Internal Corporate Governance Mechanisms and Firm Performance: Evidence from GCC Countries

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Abstract

Across three empirical studies, this thesis investigates the relationship between internal corporate governance mechanisms and firm performance, measured by Tobin's Q and market to book value of total equity, in the six Gulf Co-operation Council (GCC) countries. The thesis is motivated by central theories of corporate governance, several gaps in the literature, and the recent rapid growth of the GCC stock markets. The research employs data samples covering all GCC listed companies between the years 2012 and 2016, for which data are available. The first empirical study investigates the impact of overall ownership concentration on firm performance and finds a significant positive impact. As the objectives of share ownership vary by owner identity, ownership concentration is divided into four identity categories, namely: government, institutional, corporate, and individual/family. While government ownership concentration is found to have a significant negative performance effect, institutional ownership concentration, corporate ownership concentration, and individual/family ownership concentration are all found to have a significant positive performance effect. The second empirical study examines the effect of five board characteristics on firm performance. The results indicate that board activity and CEO duality do not have a significant effect on firm performance, while board size and board remuneration have a significant positive effect on firm performance. In contrast, board independence is found to have a negative performance effect. The relationships between the main variables in the first two studies suffer from endogeneity, reverse causality bias in particular, and this is controlled for with an instrumental variables approach, using a two-stage least squares estimator. In the third study, endogeneity bias is caused by unobserved heterogeneity, and this is controlled for using a two-way fixed effects estimator. The third empirical study investigates the impact of founder ownership concentration and founder board of director presence on firm performance. The results indicate that founder ownership concentration has no significant effect on firm performance when the founders are the government, institutions, or mixed. However, family founder ownership concentration has a significant positive performance effect, and royal family founder ownership concentration has a significant negative performance effect. The presence of family founders and royal family founders on boards of directors is found to have no significant effect on firm performance. Notably, the third empirical study contributes to the corporate governance field of research in general by introducing the dimensions of royal family founder ownership and royal family founder board of director presence.

Table of Contents

List of Tables

List of Figures

VII

Chapter 1 – Introduction

1.1 Introduction

This thesis examines the relationship between various internal corporate governance mechanisms and firm performance, measured by Tobin's Q and market to book value of total equity, in companies listed on the stock markets of the Gulf Cooperation Council (GCC) countries. The data samples employed in this thesis cover all companies listed on the GCC stock markets between the years 2012 and 2016, for which data are available. The research is conducted in three self-contained empirical studies, all of which are motivated by fundamental theories of corporate governance. This chapter starts with a brief overview of corporate governance, and its relationship with firm performance, followed by an outline of the GCC context, the structure of the thesis, and the main contributions and findings of the research. Chapter 2 provides a comprehensive review of the main corporate governance theories, corporate governance systems, corporate governance internal mechanisms and how they are related to firm performance, and a description of the GCC context. The chapters that follow consist of the three empirical studies which investigate the effect of ownership structure on firm performance in Chapter 3, the impact of board of director characteristics on firm performance in Chapter 4, and the effect of founder ownership and control on firm performance in Chapter 5. Finally, Chapter 6 concludes the thesis with a discussion of the main findings, the limitations of the research, and suggestions for future research.

1.2 Corporate Governance

The "recurrent crisis", a term MacAvoy and Millstein (2003) use to refer to the crises corporations in capitalist systems keep experiencing, appears to be closely linked with the development of corporate governance (Nordberg, 2010). An example of this is the Wall Street Crash of 1929, which led scholars to revisit understandings of various aspects of corporations and how they are changing. Berle and Means (1932) emphasised that the changes in corporations require that the theory of the firm is revised, as they were causing problematic conflicts of interest, such as those arising from the increased prevalence of the separation of ownership and control, most often referred to as the agency problem. Moreover, Coase (1937) argued that the main reason that corporations are established is to avoid paying high transaction costs on

produced goods, which include, but are not limited to, costs of locating goods, costs of negotiation, and contract writing costs. Although transaction costs will always be a part of the production of goods and services, Coase argues that the internal transaction costs that corporations bear are lower than the external transaction costs which they endure when they approach the market for goods they require. Production efficiency of firms is therefore increased as they reduce the costs of the production of goods and services.

Nordberg (2010) highlights how subsequent financial crises, such as the scandals and consequent collapses of Enron and WorldCom in 2001 and 2002, respectively, and the financial crisis of 2007-2008, had significant influences on what followed them: serious corporate governance reform around the world. Since the start of the 21st century, corporate governance has become increasingly important to many entities, including companies, shareholders, governments, professionals, and academics. A quick search on Google Scholar for scholarly work with the words "corporate governance" in the title reflects the rapidly growing interest amongst academics; while the search retrieves 1,270 results for the year 2000, this figure increases substantially by the year 2020, yielding 4,540 results (Google Scholar, 2021). There are various views on what the meaning of corporate governance is today. According to Monks and Minow (2011), corporate governance is not only about "best practices" and checklists, but also about the crucial factor of risk management, as the recent financial crises have revealed. The authors argue that a failure of a corporation, whether it happens due to fraudulent behaviour or misaligned incentive contracts, is a failure of corporate governance. Every decision of the countless decisions that are taken by companies, which include those concerned with production, asset allocation, financial reporting, acquisitions, and many other areas, is determined by a part of the corporate governance system.

Macey (2008) argues that corporate governance should not be characterised by contracts, but rather by promises, around which it revolves. The fact that shareholders have limited contractual rights means that their investments are mainly based on trust, and on the belief that managers will not break the promises they make to their shareholders. It is the purpose of corporate governance systems to persuade and motivate managers to keep those promises, and when they do not, it reflects poor corporate governance (Macey, 2008). The reality is that managers do not always act in the best interests of shareholders. This is mainly due to the agency problem, which

is essentially a problem of the separation of ownership and control (Jensen and Meckling, 1976). Jensen's (1993) definition of the control part of the agency problem is followed throughout the thesis, which states that it refers to the internal control system of a company, which is headed by the board of directors. Shleifer and Vishny (1997) explain that the financiers (ownership) need the experience of managers (control) to help them maximise returns on their investment, and the managers need the investments of financiers as they either do not have sufficient funds nor want to be financially committed to a company. The agency problem arises when conflicts between the financiers and managers occur, in which case the financiers struggle to ensure that their investments are not expropriated by managers or misspent on unappealing projects. Corporate governance systems are therefore necessary to deal with these issues and ensure that companies are directed and controlled in ways that preserve the best interests of shareholders.

Hart (1995) argues that if agency problems are absent, corporate governance does not matter as all parties associated with an organisation will act as instructed. That is, they will maximise profits and minimise costs without needing incentives to motivate them. A corporate governance structure is not required to settle disagreements, as they do not exist. There is no doubt however, that the reality is far from this case. Nevertheless, Hart (1995) argues that the presence of the agency problem alone is not enough for corporate governance to be required, since the problem can be resolved with a comprehensive contract that leaves no room for residual decisions, as all scenarios have been addressed in advance. However, this is not realistic due to the high transaction costs associated with creating a comprehensive contract, which include costs of thinking about all the different possible scenarios, costs of negotiation, and costs of writing all aspects of the contract in a legally enforceable manner. Therefore, Hart (1995) explains that a corporate governance structure is critical to resolve the conflicts of interest that arise in companies because they encounter these two issues concurrently: the presence of an agency problem and the high transaction costs of resolving it, meaning that a complete contract is unfeasible.

