUL, November 2022

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Presentation Date: 2022/11/04

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İSTANBUL, November 2022

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Özet

Çıkar çatışması problemi, şirketlerde yönetim ve mülkiyet arasındaki ayırımdan kaynaklanmaktadır. Böylece, şirketin temsilcileri hisse sahiplerine pahasına kişisel servetlerini en yüksek seviyeye çıkarmak üzere belirli eylemler uygularlar. Bunun neticesinde, ilgili tarafların liderlik ettiği çeşitli girişimler, kazanç yönetimi uygulamalarını kısıtlamak için önleyici kontrol araçları olarak kurumsal yönetim kurallarını ve mülkiyet yapılarını tavsiye etmiştir. Bu sebeple, bu çalışma, 2009'dan 2019'a kadar Amman borsasında işlem gören Ürdün bankalarında raporlanan kazançların niteliğini yükseltmek için kazanç yönetimi faaliyetlerini tahfif etme ve azaltmada iç kurumsal yönetim olarak sahiplik yapısının etkisini incelemeyi hedeflemektedir.

Esas olarak fonksiyonel araştırma paradigmasını kullanan bu tez, bankaların rapor ettiği kazançların kalitesini yükseltmek için kazanç yönetimi uygulamalarını azaltmada mülkiyet yapısı kategorilerinin rolünün takip edilmesinin etkinliğini değerlendirmek için nesnelci araştırma konumlarını kullanır.

Objektif bakışa göre, 2009'dan 2019'a kadar olan ikincil veriler, Amman Borsası'nda listelenen 14 bankadan oluşan bir örneklemede İhtiyari Kredi Zarar Karşılığı modeli tarafından tahmin edilen kazanç yönetimi faaliyetleri olgusu ile mülkiyet yapısı kategorileri arasındaki ilişkiyi araştırmaktadır.

GLS regresyon analiz bulguları, (normallik, çoklu doğrusallık, değişen varyans ve otokorelasyon) varsayımlarının test edilmesinden sonra, yönetim sahipliğinin kazanç yönetimi hareketlerinde önemli bir pozitif izlenimin olduğunu ortaya koymaktadır, bu da yönetsel mülkiyetin bankaların rapor edilen kazançlarının niteliğini azalttığı anlamına gelmektedir. Tersine, aile mülkiyeti, aile sahipliğinin EM uygulamalarını azalttığı ve bankaların rapor edilen kazançlarının niteliğini geliştirdiği kazanç yönetimi

hareketlerinde önemli bir negatif tesir göstermektedir. Sahiplik derişimi, kurumsal ve yabancı mülkiyet, kazanç yönetimi hareketlerinde önemsiz negatif etki ve bankaların rapor edilen kazançlarının niteliğı üzerinde önemsiz olumlu etki gösterdi.

Anahtar Kelimeler: Mülkiyet yapısı, kazanç yönetimi, kredi zararları, kazanç kalitesi, Amman Borsası, Bankalar



ABSTRACT

When management and ownership in enterprises are separated, a conflict of interest occurs as it motivates firm agents to undertake activities aimed at maximising personal wealth at the expense of shareholders. As a result, a variety of initiatives spearheaded by interested parties proposed CG codes and ownership structures as preventive means of control to avoid earnings management methods from becoming excessive. Hence, the purpose of the study aims to investigate the impact of ownership structure as internal CG mechanism in moderating and reducing EM activities to improve the quality of reported earnings of the Jordanian banks listed on the Amman Stock Exchange from 2009 to 2019.

Utilising the functionalist research paradigm as the basis, this study employed objectivism research views to evaluate the effectiveness of monitoring the function of ownership structure categories in constraining (EM) activities to enhance the quality of banks' reported earnings.

From an objectivist perspective, a set of secondary data from 2009 to 2019 examines the relationship between ownership structure categories, and earnings management activities phenomenon estimated by the Discretionary Loan Loss Provision model for a sample of 14 banks listed in the (ASE). In this regard, the selected primary categories included blockholder ownership, managerial ownership, institutional ownership, foreign ownership and family ownership to evaluate the ownership structure-monitoring role.

Further analysis of The Generalized Least Squares (GLS) regression model and the results revealed a significant positive impact of managerial ownership on EM activities after testing for normality, multicollinearity, heteroscedasticity and autocorrelation. This implies that the quality of banks' reported earnings has deteriorated.

On the contrary, family ownership shows a significant negative influence on EM activities, which implies family ownership, mitigated (EM) practices and improves the quality of banks' reported earnings. Blockholder ownership, institutional and foreign ownership showed a non-significant negative impact on EM activities and a non-significant positive impact on the quality of banks' reported earnings.

Keywords: ownership structure, earnings management, discretionary loan loss provision, earnings quality, Amman Stock Exchange and banks.

ACKNOWLEDGEMENT

First of all, I commend and thank Almighty Allah for his blessings throughout my research to successfully finish this research.

I would like to convey my deepest and most sincere gratitude to my supervisor, Prof. Dr. Guner Gursoy for the opportunity in providing me invaluable assistance throughout this research. I am greatly inspired by his dynamism, vision, sincerity and motivation. It was a great privilege and honor to work and study under his guidance. I am absolutely indebted for what he has given me.

Also, thanks to Prof.Dr.Gonca Atici and Prof.Dr.Gokce Tunc of my thesis committee. Your ideas, comments, and advice have been very helpful and valuable in improving this research. I am grateful for your advice, support, help, encouragement, and patience throughout the writing of my thesis.

Your knowledge and expertise were vital for this study and it would not be able to have been completed without your guidance.

I would also like to express my gratitude to my family. Without their unconditional support, this thesis would not have completed. My deceased father and mother, May Allah bless their souls as they are my finest goal, source of energy, and the driving force in my life, hence this thesis is dedicated to them. May Allah bless their souls and reward all of them in this world and the Hereafter. Many thanks to my spouse Reham and my children (Ahmad and Eman) for their neverending support and prayers. I am so grateful to my family for their love, prayers, caring and sacrifices that have raised and prepared me for my future. Thanks too to my friends and research colleagues.

Lastly, to all those people who have supported me in completing my research whether directly or indirectly, thank you!



LIST OF ABBREVIATIONS

Abbreviation	Description
ASE	Amman Stock Exchange
EM	Earnings management
GLS	Generalized least squares
IFRS	International Financial Reporting Standards
CG	Corporate Governance
EQ	Earnings Quality
CEO	Chief Executive Officer
FRQ	Financial Reporting Quality
OECD	Organization for Economic Co-operation and Development
CGC	Corporate Governance Code
JSC	Jordan Securities Commission
SDC	Securities Depository Center
CBJ	Central Bank of Jordan
ISE	Indonesian stock exchange
ESE	Egyptian stock exchange
NSE	Nigerian stock exchange
VSE	Vietnam stock exchange
CSE	Colombo stock exchange
OLS	Ordinary least squares
SBF	Société des Bourses Françaises
NSE	Nairobi Securities Exchange
TSE	Tehran stock exchange
KSE	Karachi Stock Exchange
LLP	Total Loan Loss Provision
DLLP	Discretionary Loan Loss Provision
NPL	non-performing loan
TL	Total Loan
B.OW	Blockholder Ownership
M.OW	Managerial Ownership
INS.OW	Institutional Ownership
FOR.OW	Foreign Ownership
FAM.OW	Family Ownership
SIZE	Bank Size

ROA	Return On Assets
LEV	Financial Leverage
AGE	Bank Age
VIF	Variance Inflation Factor
u	error term
R^2	R square
MENA	Middle East/North Africa



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CHAPTER 1: GENERAL FRAMEWORK

This chapter introduces and deliberates the general framework of the current study. This chapter, therefore, contains the following sections: the background, the problem statement, the purpose, the significance, the research questions and the model of the study.

1.1 Introduction

The main feature of public companies is the divide between ownership and control. This means that the ownership of corporations' capital is separated from its management as agency theory suggests. Differences in goals and objectives between the shareholders and management can lead to agency problems represented by shareholders and managers' conflicts of interest (Jensen & Meckling, 1976; Chen & Zhang, 2014).

The last financial crisis which resulted from financial and administrative corruption lead to shareholders incurring heavy financial losses. The shareholders then declared their unwillingness to accept the ensuing impacts of the corruption committed by the managers (Suliman 2006; Chen & Zhang, 2014; Mehrani et al., 2017).

Managerial behaviors such as compliance, opportunistic, biases to self-interest and working for their wealth lead to manage earnings. Such behaviors are caused by different agency problem size (Giroux, 2004; Alhadab & Al-Own, 2017; Mukhtaruddin, 2018). Over the last few decades, the manager's reward has repeatedly been identified as a key driver of earnings management. This is because bonuses are strongly associated with accounting performance (Cheng, Warfield, 2005; Ardilla & Nuswantara, 2021).

Thus, the accounting-based contractual constraints give managers an incentive to take advantage of flexibility available in accepted accounting practices (Yang et al., 2008; Mahmoud & Maher, 2021; El Diri, 2017), by maximizing their personal interest through adopting opportunistic behaviors against shareholders' interest (Jensen, 1993). A modern string of high-accounting corporate scandals and the collapse of key financial fundamentals have forced boards, management and investors to turn their attention to the honesty, integrity and fairness of financial reporting. This allows users of this financial

report to properly assess firms' strategy, business model, and risk level (Larcker & Tayan, 2010). Experts believe that integrity and transparency in the preparation of financial reports (considered the most important point in improving the integrity of the market) are critical to the shareholders, creditors and investors' faith in the financial reporting quality (Institute of Certified Financial Analysts, 2015). The audit process offers an evaluation that is reliable and fair of the company's financial claims, particularly when that audit is performed by an external auditor.

Additionally, it involves an essential role in creating shareholder's and investor's trust that is needed for capital market (Hohenfels, 2016).

1.2 The Background of the Study

The failure and downfall of huge firms like Enron, Arthur Andersen and WorldCom in the latest years focused attention on the internal and external CG instruments' efficiency to increase transparency, reliability and integrity of financial reporting (Mehrani et al., 2017; Chen & Zhang, 2014). Accordingly, the integrity and reliability of financial reports are key elements of decision-making for the users of financial reports. Furthermore, earnings figure is considered core information as it influences firms' operations, management and investment decision (Nakashima, 2019; Alexander, 2019; Alshhed & Alanaty, 2017). The financial disaster which the corporate world has experienced in recent years has reduced investor confidence in the information accuracy that the listed companies prepared (Mehrani et al., 2017).

As a result, financial reporting users are becoming more sceptical, especially regarding financial reporting quality. This is the result of reports which managers are manipulating earnings figures according to the flexibility of accounting standards for personal gain. This is known as managerial opportunistic behaviour due to agency problem (conflict-of-interest) (Mukhtaruddin, 2018).

Previous studies have shown attention to EM issues. Therefore, most studies were concentrating on the strategies used by management to manipulate earnings figures and how to identify such manipulation (Mahmoud & Maher, 2021; Ardilla & Nuswantara,

2021; Lassoued et al., 2017). Accordingly, Corporate Governance (CG) mechanisms were developed by practitioners and regulators who are interested in management of earnings in controlling the managers' actions. The agency theory states that internal CG mechanisms like ownership structure may constrain managerial opportunistic behavior and agency expenses in the effort to enhance investors' confidence in the quality of reported earnings (Mahmoud & Maher, 2021; Ciftci et al., 2019; Mukhtaruddin, 2018).

According to a related literature review, most past research focuses on the connection between ownership structure as a CG mechanism, including EQ in firms that are non-financial. Henceforth, given the paucity of financial sector research which has investigated ownership structures' link to EQ, the researcher selected a sample for this study from the banking sector to shed light on the open questions of previous studies, to complement the present studies on ownership structures' role to improve EQ in the banking sector.

Hence, the research examined how ownership structure affects the EQ of Jordanian banks, specifically those listed in the (ASE) for 2009-2019. Moreover, the present research inspects ownership structures' capabilities containing (blockholders, management, institutions, foreign and family-owned) in creating active members who monitor and limit EM activities committed by managers in order to maintain user confidence in financial reporting of the earnings figures' quality. Thus, the present research enriches the body of knowledge by exploring the prominent role of the various types of investors in limiting EM activities using loan loss allocations from rising markets like Jordan.

It also answers questions that were not fully addressed or answered in previous studies, especially in the Jordanian environment. Moreover, this study uses different measurements for ownership structure than previous studies. Furthermore, this study determined the direction of EM activities in order to determine the intensive for using EM activities in the Jordanian banks listed in (ASE) from 2009 to 2019.

1.3 The Problem of the Study

The problem with this research depends in the nature of public shareholding firms, which is according to the divide between ownership and management.

As a result of this relationship, the agency theory emerged which asserts that shareholders delegate their power to the top management to manage the company's business on their behalf under a contract. This delegation results in a shareholder-management conflict as the company seeks to achieve its interests and maximize its personal wealth, which is known as opportunistic managerial behavior (Jensen & Meckling, 1976) through its use of earning management practices of accounting figures manipulation to achieve the benefits of personal management. Some accounting practices are based on personal judgment while others allow for a change in accounting techniques consistent with International Financial Reporting Standards (IFRS), the results of the company's financial claims that may have the possibility of being unrealistic and lead shareholders and stakeholders to make wrong decisions (El Diri, 2018; Mahmoud & Maher, 2021; Ardilla & Nuswantara, 2021).

Accordingly, the problem of engaging in earnings management activities in Jordan is a worrisome one, and it is also a cause for worry. Enomoto et al. (2015), based on 38 nations, proved that Jordanian firms used earnings management activities at a rate of 81% when compared to other countries. Furthermore, Shakhathreh et al. (2020) documented a rise in the frequency of reported disclosure violations in Jordan, with 44% of the companies they tested reporting violations in 2016 compared to 2010.

Moreover, numerous studies have indicated the widespread prevalence of EM activities among Jordanian listed companies (Alaryan, 2015; Alzoubi, 2016; Alhadab & Al-Own, 2017; AlQudah et al., 2020).

Indeed, corporate governance is the key player in alleviating problems of agency theory like (opportunistic managerial behavior), increasing the integrity and transparency of accounting processes that importantly result in an improvement in the FRQ (Jensen & Meckling, 1976; Cohen et al., 2004; Lassoued et al., 2017; Elhennawy, 2021). Therefore,

uses of corporate governance instruments like blockholder, managerial, institutional, family and foreign ownership's help to reduce earning management practices increase and improve earnings quality (Alaryan, 2015; An & Naughton, 2015; Alzoubi, 2016; Vo & Chu, 2019; Emmanuel & Afor, 2019; AlQudah et al., 2020; Elhennawy, 2021). To better comprehend how ownership structure affects EM activities and ultimately EQs within ASE-listed Jordanian banks from 2009 to 2019, the research dwells into the monitoring function of ownership structure.

1.4 The Purpose of the Study

The present research purposes to examine all of the ownership structure categories' (blockholder, managerial, institutional, foreign and family ownership) capabilities as an internal CG mechanism in reducing agency problems specially conflict of interest, and creating active shareholders who have knowledge and experiences to monitor the opportunistic managerial behavior (represented by using earning management practices by banks managers to achieve their personal interest), in order to improve honesty, integrity, fairness and transparency in reported earnings. This improves the trust of shareholders, investors, and creditors in the ASE-listed banks' quality of financial reporting.

1.5 The Significance of the Study

The research topic "loan loss provisions" is very important since such a topic affects the reported earnings for the Jordanian banks. This opportunistic behavior can be used commonly by banks managers to report attractive numbers in the financial statements.

Some tools have been suggested by the previous literature to constrain this behavior by examining the effectiveness of the ownership map within the Jordanian market after the occurrence of the Arab spring which may the motivations for the Jordanian managers to report stable levels of earnings. Additionally, the foreign owners' percentage within the Jordanian market is approximately 51% according to the Amman Stock Exchange; this high level of ownership may have the upper control hand in constraining such opportunistic behaviors within the Jordanian market. In addition, the foreign possessors'

presence is foreseeable at improving the supervisory role among other types of owners who can maximize shareholder returns (JSC, 2020).

1.6 The Questions of the Study

The present research aims at responding to five questions concerning the degree to which the ownership structure is successful in limiting the EM activities, which include improving honesty, integrity, fairness and transparency in reported earnings. This increases the shareholders, creditors and investors' faith in the financial reporting quality by banks (Larcker & Tayan, 2010; Alhadab & Al-Own, 2017). Therefore, the current study addresses the research questions below to achieve the research aim:

1. Will blockholder ownership positively affect the EQ of Jordanian banks listed for 2009-2019 (ASE)?
2. Will managerial ownership (executive managers) positively affect the EQ of Jordanian banks listed for 2009-2019 (ASE)?
3. Will institutional ownership positively affect the EQ of Jordanian banks listed for 2009-2019 (ASE)?
4. Will family ownership positively affect the EQ of Jordanian banks listed for 2009-2019 (ASE)?
5. Will foreign ownership positively affect the EQ of Jordanian banks listed for 2009-2019 (ASE)?

1.7 The Model of the Study

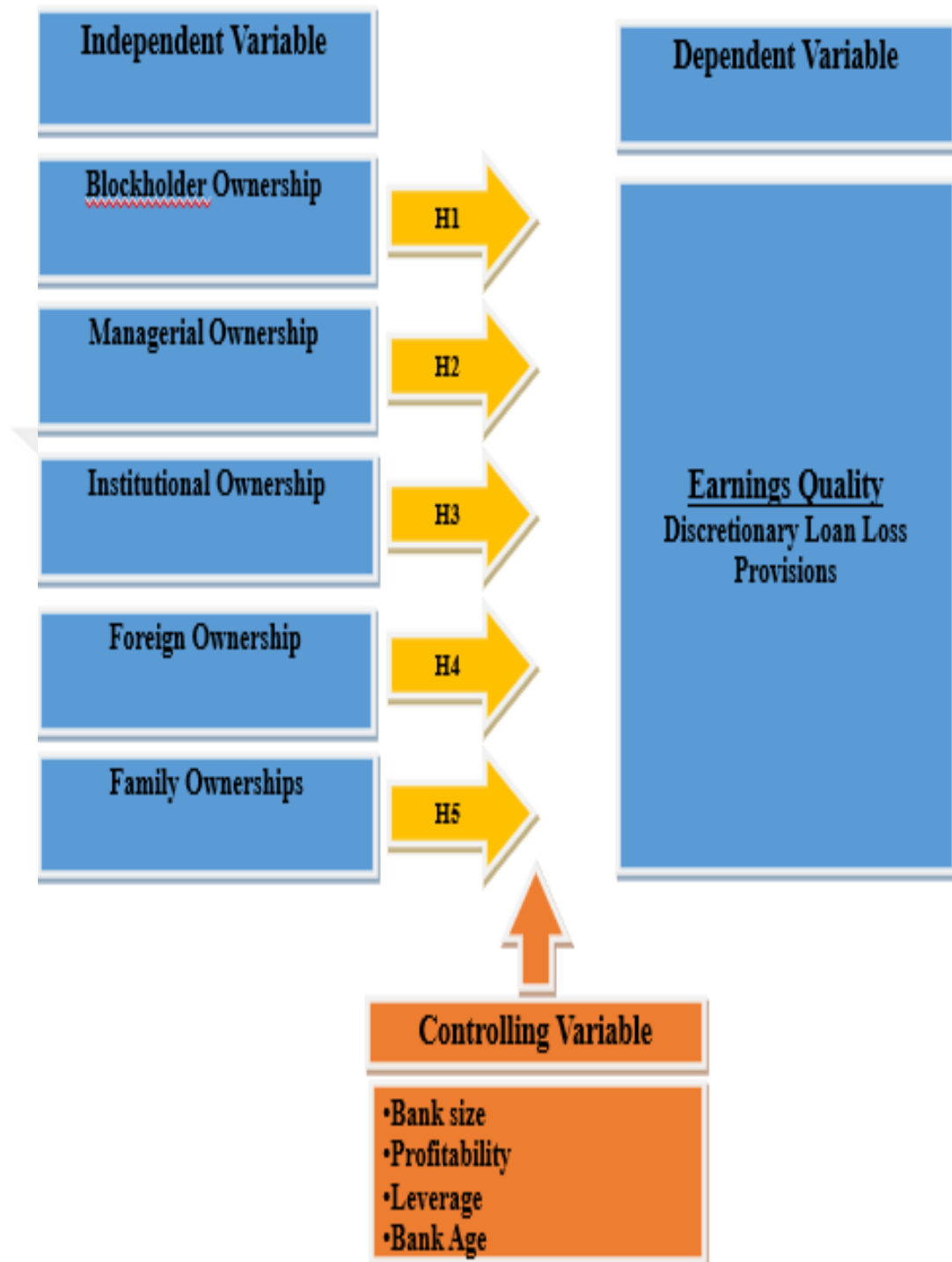


Figure 1.1 Research Model

CHAPTER 2: THEORETICAL AND CONCEPTUAL FRAMEWORK

2.1 Introduction

The chapter discusses the main chosen theories related to the research study title and variables to establish and develop research hypothesis and address the research questions. In addition, this chapter reviews and defines the conceptual framework of the research variables and their interrelationships, according to the literature review. Then, it shows the findings of prior studies that are related to the impact of ownership structure functions as a CG instrument on earnings quality (EQ).