The relationship between corporate governance and firm performance is important to many scholars, investors, and companies for various reasons. The reasons mainly rely on one of the core definitions of corporate governance, which defines it as the ways that shareholders of companies use to ensure that they receive a return on their financial investment (Shleifer and

Vishny, 1997). A broader definition of corporate governance is that it refers to the processes and procedures by which companies are controlled and how companies maintain the interests of their stakeholders in all their operations (Georgen and Renneboog, 2006). Even though it tends to include all the stakeholders of a company such as shareholders, managers, suppliers, customers, board members, and other stakeholders, the main focus typically remains on shareholders for two main reasons. First, it is the right and responsibility of the shareholders to appoint (through voting) appropriate members of the board who are then responsible to monitor the managers of the company and ensure that they are performing their duties in the best interests of the shareholders. Therefore, how well companies are governed and how efficiently they perform relies partly on the decisions that shareholders make themselves. Second, shareholders are unique among other stakeholders in that they are financially committed to the company they have invested in; because of this, they are arguably the group that is most affected by the financial performance of a company and are therefore considered to be at the centre of corporate governance.

A corporate governance structure consists of various mechanisms that are either internal or external. These mechanisms are utilised to ensure that companies operate towards their goals while maintaining the interests of their stakeholders. Generally, good corporate governance is expected to improve firm transparency, trust worthiness, reputation, and help reduce conflicts of interest amongst stakeholders, all of which lead to a positive impact on the overall performance of a firm. Many studies provide empirical evidence for this positive relationship (e.g. Gompers et al., 2003; Brown and Caylor, 2009; Bebchuk et al., 2009; Cheung et al., 2014; Abdallah and Ismail, 2017). Even though improved financial performance may not be the main goal of corporate governance, whether or not the various corporate governance mechanisms are related to firm performance has been an interesting debate for many. There are many strands of empirical studies that examine the relationship between corporate governance mechanisms and firm performance; the specific governance mechanisms studied in this thesis include ownership structure (Morck et al., 1988; Demsetz and Villalonga, 2001; Hu and Izumida, 2008; Weiss and Hilger, 2012; Zeitun, 2014; Nguyen et al., 2015; Wang and Shailer, 2015), board characteristics (Vafeas, 1999; Kiel and Nicholson, 2003; Bhagat and Bolton, 2008; Jackling and Johl, 2009), and family founder ownership (see Wang and Shailer, 2017; Villalonga and Amit, 2020 for reviews).

4

1.3 Motivations for the Research

Shleifer and Vishny (1997) highlight significant differences in the characteristics of corporate governance mechanisms around the world. Relatively strong legal protection of shareholders in the UK and the US shapes the dispersed ownership structures that characterise their stock markets, due to the investments of many small shareholders, who would be less inclined to invest in countries where legal protection is weaker. Where shareholder protection is relatively weaker, in Continental European countries such as Germany and the Netherlands, and in Japan, concentrated ownership structures are more common. In most other countries around the world, shareholder protection is weaker, and ownership structures tend to be concentrated, and dominated by institutional and family ownership[1], while minority shareholders are less motivated to invest. The GCC region fits within this last category. The corporate governance systems adopted in each country around the world are generally tailored to fit the unique characteristics of each country. The Anglo-Saxon system describes countries like the US and the UK, while the Continental European system describes countries like Germany and the Netherlands, and other systems describe other countries in which systems are modified to suit their characteristics. Interestingly, however, the corporate governance codes of all six GCC countries closely follow the "best practices" recommended in the Anglo-Saxon corporate governance system, even though neither the legal protection nor the ownership structures match those of the main Anglo-Saxon countries.

This interesting GCC setting strongly motivates this thesis to find answers as to whether this corporate governance system is operating efficiently by investigating the relationship between several internal mechanisms of corporate governance and firm performance, all of which are shaped, in one way or another, by the unique characteristics of the GCC markets. Empirical research on this relationship has mostly focused on developed markets, yet noticeably less so on developing markets. In particular, empirical studies examining the GCC region are scarce, and various issues unique to the region have not been previously addressed. One of the main issues

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[1] In fact, research by *The National Investor* (2008) highlights that in emerging markets, family-owned firms represent more than 60% of the total equity market value of the 20 largest firms. This is consistent with the findings of La Porta et al. (1999) who report similar family ownership percentages for several developing countries, also based on samples of the 20 largest firms in each country.

that have been consistently overlooked in GCC studies is that of founder ownership and control. Royal family founder ownership and control is another important issue, and is one that has been overlooked by the corporate governance literature in general. It is an important characteristic of GCC stock markets, especially considering that royal families are amongst the top 6 family owners of companies listed on the stock markets of their respective countries (Eulaiwi et al., 2016). This thesis contributes to the literature by examining these corporate governance mechanism characteristics, and their relationship with firm performance. The rapidly expanding economies of the GCC region are another factor that motivates this thesis. Chapter 2 provides a detailed discussion of the GCC region.

Empirical research based on GCC countries has largely overlooked endogeneity bias in the relationship between internal corporate governance mechanisms and firm performance. In the presence of endogeneity, which the literature documents is most likely to be the case, causality in the corporate governance and firm performance relationship cannot be established. This thesis resolves this problem by using appropriate statistical techniques to provide empirical evidence that helps establish the causal effect of ownership and board characteristics on the performance of GCC listed firms. Different aspects of three central corporate governance theories motivate this thesis and are tested across its three empirical chapters; the theories are agency theory, stewardship theory, and resource dependence theory. All three theories revolve around the core definition of corporate governance that describes it as the set of mechanisms that guide self-interested managers to make decisions that maximise the wealth of investors (Shleifer and Vishny, 1997; Denis and McConnell, 2003).

Various arguments are made by proponents of agency theory, such as the idea that large shareholders are an effective management monitoring mechanism that helps mitigate the agency problem (Jensen and Meckling, 1976; Shleifer and Vishny, 1986), meaning that concentrated ownership is expected to improve the performance of firms. In contrast, opposing arguments suggest that large shareholders expropriate firm assets at the expense of small shareholder, thereby worsening firm performance (Barclay and Holderness, 1989; Bebchuk, 1999). Chapter 3 empirically tests these arguments by investigating the causal effect of ownership concentration on the performance of GCC listed firms. Chapter 3 also makes an important distinction between different owner identities and investigates the performance effect of each, as scholars emphasise

how the objectives of share ownership can vary across owners (Cubbin and Leech, 1983; Short, 1994). The above arguments on ownership concentration are also empirically tested in Chapter 5 with a focus on founding owners, while isolating the effect of family founder identity, as other scholars similarly emphasise how family founders differ from non-family founders (Amit and Villalonga, 2013; Villalonga and Amit, 2020).

Chapter 4 is motivated by various aspects from all three aforementioned theories as it empirically tests them by investigating the performance effect of five different board characteristics, namely, board size, board activity, CEO duality, board independence, and board remuneration. For example, while agency theory suggests that smaller boards are more effective as free riding is more difficult in them and they communicate better (Lipton and Lorsch, 1992; Jensen, 1993), resource dependence theory suggests that larger boards have are more effective due to the greater aggregate resources available to them and their greater access to information (Pfeffer and Salancik, 1978; Dalton et al., 1999). Likewise, while agency theory argues that board independence reduces managerial entrenchment, thereby leading to better firm performance (Jensen and Meckling, 1976), stewardship theory argues that board members who are outsiders are not aware of the detailed day-to-day issues of the company and therefore cannot make well informed decisions, relative to insiders, leading to worse firm performance (Donaldson and Davidson, 1991). The three empirical chapters contribute to the literature by providing empirical evidence on the causal performance effect of these ownership and board characteristics, highlighting which specific aspects of the theories are applicable to each internal corporate governance mechanism in GCC listed firms.

1.4 Structure of the Thesis

There are three main research questions that this thesis addresses, one for each of the three empirical chapters (i.e. Chapters 3, 4, and 5), respectively. First, does concentrated ownership enhance company value in the GCC stock markets, and does this effect vary based on the identity of those concentrated owners? Second, what is the role of board of director characteristics in improving company value, and are the "best practices" adopted from the Anglo-Saxon corporate governance system truly effective corporate governance mechanisms for

the GCC stock markets? Third, does ownership and control by firm founders enhance company value, and does this relationship vary based on founder identity?

Chapter 2 starts with an outline of the main definitions of corporate governance and a comprehensive review of the main theories of corporate governance. The specific definition and theories that this thesis follows are highlighted in the chapter, with a brief discussion on the rationale behind the choices. The different corporate governance systems around the world are reviewed, and the way that the corporate governance system adopted in the GCC markets compares with them is inspected. The core literature on the internal corporate governance mechanisms investigated in this research is visited, with a focus on the literature linking the relationship between the governance mechanisms and firm performance. The chapter then evaluates the background of the GCC region, and provides a comprehensive review of previous research on corporate governance in the region and a summary on how the research from this thesis contributes to the existing literature. Finally, the chapter assesses how the main characteristics of the internal corporate governance mechanisms studied, based on the datasets from the three empirical chapters, compare across the six GCC countries and to previous research in the region. The variations in sample size between the three empirical chapters and reasons for them are outlined in the chapter.

Chapter 3 consists of the first empirical study, which investigates the effect of ownership concentration on firm performance. It starts by examining the performance effect of overall ownership concentration. The chapter then explores the idea that the costs and benefits that owners bring to companies vary significantly from one type of owner to another, as argued by previous scholars (Cubbin and Leech, 1983; Short, 1994). Acknowledging the importance of this notion, the chapter examines the performance effect of the ownership concentration of four different types of owners: government owners, institutional owners, corporate owners, and individual/family owners. The chapter contributes to the literature by investigating the relationship between ownership concentration and firm performance in the GCC stock markets in two ways that previous research in the region has not: distinguishing between the various types of ownership, particularly between institutional owners and corporate owners, and by controlling for endogeneity bias from reverse causality using a two-stage least squares (2SLS) instrumental variable estimator.

The findings of Chapter 3 include a positive and significant impact of overall ownership concentration on firm performance for companies listed on the GCC markets. This supports the idea that large shareholders are an effective corporate governance mechanism for mitigating conflicts arising from the agency problem, as their presence reduces the separation of ownership and control (Shleifer and Vishny, 1997; Jensen and Meckling, 1976). It also suggests that effects of potential expropriation of firm assets by large shareholders at the expense of small shareholders (Barclay and Holderness, 1989; Bebchuk, 1999; Villalonga and Amit, 2006) are not evident in the GCC markets. Similarly, the study finds a positive and significant performance effect of institutional ownership, corporate ownership, and individual/family ownership, indicating that these types of owners pursue the goal of shareholders wealth maximisation and are an effective governance mechanism for achieving that goal. Finally, government ownership negatively and significantly affects firm performance, supporting the notion that government owners pursue different goals, including social welfare maximisation and various politically motivated objectives, and they typically prioritise these goals over the maximisation of shareholder value (Shleifer and Vishny, 1994; Hart et al., 1997; La Porta et al., 1999).

Chapter 4 comprises the second empirical study, which examines the impact of five board of director characteristics on firm performance; namely, the board characteristics are board size, board activity (i.e. board meeting frequency), CEO duality, board independence, and board remuneration. The chapter contributes to the literature by investigating the relationship in ways that previous research in the GCC region does not. The data samples covered in previous studies are limited to specific segments of the stock exchanges, such as the banking sector or being limited to non-financial firms, while the sample from this chapter includes all companies listed on the GCC stock markets, for which data are available. The study also ensures that potential endogeneity bias is appropriately controlled for by employing a two-stage least squares (2SLS) instrumental variable estimator.

The main findings of Chapter 4 are a positive and significant effect of board size and board remuneration of firm performance, a negative and significant effect of board independence on firm performance, and no performance effect of board activity and CEO duality. According to resource dependence theory, larger boards are more efficient because they hold a greater amount of collective information and have better access to resources and external relations (Pfeffer and

Salancik, 1978; Dalton et al., 1999). The finding for board size is consistent with this. Nevertheless, resource dependence theory also asserts that higher board activity leads to better performance because it achieves greater task completion rates, but the finding for board activity does is not supportive of it. The finding for CEO duality is not supportive of either agency theory (Fama and Jensen, 1983) or stewardship theory (Donaldson and Davis, 1991).

The interesting finding of a negative performance effect of board independence supports stewardship theory, which argues that executive directors enhance performance because they are trusted as good stewards of firm assets and, being company insiders, have greater awareness of critical matters due to their day-to-day involvement in the company. This suggests that some of the benefits of high board independence that the US and UK stock markets experience do not apply to the GCC stock markets. Importantly, this calls into question the adoption of the Anglo-Saxon corporate governance system by the GCC countries when the core corporate governance characteristics of listed companies in GCC markets, such as ownership structure and shareholder protection, differ vastly from those in the US and the UK markets. Brick et al. (2006) argue that excessive board of director remuneration worsens firm performance as it causes directors to become ineffective monitors of management due to them becoming too comfortable and less willing to be critical of management. However, the chapter does not support this idea and, instead, finds that the performance effect of board remuneration is positive.