This thesis examines the capacity and effectiveness of ownership structure like (blockholder, management, institutional, foreign and family) ownerships to control and constrain the earning management practices, primarily discretionary loan loss provisions. Additionally, it aims to increase convergence and alignment interests and goals between shareholders and managers to improve earnings quality.

2.2 Theoretical Framework

2.2.1 Introduction

The current study depends on the deductive research approach which revolves around the investigation of a specific problem, based on postulates or theories, then moving to the specific details through conclusions. In other words, it begins with studying a problem in general and then moving to the specific details depending on related theories and postulates to develop hypothesis of the study, answer research questions and then create a conclusion (Kanika, 2015).

A theoretical framework can be defined as a set of ideas that form the basis of research or strategy development. Hence, theoretical framework is utilised to comprehend and envisage certain phenomena (Ghauri et al., 2020).

Gioia and Pitre (1990, p.578) conceptualized a theory as the portrayal or clarification of a phenomenon, whether observed or experienced, in a coherent manner. Smith (2019) defined theory as a set of hypothesis or comprehensive idea that support one or more than one hypothesis. Based on this definition, it is necessary for the researchers to have related advanced knowledge regarding the research topic in order to link the theory with the research problem (Saunders et al., 2009; Smith, 2019).

The theoretical framework of scientific research is designed to formulate an idea or phenomenon that the researcher aims to study and to explain and interpret the relationships related to the idea to be studied (Ghauri et al., 2020). Additionally, the appropriate selection of theories linked to the research topic supports the researcher's debates and their interpretation of the results obtained (Smith, 2019).

2.2.2 Firm Theory

It is assumed that a firm looks like a black box that includes different parties (such as shareholders, management, stakeholders, customers) which have conflicting purposes or interests, with the common aim of utilities maximization (Jensen & Meckling, 1976). Therefore, the control and power relationships among various participants must be properly managed by the firm. This represents the agency features of the firm theory which interprets the managers' opportunistic behavior due to ownership separation (El Diri, 2018).

2.2.3 Agency Theory

An agency theory depends on the contractual and legal connection that controls the parties in the agency's contract (principle and agent). Therefore, it refers to a contract or agreement between one or more persons called (principle) and another person or more called (agent). This contract includes delegated authority of shareholders (principle) to the management (agent) to make daily operating decisions on its behalf. Agency theory thus defines the roles of shareholders and managers, and their respective boundaries and capabilities. The concept of agency encompasses many relationships inside and outside the company, such as the connections between the management and the staff, the firm

and its suppliers, and the CEO and the firm's shareholders (Jensen & Meckling, 1976; Man & Wong, 2013).

The variation of interests and the failure of shareholders to monitor agents' behavior led to asymmetric information as well as shareholder-agent conflict (Thomsen & Conyon, 2012). Thus, the agency relationship between shareholders and managers brings three types of costs represented by the monitoring expenditure incurred by shareholders to control management's actions related to the interests of shareholders, bonding expenditure incurred by managers as a reassurance to shareholders that they are acting in their best interests, and residual losses represented by possible losses arising from shareholders and managers' interest crisis (Charitou et. al., 2016; Godfrey et. al., 2010; Jensen & Meckling, 1976).

With reference to the above explanation, agency theory covers and explains the research problems presented by the conflicting needs of managers and shareholders as a result of the people who head the management put their needs ahead of the shareholders' needs. It is considered to be one of the most important and relevant theories.

It also includes the opportunistic behaviour practiced by managers to achieve their goals and increase their wealth using earnings management activities, which leads to produce misleading earnings that have effects on the shareholders decisions regarding their investments. To guarantee the firm's long-standing continuity and viability, the shareholders must make an additional effort and are encouraged to reduce this conflict by spending some money to monitor the actions of the management (Tricker & Tricker, 2015; Fama, 1983).

2.2.4 Stakeholder Theory

A stakeholder, as described by Freeman (1984), is an individual or a group of people who influences or is impacted by a firm's goal attainment (p.49). This definition is considered as a basis for the concept of stakeholders. Additionally, some experts and researchers in this field attempted to add extra specification for freeman definition, by classifying stakeholders in various approaches in firms such as internal and external

stakeholders; inherent, predictable stakeholders; moral and strategic stakeholders (Donaldson & Preston, 1995; Preble, 2005; Roloff, 2008). Carroll and Buchholtz (2014) and Laine (2011) categorized stakeholders into subgroups like shareholders, investors, creditors, managers, workers, clients, suppliers and unions.

Stakeholder theory is an expression of a conceptual framework for business ethics within and outside an organization, where an organization's main goal is to make the most of stakeholder interests and create as much stakeholder value as possible. (Shareholders, manager's creditors, employees, communities and suppliers) (Branco & Rodrigues, 2008). Stakeholder theory therefore illustrates the link between a company and the stakeholders (Fernando & Lawrence, 2014; Phillips et. al., 2019).

The main idea of the stakeholder theory is that a firm should strive to protect stakeholder's interests alike in a continuous and balanced way. Additionally, all stakeholders must be treated fairly (Deegan, 2009). Therefore, firm managers must manage all operations and activities to serve and achieve all stakeholders' interests in firm to achieve effectively, stability and create more value for firms as a whole (Fernando & Lawrence, 2014; Freeman, 2016; Phillips et. al., 2019).

2.2.4.1 Stakeholder Theory Principles

There are some principles that control stakeholder theory. They include the following principles (Belal, 2007; Freeman, 2016; Phillips et. al., 2019):

1. The principle of entry and exit

According to this principle, there must be clear and specific rules related to who enters or leaves the companies.

2. An agency principle

According to this principle and based on agency contract between shareholders and managers, firm managers are official agents; therefore, they are carrying all responsibility towards the stakeholders alike.

3. The principle of governance

This principle is concerned with determining how to define and explain the acts and rules that control the relationship between stakeholders and firm.

4. The principle of externalities

This principle indicates that any individuals or groups affected by the company's decisions or actions are a stakeholder of firm.

5. The survival of firm principle

This principle deals with the survival of firm and ensuring its success in achieving its defining goals. It is necessary in the business field for firms to operate continuously without specifying a time period for their survival. Hence, the firm should be controlled in a manner that ensures its continuity and survival withinside the market.

According to the explanation above, one of the related theories on the research topic is stakeholder theory. It determines who are the stakeholders of a company and what is the responsibility of the company towards them in relation to their interests (Freeman, 2016; Phillips et. al., 2019).

2.2.5 Contract Theory

Contract theory shows the firm as a connection of contracts which recognize the obligations and rights of all parties that are associated with a relationship with firm such as shareholders, management, creditors, suppliers and employees etc. (Christensen et. al., 2016; Fama, 1980). The written contracts try to introduce solutions for the agency problem which are represented by conflict of interests that primarily happen because of the relationships between the firm and (CEO) managers, and the relations between firm and its creditors. Based on these relations, there are two types of contracts; the first one is reward contracts between the executive managers and the firm that highlight the management's role in control and shareholder's role in risk bearing, and the second type

is financial contracts that determine the rights and obligations regarding borrowing and lending between creditors and the firm (Luchko, 2016; Walker, 2013).

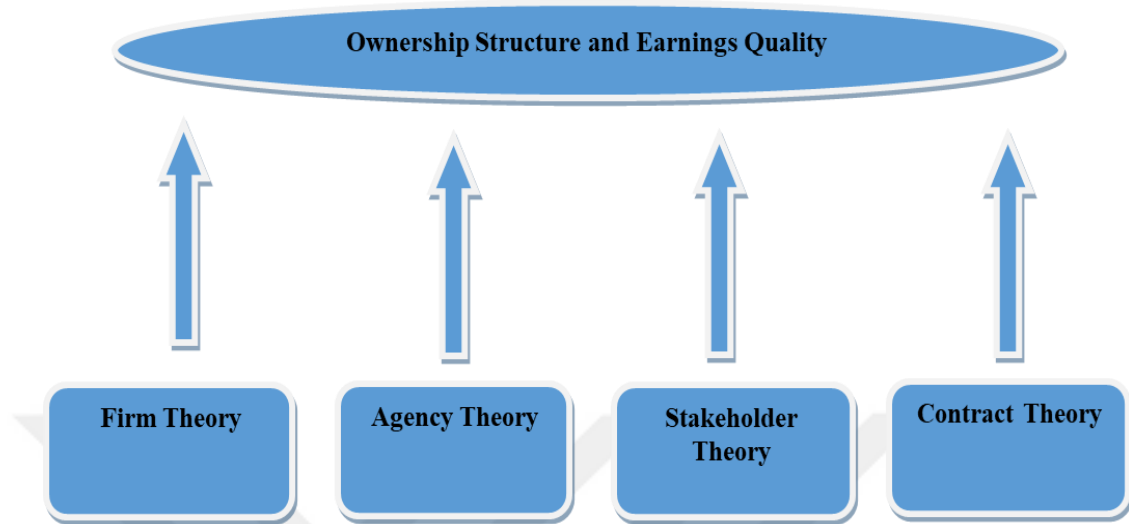


Figure 2.1 The Main Selected Theories Related to The Ownership Structure and Earnings Quality

Sources: the researcher

2.3 Conceptual Framework and Relationship Among Variables

2.3.1 The Definitions of Corporate Governance

Information asymmetry is referred to as one of the most important agency problems caused by agency agreements between shareholders and managers. It refers to the idea that the information available for managers is more accurate and comprehensive than information that is available for shareholders. This makes managers more aware of their firms' prospects than the shareholders. Information asymmetry results in opening the scope in front of managers to use opportunistic behaviour by providing different and unrealistic information to the shareholders using earnings management (EM) practices (Jensen & Meckling, 1976).

In the past 20 years, the financial markets have seen numerous financial disasters, global economic crises, rumours and downfalls of huge companies like Parmalat, Merrill Lynch, Enron and WorldCom (Agrawal & Chadha, 2005). Besides the financial market crisis that happened in 2008, a series of financial scandals and failures recently have

captured the awareness of accounting bodies, policymakers, stakeholders and local governments which led them to exert additional efforts and resources to assess the efficiency and effectiveness of existing rules, legislation and regulations related to corporate controlling systems and their mechanisms to fulfil the highest economic sustainable growth and employment while maintaining financial stability (OECD, 1999; Chen & Zhang, 2014; Mehrani et al., 2017).

These efforts and assessment have produced new rules and regulations, such as corporate governance codes, to limit those failures. This protects the company's interests and increases stakeholder confidence in the firm's honesty and dependability in preparing the financial report (Badolato et al., 2014).

OECD (2004) defined CG as the set of actions, principles, and actions which govern and oversee the bringing together of multiple participants (management, board of directors, shareholders, including other corporate stakeholders) in shaping business performance. and how responsibilities and rights among these participants are distributed to guarantee financial stability and development by enhancing market confidence and financial market integrity.

Deni and Rika (2004) defined corporate governance as a structure that helps firms to identify their objectives which become as a medium to control firms' performance monitoring techniques. Additionally, Man and Wong (2013) , as well as Chen and Zhang (2014) defined CG as a collection of acts, rules, processes and practices that are used by firms to control and monitor their operations and actions.

The OECD defines CG as suitable for both developed and underdeveloped markets, solving each problem from its own view and adhering to specific regulations, rules and laws (OECD, 2004; OECD, 2015). Therefore, the main goal of CG is to establishing or producing a good structure, act, rule and practice that help decision makers, shareholders' and other stakeholders' alike to direct, control and monitor the firms' operations and activities for decisions making process which helps firms to assure that are using their capital efficiently and effectively (Baker & Anderson, 2010).

2.3.2 Corporate Governance Principles

2.3.2.1 Introduction

In the previous decades, the world has observed an important change in the function of the private sector about development of an economic and creation of jobs which were increased the awareness of public companies in individuals' welfare. The corporate governance issue has prominence amid rising dependence on the private sector worldwide (OECD, 1999).

The latest financial crises and failures around the world have explained the important of transparency and accountability issues in corporate governance which are considered so important to investor confidence and national economic performance alike (OECD, 1999).

In response to the attention of the significance and the role of good corporate governance which play vital roles of firms' important issues such as transparency and accountability which increase stakeholders' confidence in the financial reporting and the overall firms' performance, the OECD produced corporate governance principles represented by a set of guideline standards to use it as a benchmark by both governments (as they assess and develop their legal and regulations) and private sector parties (as they have a role in improving CG systems and the best practices. Accordingly, the OECD encourages governments, private associations, firms and other related parties to use the Principles of CG to improve corporate governance practices since good CG is a shared responsibility (OECD, 2004).

Corporate Governance principles help policy makers and other groups who are interested such as shareholders, managers and other stakeholders to ensure that it creates and improves transparency, integrity, trust and accountability among stakeholders alike. These are essential elements in firms' environment for enhancing financial stability and long-term investment.

OECD (1999; 2004) and G20/OECD (2015) determined the subsequent six standards for corporate governance:

1. Ascertaining the Foundation of an Efficient Corporate Governance Framework

A good CG's framework must be able to enhance clarity, market integrity, market competence, overall economic performance and it must be compatible with the laws, rules and acts in transparent and enforceable manner and clearly explain dividing and distribution the responsibilities between various executive, supervisory and regulatory authorities and allocation of resources in efficient way to accomplish their tasks in an objective and professional form to ensure that is work for the public interest.

2. The Shareholders' Rights and Main Ownership Roles

The CG framework must safeguard basic shareholders' rights such as (registration of ownership in secure methods, getting the reliable, related, and valuable information about firms on a regularly and timely basis, also the shareholders right in voting and participating in general meetings, sufficiently informed regarding decisions related fundamental firms' changes and participate on, getting disclosure regarding capital structures specially that allow to particular shareholders to get control on firms with disproportionate to their equity ownership, and simplify the practice of shareholders' rights such as opening the ownership practice right for all shareholders' in firms.

3. The Equitable Treatment of All Shareholders

It means that all shareholders in firms should have equitable treatment, including foreign shareholders and minority equity, and they should get effective compensations regarding breaking their rights. Also, the capital of investors that they will be providing is protected from any misuse or violation by firms' managers, controlling shareholders and board of director members. This is considered as a significant point in the growing of capital markets and proper functioning for it.

The equitable treatment of all shareholders involves some points which are:

- The shares at the same series type must hold the same rights. Also, an information regarding each class of series of shares should be available for all investors' before purchasing shares. Getting the approval of any modification in voting rights by owners of those types of shares who are negatively influenced.
- Any abusive self-dealing or insider trading should be forbidden.
- Should obtain disclosure from the board of directors and key executive members if they acquire any direct, indirect, or third-party material benefits from deals or transactions that affect the firm directly.

4. The Stakeholder's Role in CG

The CG framework has to recognize the stakeholders' rights as stated by law via joint agreements and support active collaboration between stakeholders and firm in order to develop operations, jobs, wealth and sustainability of enterprises that are financially sound. Below are some points that elaborate on the stakeholder roles in corporate governance.

- The framework of CG should be respected stakeholders' rights that are established and determined in the law or mutual agreements.
- Effective compensation should be gained by stakeholders if their rights violated.
- It should be allowed to develop and improve performance-improving instruments for employee participation.
- Stakeholders that take part in the process of CG must possess regular and free access to sufficient, reliable and related information.
- CG framework should be allowed for shareholders to convey their worry freely to the board about unethical or illegal actions or practices without any compromised in their rights of doing so.
- The framework of corporate governance framework must be perfected with a competent bankruptcy mechanism, including strict execution of creditors' interests.

5. The CG Framework should have Disclosure and Transparency

All relevant information, including financial situations, performance, ownership, and CG, should be accurately and promptly disclosed under the corporate governance framework.

This principle involves some points such as:

- Material information like the results of the firm's operational and monetary activities, firm objectives, shareholdings, as well as voting rights, related party transactions, anticipated risk factors, stakeholder and employee matters, in particular the company's governance structure and policies must be made known
- The sharing of financial and non-financial information should be prepared according to high quality standards of accounting.
- The company seeks a liberated, experienced and trained certified public auditor in obtaining objective as well as reasonable guarantee that the firm's financial claims honestly reflects the firm's financial standing and achievement in every material aspect.
- The CG Framework must be implemented in a workaround way that efficiently manages and enhances the analysts, brokers, rating agencies' scrutiny or guidance regarding investor decisions and avoids conflicting interests which may impair the analysis or advice's objectivity.
- External auditors are answerable to the shareholders and have the obligation to execute the audit with due professionalism (OECD, 2015, p.44).

6. The Board of Directors' Responsibilities

The framework of CG should include the firms' calculated leadership, the firm's board of directors' responsibility for effective oversight of management, and responsibility to the firm and the shareholders.

- Members of the Board of directors must behave according to a completely knowledgeable foundation and good trust to achieve the best benefit for both firm and shareholders.
- All shareholders should treat on a fairly basis from board of director.
- Board of director must take in the consideration the interests of stakeholders by applying high ethical standards.
- Following up on how well the company's governance practices are working and making necessary adjustments (OECD, 2015, p.47).
- Choosing, rewarding, controlling, and removing senior executives as appropriate, as well as managing succession planning (OECD, 2015, p.48).
- Long-term reward alignment of executives and board with company and shareholder interests.