Chapter 5 consists of the third empirical study, which investigates the influence of founder ownership concentration and family founder board membership on firm performance. In part, it is motivated by arguments involving concentrated ownership and its expected effects on the agency problem and firm performance (Barclay and Holderness, 1989; Shleifer and Vishny, 1997). Moreover, not only does it consider arguments that family founder firms have systematic differences compared with non-family founder firms (Anderson and Reeb, 2003; Villalonga and Amit, 2006), but it also considers the importance of distinguishing between the different identities of founders due to their varying objectives (Cubbin and Leech, 1983; Short, 1994). Consequently, it is motivated by and based on a combination of previous scholarly assertions, and therefore dissects founder ownership concentration into five separate groups so that the performance effect of each is investigated. The five groups are government founder ownership, institutional founder ownership, family founder ownership, royal family founder ownership, and

mixed founder ownership. Due to data availability constraints, the founder board membership investigated is focused on family founders, who are once again divided into two groups: family founder board membership and royal family board membership. Previous research in the GCC region has not studied the influence of founder ownership and control on firm performance before. This chapter contributes to the literature with an empirical study that does this. Moreover, the chapter contributes to the wider corporate governance literature by introducing a study that examines two new dimensions: royal family founder ownership and royal family board membership.

The results of Chapter 5 indicate no significant performance effect of government founder ownership, institutional founder ownership, and mixed founder ownership concentration. In contrast, family founder ownership concentration positively and significantly influences firm performance, supporting the notion that family founder owners are generally more willing to invest in their firms relative to other founder groups, and therefore perform better at maximising shareholder wealth (Friedman et al., 2003; Villalonga and Amit, 2010). Interestingly, royal family founder ownership concentration has the complete opposite effect on firm performance, that is, a negative and significant performance effect. This is supportive of the notion that due to their unique political connections (Al-Hadi et al., 2016b), royal family members tend to pursue political goals, similar to governments, at the expense of shareholder wealth maximisation. The finding also stresses the importance of differentiating between family founders and royal family founders when examining countries with a monarchy system and an economic presence of royal families. Finally, Chapter 5 finds no significant performance effect of family founder and royal family board membership, implying that ownership is a more influential governance mechanism than board membership for family and royal family founders.

Controlling for endogeneity bias, the empirical evidence shows that, for the samples of GCC listed firms employed in this thesis, there are several internal corporate governance mechanisms that significantly impact firm performance. Specifically, these are overall ownership concentration and the ownership concentration of each of the four owner identities (i.e. government, institutional, corporation, individual/family), board size, board independence, board remuneration, family founder ownership concentration, and royal family founder ownership concentration. In contrast, there is no impact on firm performance by other mechanisms

including board activity, CEO duality, government founder and institutional founder ownership concentration, and family and royal family board membership. The three empirical chapters complement one another to help build a wide-ranging evaluation of the impact that core internal corporate governance mechanisms have on the performance of GCC listed firms. For example, one key link is between Chapter 3 and Chapter 5, as the evidence from both is that not only does owner identity matter when firm performance is in question, but also the combined evidence suggests that whether owners are also founders of firms has a significant effect on determining the ownership-performance relationship. Another link is between all three chapters, as the combined findings provide potential investors with information about the effect of different corporate governance mechanisms when deciding in which GCC listed firms to invest. The combined evidence provides several outlooks for concerned entities as they can consider in detail the performance effects of firms' ownership structures, board characteristics, and founding member(s) involvement, all of which combine with one another as mechanisms of corporate governance.

There are various implications from these findings that apply to different entities including academics, investors, companies, and policymakers. The new dimension of royal family founder ownership concentration and its contrasting performance effect stresses the importance of distinguishing between family and royal family firm founders, where applicable. Academics examining family founder ownership in countries with constitutional monarchies, such as the UK, Norway, or Japan, might want to consider making this distinction to avoid potential bias caused by grouping two sets of founders that have contrasting objectives. Moreover, current and potential investors may want to review their financial investment decisions by taking into consideration the empirical evidence as to what characteristics of internal corporate governance mechanisms improve firm performance and ultimately maximise their wealth, and what characteristics have an opposite performance effect. In light of the evidence on the performance effect of board size, board independence, and board remuneration, both companies (specifically, nomination and remuneration committees) and investors might want to revisit their decisions when proposing and voting on board characteristics, respectively. Finally, policymakers may want to re-evaluate whether specific articles of the existing corporate governance codes are ideal, such as whether the currently set limits on the number of board members or the number of executive board members are optimal.

Finally, Chapter 6 concludes the thesis with a summary of its findings and a brief discussion on what implications the findings have for various entities, including policymakers, academics, companies, and investors. In addition, it outlines the research limitations of the thesis and provides suggestions for future research.

Chapter 2 – Corporate Governance

2.1 Introduction

This chapter outlines the theoretical background of this thesis and provides a contextual evaluation of the GCC region, which includes a comprehensive review of the relevant literature in the GCC region, and a brief discussion on the characteristics of corporate governance mechanisms in the region, based on the datasets from the three empirical chapters (3, 4, and 5). Starting with the introduction, its six sections explore the following: definitions of corporate governance, fundamental theories of corporate governance, systems of corporate governance, internal mechanisms of corporate governance and their relationship with firm performance, the GCC context within the setting of the research, and finishes with a conclusion to the chapter, respectively. The theories examined are agency theory, stewardship theory, resource dependence theory, and stakeholder theory. In a general sense, mechanisms of corporate governance are the ways used to deal with conflicts of interest that arise between parties in organisations. They are classified as either internal or external mechanisms, meaning that they are either within or outside of organisations, respectively. The main internal mechanisms are the board of director characteristics and the equity ownership structure of firms, while the main external mechanisms are the corporate takeover market and the legal system (Denis and McConnell, 2003). The focus in this thesis is on various internal mechanisms of corporate governance and their influence on firm performance in the GCC stock markets.

Corporate governance can be defined in several ways, and while some are broad and more inclusive, others are more specific. An inclusive definition of corporate governance describes it as the complex set of constraints that determine the profits achieved by firms and shape the subsequent bargaining over them by all the respective stakeholders (Zingales, 1998). This therefore involves not only the ways and systems that determine firm profits, but also how that added value is allocated between the stakeholders of an organisation (Claessens and Yortoglu, 2013). Georgen (2012) explains that corporate governance deals with the conflicts of interests between different parties including between suppliers of finance and managers, the shareholders and the stakeholders, and majority and minority shareholders of firms, and it deals with how such conflicts of interests can be mitigated or prevented. Put another way, it is the combination of mechanisms which help ensure that managers operate firms in ways that benefit one or

various stakeholders, which can include shareholders, suppliers, customers, creditors, employees, and other parties that companies deal with (Georgen and Renneboog, 2006).

The idea of corporate governance remains consistent, but some scholars limit its main focus to shareholders, rather than encompassing the wider circle of all stakeholders. The reasoning behind this view is that shareholders are financially invested in firms with the goal of achieving a return on their investment. Shleifer and Vishny (1997) define corporate governance as the ways in which investors make the managers of their financial investment provide them with the financial returns they pursue. Similarly, it is defined as the set of mechanisms that persuade the self-interested managers of firms to make decisions that maximise firm value and therefore maximise the wealth of the owners (Denis and McConnell, 2003). The narrow view resulting from these definitions is adopted in this thesis because it is the predominant one in the corporate governance and firm performance line of research. It is worth noting that this view stems from the most prominent theory of corporate governance, agency theory (Jensen and Meckling, 1976), while other fundamental theories such as stewardship theory and resource dependence theory are also applicable to this view (Donaldson and Davis, 1991; Pfeffer and Salancik, 1978). Consequently, the hypotheses in this thesis are based on agency theory, stewardship theory, and resource dependence theory. The next section highlights the specific areas on which each theory is applied. Even though stakeholder theory is not utilised, its significance, which is demonstrated by the broad definitions of corporate governance mentioned above, is appreciated. It is therefore also examined and the reason for its exclusion is explained.

2.2 Corporate Governance Theories

It is widely considered that the central theory of corporate governance is agency theory. Nonetheless, as explained, there are other significant theories which stem one way or another from agency theory, such as stewardship theory and resource dependence theory, which are viewed as complements to agency theory, not substitutes for it (Daily et al., 2003). Moreover, despite the fact that the development of corporate governance has been influenced by various theories, agency theory has affected it the most, and the theoretical framework that agency theory provides seems to be what corporate governance practice mainly relies upon (Mallin, 2019).

Such realities demonstrate how fundamental agency theory is in corporate governance, and so many of the hypotheses in this research are based on agency theory, while other hypotheses are based on stewardship theory and resource dependence theory. The particular concepts of the theories that form the basis of the hypotheses in this thesis are underlined towards the end of each of the next three subsections. It is important to remember that corporate governance is not, thus far, based on one single theory nor does it have one conclusive framework (Tricker, 2019). This section reviews four main corporate governance theories, and in order they are: agency theory, stewardship theory, resource dependence theory, and stakeholder theory.

2.2.1 Agency Theory

As suggested in the work of Jensen and Meckling (1976), agency theory is partly motivated by the notable contribution of Adam Smith (1776, p. 311), who is recognised as the first to document such an idea in the setting of joint-stock companies: "The directors of such companies, however, being the managers rather of other people's money than of their own, it cannot well be expected that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own. Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master's honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company".

Put another way, Smith (1776) argues that within the context of limited liability companies, one should not expect that managers will watch over the owners' money with the same attentiveness that the owners would do themselves, and that hiring managers, who naturally act on behalf of the owners, inevitably results in some degree of carelessness in the management of the company. Therefore, ideas forming fundamental parts of agency theory in corporate governance as it is viewed today have been documented since at least the 18th century. Following a discussion of the advantages of limited liability companies, Mill (1848) provides support to Smith's viewpoint by arguing that the quality of hired personnel is inferior to that of those with personal (i.e. private) interests in the work, and how vital it is for the owners to watch over managers. Mill also argued that even if the managers (directors) own shares of the company, the shares typically equate to a very small portion of the total capital, and therefore their pecuniary interest remains inadequate to have a significant influence on changing their self-interested behaviours.

The owner-manager arrangement described in these earlier works was later referred to as the 'separation of ownership and control' by Berle and Means (1932), whose significant contribution is viewed as the basis for the essential concept behind agency theory, that is, the agency problem. They explain how, with the development of corporations and markets, the separation of ownership and control in companies was amplified. It is worth noting that contractual relations between parties within organisations were emphasised by the theory of the firm (Coase, 1937), and the agency problem is an essential component of these relations (Shleifer and Vishny, 1997). Ross (1973, p. 134) highlights that: "The relationship of agency is one of the oldest and commonest codified modes of social interaction". The agency relationship is formed when two parties decide that one, designated as an agent, will act on behalf of the other, designated as the principal. Describing it as the principal's problem, Ross (1973) explains how the agency problem may be solved, hypothetically, if the principal simply directs the agent how to act whenever a new issue that was not anticipated arises and was therefore not mentioned in the agreement; nevertheless, when agency fees are taken into account, it would not be economically viable to monitor every decision the agent is required to take.

Soon after, the most highly cited paper on agency theory was published, in which Jensen and Meckling (1976) combine various elements of the theory as they define agency costs, explain how they relate to the separation of ownership and control issue, and investigate the agency issues created by the existence of outside equity and debt. Several fundamental concepts of agency theory are explained in their landmark study, such as the idea that managerial ownership helps mitigate the agency problem by aligning the interests of managers with those of owners. Additional arguments on how conflicts of interest can be reduced include higher financial leverage as debt issuers act as efficient monitors of management and impose pressure on them to fulfil loan payments. Emphasis is on the pursuit of optimal proportions of outside equity and debt that achieve the lowest aggregate amount of agency costs. Eisenhardt (1989) reviews both extremes of the literature on agency theory (i.e. strong proponents and opponents) and concludes that it is an empirically valid perspective, meaning that it can be practically tested, especially when combined with additional perspectives that complement it.

It is worth noting that through the perspective of agency theory, the reduction of agency costs is hypothesised to have a positive impact on firm performance as it helps maximise shareholder

value (Jensen and Meckling, 1976). Fama and Jensen (1983) state that the costs of structuring contracts with agents along with the costs of monitoring their actions, to reduce potential conflicts of interest, are all part of agency costs. They argue that outside directors help to act as intermediaries who help solve disagreements between internal (i.e. executive) managers and shareholders, which include determining the appropriate executive compensation and replacing top managers. The separation of higher level (i.e. boards of directors) and lower level (i.e. top managers) decision agents is essential for efficient monitoring, ratification, and accountability, of the decision making within the organisation. This hierarchical partitioning, as Fama and Jensen refer to it, increases the difficulties associated with taking actions that exploit firm assets for their private benefits at the expense of shareholders. Therefore, ensuring the separation of the roles of the chairman of the board and the CEO of a firm (i.e. so that they are not held by one person) forms a fundamental part of agency theory. Likewise, higher levels of board independence (i.e. more non-executive independent directors) are crucial to the efficient monitoring of self-interested managers, and therefore to reducing the risks of managerial entrenchment and exploitation of firm assets at the expense of shareholders (Jensen and Meckling, 1976; Fama and Jensen, 1983; Pearce and Zahra, 1992; Dalton et al., 1998).

Mallin (2019) notes that the separation of ownership and control was mostly observed in the US and the UK where it was encouraged as the legal system allowed for it with its protection of minority shareholders. In many other countries it was not observed as much due to the weaker laws on minority shareholder protection, and this led to more concentrated ownership structures. The agency problem arising from the former case is the main focus of the aforementioned literature, and is between the principal (owner) and the agent (manager), within which the conflicts of interest occur; it is therefore also referred to as the principal-agent conflict. Although in the latter case having large shareholders mitigates this agency problem as they are motivated to monitor management more closely because of their greater financial commitment (Shleifer and Vishny, 1986), it inherently creates another agency problem between majority and minority shareholders.