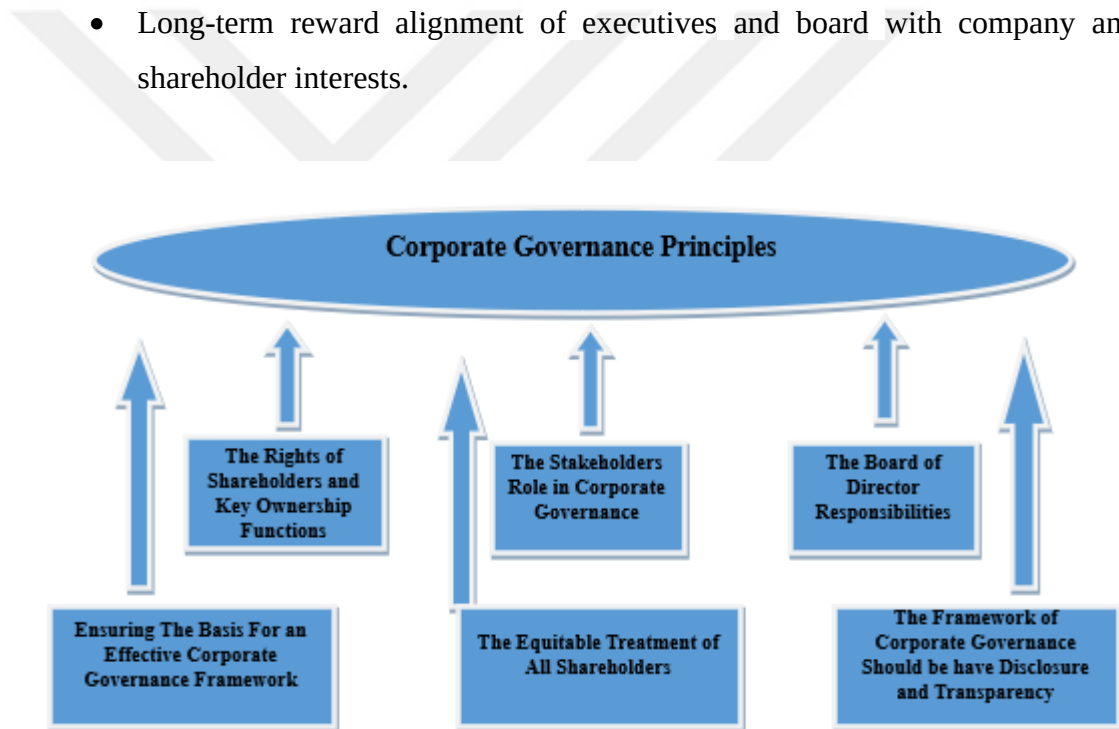


Figure 2.2 Corporate Governance Principles
Source: (OECD, 2004)

2.3.2.2 Background and Implementation of CG Code in The Jordanian Business Environment

When the Arab Bank was established in 1930, Jordan has had its share public companies. The Jordanian government has made notable attempts to stay abreast of advances in the international financial markets, including the formation of a stock

exchange in 1978. More significantly, Jordan's financial market was organised in 1997 with the passage of the Securities Law No. 22. It established the Amman Stock Exchange (ASE), Jordan Securities Commission (JSC), and Securities Depository Center (SDC), three very significant organisations in the country.

A corporate governance handbook for Jordanian banks was published in 2004 by the Central Bank of Jordan in reaction to the global drive to legislate CG rules. After that, in 2008, they kept working to publish a concise code of CG that was drawn from OECD norms in order to ensure the existence of a reliable collection of CG practices. This code's primary objectives are to strengthen shareholder protection, boost financial statement transparency, and strengthen bank oversight. The CGC specifically requests that listed banks reveal their commitment level, board of directors' function, their board committees' composition, and their transparency strategy (CBJ, 2004, 2016a; JSC, 2020).

In 2007, the Jordanian central bank issued the 'CG Code for Banks'; this code aims to improve report integrity in the banking sector by increasing disclosure requirements (SDC, 2007). Additionally, the Jordanian central bank in 2009 issued the 'CG Code for Shareholding Companies on ASE'. Therefore, it highlights the strengthening accountability within the CG policy, particularly on strengthening the integrity and independence of directors and curbing opportunistic behaviour by management to protect the rights of shareholders. It also targets to boost financial reporting quality (SDC, 2009).

On September 1, 2016, the central bank of Jordan issued CG No. (63/2016) for Banks. This includes the transformation in the corporate governance's benchmark, requirements and guidelines relevant to the whole of working banks in Jordan to monitor bank operations in an effective and secure manner, protect the rights of all stakeholders, and ensure compliance with laws, regulations, internal policies and procedures (CBJ, 2016a).

Accordingly, in Article (2), the Jordanian central bank defines CG for banks to have a guiding structure that aims to identify and achieve the bank's corporate purpose, conducts the bank's business in a protected and safe way, protects the depositors' interests, be accountable to shareholders and other stakeholders, as well as ensures compliance with the bank's rules, policies and manner (CBJ, 2016a, p.3).

Additionally, Article (4) identifies the general framework for banks to create their own CG code as well as match it with its policies and requirements. Moreover, Article (5) requests that the banks create integrated governance report to be included with their annual reports and disclose such codes on their own websites (CBJ, 2016a). Indeed, this is clear because these banks started recently enhancing and adding CG reports to their annual reports as a separate section (Sawalqa, 2021). In addition, Articles 6, 7 and 8 set out the rules governing the Board of Directors' structure and membership including the basic rules governing the Board' s meetings along with its responsibilities (CBJ, 2016a).

Article (10) identifies the key group members that emanated from the board of directors' members and delegated authorities thereto such as the corporate governance committee, compensation and nomination committee, risks management committee and audit committee. Additionally, describes the main responsibility of each committee. Moreover, Articles (11, 12 and 13) describe the fit and proper characteristics of the board of directors' members and executive managers. Meaning, they should exhibit typical features such as competency, honesty, integrity and required experiences to perform the bank's activities (CBJ, 2016a).

Article (14) focuses on the continuous evaluation of managerial performance by the board of directors through identifying the key performance indicators for activities, which derive from banks' goals and strategic plans. Moreover, it emphasizes holding regular meetings with the executive managers to get feedback to ensure that executive managers adhere to the set plans and goals. On the other hand, Article 16 highlights on resolving conflicting interests between managers and shareholders through a number of steps that managers should follow to achieve conflicting interests of the two. I guess. Additionally, the article describes the board of directors' managerial functions to enable such convergence among stakeholders. Finally, the remaining articles focus on internal and external audits, Disclosure and Transparency and risk management issues (CBJ, 2016a).

Despite the existence of GC basic guidelines or standards, there are still variations in how it is implemented in different regions and nations in terms of its goals and workings. As a result, there have been numerous attempts to define the idea, but there is no agreement on what it means. Generally, CG aims is to regulate relations among

management, the board of directors, as well stakeholders (CBJ, 2016a; G20/OECD, 2015; Man & Wong, 2013; Alghamdi & Ali, 2012; OECD, 2004).

CG's primary goal is to build and support the environment of transparency, accountability and trust to between all different stakeholders alike to enhance investments, business integrity and financial stability. Corporate governance's good performance is therefore a critical issue for a firm's success, as corporate governance carries an essential function in protecting the shareholders and managers' interests and in resolving conflicts of interest arising from the agency theory (Alqudah, 2017; G20/OECD, 2015; Man & Wong, 2013).

Based on the above, effective governance is a must for an organisation's governance structure for an organisation to define and achieve its strategic goals. This is because the company's governance structure is a combined principle, controls, including guiding principles that help an organisation achieve its goals while maintaining them, keeping in mind to achieve the needs and rights of stakeholders. Governance structure is generally a combined different mechanism (OECD, 2004; G20/OECD, 2015; AlQudah, 2017).

Most of the previous related studies have covered and explained two essential types of CG mechanisms, internal and external mechanisms (Al-Ta'amneh, 2022; Mehrani et al., 2017; Alqudah, 2017; Chen & Zhang, 2014; Man & Wong, 2013).

1. Internal Corporate Governance Mechanisms

A company's internal mechanisms provide the most significant set of controls over it. They address the internal company goals and internal stakeholders namely employees, managers, and owners; they provide monitoring of the company's controls and activities and take necessary measures when business veers off course so as to retain the company's larger internal control. Management oversight, independent internal audit, board structure to degrees of responsibility, ownership structure, and separation of oversight and policy formation are examples of internal processes (Leuz et al., 2003; Man & Wong, 2013; Chen & Zhang, 2014).

2. External Corporate Governance Mechanisms:

The objectives of regulators, governments, trade unions, and financial institutions are served by external oversight systems managed by people outside the organisation. These goals include proper debt management and legal compliance. External stakeholders often impose external procedures on companies in the form of union agreements or legal requirements. Organisations can choose to incorporate best practice recommendations from other organisations, such as industry associations. Companies usually update external stakeholders about the status and compliance with external corporate governance procedures (Burgstahler & Eames, 2006; Man & Wong, 2013).

Against this background, the research examines ownership structure's (blockholder, managerial, institutional, foreign and family ownership) influence as an internal corporate governance instrument that impact the earnings quality in ASE-listed Jordanian banks between 2009 and 2019.

2.3.3 Earnings Management and Earnings Quality

Financial statement users depend on net income in making their various decisions; the net income is calculated based on the accrual basis that contains a margin of estimation and uncertainty, which creates a problem in relying on the financial claims in evaluation process and bookkeeping judgment. In addition, making decisions based on the net income may not be truly representative of the firm's achievement as the result of potential manipulation of numbers using accounting standards that allow this in some cases, which affects the earnings quality (Alshhed & Alanaty, 2017).

Due to loopholes and flexibility in accounting standards, managers find ways to manipulate company profits to their advantage. This is to take advantage of market power done for agency theory or to maintain a position among company managers reporting constant income. It is a level called (income smoothing) and is considered a type of income management (Alhadab & Al-Own, 2017; Mukhtaruddin, 2018; Man & Wong, 2013). Consequently, the firm managerial tries to influence yields that are recorded to gain various personal needs. This affects published financial records' quality that

stakeholders rely in making their decisions which may lead to incorrect decisions by them regarding their investments (Mahmoud & Maher, 2021; El Diri, 2017). Therefore, the managerial opportunistic behaviour affects the quality earnings mainly, either negatively or positively, because managers control over firm's operational procedures and activities (Ardilla & Nuswantara, 2021).

Some bankruptcy has happened of large firms due to accounting exploitation and deception; the awareness of earnings management topic has been increasingly investigated (Mahmoud & Maher, 2021; Ciftci et al., 2019; Lassoued et al., 2017).

According to the literature, there are several definitions of EM, which can be illustrated as follows:

- Manipulation from management in financial reporting to accomplish specified targets (Schipper, 1989).
- Earnings management takes place when managers utilise their freedom of choice when re-structuring the dealings to tamper the financial reports so as to trick the stakeholders regarding the firm's actual economic achievement or to rule the contracts' outcomes that rely on the accounting figures (Healy & Wahlen, 1999, p. 368).
- Using of optional accounting practices to modify earning to wanted results that managers are needed (Giroux, 2003).
- A series of management decisions that do not report actual short-term earnings. This optimises the value perceived by management (Ronen & Yaari, 2008; Lassoued et al., 2017; Yahaya et al., 2020).

Accordingly, with reference to prior definitions, the researcher can define EM as using flexibility in the accounting standards to change the reality and informativeness of earnings for a self-purpose determined by managers depending on the authorities that are delegated for them by shareholders due to agency theory.

2.3.3.1 Earnings Quality

Based on financial analysts and stock exchange agents' experiences, they developed an earnings quality theory, which declares that the earnings incurred may not indicate or disclose a firm's profitability as users of financial reports imagine. So, the users should take into their considerations the earnings quality in order to determine a firm's profitability which helps them in decision-making such as investing and lending decisions and resource allocation in pursuit of managing a firm asset (Ahmad & Alrabba, 2017). Since information in financial reports is very important for all users of these reports, they need information with high quality that enables them to make efficient decisions (Lassoued et al., 2017).

During the latest years, earnings quality has got the awareness of shareholders, creditors, investors and other interested parties in several fields (Alexander, 2019; Ahmad & Alrabba, 2017; Lassoued et al., 2017). Financial reports are taken as the primary reference of accounting information and financial data in the capital markets, and stakeholders rely equally on them to make a variety of decisions (Nakashima, 2019; Alexander, 2019). Thus, earnings are used in stock pricing, assessment models, investing decisions and other different purposes. Therefore, earnings should be reflecting accuracy, reliability, predictability, integrity, assurance and timeliness of accounting information, to assure high quality of earnings (Yahaya et al., 2020).

In principle, there is no specific definition of earnings quality, nor a widely recognised method to determine it (Schipper & Vincent, 2003; Peek, 2005; Aktaş & Karğın, 2012). Since the financial reports' users use it in a different decision, there are several definitions for earning quality (Alexander, 2019).

Richardson (2003), as well as Kormendi and Lipe (1987) defined earnings quality as the earnings that are characterized by constancy, informativeness, sustainability, stability and the absence of fluctuations. Dechow et al. (2010) defined EQ as earnings that includes additional information and descriptions of the firm's financial achievement characteristics to relevant parties in the decision-making process. Also, Li and Hwang (2011) defined earnings quality as how economic activities reflect the continuously and consistency of

accounting income. Similarly, Ahmad and Alrabba (2017) defined earnings quality as the amount of earnings that are generated from the main operating activities. Nakashima (2019) defined earning quality as earnings that are reflecting economic reality in correctly way.

Earnings quality in accounting is a key characteristic of accounting information that gives the power to predict future earnings based on existing figures in financial statements such as income statements, cash flow statements and balance sheet statements. Defined as the profit brought. In finance, it refers to the continuity of earning, which current earning related to future or the continuity of cash flow more than cash (Obeid & Amrah, 2020).

According to the definitions of earnings quality mentioned above, the researcher can define earnings quality as the real and actual earnings achieved without using any earnings management practices and manipulation in order to produce earnings figure characterized by stability, sustainability, informativeness and predictive power.

2.3.4 The Ownership Structure and Earnings Quality

As stated by the agency theory, managers' behavior is influenced by self-interest when they do not have a company to manage or only have a small number of shares, which distracts them from the intentions of boosting firm value and, ultimately, the interests of shareholders, thus further driving the prevalence of earnings management (Jensen & Meckling, 1976; Fama, 1980). Additionally, diverse managerial behaviors, such as compliance, self-interest, and opportunism which entails earnings management, are caused by the scale of the agency problem (Man & Wong, 2013). In order to ensure high earnings report quality, a firm must have high corporate governance quality, which results in the creation of members who monitor and control management performance in the financial reporting process. As a result, earnings quality can be boosted via the adoption of good corporate governance mechanisms (Wang, 2006; Nitkin, 2007; Emmanuel & Afor, 2019).

Ownership structure is an essential component of companies' governance as they reflect and clarify the nature of shareholders and their shares in capital. Company owners are heterogeneous, and their goals and requirements differ. The focus in previous literature was on the different types of ownership structure because of their importance in the firms' achievement, either in a positive or negative manner, as each type's effect differs according to the nature of shareholders. For example, institutional ownership has a different effect from foreign ownership, and so on (Ame et al., 2021; Elhennawy, 2021; Alrabba et al., 2018).

The concept of ownership structure is generally based on two widely used dimensions: shareholder identity (measured by major shareholder type) and ownership concentration (measured by major shareholder voting rights) (Saseela & Thirunavukkarasu, 2017). Thus, a suitable ownership structure may influence in positive way on firms' performance in market (Elyasiani & Jia, 2010).

Ownership structure represents shares or share dissemination including voting privileges and capital according to the identity among shareholders or owners (Jensen & Meckling's, 1976). An ownership structure considered as a debatable case regarding of its monitoring roles to determine reported earnings, since there are several types of ownership which play vital role in reducing or prohibiting opportunistic behaviour that is used by managers to achieve their personal interest (Wang, 2006). Thereby, ownership structure considers one of the CG mechanisms that is make possible to increase firms' efficiency which lead to effect in firms' performance, because it's influence in the size and growth of agency problems, conflicts and costs by constraining the conflict between shareholders and managers and aligning the interests between them (Jensen & Meckling, 1976; Chen, 2012; Reyna, 2018; Emmanuel & Afor, 2019). Therefore, Ownership structure represents an excellent corporate governance mechanism to improving the earnings quality of firms (Mehrani et al., 2017; de Sousa & Galdi, 2016).

Most interested previous researchers have shown that public companies have two main types of ownership structures: concentrated ownership and dispersed ownership. Concentrated ownership means ownership that is concentrated in the hands of a few shareholders, and these types of owners can participate in the management of the

enterprise and direct and control its financial and operating policies. Dispersed ownership can be divided into (blockholder concentrated ownership, managerial concentrated ownership, institutional concentrated ownership, foreign investor' s concentrated ownership and family concentrated ownership). Meanwhile, dispersed ownership refers to the distribution of ownership of a company's shares among a large number of shareholders. This type of ownership has less impact on management decisions and actions, increasing agency costs and issues as a result of ownership and management division (Kablan, 2020; Ayuba, 2019; Choi, 2018; Reyna, 2018).

Past research has revealed a variety of oversight mechanisms, especially active ownership like (blockholder ownership, managerial, institutional, foreign and family ownerships). This is expected to contain and reduce the company owners and managers' competitive needs, leading to improved integrity and FRQ (AlQudah et al., 2020; Qawqzeh et al., 2019; Emmanuel & Afor, 2019; Saseela & Thirunavukkarasu, 2017).

2.3.4.1 Block-Holder Ownership and Earnings Quality

According to Jensen and Meckling (1976), conflicting needs due to agency agreements between managing directors and shareholders allow the managing director to manage the business on the part of the shareholders. Furthermore, managers try to manipulate accounting numbers to achieve their own goals (compensation, benefits, bones), in an attempt to maximise their own profits, not the shareholders' profits. This causes lesser earnings quality in financial statements (Alhadab & Al-Own, 2017; Mukhtaruddin, 2018; Call, 2019). Ownership structures are therefore considered to be a good CG mechanism to bring together the interests of managers and stakeholders alike, as they control and monitor the incentives of managers according to their needs (Jensen & Meckling, 1976; Mukhtaruddin, 2018).

The concentration of ownership expresses the distribution of firm shares that have voting right among a limited number of shareholders, whether they are individuals or institutions (Zhong et al., 2007). Simply put, concentration of ownership refers to the existence of a major shareholder that possesses minimum 5% from the outstanding voting shares of a company. Therefore, any shareholders who held at least 5% form firms

outstanding voting shares is considered as major investors (Maatougui & Halioui, 2019; Alhadab et al., 2020). Consequently, major shareholders get their monitoring role from their shares power, which enables them to perceive and monitor managers' actions directly (Alhadab et al., 2020; Dou et al., 2016).

Thus, prior studies posited two arguments about the ability of major shareholders in monitoring and constraining managers' incentives and opportunistic behaviour, and in increasing the firm's financial performance quality. Firstly, using the efficient monitoring theory, scholars argue that major shareholders are more incentivized than minority shareholders to monitor and control managerial behaviour. Because large shareholders often have lasting strategies including goals, they possess an advantage to scrutinize managerial decisions and performance to protect their investments. However, minority shareholders have a choice to give up their shares immediately in situations where they feel dissatisfied toward the company's achievement (Elhennawy, 2021; Ame et al., 2021; Maatougui & Halioui, 2019; Edmans & Holderness, 2017; Jiang & Habib, 2009).

Second, using the theory of expropriation, scholars argue that conflicts of interest between the most and the least shareholders arise from the concentrated ownership. Meaning, the high concentration of ownership rate can cause an increase in an agency problem (Yang, 2008), since major shareholders impose their priorities even it was against minority shareholders' priorities (Jensen & Meckling, 1976). Besides, major shareholders want a high return on their investments. Accordingly, blockholders use their controlling rights to achieve their interests or to acquire minority rights through intervention in management decisions (Nguyen et al., 2021; Halioui & Jerbi, 2012; Alves, 2012). As a result, shareholders with a high percentage of company management can participate in achieving their personal goals using EM activities (Tran et al., 2020; Habbash, 2010).

According to the first argument, the concentration of ownership introduces an owner who has the incentives to monitor and control opportunistic management behaviour in order to enhance a firm's financial achievement and earnings quality, protect its investments, and realise its long-term strategy (Edmans & Holderness, 2017). Accordingly, Yahaya, et al. (2020) and Maatougui and Halioui (2019) found that

blockholders possess a vital function in managing and constraining managerial opportunistic behaviour represented by earnings management activities. Therefore, external blockholders in seasoned equity offerings firms are able to increase the effectiveness of FRQ. Consequently, Arthur et al. (2019) and Elhennawy (2021) argued that a higher concentration of ownership structure leads to shareholders and management's mutual interests. Additionally, Yasser et al. (2017) argued that the high level of blockholders increases the financial reports' quality in Pakistanian, as well as Malaysian firms. Additionally, Alhadab et al. (2020) found that blockholders essentially reduce earnings management activities.

H1: Blockholder ownership positively impacts the EQ of Jordanian banks listed for 2009 to 2019 (ASE).