Villalonga and Amit (2006) refer to the owner-manager conflict as agency problem I and the conflict between majority and minority shareholders as agency problem II, in which a large shareholder may be inclined to exploit its controlling position to expropriate firm assets at the

18

expense of small shareholders. They explain how if that large shareholder is an institution (i.e. a financial institution or a widely held corporation), its controlling position will generally be weaker as it is divided amongst several owners, and so their incentives to expropriate small shareholders are less, but the same applies to its incentives to monitor management; while agency problem II is mitigated, this scenario does not solve the conflicts generated by agency problem I. In contrast, in the case that the large shareholder is an individual or a family, while the incentives for management monitoring are higher, so are those for expropriation, and therefore even though agency problem I is mitigated, agency problem II is present. Indeed, not all previous research supports the notion that large shareholders are an ideal solution for the agency problem as it provides evidence showing that they tend to exploit their controlling positions to extract private benefits at the expense of minority shareholders (Barclay and Holderness, 1989; Bebchuk, 1999).

Reflecting the location of the conflict of interest, agency problem I and agency problem II are also referred to as the principal-agent conflict and the principal-principal conflict, respectively. In contrast to the dispersed ownership structures focused on in most of the earlier research, La Porta et al. (1999) provide evidence that the most common form of ownership structure around the world is actually concentrated ownership by controlling shareholders, particularly individual and family owners; similar evidence is documented in several other studies (Shleifer and Vishny, 1986; Claessens et al., 2000; Anderson and Reeb, 2003). The relevance of agency problem II is greater in countries characterised with concentrated ownership structures due to the increased risk of conflicts between majority and minority shareholders (Villalonga and Amit, 2006).

Agency problem II is therefore expected to be the more prominent problem in listed firms on GCC stock markets due to their concentrated ownership structures and considerable levels of individual/family ownership. This thesis contributes to the extant corporate governance literature as it examines the principal-principal conflict in the GCC markets. Agency theory motivates many of the hypotheses in this thesis, which empirically test several of its theoretical concepts explained above, across the three empirical chapters it embraces. The performance effect of various governance mechanisms is tested to help understand how the theoretical ideas apply; the mechanisms include ownership concentration, by the identity of owners, board of director characteristics, and founders' involvement in companies.

2.2.2 Stewardship Theory

Stewardship theory is one of the central theories of corporate governance, and it is the main theory that directly opposes agency theory, as it proposes that managers are not self-interested, opportunistic agents because what they essentially pursue is the goal of being good stewards of the firm's assets (Donaldson, 1990; Donaldson and Davis, 1991). It is important to note that in later contributions, Davis et al. (1997) advise against the initially proposed idea that only one theory is true while others are false, and encourage future research to identify how the theory fits within a theoretical framework relative to agency theory rather than being directly opposed to it. While agency theory promotes independent directors as a solution to agency issues, stewardship theory argues that they, being outsiders to firm executive management, do not have sufficient information to make the best decisions for the organisations. Executive directors (i.e. insiders) make more informed decisions as they enjoy a clear advantage over outsiders with the additional information they have and better understanding of the organisations because of their involvement in the day-to-day operations (Donaldson and Davis, 1994).

Accordingly, CEO duality (i.e. chairman of the board and CEO roles are assumed by the same person) is more efficient and improves firm performance. The reasoning for this is that the structure provides an unambiguous, single figure of authority whose plans and decisions are focused on by everyone involved in the organisation, which will in turn enjoy the advantages provided by the unity of direction within it (Donaldson and Davis, 1991). Nicholson and Keil (2007) explain how stewardship theory is based on two main concepts. The first is that managers are reliable agents who act as good stewards of the firm resources that owners have entrusted to them (Donaldson, 1990). The second is that agency costs will naturally be kept at minimal levels as executive directors do not act against the best interests of the owners because they cannot risk damaging their own reputation, and they would always want to maintain and improve it (Donaldson and Davis, 1994).

Advocates of stewardship theory stress how even though the dominant perspective (i.e. agency theory) is that organisations perform better if directors on boards are independent of executive management, the empirical evidence is far from conclusive and does not provide adequate support to confirm this notion in a pervasive manner (Donaldson and Davis, 1994). In fact, they highlight evidence concluding that boards comprised of mostly executive directors perform

better than their counterparts; the advocates therefore go to the extent of cautioning against allowing the dominance of one view only, which is that board independence is the best way forward, at least until it can be backed with sufficient empirical support (Donaldson and Davis, 1991; Donaldson and Davis, 1994). Several studies conclude with evidence that supports the arguments put forward by stewardship theory (Agrawal and Knoeber, 1996; Bhaghat and Black, 2002; Kiel and Nicholson, 2003; Bhagat and Bolton, 2008). The ideas conferred by stewardship theory are carefully considered in the formulation of the hypotheses that are concerned with the firm performance effects of CEO duality and board independence.

2.2.3 Resource Dependence Theory

The broad perspective of resource dependence theory was initiated by Pfeffer and Salancik (1978): organisations have access to a variety of resources such as capital, labour, and raw materials, which they depend on and should utilise in an effective manner that provides them with a competitive advantage. The theory suggests that organisations should act in ways that help them maintain access to and maximise the benefits of resources as it emphasises on how important these are to their success. The resources may frequently not be in the control of the organisation itself, but in the control of other organisations, and so detailed plans should be made to ensure continued access. For example, one good approach that organisations tend to employ to ensure this is diversification, which refers to dealing with various suppliers so that they become back-ups to one another, instead of relying on one supplier only. Such plans are important to deal with the constant uncertainty posed by the continuous changes in the external environment which the organisation operates within and depends on for resources. Nevertheless, the theory also highlights the crucial role that internal structures have in assisting in the maximisation of the resources available within the organisation itself.

In the context of corporate governance, the application of the theory is more focused on the internal structures of organisations, mainly the board of directors, and how they implement strategies to achieve the ideal balance of resource dependence with the external environment. Prior to the introduction of the theory, Pfeffer (1973) employed a sample of 57 hospitals in the US to examine the effects of board size, composition, and function on the ability to attract resources, and finds that they affect the ability of hospitals to attract necessary resources from the environment and therefore help achieve organisational effectiveness through the successful

linkages that they provide. Resource dependence theory argues that some board of director structures are more efficient than others for various reasons. For example, Pfeffer and Salancik (1978) propose the idea that board size should increase in proportion to the organisation's need for more external relations. Through this, board size reflects how well an organisation is equipped to locate and maintain the required relations, which in turn help it acquire critical resources from its environment such as the ability to attract crucial external funding (Provan, 1980; Goodstein et al., 1994).

Larger boards of directors are therefore expected to have a greater ability to secure necessary resources due to the increased pool of expertise and aggregate external linkages they typically possess (Zahra and Pearce, 1989; Pearce and Zahra, 1992; Dalton et al., 1999; Nicholson and Kiel, 2007). Several empirical studies support this idea as they find a significant positive firm performance effect of board size (Beiner et al., 2006; Adams and Mehran, 2008; Jackling and Johl, 2009; Gaur et al., 2015), including one meta-analysis of 131 samples from 27 studies (Dalton et al., 1999). Another idea that resource dependence theory argues for is the greater efficiency of more active boards of directors (i.e. boards that hold meetings more frequently). This idea is based on arguments that insufficient time allocated for board meetings is a major detriment of their effective completion of tasks (Lipton and Lorsch, 1992) and that time is actually a fundamental resource that directors should utilise more of to help them be more efficient (Conger et al., 1998). Some empirical studies find evidence for a positive firm performance effect of greater board activity (García-Ramos and García-Olalla, 2011; Liang et al., 2013; Lin et al., 2014). This thesis incorporates concepts from resource dependence theory to assist in a better understanding of the relationships examined; specifically, the ideas motivate the hypotheses concerned with the effects of board size and board activity on firm performance.