H01: Otherwise.

2.3.5 Managerial Ownership and Earnings Quality

Agency problems appear due to the separation of firm property from firm control. They are represented by the interest gap (conflicting needs) among shareholders and the managerial that causes managers to fulfil their own needs ahead of the shareholders' needs (Charitou et al., 2016; Chi et al., 2015; Man & Wong, 2013; Jensen & Meckling, 1976). As they are aware of internal information than shareholders, managers may provide shareholders with different information. This is known as information asymmetry. Thus, it enables managers to be more opportunistic through constricting using corporate governance mechanisms (Godfrey et. al., 2010; Fama, 1980; Jensen & Meckling, 1976).

Conflicting needs, on the other hand, come in two forms: between shareholders and management, and between majority and minority shareholders (Alexander, 2019). Managerial ownership as one of the internal CG mechanisms assists in improving the Convergence of Interests. By doing so it can significantly limit conflicts of interest between management and shareholders by motivating management to serve as shareholders that increases the financial report integrity and firm performance through

restrictions on exploitation of operational issues made by managers (Siraji & Nazar, 2021; Alqudah, 2017; Agburuga & Ibanichuka, 2016; Jensen & Meckling, 1976).

Actually, there are several definitions of managerial ownership. Some of these definitions are presented below.

- The sum shares owned by managers and board of director members together (Teshima & Shuto, 2008; Barnhart & Rosenstein, 1998)
- Managerial ownership is the share percentage belonged to insider directors-executive managers, including other managers and blockholders (Alexander, 2019; Holderness, 2003).
- Managerial ownership is comprised of several shares possessed by (insiders), separated into three homogeneous groups (executive ownership, outside director' s ownership, and blockholder ownership) (Yang et al., 2008).
- The number of shares possessed by insider managers (executive) and those owned by outsider directors (of board of directors not employed by publicly traded companies) (Alzoubi, 2016)

Managerial ownership (insider) provides a mechanism to reduce earning management practices (managerial opportunistic behaviour) represented by discretionary accrual (Siraji & Nazar, 2021; Warfield et al., 1995; Klein, 2002; Alzoubi, 2016).

Alves (2012) found that managerial ownership reduces the incentive of management to using earning management, which optimizes the earning quality. Quinn (2014) finds that the mandatory stock ownership represented by minimum level of firm stock held by executive managers reduces their tendency to earning management. Teshima and Shuto (2008) discovered that managerial ownership at the (low-level and high-level) level was negatively linked to management of earnings represented by (discretionary accruals). Ramadan (2015) argued that managerial ownership is negatively negatively linked to management of earnings.

On the other hand, Kamran and Shah (2014) argued that executives with managerial ownership are more opportunistic when they use their position to manipulate interests and

promote personal interests. Besides that, sometimes managers are ready to conspire with their management team in order to hide the actual firm earnings (Liu, 2012). Additionally, Rain et al. (2021) discovered that board ownership reduces a firm's reported earnings' quality.

***H2:** Managerial ownership positively impacts the EQ of Jordanian banks listed for 2009 to 2019 (ASE).*

***H02:** Otherwise.*

2.3.6 Institutional Ownership and Earnings Quality

The agency issue emerges from ownership and control separation (Fama & Jensen, 1983). These conflicts arise when managers seek to attain personal aims and interests rather than optimising shareholder gain (Jensen & Meckling, 1976). These problems are expected in large listed firms than small listed firms because of diffuse of an ownership, which leads to ineffectual distribution of the resource and failure of firms (Johari et al., 2009).

Institutional ownership is defined as the portion or percentage from common share equity that is owned by institutions, like (pension funds, banks, financial and investment companies) and generally purchase from outstanding shares as a large blocks, which can make significant effect on its management of these entities or companies (AlQudah et al., 2020; Qawqzeh et al., 2019; Reyna, 2018; Alqudah, 2017; Saseela & Thirunavukkarasu, 2017; Ding et al., 2007; Bissessur, 2008; Hashim, 2008). While Amos et al. (2016) defined institutional ownership as the shareholders in a particular firm from other corporate entities.

Previous discussions presented two different results about the monitoring and controlling roles of institutional ownership or institutional investors on EM activities and EQ. One of them shows the active role of institutional ownership in constraining and reducing EM activities that are adopted by managers (Elhennawy, 2021; Ame et al., 2021; Wang, 2014; Hashim, 2008). While the second sees that an institutional ownership or

institutional investors represent a hinder regarding earning management activities based on the passive hand hypothesis (Yahaya, et al., 2020; Porter, 1992).

Based on the efficient monitoring hypothesis, institutional ownership is deemed a key CG mechanism as it enables investors to monitor, influence and control decisions of managers in a firm, and reduce opportunistic behaviours that take place by managers using manipulation in earnings (Reyna, 2018; Almazan et al., 2005; Monks & Minow, 1995). Hence, institutional ownership is negatively linked to earnings management (Qawqzeh et al., 2019). Furthermore, Barkadehi and Mirbargkar (2017) argued that concentrated out-firm ownership increases the quality of earnings rather than dispersed ownership. Similarly, the presence of various owners in companies' ownership increases the earnings quality, while the existence of one owner or a few owners reduces the quality of earnings.

Elhennawy (2021), Ame et al. (2021) and Reyna (2018) argued that higher institutional ownership participation in firms mitigates earnings management practices in various degrees depending on the ownership concentration level. Additionally, Barkadehi and Mirbargkar (2017) found that institutional investors make extra efforts in safeguarding their investments from any violations or manipulations by monitoring managerial behaviour.

Institutional investors monitor investments in a variety of companies (Amos et al., 2016), institutional ownership has been proposed as a good CG mechanism to observe and enhance the companies' performance to assist institutional shareholders to secure and manage their investments in the firms (Emmanuel & Afor, 2019; Hashim, 2008).

H3: Institutional ownership positively impacts the EQ of Jordanian banks listed for 2009 to 2019 (ASE).

H03: Otherwise.

2.3.7 Foreign Ownership and Earnings Quality

The financial and market globalization directions exposed the need of emerging markets to flow of international capital, thus the existence of foreign investors rises in nations that are developing (Huang & Shiu, 2009). The existence and success of firms may be related to the interaction between domestic and foreign investment environments (Desenderet al., 2016; Zona et al., 2018). Therefore, they are willing to monitor their investments in foreign countries in a manner that protects these investments (Meng et al., 2018). Foreign investors are considered as skilled and long-practiced in guidance of their equity and investments to maximize their wealth. As a result, they refuse any opportunistic behaviors from managers that influence earnings quality (Alrabba et al., 2018). Additionally, foreign investors can limit volatility in stock price by enhancing the stability of price (Vo, 2015).

Alaryan (2015) and Vo and Chu (2019) defined foreign ownership as stocks or shares that are held or owned by non-citizen individuals or by companies of which headquarters are located overseas.

Past research highlights on two arguments in relation to the function of foreign ownership in EQ. One is in accordance to the knowledge transfer hypothesis, which states that when investing in a domestic company, expert foreign shareholders should seek to better manage and monitor the activities of companies and managers operating in emerging markets by limiting EM activities, hence resulting in highly-yield earnings quality (Nguyen et al., 2021; Vo & Chu, 2019; Guo et al., 2015; Choi et al., 2013; Aydin et al., 2007) by taking their position as an active shareholder to monitor managers' actions directly and effectively (Vo & Chu, 2019; Alaryan, 2015).

Second, using the information asymmetry theory, studies argue that language barriers and geographic distances constrain foreign investors from managing and controlling the activities of the firms; therefore, they have lower capacity to monitor the corporate governance of domestic firms (Al- Haddad & Whittington, 2019; Guo et al., 2015; Klai & Omri, 2011) as they have less information than the domestic investors (Choe et al., 2005; Guo et al., 2015). Consequently, when the earnings quality does not meet the

foreign investors' expectation, they are selling their shares as a punishment for management, especially when they have the sense that the cost of existence is less than the benefits from these investments (Shin & Kim, 2019).

Therefore, based on the initial argument, a few studies propose a positive relation between EQ and foreign ownership (Nguyen et al., 2021; AlQudah et al., 2020; Vo & Chu, 2019; Alaryan; 2015).

Nguyen et al. (2021) reported that foreign ownership structure lessens managers' opportunistic behaviour. Additionally, AlQudah et al. (2020) found that managerial behaviour can be monitored and controlled by foreign investors. Vo and Chu (2019) and Alaryan (2015) found that foreign ownership increases the informativeness of reported earnings that consecutively improves the transparency and integrity of earnings. Henceforth, foreign investors owning shares in a company reduces managers and shareholders' conflicting needs, which results in improved financial performance (Chege, 2013; Mokaya & Jagongo, 2015). Additionally, Ng'ang'a (2017) reported that foreign ownership positively influences financial performance.

H4: Foreign ownership positively impacts the EQ of Jordanian banks listed for 2009 to 2019 (ASE).

H04: Otherwise.

2.3.8 Family Ownership and Earnings Quality

Family ownership refers to the numbers of stocks with voting right of a firm, which are held by the largest shareholders from the same family members (Kim & An, 2019; Reyna, 2018; An & Naughton, 2015).

Based on the convergence interest hypothesis, if the family ownership level rises in a firm, it leads to aligned interests between shareholders and managers by pushing management to do extra efforts towards shareholders' wealth maximization (La Porta et al., 2000). Based on the family ownership entrenchment theory, when family ownership

has dominant power, family shareholders and investors seek to optimise personal gain and profits by disregarding the minority shareholders. Thus ownership-control disparities minimize the company's achievement and value (Lemmon & Lins, 2003).

Many research has been carried out on the implications of family businesses on EM (Siraji & Nazar, 2021; Qawqzeh et al., 2019; Reyna, 2018; Lassoued et al., 2017; Haija & Alrabba, 2017; San Martín-Reyna & Duran-Encalada, 2012; Bartholomeusz & Tanewski, 2006). Based on the convergence interest hypothesis, Siraji and Nazar (2021), Qawqzeh et al. (2019), Jin (2013), Bar-Yosef and Prencipe (2013), and Castrillo and San Martín (2007) argued that the concentration of ownership and large shareholders in firms can reduce an agency problem and limit earnings management practices, and one of these ownerships is family ownership. Siraji and Nazar (2021) and Wang (2006) found that establishing family ownership reduces abnormal accruals, raises informativeness of earnings and reduces temporary loss item in earnings.

An (2015) divided family ownership into three parts which are pure family, affiliated ownership and family ownership. He found all family ownership classification reduce agency problems and improving earnings quality and firm value. Reyna (2018) argued that the rising of family ownership participation level reducing EM activities, and the degree of this affects depend on the level of ownership concentration depending on firms' size. Additionally, AlQudah et al. (2020) pointed out that family ownership has presented a low degree in limiting earnings management practices used by managers. While Kim and An (2019) found in their research that family ownership influences positively earning quality; even if disparity level of ownership is different (high or low), it does not change the positive influence. Additionally, Lassoued et al. (2017) contended that members of the family have little incentive to manipulate income to keep their wealth and reputation.

H5: *Family ownership positively impacts the EQ of Jordanian banks listed for 2009 to 2019 (ASE).*

H05: *Otherwise.*

2.4 Previous Studies

2.4.1 Introduction

Previous studies that are related to the title and variables of this dissertation are reviewed in this section.

Al-Ta'amneh (2022) investigated the impact of board and audit committee characteristics and ownership structure on the management of earnings of 16 ASE-listed banks from 2013 to 2018. The researcher discovered that institutional ownership and size of the board positively impacted the application of EM practices in ASE-listed Jordanian commercial banks.

Wati and Tamaris Gultom (2022) examined the effects of ownership structure that includes (concentrated ownership, institutional ownership, family ownership, managerial ownership, foreign ownership, and government ownership) for earnings management of 391 companies currently listed on the Indonesia Stock Exchange (ISE) from 2016 to 2019.

In the research, an adapted Jones model was utilised in calculating activities of EM. As a result, the researchers discovered that ownership category did not significantly affect earnings management activities.

Elhennawy (2021) analysed and elaborated the effect of ownership structure (institutional, managerial) and ownership concentration on the financial reporting quality of 50 non-financial firms on the Egyptian Stock Exchange (ESE) between 2014 and 2016.

The present research utilized multiple regressions technique to assess the research hypothesis. The researcher pointed out that concentration ownership and institutional ownership negatively impact discretionary accruals. This means that increased concentration and institutional ownerships will assist to lessen revenue management activities, leading to increased trust and the quality of financial reporting. Yet, managerial ownership negatively influences discretionary accruals, with non-significant effects.

Ame et al. (2021) used a sample of 15 consumer products companies listed on the Nigerian Stock Exchange (NSE) between 2011 and 2019 to study the impact of ownership structure (concentrated ownership, managerial, institutional, and family ownerships) on quality of the reported earnings.

To assess the research hypothesis, the researcher applied a multiple regression technique. The results show that institutional ownership and ownership concentration positively impact on reported earnings quality. In other words, major shareholders and institutional investors have the authority to regulate and keep an eye on managers' opportunistic actions. However, managerial ownership possesses a detrimental effect on the FRQ. Lastly, family ownership is not significantly positively linked to quality of reported earnings.

Nguyen et al. (2021) utilised 489 non-financial firms listed on the Vietnam Stock Exchange (VSE) to examine the impact of ownership structure (managerial, ownership concentration, foreign and state ownerships) on managerial opportunistic behaviors represented by (EM) activities from 2009 to 2008.

The results show that state ownership and ownership concentration positively impact earnings administrative activities. Meanwhile, foreign and managerial ownerships impact earning management activities negatively.

Siraji and Nazar (2021) investigated the impact of family ownership and managerial ownership on the actual EM of 206 non-financial companies listed on the Colombo Stock Exchange (CSE) from 2015 to 2020.

The researchers find an inverse association between family and managerial ownership with real earnings activities which mean managerial shareholders and family owners play vital role in create members that have the ability to control and constrain managerial opportunistic behaviors.

Yahaya et al. (2020) analysed the ownership structure impact (managerial, institutional and concentrated ownerships) on the management activities of earnings involving 21 consumer goods firms listed on the Nigerian Stock Exchange between 2009 and 2018.

The research found an inverse relationship between managerial and concentrated ownerships with earnings management activities, which mean rising in managerial and concentrated ownership leads to constraining and minimizing managerial opportunistic behavior regarding earnings management activities. The findings too indicate that earnings management has been positively impacted by institutional ownership.

From 2012 to 2017, Choi et al. (2020) investigated the ownership structure's impact (ownership concentration/state, managerial, and foreign ownerships) on the earnings management of 480 non-financial companies listed on the Vietnam Ho Chi Minh Stock Exchange and Hanoi Stock.

The researchers discovered that ownership concentration and foreign ownership have a negative association with EM activities. Nevertheless, state ownership and managerial ownership did not show any statistical impact on earnings management activities.

Oyebamiji (2020) ownership structure's influence (managerial, institutional ownerships/concentration of ownership) on the earnings quality for ten depository banks listed on the (NSE) between 2009 and 2018.

The present study utilised flexible loan loss endowment as a substitution to assess banks' earnings quality. Additionally, to create a link between independent and dependent variables, the study applied panel data analysis. The researcher discovered that institutional ownership positively impacted the banks' earnings' quality. This is due to the high degree of control and oversight that institutional investors have and helps limit opportunistic managerial behaviour by managers involved in earnings management activities. Concentration of ownership negatively impacted the EQ as well as positively impacted EM activities. However, managerial ownership has no statistical impact on EQ.

AlQudah et al. (2020) clarified the capability of various ownership structures' types (foreign, institutional, blockholders, managerial and family ownerships) in lessening earnings management practices in Jordanian banks listed on the Amman Stock Exchange (ASE) between 2013 and 2018 by employing DLLP as an alternative way of assessing earnings outcome manipulation.

The study discovered that foreign and institutional ownership has significantly and negatively impacted loan loss provisions. Meaning, increasing foreign and institutional ownership lessens bankers' ability to manipulate earnings results. On the contrary, blockholders impacted lowly and negatively on manipulated earnings outcomes, while managerial and family ownership do not influence manipulated earnings outcomes.

Tran et al. (2020) evaluated ownership structures' influence using multiple regressions analysis. Tran et al. (2020) used multiple regression analysis to analyse ownership structures' impact (institutional, managerial, foreign, state ownership, board of directors' ownership and ownership concentration) on EM activities in 30 commercial banks listed on the (VSE) between 2005 and 2019.

The researchers discovered that foreign ownership impacted EM practices negatively and positively impacted quality of earnings. Meanwhile, concentration ownership positively impacted earnings management practices and positively impacted earnings quality.

Al-Haddad and Whittington (2019) studied how internal CG (board of director's characteristics and ownership structure) is associated to actual, as well as accrual earnings managements activities in 108 ASE-listed firms in Jordan within the duration of 2010-2014 after the 2009 corporate governance code was introduced.

The research adopted the pooled OLS regression model to evaluate the hypothesis. It found that managerial and institutional ownerships restricted the prevalence actual and accrual earnings management activities. However, foreign ownership poses no statistical impact on the same.

Qawqzeh et al. (2019) investigated ownership structure's influence (directors, family members, institutions, managements) on FRQ, audit quality on ownership structure, earning management practices in 180 firms listed on the Amman Stock Exchange between 2009 and 2017.

This research found that family and director ownership influence negatively on earning management practices, but positively on financial reporting quality, which means that family and director ownership minimize earning management practices and improve FRQ. The findings too indicate that institutional ownership positively impacted earning management and negatively impacted quality of financial reporting quality. Meanwhile, managerial ownership possesses a minor influence on FRQ.

Vo and Chu (2019) investigated whether or not foreign ownership improves the level of earning quality in Vietnamese non-financial listed firms from 2007 to 2015. They discovered foreign ownership has a negative relationship with EM control, and a positive one with informative earnings.

Mustika (2019) investigated the impact of internal CG mechanisms (ownership structure, board of director's independence) and information asymmetry on earnings quality of 375 Indonesian industrial companies listed on the ISE between 2011 and 2015.

The researcher discovered that managerial ownership has a positive relationship with EQ. This suggests that increased managerial ownership improves the FRQ, as managerial ownership directly influences company operations and improves financial performance by improving performance. In addition, managerial ownership facilitates shareholders and managers' combined needs, as managerial ownership serves to reduce conflicts of interest. Also, board member independence, audit committee independence, information asymmetry, family ownership, and institutional ownership do not significantly impact earnings quality.

Maatougui and Halioui (2019) used the panel data model to investigate the influence of external blockholders on the application of earnings management activities in 45

seasoned equity offerings of French companies listed on the SBF 120 index of Euronext between 2005 and 2009.

The study discovered that external blockholders had a negative impact on managers' opportunistic behaviour. External blockholders therefore function mainly in minimising earnings management practices over seasoned equity providing companies.

Tessema and Dandu (2018) examined the ownership structure of Korean firms in relation to earnings reporting quality from 1997 to 2007. Institutional ownership, represented by group ownership, positively impacted EQ and increases the transparency of earnings reporting, whereas it has been found that family ownership in group companies negatively impacted earnings quality.

Reyna (2018) investigated the impact of ownership structure (family, institutional, foreign ownerships, and firm size) on earnings management for 67 publicly traded Mexican companies over the period of 2005-2015. It found that both institutional and family shareholders reduce earnings management activities with different impacts based on the size of the firm.

Ng'ang'a (2017) used multiple regression analysis to study the ownership structure's influence (local, foreign, and managerial) on how 39 Nairobi Securities Exchange (NSE) companies performed financially throughout the 2010-2014 period.

It found that all ownership structure types (local, foreign, and managerial ownerships) positively influence the firms' financial performance. Managerial and foreign ownership combined have the greatest impact on the companies' financial performance, suggesting that foreign investors have the capability to scrutinise the managers' actions. Additionally, when managers become shareholders, they work towards shareholders' interests.