2.2.4 Stakeholder Theory

In his landmark book, Freeman (1984) puts forward stakeholder theory with its fundamental argument asserting that in addition to shareholders, firms have various other participants (i.e. stakeholders) whose interests should be considered too, and these include customers, suppliers, and employees. A stakeholder can be defined as "any group or individual who can affect or is affected by the achievement of the organization's objectives" (Freeman, 1984, p. 46).

Donaldson and Preston (1995) distinguish and examine three aspects of stakeholder theory which are its descriptive, instrumental, and normative aspects, concluding that they are mutually supportive. Through its descriptive features, stakeholder theory presents a model that allows for the testing of its descriptive accuracy and empirical claims. Moreover, the theory is instrumental as it founds a framework for examining the connections between the actions of stakeholder management and the achievement of various firm performance objectives, such as profitability and growth. The normative base, which is considered central to the theory by the authors, is concerned with the acceptance of two essential ideas. The first, referred to as the legitimacy of stakeholders, is that stakeholders are participants who have legitimate interests in substantive parts of firm operational activity, and they are identified by those interests within organisations. The second is that such interests are of intrinsic value, meaning that each stakeholder group deserves the appropriate attention for its individual cause, and not only for its ability to facilitate the interests of another stakeholder group, such as the shareholders for example (Donaldson and Preston, 1995).

Building on this, Mitchell et al. (1997) argue that while the legitimacy of stakeholders must be considered, stakeholder theory must also account for the power and the urgency of those stakeholders, which refer to how much influence they have on a firm and how time-sensitive they are in terms of demanding attention to their claims, respectively. Managers have to be aware of all three attributes (i.e. legitimacy, power, and urgency) of the stakeholders in their environment and have to attend to them so that the moral and legal interests of legitimate stakeholders are ensured and maintained. It is worth noting that due to the additional social obligations stakeholder theory imposes on organisations, scholars question its viability by arguing that this contradicts the principles of a market economy (Mansell, 2013), and that if organisations are held accountable to numerous groups whose legal interests are not clearly defined, they are, in practice, accountable to none of them (Sternberg, 2004).

Stakeholder theory is not embraced within the investigations of this thesis as the main concern in this research is shareholder value maximisation, rather than the interests of all stakeholders. The reason for this is that, as explained above in Section 2.1, this thesis is centred on the narrow definition and relevant theories (i.e. agency theory, stewardship theory, and resource dependence theory) that are widely considered in the academic finance literature to properly reflect the

primary concepts of corporate governance (Jensen and Meckling, 1976; Shleifer and Vishny, 1997; Denis and McConnell, 2003). This decision is justified further considering that the ideas from these theories are especially applicable to markets that adopt the Anglo-Saxon system as it also revolves around shareholder value (Mallin, 2019), and that is the case in all seven GCC markets examined (Eulaiwi et al., 2016; Pillai and Al-Malkawi, 2018). The next section examines the systems of corporate governance in more detail.

2.3 Corporate Governance Systems

There are various corporate governance systems (i.e. corporate governance models) around the world, each of which is expected to have different effects on the country adopting it. There are many national corporate governance system varieties, and these are typically shaped by each country to specifically match its own setting. Nevertheless, it is argued that globalisation can lead to a convergence in several national corporate governance model varieties towards more integrated models, such as the Anglo-Saxon system and the Continental European system (Dingam and Galanis, 2016), which are considered to be the two most prevalent systems and are adopted by numerous countries. In fact, Hansmann and Kraakman (2001) go to the extent of claiming the "end of history" for corporate law and predict the convergence of corporate law all around the world towards a unified model, the Anglo-Saxon shareholder-based model, adopted by the US and the UK (Aguilera and Jackson, 2010). On the other hand, many scholars investigate the practicality of such integration and conclude that the likelihood of it happening is low. For example, Cernat (2004) examines the characteristics of national corporate governance models across Europe to assess whether they are compatible and will converge towards a harmonised model. The author concludes that a major constraint against a convergence towards one integrated model is that corporate governance in many European countries has its distinct features that consist of a combination of Anglo-Saxon capital-related aspects and Continental European labour-related aspects, and it is unlikely that these will work together under one of the models.

There are significant differences between the two most prevalent corporate governance systems. In the Anglo-Saxon system, legal protection for shareholders is stronger relative to other systems, and ownership structures are more dispersed (Shleifer and Vishny, 1997). On the other

hand, in the Continental European system, most known to be adopted by Germany and the Netherlands, shareholder protection is weaker and therefore there is more reliance on concentrated ownership structures, typically by large investors and financial institutions. It is worth noting that the Anglo-Saxon system is shareholder-oriented, while the Continental European system is stakeholder-oriented (Stadler et al., 2006). From the perspective of corporate ownership and control systems, Franks and Mayer (2001) propose that the systems can be classified as either outsider or insider systems; outsider systems, prevalent in the US and the UK, have large stock markets, dispersed ownership structures, and active takeover markets, while insider systems, prevalent in Germany, the Netherlands, and Austria, have smaller equity markets, concentrated ownership structures, and relatively less active takeover markets. Weimer and Pape (1999) refer to them as the market-oriented system and the network-oriented system, respectively.

Interestingly, in the context of the GCC markets, the corporate governance systems have been influenced by the Anglo-Saxon system in that they similarly employ a one-tier system where the board of directors, elected by the shareholders, is the highest governing body within the firm (Eulaiwi et al., 2016; Pillai and Al-Malkawi, 2018). The effect of this is reflected in the typical characteristics of boards there, such as significant board independence and minimal CEO duality. However, ownership structures are generally much closer to those seen in countries with the Continental European governance system; ownership structures are much more concentrated, while legal shareholder protection is also low (Hertog, 2012; Arouri et al., 2014; Al-Hadi et al., 2016b; Abdallah and Ismail, 2017).

The GCC setting is a rather unusual one that causes curiosity as to why this is the case, and particularly as to whether the system, the GCC market characteristics, and firm performance, are working together in an efficient manner. In other words, the question remains as to whether the GCC markets are ready for and are compatible with a model (i.e. the Anglo-Saxon model) that exhibits dispersed ownership structures while relying on shareholder protection to help deal with problems arising from the separation of ownership and control, considering that these characteristics of ownership structure and legal protection are less prevalent in the GCC markets. While much empirical research has been conducted in developed markets, and significantly in

some developing markets, the GCC markets remain understudied, and with their setting in mind, finding answers to the raised questions is appealing.