Khafid and Arief (2017) studied CG mechanisms and ownership structures' impact on the quality of firms' earnings listed on the Indonesia Stock Exchange. Although there was no direct impact of institutional ownership on quality of earnings, institutional

ownership functioned as a moderating variable that supported and reinforced managerial ownership to positively impact earnings quality.

Lassoued et al. (2017), utilisng 134 banks in 12 countries in North Africa and the Middle East from 2006 to 2012, found that ownership structures (concentration ownership, state ownership, family ownership, and institutional ownership) impacted earnings managements.

This study used flexible loan loss endowment as an alternative for management of earnings. Regression analysis based on the panel data was employed to assess the study hypothesis. The findings show that blockholders and institutional ownership were statistically and positively linked with earnings management as there is a greater ratio of concentration and institutional ownerships in earnings management activities. On the contrary, family ownership has been discovered to have a statistically negative association with EM. Hence, family members are not greatly incentivized to engage in earnings manipulation to safeguard their reputation and wealth.

Alshhed and Alanaty (2017) examined the impact of ownership structures (concentrated, institutional, governmental and foreign ownerships) on the quality of earnings of Jordanian ASE-listed firms over the period 2005-2013.

Institutional ownership was found to affect earnings quality statistically and significantly.

Haija and Alrabba (2017) examined the ownership structure's influence (managerial, family, institutional, foreign) on 114 Jordanian ASE-listed companies' financial achievement from 2009 to 2015.

The results of the research revealed a significant positive relationship between managerial, family and institutional ownerships and financial performance. The findings too show no prominent association between foreign ownership and financial achievement.

Barkadehi and Mibargkar (2017) investigated the relationship between ownership (corporate and institutional) and EQ of 80 companies listed on the Tehran Stock Exchange (TSE) between 2010 and 2014.

The research used multiple regression analysis to test the hypothesis on the required data, which was collected from capital market database. The researchers found that both institutional and corporate ownership influence positively on earnings quality, which means that concentrated ownership in both institutional and corporate ownership increase the earnings quality.

Yasser et al. (2017) observed the impact of ownership structure (blockholders, foreign, institutional, state, public ownerships) on earnings quality over three countries (Pakistan, Malaysia, and Australia) involving 240 firms listed on the Karachi Stock Exchange, the Kuala Lumpur Stock Exchange and the Australian Stock Exchange respectively from 2011 to 2013.

Blockholders have been found to be negatively influenced by the FRQ of Australian companies and positively impacted by the financial reporting quality by Pakistani and Malaysian companies. Besides that, the study discovered that state ownership negatively impacts company performance in Pakistan, Malaysia and Australia.

Sousa and Galdi (2016) examined the influence of ownership concentration on the EQ of insurance and financial services firms listed on the São Paulo Stock Exchange from 1999 to 2014.

This research used two proxies to measure earnings quality, namely, persistence of earnings and conservatism. Thus, the study discovered that more concentrated ownership structure results in unsustainable earnings, making earning undependable in the valuation process. Moreover, a more concentrated ownership structure leads to increased accounting conservatism.

Alaryan (2015) investigated and determined the link between ownership structure (institutional, foreign, and family ownerships) and earnings quality for operating companies listed on the ASE for the duration of 2009-2013.

This research reported that institutional, foreign and family ownership positively affect earnings quality, which means that increased institutional, foreign and family ownership improves earnings quality. The results too imply a positive association between private equity sponsorship and EQ, leading to EM practices' decline.

Mokaya and Jagongo (2015) studied the impact of ownership structure and ownership concentration on the financial performance of 63 companies listed on the Nairobi Stock Exchange (NSE) by the end of 2014.

The study discovered a solid positive link between ownership structure (foreign, domestic, and government ownerships) and financial performance. It also found that ownership concentration (ownership of more than 30% of the outstanding stocks) is positively linked to financial performance. This means that increased foreign, domestic, and government ownerships and ownership concentration lead to reduced shareholder-manager conflict and ultimately increased firm value.

Kamran and Shah (2014) examined the corporate governance's association to earnings management based on 372 Karachi Stock Exchange (KSE) firms from 2003 to 2010.

The researchers documented that managerial ownership was statistically positive with EM activities. This suggests that managers with administrative responsibilities employ opportunistic behaviour to achieve personal gain.

Chege (2013) used ten commercial banks listed on the Nairobi Stock Exchange for the period 2009-2012 to estimate the impact of ownership structure on financial performance using Profit Before Tax log as an indicator.

The study results show that foreign and local retail ownership influence positively on financial performance, while corporate institutional ownership influences negatively on financial performance.

Halioui and Jerbi (2012) examined blockholders' influence on the EM activities of 31 firms listed on the Tunisian Stock Exchange between 1998 and 2009. The researchers found that concentration of ownership affects earnings management activities positively.

Table 2.1 Summary of Literature Review Regarding Ownership Structure and EQ

Reference	Period	Country	Main Results
Al-Ta'amneh, 2022	2013 to 2018	Jordan	Institutional ownership and board size have a positive impact on the earnings management practices of Jordanian commercial banks listed on the Amman Stock Exchange.
Wati & Tamaris Gultom, 2022	2016 to 2019	Indonesia	There is no significant impact of ownership categories on earnings management activities.
Elhennawy, 2021	2014 to 2016	Egypt	Concentration ownership and institutional ownership have a negative impact on discretionary accruals. In other words, increased concentration ownership and institutional ownership lessen earnings management activities and enhances the reliability and financial reporting quality. Yet, managerial ownership influences negatively on discretionary accruals, but with non-significant effects.
Ame et al., 2021	2011 to 2019	Nigeria	Ownership concentration and institutional ownership have a positive impact on the quality of reported earnings. In other words, large shareholders and institutional investors possess the power to control and observe opportunistic behaviour by managers. Yet, managerial ownership negatively impacted the reported earnings quality. Finally, family ownership reported quality of earnings. Did not have a significantly positive association.
Nguyen et al., 2021	2009 to 2018	Vietnam	State ownership and ownership concentration positively impacted earnings management activities. Meanwhile, foreign

Reference	Period	Country	Main Results
			and managerial ownership impacted earnings management activities negatively.
Siraji and Nazar, 2021	2015 to 2020		Inverse relationship between family and managerial ownership with actual earnings activities which means that managerial shareholders and family owners play a vital role in creating members that have the ability to control and constrain managerial opportunistic behaviors.
Yahaya, et al., 2020	2009 to 2018	Nigeria	Inverse relationship between managerial and concentrated ownerships with earnings management activities, which means that higher managerial and concentrated ownership leads to constraining and minimizing managerial opportunistic behavior regarding earnings management activities. The findings too indicate that institutional ownership has a positive relationship with earnings management activities.
Choi et al., 2020	2012 to 2017	Vietnam	Ownership concentration and foreign ownership have a negative relationship with earnings management activities. In other words, both concentration ownership and foreign ownership function importantly role in the reduction of earnings management activities. However, state ownership and management ownership do not statistically affect earnings management activities.
Oyebamiji, 2020	2009 to 2018	Nigeria	Institutional ownership positively impacts the banks' earnings' quality. This is due to the high level of management and supervision on the part of institutional investors, which helps constrain managers' opportunistic behaviour. Concentration of ownership has a negative impact on earnings quality and a positive impact on earnings management activities, but there is no statistical impact of managerial ownership on earnings quality.
AlQudah et al., 2020	2013 to 2018	Jordan	Negative significant influence of foreign and institutional ownership on loan loss provisions, which means that if foreign and institutional ownership increases, it reduces

Reference	Period	Country	Main Results
			the ability of banks managers to manipulate earnings outcomes. On the other hand, blockholders show a low negative influence on manipulated earnings outcomes, while managerial and family ownership do not influence manipulated earnings outcomes.
TRAN et al., 2020	2005 to 2019	Vietnam	Foreign ownership has a negative impact on earnings management activities and positively impacts earnings quality, while concentration ownership has a positive impact on earnings management activities but a negative impact on earnings quality.
Al- Haddad and Whittington, 2019	2010 to 2014	Jordan	Managerial and institutional ownership limit the actual and accrual earnings management activities. However, foreign ownership has no statistical impact on real and accrual earnings management activities.
Qawqzeh et al., 2019	2009 to 2017	Jordan	Family and director ownership influence negatively on earning management practices, and influence positively on financial reporting quality, which means that family and director ownership minimize earnings management practices while improving financial reporting quality. The findings too suggest that institutional ownership positively impacts earnings management and negatively impacts quality of financial reporting quality. Meanwhile, managerial ownership impacted financial reporting quality marginally.
Vo and Chu, 2019	2007 to 2015	Vietnam	Foreign ownership has a negative association with earnings management. However, it has a positive relationship with informative earnings.
Mustika, 2019	2011 to 2015	Indonesia	Management ownership has a positive correlation with earnings quality, and since management ownership directly affects the management of a company and enhances financial performance, an increase in management ownership linked with the financial reporting quality. In addition, managerial ownership facilitates combined needs between shareholders and managers,

Reference	Period	Country	Main Results
			as managerial ownership serves to reduce conflicts of interest. Also, director independence, audit committee independence, information asymmetry, family ownership, and institutional ownership do not have a significant impact on quality of earnings.
Maatougui & Halioui, 2019	2005 to 2009	French	External blockholders influence negatively on the opportunistic behavior of managers. External blockholders therefore play an important role in minimising earnings management activities compared to seasoned equity providing companies.
Tessema and Dandu, 2018	1997 to 2007	South Korea	Institutional ownership, represented by business group ownership, has a positive impact on earnings quality, resulting in more transparent earnings reporting, whereas family ownership of group companies has a negative impact on earnings quality.
Reyna, 2018	2005 to 2015	Mexico	Institutional and family shareholders reduce earnings management activities with different impacts based on the size of the firm.
Ng'ang'a, 2017	2010 to 2014	Kenya	All ownership structure types (local, foreign, and managerial ownerships) have a positive impact on a firm's financial performance. Both managerial and foreign ownership have had the most influence on a firm's financial performance, suggesting that foreign investors have the ability to scrutinise management actions. Additionally, when managers become shareholders, they work towards shareholders' interests.
Khafid and Arief, 2017		Indonesia	Although institutional ownership has no direct impact on earnings quality, institutional ownership as a moderating variable supports and reinforces managerial ownership to positively impact earnings quality.
Lassoued et al., 2017	2006 to 2012	Twelve North Africa and	blockholders and institutional ownership were statistically and positively linked with earnings management as there is a greater ratio of concentration and institutional

Reference	Period	Country	Main Results
		Middle Eastern countries	ownerships in earnings management activities. On the contrary, family ownership has been discovered to have a statistically negative association with EM. Hence, family members are not greatly incentivized to engage in earnings manipulation to safeguard their reputation and wealth
Alanaty and Alshhed, 2017	2005 to 2013	Jordan	The more statistically positive the proportion of blockholders and institutional owners in earnings management activities, the higher the proportion of ownership to institutional owners in earnings management activities, the higher the proportion to institutional owners in earnings management activities. On the contrary, there is a statistically negative relationship between family ownership and earnings control. Family members therefore have a little advantage to exploit their earnings in order to sustain their wealth and reputation. Institutional ownership has a statistically significant impact on earnings quality.
Haija and Alrabba, 2017	2009 to 2015	Jordan	Significant positive relationships between managerial, family and institutional ownership and firms' financial performance. The findings also illustrate no significant association between foreign ownership and firms' financial performance.
Barkadehi and Mirbargkar, 2017	2010 to 2014	Iran	Institutional and corporate ownership influences positively on earnings quality, which means that the concentrated ownership in both institutional and corporate ownership increase the quality of earnings.
Yasser et al., 2017	2011 to 2013	Pakistan, Malaysia, and Australia	Blockholders are negatively impacted by the quality of financial reporting by Australian companies and positively impacted by the quality of financial reporting by Pakistani and Malaysian companies. Additionally, state ownership affects negatively on firm performance in Pakistan, Malaysia, and Australia.
Sousa & Galdi, 2016	1999 to 2014	Brazil	A more concentrated ownership structure leads to the unsustainability of earnings, which makes earnings unreliable in the

Reference	Period	Country	Main Results
			valuation process. Moreover, a more concentrated ownership structure results in increased accounting conservatism.
Alaryan, 2015	2009 to 2013	Jordan	Institutional, foreign and family ownership relate positively with the earnings quality, implying that increased institutional, foreign and family ownership improves the earnings quality. The findings too show a positive relationship between private equity sponsorship and earnings quality, leading to a decline in earnings management practices.
Mokaya and Jagongo, 2015	2014	Nairobi	Strong positive relationship between ownership structure (foreign, domestic and government ownerships) and financial performance. There is also a positive link between ownership concentration (those who own more than 30% of the firms' outstanding stock) and financial performance. This indicates that increased foreign, domestic and state ownership, as well as concentration of ownership reduces conflicting needs between shareholders and management and increases corporate value.
Kamran and Shah, 2014	2003 to 2010	Pakistan	Administrative responsibility is statistically positively associated with revenue management activities, suggesting that administrative responsibility leads to opportunistic behaviour to achieve personal gain.
Chege, 2013	2009 to 2012	Kenya	Foreign and local retail ownerships influence positively on financial performance, while corporate institutional ownership influences negatively on financial performance.
Halioui & Jerbi, 2012	1998 to 2009	Tunis	Concentration of ownership affects earnings management activities positively.

Source: The Researcher

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This study identified the influence of CG mechanism of ownership structure on the earnings quality of ASE-listed banks in Jordan over the period 2009-2019. This chapter explains the procedures, approaches, and techniques used for testing the study hypotheses and answering the research questions so as to achieve the research objectives. The research methodology of the study includes data collection method and sources, research population, research sample, research variables and how they are measured. The study also includes the research model development to illustrate how all the variables (dependent, independent, and control) are related. This chapter also explains the statistical methods employed for the data analysis.

3.2 Data Collection Approaches

The sources of data collection that each study relies on depend on the grade, research needs, and quality of each study, such as defining the research question, preparing the study's theoretical framework, and measuring study variables (Dumay & De Villiers, 2019; Croucher & Cronn-Mills, 2014). Data retrieval collections are generally divided into two main types: primary and secondary (Pallant, 2013). Therefore, the required data of this study was extracted using both the primary and secondary data sourcing collection.

3.2.1 The Primary Data Sourcing

It refers to the data that the researcher collects directly from the data sources using his efforts and experiences in order to identify and process the research problem, and is published through its original source. Examples of primary data are books, published researches, articles, master and doctoral theses (Croucher & Cronn-Mills, 2014). Therefore, the introduction, literature review, and theoretical framework were based on using primary sources of data.

3.2.2 The Secondary Data Sourcing

This refers to information and data that were transferred from the primary sources in text or content. In other words, it is the data that has previously been collected and recorded or published by organizations or researchers (Croucher & Cronn-Mills, 2014). Therefore, the study uses secondary data, manually-gathered from reports annually written by ASE-listed banks from 2009 to 2019, extracted from the website of the Jordan Securities Commission (JSC).

This study adopted the panel data analysis to examine the impact of ownership structure on the EQ of the Jordanian ASE-listed banks over the period 2009-2019.

The panel data analysis is vastly employed statistical technique in social science research. This type of data includes both cross-sectional that include observations over individuals or groups units and time-series data that include chronological order observations. Thus, panel data analysis has two main dimensions, and this analysis is used by repeating measurements on the same variable over the time. Additionally, analysis based on this type of data results in obtaining more accurate and efficient results, which can be relied upon in interpreting the research results, because it accounts for individual and temporal factors whose effects on the dependent variables cannot be observed (Dumay & De Villiers, 2019).

3.3 Population of Study

To accomplish the study's goals and objectives, the selected study population entails all ASE-listed banks covering the period of 2009-2019, i.e., 23 banks in total (see Table 3.1).

Table 3.1 List of Banks working in Jordan from 2009 to 2019 (Central Bank Website)

Number	Bank Name	Website
1	Arab Bank	arabbank.com.jo
2	Arab Banking Corporation	www.bank-abc.com
3	Bank of Jordan	bankofjordan.com
4	Cairo Amman Bank	cab.jo
5	Capital Bank of Jordan	Capitalank.jo
6	Jordan Commercial Bank	cbj.gov.jo
7	Jordan Kuwait Bank	jordan-kuwait-bank.com
8	Jordan Ahli Bank	ahli.com
9	Housing Bank for Trade & Finance	hbtbf.com
10	Arab Jordan Investment Bank	ajib.com
11	INVESTBANK	investbank.jo
12	Société Générale de Banque Jordanie	sgbi.com
13	Bank al Etihad	bankaletihad.com
14	Islamic International Arab Bank	iiabank.com.jo
15	Jordan Islamic Bank	jordanislamicbank.com
16	Safwa Islamic Bank	jdib.jo
17	Standard Chartered	standardchartered.com
18	Egyptian Arab Land Bank	arakari.com.jo
19	Citibank	citibank.com/jordan
20	Rafidain Bank	rafidain-bank.gov.iq
21	National Bank of Kuwait	nbk.com
22	BLOM Bank	blombank.com
23	Al-Rajhi Bank	alrajhibank.com.jo

3.4 Sample Selection

The sample of the study regarding the Jordanian banks listed in the (ASE) from 2009 to 2019, was chosen from the population of study based on three criteria:

1. All annual reports regarding banks must be available at (ASE) from 2009 to 2019.
2. The continuous trade of banks shares in (ASE) on a regular basis during the period (2009-2019) is a must.
3. Excluding any bank with missing data and disclosure regarding the variables of study during the period (2009-2019).

These criteria were applied in order to avert any misrepresentation, lack and weakness in the study results. Therefore, the final number of banks which met the previous criteria is 14 as displayed in Table 3.2.

Table 3.2 The Sample of Study Selection

All banks operating in Jordan from 2009 to 2019	23
Traded banks in the (ASE) from 2009 to 2019	15
Deducted: Banks with missing required data from 2009 to 2019	-1
The Final Sample of Study	14

3.5 The Study Variables and Measurement Methods

This study delved with three kinds of variables: dependent variables, independent variables, and control variables. Each type and its measurement are discussed separately below.

3.5.1 Dependent Variable

3.5.1.1 Earnings Quality

Managers usually use the flexibility and the gaps that exist in the accounting standards that govern the recording of financial operations and the preparation of financial reports by manipulating some accounting figures using EM techniques, in order to achieve some personal interests such as bonuses and rewards (Ame et al., 2021; Kamran & Shah, 2014). Thus, previous studies have defined earnings quality as earnings that are characterized by a set of characteristics such as stability, sustainability, predictability, integrity, timeliness. In contrast, earnings management activities lessen the transparency, integrity, honesty, and other key attributes of financial reporting. This is because managers can use their own experience and gaps in accounting standards to align company earnings and attain personal goals such as manager rewards and bounces (Ame et al., 2021; Ahmad & Alrabba, 2017).

Most previous work on this topic utilised the adapted Jones model (discretionary accruals) that is regarded as one of the vastly and typically applied model in non-financial companies to estimate the earnings quality (Qawqzeh et al., 2019; Alzoubi, 2016; Yang et al., 2008). On the contrary, the financial sectors operate differently compared to non-financial companies, so managers are willing to use loan loss provisions to tamper with the earnings figures (Tran et al., 2020; Alhadab & Al-Own, 2017). hence, loan loss provision (LLP) techniques depend on bank managers' estimations (Tran et al., 2020;

Alhadab & Al-Own, 2017). Therefore, LLP represents bad debt losses and uncollected loans like non-performing loans and renegotiated loans. Therefore, bank managers often adopt LLP to deal with earnings (Tran et al., 2020; Alhadab & Al-Own, 2017; Abou El Sood, 2012).

Typically, financial institutions engage in earnings manipulation using certain methods. Banks may use (DLLPs) to tailor earnings to the managers' preferences (Tran et al., 2020; Alhadab & Al-Own, 2017). This study hence employs DLLP as a proxy in measuring the earnings management of banks. A low DLLP level indicates good earnings quality (Tran et al., 2020; Alhadab & Al-Own, 2017; Abou El Sood, 2012).

Below is the formula for computing the DLLP of the ASE-listed banks (Tran et al., 2020; Alhadab & Al-Own, 2017; Othman & Mersni, 2014):

$$LLP_{it} = \alpha_0 + \alpha_1 NPL_{it-1} + \alpha_2 \Delta NPL_{it} + \alpha_3 \Delta TL_{it} + \varepsilon \quad \text{Model (1)}$$

Where:

LLP_{it} : Represents banks' total loan loss provisions (i) during period (t),

NPL_{it-1} : Represents total non-performing loan divided by the beginning loan balance of bank (i) during period (t).

ΔNPL_{it} : Represents the change in non-performing loan value of banks (i) during period (t).

ΔTL_{it} : Represents the changing in total loan value of bank (i) during period (t).

According to a previous model, DLLP is computed based on the following three steps (Tran et al., 2020; Zainuldin & Lui, 2020; Alhadab & Al-Own, 2017):

1. Estimate the total loan loss provision.
2. Calculate the non-discretionary LLP from total loan loss provision part.
3. The differences between total LLP and non-discretionary LLP represent DLLP.

Therefore, the residual from model (1), represents the DLLP in the ASE-listed Jordanian banks from 2009 to 2019.

3.5.2 Independent Variables

3.5.2.1 Ownership Structure

Ownership structure reflects the identities of the owners and the volume of their investments in a firm. Consequently, it determines the distribution of equity among firm shareholders (Mehrani et al., 2017; de Sousa & Galdi, 2016). Thus, a distinction can be made between two kinds of companies' ownership structures. Concentrated ownership structure denotes the concentration of ownership in a company by shareholders who own equal to 5% or more of the outstanding shares of the company which possess a voting right, while dispersed ownership structure denotes shareholders who possess not more than 5% of the outstanding shares of companies which possess a voting right (Ame et al., 2021; Elhennawy, 2021; Alrabba et al., 2018).

Consequently, based on prior studies, ownership structures can be put together into various forms namely concentration ownership, managerial, institutional, foreign, state, and family ownerships (Qawqzeh et al., 2019; Emmanuel & Afor, 2019; Ame et al., 2021; Elhennawy, 2021).

Therefore, this study separated the banks' ownership structure that are listed in the ASE from 2009 to 2019 into five forms (blockholder, managerial, institutional, foreign, and family) to assess the capability of ownership structure to monitor and limit managerial opportunistic behaviour within the banking sector, including in raising the transparency and integrity of reported earnings.

Based on aforementioned arguments, this study includes five independent variables which are:

3.5.2.1.1 Blockholders Ownership

Blockholder ownership is described as the presence of a large investors who possess equal to or at least 5% of the outstanding voting shares of companies (Zhong et al., 2007; Alhadab & Al-Own, 2017; Ame et al., 2021). Thus, this study will measure blockholder ownership of Jordanian banks listed on the ASE as a percentage of shares held by significant individuals who possess equal to 5% or more of their outstanding voting shares from 2009 to 2019 (Alhadab & Al-Own, 2017; Call, 2019; Ame et al., 2021).

$$B. OW_{it} = \frac{\text{the number of shares held by investors}}{\text{total of bank outstanding shares}}$$

3.5.2.1.2 Managerial Ownership

Managerial ownership is identified as the amount of shares owned by executive managers divided by the amount of firms' outstanding shares (Alexander, 2019; Agburuga & Ibanichuka). Therefore, this study measures managerial ownership in the ASE-listed Jordanian banks as a percentage of shares held bank executive managers from 2009 to 2019 (Ame et al., 2021; Choi et al., 2020; ShayanNia et al., 2017).

$$M. OW_{it} = \frac{\text{the number of shares held by bank managers}}{\text{total of bank outstanding shares}}$$

3.5.2.1.3 Institutional Ownership

Institutional ownership is elaborated as the amount of shares possessed by large companies, funds, or institutions divided by the amount of outstanding shares (Qawqzeh et al., 2019; Reyna, 2018). Therefore, the study measures institutional ownership of the ASE-listed Jordanian banks as a percentage of shares owned by corporations, banks, financial and investment firms, and pension funds from 2009 to 2019 (Ame et al., 2021; Lemma et al., 2018).

$$INS. OW_{it} = \frac{\text{number of shares held by institutional investors}}{\text{total of bank outstanding shaers}}$$

3.5.2.1.4 Foreign Ownership

Foreign ownership is elaborated as the amount of shares possessed by individuals or groups who are not the companies' country citizens (Desender et al., 2016; Zona et al., 2018). Therefore, the study calculates foreign ownership of ASE-listed Jordanian banks as a percentage of shares owned by individuals, groups and companies that are not Jordanian citizens from 2009 to 2019 (Ame et al., 2021; Elhennawy, 2021; Alrabba et al., 2018).

$$FOR. OW_{it} = \frac{\text{number of shaers held by foreign investors who are not citizen of Jordan}}{\text{total of bank ounstanding shaers}}$$

3.5.2.1.5 Family Ownership

Family ownership is clarified as the amount of shares possessed by individuals or groups in the same families (Kim & An, 2019; Reyna, 2018). Henceforth, this study measures family ownership of ASE-listed Jordanian banks as a proportion of shares possessed by individuals, groups of the same families, from 2009 to 2019 (Ame et al., 2021).

$$FAM. OW_{it} = \frac{\text{number of shaers held by individuals and groups from the same families}}{\text{total of bank outstanding shaers}}$$

3.5.3 Control Variables

To minimise interference due to several factors, this research determined a set of controlled variables like bank size, profitability, and leverage bank age according to past research Ame et al. (2021), Elhennawy (2021) and Huang (2013).

3.5.3.1 Bank Size

Earlier investigations offered two distinct arguments with regards to the influence of company size on the earnings' quality level. The first argument deems firm size to have a negative influence on EM since managers tend to use EM activities in big firms to report particular earnings levels to achieve specific aims (Juhmani, 2017; Khalil & Ozkan, 2016; Chen & Zhang, 2014). A second argument is that large companies positively influences

quality of earnings. The reason for this is due to corporate governance mechanisms, as well as active shareholders function importantly in limiting and minimising managerial opportunistic behaviour taking advantage of the flexibility of accounting standards (Guo & Ma, 2015; Amos et al., 2016).

Therefore, this study uses natural logarithm for banks total assets to measure banks size (Ame et al., 2021; Elhennawy, 2021; Huang, 2013):

B. Z_{it} =Natural log of bank total assets _{it}

3.5.3.2 Profitability

Profitability is described as company capability to generate earnings from its primary sources of business. In addition, profitability measures the extent to which a company can generate a reasonable return on the money being put into its operations (Mirghani & Ibrahim, 2015). Therefore, increasing firms' performance and profitability is one of the main motives for practicing EM by managers, i.e., to achieve their personal interests such as rewards and bonuses (Ronen & Yaari, 2008; Habbash et al., 2014).

Based on past studies, firm profitability, expressed as return on investment, is considered part of the key control variables used in studying the association between ownership structure and EQ (Chege, 2013; Alaryan, 2015; Ng'ang'a, 2017; Tessema & Dandu, 2018; Yahaya et al., 2020). Therefore, in this study, return on assets is utilised as an alternative for bank cost-effectiveness, applying the following formula: (Ame et al., 2021; Elhennawy, 2021; Huang, 2013):

$$ROA_{it} = \frac{\text{Net Income of Bank}}{\text{Total Assets of Bank}}$$

3.5.3.3 Financial Leverage

Leverage is defined as an investment strategy represented by borrowing money or using financial instruments in order to achieve potential returns of an investment. Consequently, leverage amplifies the effect of earnings or losses on the investor (Warrad, 2017; Putra & Subowo, 2016).

Previous studies used leverage as a controlling variable since the creditors' assessment regarding real earnings motivate managers to use earnings management activities to obtain debt terms by reporting a certain level of earnings (Chen & Zhang, 2014; Khalil & Ozkan, 2016; Juhmani, 2017). In other words, in order to obtain funding from external sources, managers tend to use EM practices to shape the creditors' perceptions about their firms' risks and financial position towards debt contracts (Anagnostopoulou & Tsekrekos, 2017; Hoang & Phung, 2019).

Moreover, several past studies recognised a negative link between leverage and EM (Ianniello, 2015; Lin et al., 2015). Henceforth, in the present research, leverage level acts as a control variable, applying the following formula: (Elhennawy, 2021; Mao et al., 2017):

$$L_{it} = \frac{\text{Long Term Debt of Bank}}{\text{Total Assets of Bank}}$$

3.5.3.4 Bank Age

Bank age is defined as the extent of time or period in which the bank has been in existence (Shumway, 2001). In short, it represents the sum of years since the bank or firm is listed or incorporated (LiPuma et al., 2013; Loderer & Waelchli, 2010).

Previous studies indicated the difference in profitability or financial performance between older firm and younger firm, since older firms have better profitability than younger firms due to differences in experiences. Therefore, firm age affects positively on profitability (Mallingu et al., 2020; Osunsan et al., 2015; Ghafoorifard et al., 2014; Coad et al., 2010). On the contrary, some research indicated the negative impact of firm age on profitability (Akben, 2016; Dogan, 2013)

Thus, bank age influences capital and ownership structure, growth opportunities and financial performance which in turn results in the employment of various CG structures in the firm (Mallingu et al., 2020; Loderer & Waelchli, 2010). Accordingly, this research applies bank age as a control variable using the following equation. The natural logarithm of bank years is from the bank's establishment until 2019 (AlQudah et al., 2020).

Bank AGE=

The natural logarithm of bank years from establishment until 2019_{it}

Table 3.3 below provides overall research variables and how they were evaluated.

Table 3.3 Summary of the Variables and Measurement Methods

Variables name & Abbreviation	Measurement method	Reference
Earnings quality (EQ)	Discretionary loan loss provision (DLLP)	Tran et al., 2020; Zainuldin and Lui, 2020; Alhadab and Al-Own, 2017
Blockholder ownership (B.OW)	% of shares held by a major investors, at least 5%	Ame et al., 2021; Call, 2019; Alhadab & Al-Own, 2017
Managerial ownership (M.OW)	(%) of share held by bank managers	Ame et al., 2021; Choi et al., 2020; ShayanNia et al., 2017
Institutional ownership (INS.OW)	(%) of share held by institution investors	Ame et al., 2021; Lemma et al., 2018
Foreign ownership (FOR.OW)	(%) of share held by foreign investors either (individual or group)	Ame et al., 2021; Alrabba et al., 2018
Family ownership (FAM.OW)	% of share held by family members	Ame et al., 2021
Bank size (Size)	Natural logarithm for bank total assets	Ame et al., 2021; Elhennawy, 2021; Huang, 2013
Profitability	Ratio as the bank net Income divided on bank total Assets	Ame et al., 2021; Elhennawy, 2021; Huang, 2013
Return on Assets (ROA)		
Financial leverage (LEV)	Ratio as the bank long term debit divided on total bank Assets	Elhennawy, 2021; Mao et al., 2017; Huang, 2013
Bank Age (AGE)	The natural logarithm of bank years from established till 2019	AlQudah et al., 2020

3.6 Empirical Model

The impact of ownership structure containing (blockholders, management, institutions, foreign and family-owned) on the quality of earnings of ASE-listed Jordanian banks is measured using the following regression model:

$$EQ_{it} = \beta_0 + \beta_1 B.OW_{it} + \beta_2 M.OW_{it} + \beta_3 INS.OW_{it} + \beta_4 FOR.OW_{it} + \beta_5 FAM.OW_{it} + \beta_6 SIZE_{it} + \beta_7 ROA_{it} + \beta_8 LEV_{it} + \beta_9 AGE_{it} + \varepsilon_{it} \quad \text{Model (2)}$$

Where is:

EQ_{it} : The earnings quality of Jordanian listed banks (i) during period (t). It is measured using Discretionary Loan Loss Provision (DLLP).

β_0 : represents the constant term.

$B.OW_{it}$: refers to the blockholder ownership of banks (i) during duration (t).

$M.OW_{it}$: refers to the managerial ownership of banks (i) during duration (t).

$INS.OW_{it}$: refers to the institutional ownership of banks (i) during duration (t).

$FOR.OW_{it}$: refers to the foreign ownership of banks (i) during duration (t).

$FAM.OW_{it}$: refers to the family ownership of banks (i) during duration (t).

$SIZE_{it}$: represents the bank size (i) during duration (t).

ROA_{it} : represents the bank profitability (i) during duration (t).

LEV_{it} : represents the bank leverage level (i) during duration (t).

AGE : represents the bank age (i) during duration (t).

ε_{it} : represents random error term, contains factors that affect earnings quality of banks (i) during period (t), which are assumed to be unobserved.

3.7 Analytical Approaches

This section presents the main approaches and methods, stratified with the secondary data, to achieve the primary research aim. The extracted secondary data related to the research variables were analysed using the STATA program, one of the most vastly used programs for statistical data analysis in business studies.

The data analysis included descriptive statistics, normality test, multi-collinearity test, homogeneity test, and autocorrelation test to prepare the data set for multivariate analysis to assess the hypothesis of the study with multiple regression according to the study's empirical model.

3.7.1 Descriptive Statistics for the Study Variables

Descriptive statistics is described as a set of methods that describes briefly the main characteristics of a given data set of population or sample using tables and graphs depending on various metrics such as Measures of Central Tendency, Measures of Variability, and Measures of Correlation between Variables. Thus, the descriptive statistics shows the data sets in a simplified form (Holcomb, 2016).

To analyse the ownership structure's influence on the earnings quality of ASE-listed Jordanian banks, the researcher utilised descriptive statistics (mean, median, standard deviation, max and min) of the research's sample variables.

3.7.2 The Diagnostic Tests

The diagnostic tests are intended to check the data reliability and precision in the GLS findings by satisfying the assumptions of normality, multi-collinearity, homogeneity, and autocorrelation (Pallant, 2013).

3.7.2.1 Normality Test

Normality assumption suggests that the data set extracted from the population of study should be followed a normal distribution and have similar characteristics (Pallant, 2013; Hair et al. 2010). Thus, the researcher conducts the normality test using the Skewness and Kurtosis test since it is the most widely used test for examining and describing the distribution of the data set (Hair et al., 2014; Pallant, 2013).

3.7.2.2 Multicollinearity Test

The multicollinearity assumption suggests the high correlation between the explanatory variables. One independent variable can hence be fully predicted by another independent variable (Pallant, 2013). The multi-collinearity assumption thus highlights on the strength of the correlation between the independent variables and assumes no perfect or significant correlation between them (Pallant, 2013).

The Variance Inflation Factor, Tolerance, Spearman and Pearson tests are the four key tests in examining the link between independent variables (Hair et al., 2014; Pallant, 2013). Therefore, this study uses the Variance Inflation Factor (VIF) and Spearman and Pearson Correlation (correlation matrix) to assess the association between the independent variables. The decision criteria for this test therefore depend on the VIF value. A value below than ten implies no multi-collinearity between the independent variables (Black & Babin, 2019). In addition, the Spearman and Pearson Correlation should be less than the suggested value of 0.8 (Black & Babin, 2019).

3.7.2.3 Heteroscedasticity Test

The homogeneity assumption assumes that the selected sample has been chosen from a population that has an equal variance among all observations. Meaning, this assumption considers that the variance of error term (u) or residual in regression model is consistent in every observation (Pallant, 2013; Hoechle, 2007). There are several methods to conduct heteroscedasticity using graphical and numerical ways (Pallant, 2013; Hoechle, 2007). Therefore, in this study, the Breusch-Pagan/Cook-Weisberg test was utilised to investigate the regression model's heteroscedasticity.

The null hypothesis of this test assumes the homogeneity of the variance of the residual (u) or error terms. Thus, a $p > 0.05$ suggests that the null hypothesis was rejected (Hoechle, 2007; Pallant, 2013)

3.7.2.4 Autocorrelation Test

Autocorrelation indicates the level of connection among the values of similar variables over different observations (Cipra, 2020; Vogelsang, 2012). Therefore, this test was intended to ascertain that the research model is unrestricted by autocorrelation. Therefore, the researcher employed Wooldridge's test to confirm that the error term (residual) with a mean equal to (zero) is normally distributed with the null hypothesis H0: no autocorrelation was present in the regression model (Ayunitha et al., 2020; Vogelsang, 2012).

3.7.3 Multiple Regression Analysis

Multiple regression analysis is adopted to examine the impact of ownership structure (blockholder, managerial, institutional, foreign and family ownerships) on the DLLPs as a proxy for the EQ of Jordanian ASE-listed banks. Applying the equation below, the multiple regression analysis describes and measures the impact of the independent variables on the dependent variable.

$$EQ_{it} = \beta_0 + \beta_1 B.OW_{it} + \beta_2 M.OW_{it} + \beta_3 INS.OW_{it} + \beta_4 FOR.OW_{it} + \beta_5 FAM.OW_{it} + \beta_6 SIZE_{it} + \beta_7 ROA_{it} + \beta_8 LEV_{it} + \beta_9 AGE_{it} + \epsilon_{it} \quad \text{Model (2)}$$

Table 3.4 Summary of the Statistical Methods Used in this Study

Descriptive Statistics	Mean, median, standard deviation, max, and min
Normality Tests	(Skewness and Kurtosis)
Homogeneity Test	Breusch-Pagan/Cook-Weisberg test
Multicollinearity Test	Spearman & Pearson Correlation matrix and Variance Inflation Factor (VIF)
Autocorrelation Test	Wooldridge test
Multiple Regression Analysis	Multiple Regression using panel data analysis

CHAPTER 4: DATA ANALYSIS, RESEARCH RESULTS AND INTERPRETATION

4.1 Introduction

This chapter describes the data analysis using multiple tests that check the validity of the research data. Therefore, this chapter offers the descriptive statistics results and diagnostic test results such as Skewness and Kurtosis test, the Spearman and Pearson correlation test, variance inflation test, Breusch-Pagan / Cook-Weisberg test and the Wooldridge test. In addition, this chapter presents the multiple regression analysis and further analysis to test research hypotheses, followed by the interpretations of the empirical model results in relation to the research variables.

4.2 Descriptive Statistics Results

This section offers descriptive statistical findings (mean, median, standard deviation, max, and min) for the DLLP, ownership structure variables, and control variables.

Table 4.1, therefore, exhibits a summary of the descriptive statistics findings (amount of observations, mean, median, maximum value, minimum value and standard deviation) for all the dependent, independent and control variables applied in the model (2).

Table 4.1 Summary of Descriptive Statistic Results

Variables Name	Obs	Mean	P50	S. D	Max	Min
DLLP at absolute value	154	0.011	0.008	0.009	0.053	0
DLLP depending on Sign	154	0	0	0.015	0.038	-0.053
B.OW	154	0.113	0.06	0.158	0.798	0
M.OW	154	0.012	0	0.03	0.109	0
INS.OW	154	0.225	0.174	0.239	1	0
FOR.OW	154	0.407	0.3	0.288	0.924	0
FAM.OW	154	0.064	0.02	0.091	0.378	0
SIZE	154	9.349	9.315	0.402	10.42	8.477
ROA	154	1.194	1.208	0.482	2.51	-0.17
LEV	154	0.866	0.863	0.032	0.984	0.78
AGE	154	1.5	1.531	0.148	1.806	1.041

Note: DLLP = Discretionary Loan Loss Provision, B.OW= Blockholder Ownership Structure, M.OW= Managerial Ownership Structure, INS.OW= Institutional Ownership Structure, FOR.OW= Foreign Ownership Structure, FAM.OW= Family Ownership Structure, SIZE= Bank Size, ROA= Return on Assets, LEV= Leverage, AGE= Bank Age.

Table 4.1 shows that the study has 154 observations, and the mean value of the DLLP at absolute value is (0.011) and (DLLP) depending on the sign is (0.000). This finding indicates that the collected data set is suitable for this model. This is because the residual overall mean is close to zero based on the absolute and sign values (Chen & Zhang, 2014). Therefore, such a result indicates that the ASE-listed banks use earnings management practices. Furthermore, Table 4.1 presents a maximum = (0.053) for absolute DLLP value and = (0.038) for DLLP depending on the sign value, respectively. Additionally, Table 4.1 presents a minimum = (0.000) for absolute DLLP value and = (-0.053) for DLLP depending on the sign value, respectively.

Moreover, the table also demonstrates the mean values of the explanatory variables namely B.OW = (%11.3), M.OW = (%1.2), INS.OW = (%22.5), FOR.OW = (%40.7) and FAM.OW = (%6.4), which indicate that:

1. The blockholder ownership structure percentage by average is (11.3%), with a minimum of (0%) and maximum of (79.8%) in the ASE-listed banks in Jordan. Accordingly, this percentage is lower than that found by Wati and Tamaris Gultom (2022), Ame et al. (2021) and Elhennawy (2021).
2. The managerial ownership structure by average is (1.2%), with a minimum of (0.000%) and maximum of (10.9%) in the ASE-listed banks in Jordan. Accordingly, this percentage is lower than that found by Wati and Tamaris Gultom (2022), Ame et al. (2021) and Nguyen et al. (2021).
3. The institutional ownership structure percentage by average is (22.5%), with a minimum of (0.000%) and maximum of (100%) in the ASE-listed banks in Jordan. Accordingly, this percentage is lower than that found by Wati and Tamaris Gultom (2022), Ame et al. (2021) and Yahaya et al. (2020), but higher than that found by Elhennawy (2021).
4. The foreign ownership structure percentage by average is (40.7%), with a minimum of (0.000%) and maximum of (92.4%) in the ASE-listed banks in Jordan. Accordingly, this percentage is higher than that found by Wati and Tamaris Gultom (2022), Ame et al. (2021) and Yahaya et al. (2020).
5. The family ownership structure percentage by average is (6.4%), with a minimum of (0%) and maximum of (37.8%) in the ASE-listed banks in Jordan. Accordingly,

this percentage is lower than that found by Siraji and Nazar (2021), Ame et al. (2021), and Tessema and Dandu (2018), but higher than that found by Wati and Tamaris Gultom (2022) and Yahaya et al. (2020).

Lastly, as shown in Table 4.1, the descriptive statistics findings for the control variables are:

1. The bank size by average is (9.349), with a minimum value = (8.477) and maximum value = (10.42).
2. The return on assets by average is (1.19), with a minimum value = (-0.17) and maximum value = (2.51).
3. The leverage percentage by average is (0.866), with a minimum value = (0.78) and maximum value = (0.984).
4. The bank age by average is (1.5), with a minimum value = (1.041) and maximum value = (1.806).

4.3 Diagnostic Tests for Multivariate Regression:

This section shows the Diagnostic tests that the researcher adopted in this study. The researcher used several Diagnosis tests on the extracted data in order to investigate the validity of the obtained data by meeting necessary assumptions such as normality, multicollinearity, heteroscedasticity and autocorrelation to make it ready for multiple regression analysis depending on the empirical model of the study from 2009 to 2019.

4.3.1 Skewness and Kurtosis Test Results

In order to meet the normality assumption, the researcher used the Skewness and Kurtosis test as presented in Table 4.2 since it is the most common and popular statistical test for describing the distribution of the dataset mathematically (Hair et al., 2018; Hair et al., 2014; Leys et al., 2013; Hair et al., 2010). Accordingly, Hair et al. (2006) and Leys et al. (2013) proposed for Skewness a greater threshold of ± 3 , and for Kurtosis, Leys et al (2013) recommended a maximum threshold of ± 3 . Furthermore, in this regard, Fuey

and Idris (2017) in their research used a kurtosis threshold of ± 7 . Additionally, Al-Rassas and Kamardin (2015) in their research used a kurtosis threshold of ± 10 .

Accordingly, the current study uses a threshold of ± 3 for Skewness and ± 10 for Kurtosis. The variables of the current study are considered normally distributed since the Skewness is ± 3 and Kurtosis is ± 10 .

Table 4.2 Skewness and Kurtosis Test Results

The Name of the Variables	Skewness	Kurtosis
DLLP at the absolute value	1.234	4.488
DLLP depending on the Sign	-0.353	3.694
B.OW	1.739	6.359
M.OW	2.354	6.722
INS.OW	2.308	8.066
FOR.OW	0.366	1.758
FAM.OW	1.564	4.536
SIZE	0.947	4.144
ROA	-0.357	2.948
LEV	0.418	3.034
AGE	-0.804	3.805

Note: DLLP = Discretionary Loan Loss Provision, B.OW= Blockholder Ownership Structure, M.OW= Managerial Ownership Structure, INS.OW= Institutional Ownership Structure, FOR.OW= Foreign Ownership Structure, FAM.OW= Family Ownership Structure, SIZE= Bank Size, ROA= Return on Assets, LEV= Leverage, AGE= Bank Age.

Indeed, as presented in Table 4.2, all the variables' values for the Skewness indicator are within ± 3 , and the variables' values for the Kurtosis indicator are within ± 10 , which indicates that the datasets for all the variables are normally distributed.

4.3.2 Spearman and Pearson Correlation Matrix Results

The Spearman and Pearson correlation matrix is applied to describe the association between the dependent and independent variables of the research. Therefore, in order to investigate the multicollinearity assumption, the present research used Spearman and Pearson correlation matrices as illustrated in Tables 4.3 and 4.4.

Table 4.3 Spearman Correlation Matrix Results

Variables	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
(1) DLLP	1									
(2) B.OW	-0.087	1								
(3) M.OW	0.281		1							
(4) INS.OW	-0.163	0.461*		1						
(5) FOR.OW	0.043	0			1					
(6) FAM.OW	0.03	0.22	0.113			1				
(7) SIZE	0.709	0.006	0.164				1			
(8) ROA	-0.136	-0.428	-0.066	-0.631				1		
(9) LEV	0.092	0	0.418	0					1	
(10) AGE	-0.052	0.763	0.344	0.141	-0.328					1
	0.518	0	0	0.082	0					
	-0.106	-0.317	0.181	0.105	0.034	-0.38				
	0.189	0	0.024	0.196	0.675	0				
	-0.047	0.09	-0.141	-0.118	0.007	-0.177	0.082			
	0.561	0.268	0.082	0.143	0.926	0.027	0.313			
	-0.06	-0.147	0.087	0.138	-0.098	-0.068	0.173	-0.306		
	0.463	0.069	0.281	0.088	0.227	0.404	0.032	0		
	-0.096	-0.136	0.188	-0.201	0.271	-0.086	0.597	0.056	0.099	
	0.234	0.092	0.019	0.012	0	0.29	0	0.493	0.221	

Spearman rho = 0.099

Note: DLLP = Discretionary Loan Loss Provision, B.OW= Blockholder Ownership Structure, M.OW= Managerial Ownership Structure, INS.OW= Institutional Ownership Structure, FOR.OW= Foreign Ownership Structure, FAM.OW= Family Ownership Structure, SIZE= Bank Size, ROA= Return on Assets, LEV= Leverage, AGE= Bank Age.

Table 4.4 Pearson Correlation Matrix Results

Variables	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
(1) DLLP	1									
(2) B.OW	-0.069	1								
(3) M.OW	0.395		1							
(4) INS.OW	0.07	0.329		1						
(5) FOR.OW	0.391	0			1					
(6) FAM.OW	0.142	-0.077	0.099			1				
(7) SIZE	0.08	0.34	0.222				1			
(8) ROA	-0.099	-0.42	-0.239	-0.59				1		
(9) LEV	0.222	0	0.002	0					1	
(10) AGE	-0.086	0.774	0.609	-0.011	-0.339					1
	0.29	0	0	0.888	0					
	-0.02	-0.369	-0.148	-0.02	-0.054	-0.326				
	0.802	0	0.066	0.802	0.509	0				
	-0.074	0.091	-0.465	-0.156	0.059	-0.219	0.078			
	0.362	0.263	0	0.052	0.468	0.006	0.334			
	-0.053	-0.194	0.237	0.338	-0.075	-0.043	0.071	-0.252		
	0.513	0.015	0.003	0	0.358	0.598	0.383	0.002		
	-0.13	-0.119	0.008	-0.572	0.309	-0.118	0.345	0.205	-0.021	
	0.106	0.143	0.925	0	0	0.143	0	0.01	0.794	

Note: DLLP = Discretionary Loan Loss Provision, B.OW= Blockholder Ownership Structure, M.OW= Managerial Ownership Structure, INS.OW= Institutional Ownership Structure, FOR.OW= Foreign Ownership Structure, FAM.OW= Family Ownership Structure, SIZE= Bank Size, ROA= Return on Assets, LEV= Leverage, AGE= Bank Age.

Table 4.3 illustrates that Spearman's correlation illustrates that all independent and control variables possess a negative relationship. Only institutional ownership relates positively with DLLP. On the contrary, the Pearson's correlation matrix (refer Table 4.4) exhibits that all independent and control variable relate negatively. In contrast, managerial and institutional ownerships establish a positive association with DLLP.

Additionally, as displayed in Tables 4.3 and 4.4, the correlation coefficient values of every explanatory variable for both the Spearman and Pearson correlation are less than 0.8 (Hair et al., 2014). Accordingly, this result suggests no multicollinearity in the regression model. As shown in Tables 4.3 and 4.4, the greatest correlation is between family ownership and blockholder ownership, with positive coefficients of (0.763) for Spearman and (0.774) for Pearson. Furthermore, Table 4.5 shows low VIF test values, with the highest value of (4.337), which indicates no multicollinearity in the dataset used in the regression model.

4.3.3 Variance Inflation Factor Results

This study depended on VIF and tolerance tests to determine that there were no multiple correlations between the independent variables associated with the research model to fulfil the multi-collinearity assumption (Hair et al., 2010; Pallant, 2013).

Table 4.5 Variance Inflation Factor Results

The Name of Variables	VIF	1/VIF
B.OW	4.337	0.231
M.OW	2.23	0.448
INS.OW	3.293	0.304
FOR.OW	2.807	0.356
FAM.OW	4.05	0.247
SIZE	1.543	0.648
ROA	1.626	0.615
LEV	1.355	0.738
AGE	2.075	0.482
Mean VIF	2.591	.

Note: B.OW= Blockholder Ownership Structure, M.OW= Managerial Ownership Structure, INS.OW= Institutional Ownership Structure, FOR.OW= Foreign Ownership Structure, FAM.OW= Family Ownership Structure, SIZE= Bank Size, ROA= Return on Assets, LEV= Leverage, AGE= Bank Age.

In fact, as depicted in Table 4.4, there are no multiple correlations among all independent variables, as the VIF values for every explanatory variable are lesser than

10, i.e., the permissible value (Hair et al., 2014; Hair et al., 2010). The highest value of VIF is for concentration ownership (4.337) and the lowest value is for leverage (1.355). Additionally, the value of VIF mean = (2.591), which is also less than 10. Moreover, the tolerance (1/VIF) for all explanatory variables is above the critical value (0.1), indicating the nonexistence of multi-collinearity in all explanatory variables in the research (Pallant, 2013).

4.3.4 Breusch-Pagan / Cook-Weisberg Test

The Breusch-Pagan / Cook-Weisberg test is employed to test the homoscedasticity of the regression model of the study as shown in Table 4.6. The null hypothesis supposes a constant variance of the error terms. Henceforth, if the (p) value is greater than 0.05, the model does not reject the null hypothesis.

Table 4.6 Breusch-Pagan / Cook-Weisberg Test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	
Ho: Constant variance	
Variables: fitted values of DLLP	
chi2(1)	= 11.86
Prob > chi2	= 0.000

Note: (DLLP) Discretionary Loan Loss Provision at Absolute Value

Table 4.6 shows a (p) value of (0.000), indicating the prevalence of heteroscedasticity in ten study model, leading to biased standard error (Pallant, 2013; Hoechle, 2007). Accordingly, in order to fix the heteroscedasticity problem, the researcher engages the robust function of random OLS and GLS regression to mitigate and correct the bias in the standard error and to give estimates more efficiently (Pallant, 2013; Hoechle, 2007).

4.3.5 Wooldridge Test

The Wooldridge test is employed to expose the autocorrelation problem as shown in Table 4.7. For the null hypothesis, if the (P-value) is higher than (0.05), we assume that no autocorrelation issue exists between all research variables.

Table 4.7 Wooldridge Test Result

Wooldridge test for autocorrelation in panel data	
H0: no first-order autocorrelation	
F (1, 13) =	3.207
Prob > F =	0.096

In fact, the Wooldridge test results in Table 4.7 indicate no autocorrelation issue in the research sample data, as the P-value is greater than (0.05). Hence, no biased judgement of statistical conclusions (Vogelsang, 2012).

4.4 Regression Analysis and Hypothesis Tests

This section presents the regression analysis findings for all the explanatory variables (blockholders, management, institutions, foreign and family-owned) ownerships and DLLP as an EQ proxy in the ASE-listed Jordanian banks from 2009 to 2019.

The Hausman test is employed to ascertain a suitable regression model for this study. Either a fixed or random regression model, with the null hypothesis that a random regression model is better suited for this study if the Hausman test (p) value is > (0.05), as illustrated in Table 4.7.

Table 4.8 Hausman Test Results

	Coef.
Chi-square test value	7.768
P-value	0.558

Indeed, as displayed in Table 4.7, the (p) value is (0.558), which is more than (0.05). Therefore, the random GLS regression model is the model of choice for the present study.

Accordingly, Table 4.8 presents the regression results regarding the direct relationships between ownership structure and DLLP as a proxy for EQ in the ASE-listed Jordanian banks from 2009 to 2019, using the random GLS regression model.



Table 4.9 Regression Results

DLLP	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
B.OW	-0.006	0.006	-0.98	0.326	-0.019	0.006	
M.OW	0.126	0.027	4.65	0	0.073	0.18	***
INS.OW	-0.006	0.012	-0.5	0.62	-0.031	0.018	
FOR.OW	-0.001	0.008	-0.13	0.894	-0.017	0.015	
FAM.OW	-0.039	0.012	-3.19	0.001	-0.064	-0.015	***
SIZE	-0.004	0.008	-0.48	0.631	-0.021	0.013	
ROA	0.001	0.002	0.39	0.697	-0.004	0.005	
LEV	-0.064	0.037	-1.74	0.082	-0.136	0.008	*
AGE	-0.026	0.023	-1.1	0.272	-0.071	0.02	
Constant	0.146	0.049	3.01	0.003	0.051	0.241	***
Mean Dependent Var	0.011		SD Dependent Var	0.01			
Overall R-Squared	0.05		Number of obs	154			
Chi-Square	166.578		Prob > chi2	0			
R-Squared within	0.161		R-Squared Between	0.001			

*** p<.01, ** p<.05, * p<.1

Note: DLLP = Discretionary Loan Loss Provision, B.OW= Blockholder Ownership Structure, M.OW= Managerial Ownership Structure, INS.OW= Institutional Ownership Structure, FOR.OW= Foreign Ownership Structure, FAM.OW= Family Ownership Structure, SIZE= Bank Size, ROA= Return on Assets, LEV= Leverage, AGE= Bank Age.

With reference to Table 4.9, the GLS random regression method exhibits a probability value (χ^2) = 0.000, which is below the significance level of 0.05, indicating that the regression model fits well. Besides that, the $R^2 = (0.05)$ value of the regression model indicates that the variation in blockholders, management, institutions, foreign and family-owned ownerships (5%) meant to account for DLLP variation. Accordingly, the value of R^2 of the GLS regression model in the present research is more than the R^2 found by El Moslemany and Demyana (2019) which used the same regression model and the same independent variables, and more than that of Choi et al. (2020) which used the OLS regression model. Additionally, a low value of (R^2) is common in the earnings management literature (Azzoz & Khamees, 2015; Abed et al., 2012).

At first, the regression findings from Table 4.9 illustrates that (M.OW) possesses a significant positive effect on EM activities, and (F.OW) possesses a significant and negative influence on them. Moreover, Table 4.9 shows that (B.OW, INS.OW and FOR.OW) have an insignificant negative influence on earnings management activities. In other words, there is scant proof that the EQ of the ASE-listed banks in Jordan is improving with increasing blockholder ownership, institutional ownership and foreign ownership.

4.5 Interpretations of the Hypothesis Testing

This section offers the findings of the GLS regression model for the explanatory variables relevant to the research hypothesis.

4.5.1 Blockholder Ownership and Earnings Quality

The first hypothesis regards that blockholder ownership significantly positive influences the earnings quality of the Jordanian ASE-listed banks.

H1: Blockholder ownership positively impacts the EQ of Jordanian banks listed for 2009 to 2019 (ASE).

H01: Otherwise.

As shown in the results presented in Table 4.9, blockholder ownership has a negative coefficient = (-0.006) but statistically has an insignificant influence on discretionary loan loss provision ($t = -0.980$, $p > 0.10$). Therefore, (H1) is rejected since there is no sufficient evidence to accept it based on the (p) value.

Accordingly, there is no sufficient evidence to support that blockholder ownership structure increases EQ in the ASE-listed banks in Jordan. Additionally, the mean value of blockholder ownership = (10.7%) is lower compared to that of the literature review. Thus, this finding does not support the first hypothesis.

This finding agrees with that of Wati and Tamaris Gultom (2022) and disagrees with that of Elhennawy (2021), Ame et al. (2021) and Nguyen et al. (2021).

4.5.2 Managerial Ownership and Earnings Quality

The second hypothesis posits that managerial ownership has a significant positive impact on the EQ of ASE-listed banks in Jordan.

H2: Managerial ownership (executive bank managers) positively impacts the EQ of Jordanian banks listed for 2009 to 2019 (ASE).

H02: Otherwise.

As shown in Table 4.9, management ownership significantly and positively influences flexible loan loss endowment ($t = 4.650$, $p < 0.01$), positive coefficient = (0.126), and managerial ownership has a statistically positive impact on the earnings management activities of ASE-listed Jordanian banks for the period 2009-2019. Therefore, the researcher rejects H2 since it is not supported and accepts H02.

Accordingly, executive managers in Jordanian banks use EM practices, which lead to reduced reliability and validity of earnings figures presented in the financial reporting. Thus, managerial ownership negatively influences the EQ.

Such a result is due to the desire of executive managers to attain extra bonuses and rewards. Therefore, they manipulate earnings figures by leveraging on the flexibility of financial standards to achieve these benefits.

This result is in line with the ones reported by Ame et al. (2021), Kamran and Shah (2014), Liu (2012), but Alqudah et al. (2020), Mustika (2019), Alqudah (2017), Agburuga and Ibanichuka (2016), Ramadan (2015), Alzoubi (2016), and Teshima and Shuto (2008).

4.5.3 Institutional Ownership and Earnings Quality

The third research hypothesis posits a significantly positive statistical relationship between institutional ownership and earnings of ASE-listed Jordanian banks from 2009 to 2019.

H3: Institutional ownership positively impacts the EQ of Jordanian banks listed for 2009 to 2019 (ASE).

H03: Otherwise.

Based on the findings shown in Table 4.9, institutional ownership has a negative coefficient = (-0.006), but the effect on DLLP is not statistically significant ($t = -0.50$, $p > 0.10$). Therefore, (H3) is rejected since there is no sufficient evidence to accept it based on the (p) value.

Accordingly, there is no sufficient evidence to support that institutional ownership increases earnings quality in the ASE-listed banks in Jordan.

This result correlates with that of Wati and Tamaris Gultom (2022), Mustika (2019), and Khafid and Arief (2017), but inconsistent with that of Al-Ta'amneh (2022), Elhennawy (2021), Ame et al. (2021), Oyebamiji (2020), Alqudah et al. (2020), Al-Haddad and Whittington (2019), Qawqzeh et al. (2019), Tessema and Dandu (2018), Lassoued et al. (2017), Alanaty and Alshhed (2017), Haija and Alrabba (2017), Barkadehi & Mirbargkar (2017), Alaryan (2015) and Chege (2013).

4.5.4 Foreign Ownership and Earnings Quality

The fourth hypothesis posits a positive and significant statistical relationship between foreign ownership and EQ of ASE-listed Jordanian banks from 2009 to 2019.

H4: Foreign ownership positively impacts the EQ of Jordanian banks listed for 2009 to 2019 (ASE).

H04: Otherwise.

According to the findings shown in Table 4.9, foreign ownership possesses a negative coefficient = (-0.001) but no statistically significant effect on discretionary loan loss provision ($t = -0.130$, $p > 0.10$). Therefore, (H4) is rejected since there is no sufficient evidence to accept it based on the (p) value.

Therefore, there is inadequate proof that foreign ownership enhances the quality of earnings of the ASE-listed Jordanian banks.

This finding agrees with the results of Wati and Tamaris Gultom (2022), Al-Haddad and Whittington (2019), Haija and Alrabba (2017), but contradicts the results of Nguyen et al. (2021), Choi et al. (2020), AlQudah et al. (2020), Tran et al. (2020), Vo and Chu (2019), Alaryan (2015), Mokaya and Jagongo (2015), and Chege (2013).

4.5.5 Family Ownership and Earnings Quality

The fifth hypothesis posits a positively significant statistical relationship between foreign ownership and EQ of the ASE-listed Jordanian banks.

H5: Family ownership positively impacts the EQ of Jordanian banks listed for 2009 to 2019 (ASE).

H05: Otherwise.

Table 4.9 shows that family ownership significantly and negatively influences discretionary loan loss provision ($t = -3.19$, $p < 0.01$) with a negative coefficient = (-0.039), suggesting that family ownership negatively influences on EM activities in the ASE-listed banks in Jordan. Therefore, the researcher accepts H5 since it is supported at ($p < 0.01$).

Therefore, according to the convergence interest hypothesis, family investors play a vital role in mitigating managerial opportunistic behaviour and reducing EM activities since most of the family investors participate in managing banks and control managerial behaviour regarding earnings figures, leading to increased reliability and correctness of banks earnings.

This result corroborates with that of Siraji and Nazar (2021), Qawqzeh et al. (2019), Reyna (2018), Lassoued et al. (2017), Haija and Alrabba (2017), An (2015), Alaryan (2015), and Wang (2006), but not in line with that of Wati and Tamaris Gultom (2022), AlQudah et al. (2020), Mustika (2019), and Dandu (2018).

4.6 Further Analysis

This section presents an additional analysis measurement used by the researcher to strengthen and match the results with each other, therefore the researcher used multiple regression analysis among dependent, independent and control variables according to the sign of discretionary loan loss provision (DLLP).

4.6.1 Discretionary Loan Loss Provision Depending on the Sign

In this section, the researcher analysed the DLLP to indicate the direction of EM behaviour utilised by investors in various ownership structures and the incentives for members of each ownership structure to manipulate their earnings figures. Henceforth, in this study, the researcher identified two sub-samples according to DLLP sign.

Therefore, the objective and incentive for EM activities in Jordanian listed banks during the study period is to increase earnings figures when (DLLP) is positive and to minimise earnings figures when it is negative.

4.6.1.1 Income Increasing Using DLLP

According to Table 4.10, the GLS random regression method gives a probability value of $(\chi^2) = 0.000$, which is below the significance level of 0.05, indicating that the regression model fits well. Furthermore, the value of $R^2 = (0.191)$ in the regression model indicates that changes in blockholders, management, institutions, foreign and family-owned ownerships explain (19.1%) of the changes in discretionary loan loss provision when income increases.

As shown in Table 4.10, managerial ownership has a statistically positive impact on EM activities of ASE-listed Jordanian banks from 2009 to 2019, with a positive coefficient = 0.100 ($t = 2.14$, $p < 0.1$), suggesting that Jordanian bank management manipulates earning figures by make the most of earnings to receive bonuses and rewards. Therefore, this finding agrees with the findings shown in Table 4.9.

Moreover, family ownership has a statistically negative effect on EM activities of the Jordanian banks listed in the ASE with a negative coefficient = -0.029 ($t = -2.32$, $p < 0.05$). Meaning, investors from the same family play an important role in limiting EM activities on the positive sign. Therefore, this finding agrees with the findings shown in Table 4.9.

Moreover, blockholder ownership, institutional ownership, and foreign ownership do not have a positive sign statistical impact on EM activities, as the (p) values of these variables are (> 0.1). Therefore, this finding agrees with the findings shown in Table 4.9.

4.6.1.1 Income Decreasing Using DLLP

According to Table 4.11, the GLS random regression method gives a probability value $(\chi^2) = 0.000$, which is below the significance level of 0.05, indicating that the regression model fits well. Furthermore, the value of $R^2 = (0.176)$ in the regression model indicates that blockholders, management, institutions, foreign and family-owned ownerships (17.6%) differences account for differences in discretionary loan loss provision in case of reduced income.

As shown in Table 4.11, managerial ownership possesses a statistically negative effect on EM activities in the ASE-listed banks in Jordan, with a negative coefficient = -0.223 ($t = -1.69$, $p < 0.1$), implying that the Jordanian bank executive managers are restricting earnings management activities due to a decrease in income negates to obtain tax incentives as decreasing income figures is in conflict with their incentive to receive bonuses and rewards from increased income figures.

In addition, blockholder, institutional, foreign, and family ownerships are not statistically associated with negative EM activities, as the (p) values for these variables are (>0.1).



Table 4.10 Positive Discretionary Loan Loss Provision Sign Regression Results

Positive DLLP sign	Coef.	St.Err.	T-value	P-value	[95% Conf	Interval]	Sig
B.OW	0.005	0.011	0.5	0.616	-0.016	0.026	
M.OW	0.1	0.047	2.14	0.033	0.008	0.192	**
INS.OW	-0.007	0.017	-0.44	0.663	-0.041	0.026	
FOR.OW	-0.005	0.007	-0.61	0.539	-0.019	0.01	
FAM.OW	-0.029	0.012	-2.32	0.02	-0.053	-0.004	**
SIZE	0.005	0.003	1.74	0.082	-0.001	0.011	*
ROA	0	0.002	0.1	0.924	-0.004	0.005	
LEV	-0.122	0.058	-2.09	0.036	-0.237	-0.008	**
AGE	0.001	0.014	0.04	0.972	-0.027	0.028	
Constant	0.07	0.065	1.08	0.279	-0.057	0.197	

Mean dependent var	0.011	SD dependent var	0.009
Overall r-squared	0.191	Number of obs	78
Chi-square	56.684	Prob > chi2	0
R-squared within	0.076	R-squared between	0.325
*** p<.01, ** p<.05, * p<.1			

Table 4.11 Negative Discretionary Loan Loss Provision Sign Regression Results

Negative DLLP sign	Coef.	St.Err.	T-value	P-Value	[95% Conf	Interval]	Sig
B.OW	0.051	0.033	1.55	0.121	-0.014	0.116	*
M.OW	-0.223	0.131	-1.69	0.09	-0.48	0.035	
INS.OW	0.024	0.019	1.27	0.204	-0.013	0.062	
FOR.OW	0.018	0.015	1.23	0.219	-0.011	0.047	
FAM.OW	0.022	0.038	0.57	0.571	-0.053	0.097	
SIZE	0.008	0.009	0.87	0.385	-0.01	0.025	
ROA	0	0.003	-0.06	0.953	-0.007	0.006	
LEV	0.033	0.032	1.04	0.298	-0.029	0.095	
AGE	0.04	0.026	1.49	0.135	-0.012	0.091	
Constant	-0.187	0.054	-3.46	0.001	-0.293	-0.081	***

Mean dependent var	-0.011	SD dependent var	0.011
Overall r-squared	0.176	Number of obs	76
Chi-square	134.506	Prob > chi2	0
R-squared within	0.298	R-squared between	0.179
*** p<.01, ** p<.05, * p<.1			

CHAPTER 5: CONCLUSION and RECOMMENDATIONS

This chapter summarizes the study's main outcome. It comprehensively discusses the key findings and provides additional insights into the effect of ownership structure on EQ in the ASE-listed Jordanian banks. This chapter is arranged in the following order:

Section 5.1 presents the research overview. Section 5.2 discusses the key study outcomes. Section 5.3 explains the study limitations. Section 5.4 provides future study suggestions. Section 5.5 presents the study conclusion. Section 5.6 elucidates the study contribution, and lastly Section 5.7 presents the study implication.

5.1 Overview of the Study

In this study, using DLLP as a proxy of EQ for 14 banks, the ownership structure containing (blockholders, management, institutions, foreign and family-owned) impacts the EQ of the ASE-listed Jordanian banks over the 2009-2019 period, according to the 154 observations applied in the analysis.

Five research questions were developed for this purpose, as follows:

1. Will blockholder ownership positively affect the EQ of Jordanian banks listed for 2009-2019 (ASE)?
2. Will the managerial ownership positively affect the EQ of Jordanian banks listed for 2009-2019 (ASE)?
3. Will institutional ownership positively affect the EQ of Jordanian banks listed for 2009-2019 (ASE)?
4. Will foreign ownership positively affect the EQ of Jordanian banks listed for 2009-2019 (ASE)?
5. Will family ownership positively affect the EQ of Jordanian banks listed for 2009-2019 (ASE)?

Four theories were adopted in answering the research questions, namely the Firm theory, the Agency theory, the Contract theory, and the Stakeholder theory.

In addition, to answer the research question and achieve the research goal, the researcher developed a theoretical framework and several research hypotheses.

In addition, the annual reports of the Jordanian banks listed on the ASE (2009-2019) were utilised to gather the data required for the dependent, independent and control variables.

Finally, descriptive analysis, diagnostic tests, multiple regression analysis and further analysis are also employed as presented in Chapter Five using the STATA statistical program, version 14.

5.2 Summary of the Main Findings

This section discusses the key findings of the study:

1. Managerial ownership statistically and positively influences DLLP at absolute value in the ASE-listed Jordanian banks from 2009 to 2019, indicating that executive managers possess the advantage to tamper with the earnings numbers using EM activities to achieve their personal interests. Additionally, in further analysis, managerial ownership positively influences DLLP when it is more than zero, indicating that executive managers manipulate earnings figures to get additional bonuses and rewards. Furthermore, managerial ownership negatively influences the DLLP when it is less than zero, indicating that executive managers do not manipulate earnings figures to reduce the net come figure. Accordingly, executive managers manipulate earnings figures by increasing the net income figure to get additional rewards, leading to lower earnings figures quality. This result corroborates with the ones reported by Ame et al. (2021), Kamran and Shah

(2014), Liu (2012), but not consistent with that of Alqudah et al. (2020), Mustika (2019), Alqudah (2017), Agburuga and Ibanichuka (2016), Ramadan (2015), Alzoubi (2016), and Teshima and Shuto (2008).

2. Family ownership statistically and negatively influences DLLP at absolute value in the Jordanian banks listed on the ASE between 2009 and 2019, indicating that investors from the same families have a significant role in constraining and minimizing EM activities. Additionally, in further analysis, family ownership reduces earnings management activities when discretionary loan loss provision is more than zero. Family ownership therefore functions importantly in the internal corporate governance of the Jordanian banks in curbing and reducing opportunistic managerial behaviour, resulting in improved quality of earnings. This result is in line with that of Siraji and Nazar (2021), Qawqzeh et al. (2019), Reyna (2018), Lassoued et al. (2017), Haija and Alrabba (2017), An (2015), Alaryan (2015), and Wang (2006), but not in line with that of Wati and Tamaris Gultom (2022), AlQudah et al. (2020), Mustika (2019), and Dandu (2018).
3. There is insufficient evidence to support that blockholder ownership, institutional ownership, and foreign ownership as internal CG mechanisms to contain and minimise EM Activities to improve the quality of earnings of the Jordanian banks listed on the ASE. This result is in line with that of Wati and Tamaris Gultom (2022), Mustika (2019), Khafid and Arief (2017), Al-Haddad and Whittington (2019), and Haija and Alrabba (2017), but not in line with that of Elhennawy (2021), Al-Ta'amneh (2022), Ame et al. (2021), Nguyen et al. (2021), Oyebamiji (2020), AlQudah et al. (2020), Choi et al. (2020), Tran et al. (2020), Vo and Chu (2019), Al-Haddad and Whittington (2019), Qawqzeh et al. (2019), Tessema and Dandu (2018), Lassoued et al. (2017), Alanaty and Alshhed (2017), Haija and Alrabba (2017), Barkadehi & Mirbargkar (2017), Alaryan (2015), Mokaya and Jagongo (2015), and Chege (2013).

Table 5.1 Summary of Hypothesis Testing Results

The Questions of The Study	Hypothesis	Results
Q1	Blockholder ownership positively influences the EQ in the ASE-listed Jordanian banks from 2009 to 2019	Not supported
Q2	Managerial ownership positively influences the EQ in the ASE-listed Jordanian banks from 2009 to 2019	Negative influences
Q3	Institutional ownership positively influences the EQ in the ASE-listed Jordanian banks from 2009 to 2019	Not supported
Q4	Foreign ownership positively influences the EQ in the ASE-listed Jordanian banks from 2009 to 2019	Not supported
Q5	Family ownership positively influences the EQ in the ASE-listed Jordanian banks from 2009 to 2019	Positive influences

5.3 The Limitation of the Study

The present research has a number of constraints, including:

No impeccable or perfect model is generally accepted by academics and practitioners for measuring earnings management activities in a business environment especially in financial firms until now.

Furthermore, this study emphasises on the capacity of ownership structure as internal CG to constrain EM activities. This study may not have considered some other factors related to EM activities like the board of directors and audit committees' characteristics. However, in future studies other factors could be investigated.

Moreover, the sample of this study only entails 14 banks. This is taken into consideration as low in comparison to different research within the equal field. Additionally, the disclosure regarding ownership structure was unclear as a percentage. Therefore, the researcher collected the data of ownership structure manually from banks' annual reports.

Nonetheless, the mentioned limitations do not minimize the contribution and quality of this study, since the current study had been conducted based on a suitable and accurate method for achieving the research objectives.

5.4 Recommendations for Future Researches

The present research provides several ways that could be discussed later by potential researchers.

Future studies may measure EM using other models that can more effectively explain the relationship between EM and ownership structure categories. In addition, future research will explore other ownership structures, such as board of directors' ownership, board functions such as board meetings or committees, and their relationship with EM like the compensation committee and internal audit committee. There is a possibility, depending on data availability, additional control variables can be used to develop a more robust model or yield more reliable results.

5.5 The Conclusion of the Study

The present research achieves its purpose by answering the research questions raised in the introduction. Regarding the first research question, the study found that blockholder ownership did not affect significantly the EQ of the ASE-listed Jordanian banks from 2009 to 2019, implying a passive role of blockholder investors in controlling and observing EM activities using DLLP. Accordingly, this result is in line with that of Wati and Tamaris Gultom (2022), but not with Elhennawy (2021), Ame et al. (2021), and Nguyen et al. (2021).

For the second research question, it has been discovered that managerial ownership negatively impacts the EQ of the ASE-listed Jordanian banks. This suggests that bank managers are using the DLLP technique to manipulate earnings figures to attain personal gains. Furthermore, further analysis shows that managers exploit earnings figures to raise net income figures in order to receive bonuses. This result agrees with that of Ame et al. (2021) and Kamran and Shah (2014), but not Alqudah et al. (2020) and Mustika (2019).

For the third and fourth research questions, the research found that institutional and foreign ownerships had no significant impact on the EQ of the ASE-listed Jordanian banks, implying that institutional and foreign investors take up a passive role in controlling and observing EM activities carried out by managers. This finding is consistent with that of Wati and Tamaris Gultom (2022), Mustika (2019), Khafid and Arief (2017), Al- Haddad and Whittington (2019), and Haija and Alrabba (2017), but not with that of Ame et al. (2021), Oyebamiji (2020), AlQudah et al. (2020), Nguyen et al. (2021), Choi et al. (2020), AlQudah et al. (2020), and Tran et al. (2020).

Finally, regarding the fifth research question, the research found that family ownership positively impacted the EQ of the ASE-listed Jordanian banks. This indicates that family investors undertake an active function in eradicating EM activities by observing managerial behaviour for applying DLLP to exploit earnings. Therefore, family ownership enhances EQ in Jordanian banks. This result is in line with that of Siraji and Nazar (2021), Qawqzeh et al. (2019), Reyna (2018), Lassoued et al. (2017), and Haija and Alrabba (2017), but not with that of Wati and Tamaris Gultom (2022), AlQudah et al. (2020) and Mustika (2019).

5.6 The Contribution of the Study

The present research determined the impact of ownership structure containing (blockholders, management, institutions, foreign and family-owned) ownerships on the earnings quality of the ASE-listed Jordanian banks from 2009 to 2019

Bottom of Form

Given the scarce evidence on this issue in the context of Jordan's banking sector, this study explores the roles of investors in observing and limiting EM to improve the quality of the country's reported earnings.

Henceforth, the current study fills this gap left by previous studies. Additionally, the present study answers questions that were not answered in the previous studies regarding financial firms. Furthermore, this study estimated the levels of ownership for the various

types of ownership by using any percentage of ownership without determining a cut percentage such as five percent which has been used in most prior studies.

Finally, the current study used further analysis to ascertain the direction of EM to identify the incentives for managing earnings, which helps regulatory institutions in formulating appropriate procedures and measures to minimize the manipulation of earnings figures.

5.7 The Implications of the Study

This section presents the theoretical, practical and academic implications which have the potential to affect numerous groups in Jordan, including regulators, business owners, and researchers.

Theoretical Implication

The agency theory is the primary theory that supports the hypotheses of this study specially conflict- of- interest and convergence of interest aspects. Therefore, this research adds to this body of literature by clarifying the significance of ownership structure in mitigating EM activities and boosting EQ in ASE-listed Jordanian banks due to the scarcity of studies in the financial sector in Jordan.

According to the finding that presents a positive influence of managerial ownership on DLLP, it matches the conflict-of-interest aspect suggested by agency theory. Additionally, due to the finding that there is a negative association between family investors and DLLP, it matches the convergence of interest aspects suggested by agency theory.

Practical Implication

The outcomes of the current study have important implications for Jordan's regulators such as the Jordanian Securities Commission (JSC) and the Amman Stock Exchange (ASE). These regulatory bodies aim to organize and monitor the market in Jordan through enacting the needed laws and procedures like codes to enhance the transparency and

integrity of financial statements for listed firms in addition to protect the interests of shareholders from opportunistic managers.

Due to the outcome that presents a significant positive association between managerial ownership and DLLP. Accordingly, this outcome is predicted to provide regulatory bodies with evidence that explains the primary weakness of this code in the Jordanian context to protect the interests of shareholders from opportunistic managers. Furthermore, regarding the outcomes that present an insignificant negative association between blockholder, foreign and institutional investors, these outcomes are predicted to provide regulatory bodies, especially Jordanian central bank, with information on the inactive role of these investors in monitoring opportunistic behaviour that takes place by bank managers.

Finally, due to the outcome that presents a significant negative association between family investors and DLLP, this outcome provides empirical evidence about the awareness and active role of family investors in monitoring EM activities in ASE-listed banks, which helps regulatory bodies share this awareness with other investors in order to increase the role of different investors in minimizing EM activities and increasing the quality of financial reports.

Implication to Academic Research

The outcomes of the present study provide empirical evidence for the researchers regarding the use of EM activities in the financial sector, which may encourage them to conduct additional research on this issue using different models and variables like board characteristics, board meetings, or board committees.

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