2.4 Internal Mechanisms and Firm Performance

Ownership structure and the board of directors are considered to be the most prominent internal mechanisms of corporate governance, in terms of their associations with firm performance (Denis and McConnell, 2003). Companies utilise corporate governance mechanisms, and modify them where possible and when required, to help ensure that they operate efficiently and deal with conflicts of interest appropriately. Even though the dominant idea in the field is that corporate governance mechanisms play a central role in resolving agency problems, the empirical literature examining the effect of each mechanism on firm performance has not been successful in finding a consistently positive effect (Bhagat et al., 2010). Ownership structure refers to the composition of all shareholders of an organisation, which includes the proportion of the organisation owned, cash flow rights, voting rights, and the identity of each shareholder (Georgen, 2012). La Porta et al. (1999) present evidence that dispersed ownership structures are more common in countries where shareholder protection is good, and explain how the two work well together to allow large shareholders to diversify their investments at competitive prices. In contrast, they find that in those countries where protection for shareholders is poor, the ownership structures are typically concentrated.

There are many empirical studies that investigate the relationship between ownership concentration and firm performance. Several find that the relationship is positive (Morck et al., 1988; McConnell and Servaes, 1990; Hu and Izumida, 2008; Zeitun, 2014; Nguyen et al., 2015), others conclude that it is negative (Hill and Snell, 1989; Oswald and Jahera, 1991; Gedajlovic and Shapiro, 2002), and a final group presents evidence of no significant relationship (Agrawal and Knoeber, 1996; Loderer and Martin, 1997; Cho 1998; Himmelberg et al., 1999; Demsetz and Villalonga, 2001). Another strand of empirical studies investigates the firm performance effect of different owner types, as opposed to merely testing the collective effect of ownership concentration regardless of owners' identity. Many of these studies are motivated by ideas on owner identity put forward in previous works. Cubbin and Leech (1983), who refer to the owner

type (identity) as the location of control[2], acknowledge that the literature separates it into being either internal or external to management, but argue that additional identification of the location of external ownership is essential. Some of the different identities of owners proposed by the authors are large individual investors, institutions, and corporations.

Short (1994) underlines the potential for further divisions of owner identity, and evaluates theories concerned with the firm performance effects of external ownership, and argues that these effects usually differ by owner identity. Furthermore, Denis and McConnell (2003) highlight how empirical evidence suggests that different types of large shareholders (such as government, institutions, other corporations, and families) have varied effects on firm value. One example that reflects the asserted variations is the argument that government owners are significantly different than others as they may pursue political objectives, while significant amounts of the resulting losses of these actions are typically borne by the public (Shleifer and Vishny, 1994; La Porta et al., 1999). For this reason, it is thought that government ownership typically comes at the expense of shareholder value maximisation. Amongst the four owner identities, government ownership concentration is the second highest in the GCC listed firms (see Table 2.2 below), meaning that they play a significant role in the region's stock markets, thereby reflecting the relevance of these specific concepts to the case in question. Notably, corporation and individual/family ownership concentration very closely follow in third and fourth place, meaning that the aforementioned ideas of contrasting objectives by owner identity are highly applicable. Therefore, the importance of making these differentiations is appreciated and is considered a crucial part of this thesis; owners are distinguished by type so that the performance impact of each group is assessed separately, in addition to assessing that impact of the overall ownership concentration.

In countries adopting the Continental European corporate governance system, such as Germany and Austria, a board of directors is two-tiered with executive and non-executive members separated; the two tiers are the executive board comprised of managers responsible for running the daily operations of a company, and the supervisory board consisting of all non-executive directors who are elected by both owners and employees and are responsible for monitoring the executive board. In contrast, in countries with the Anglo-Saxon system such as the US and UK a

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[2] Owner type is also referred to as owner group or class in the literature (McConnell et al., 2010).

board of directors is one-tiered, comprising a group of individuals who are elected by the owners of an organisation to oversee the operations of top executive managers. As mentioned in Section 2.3 above, this is the system adopted in GCC countries and so it is the relevant definition. Board members can be executives, non-executives, or independent (non-executives) in one-tiered boards. This board composition includes other characteristics of a board of directors, such as CEO duality. As various corporate governance theories argue, such characteristics can be a source of agency problems and conflicts of interests.

The impartiality of executive directors is doubted as the likelihood of someone efficiently monitoring oneself is low, let alone actually firing oneself following underperformance, and therefore, a higher proportion of executive directors on a board leads to increased risks of managerial entrenchment and firm asset expropriation (Jensen and Meckling, 1976; Fama and Jensen, 1983). While non-executive directors help mitigate these risks, they may still have some pecuniary or other form of interest with an organisation, so they are not fully independent and therefore their impartiality is also thought to be vulnerable under this view. Therefore, this suggests that independent directors are more ideal for board efficiency than directors who are merely non-executive directors (i.e. not completely independent). Opposing views assert that board independence leads to uninformed decisions caused by information asymmetry and that executive directors make better decisions due to the resources and information they retain from their active involvement with the daily activities of organisations (Donaldson and Davis, 1994). CEO duality is an additional aspect of board composition that has been the subject of both theoretical and empirical controversy. The effect on firm performance of both aspects is investigated in this thesis, in addition that of other prominent board characteristics: board size, board activity, and board remuneration.

Whether an optimal board size (i.e. the number of directors serving on a board) exists is debated. Some scholars suggest that larger boards increase communication issues and provide better cover for free riders, who become reliant on others to do their jobs for them (Lipton and Lorsch, 1992; Jensen, 1993). In contrast, other scholars suggest that due to their size, larger boards possess more resources, information, and external relations, providing them with advantages for better decision making (Pfeffer and Salancik, 1978; Dalton et al., 1999). The optimal number of meetings per year that a board should have, board activity, has also been contested, with

opponents of more meetings arguing that too many meetings unnecessarily waste time and money (Jensen, 1993; Vafaes, 1999), and supporters arguing that limited time is a key detriment to director task completion and efficiency (Lipton and Lorsch, 1992). The significance of investigating the performance effect of board remuneration has been emphasised by scholars (e.g. Brick et al., 2006). Even though there are several previous empirical studies that investigate the firm performance effect of overall board remuneration (e.g. Main et al., 1996; Doucouliagos et al., 2007; Aggarwal and Ghosh, 2015), much more attention is focused on CEO compensation. These factors are acknowledged in this thesis and the relationship between board remuneration and firm performance is examined. CEO compensation is not included due to the unavailability of data as it is not explicitly reported in the annual reports of listed companies in the GCC stock markets.

Under both ownership and control (i.e. ownership structure and board of directors) strands of research that examine their relationship with firm performance, as discussed above, there are additional lines of research that focus on making the essential distinction between family founders and non-family founders before investigating their relationship with firm performance. Villalonga and Amit (2020) provide a review of the literature and discuss the various evident differences between family firms and non-family firms. These include their unique behaviours, objectives, strategic directions, and consequent performance, which has become an area of great interest for scholars, leading to many empirical studies (e.g. Anderson and Reeb, 2003; Maury, 2006; Lee, 2006; Silva and Majluf, 2008; Hamberg et al., 2013; Poutziouris et al., 2015). Amit and Villalonga (2014) emphasise how the literature has empirically confirmed that family firms really matter in terms of how prevalent they are around the world, and they subsequently provide a review that details the samples, measures, and results of many empirical studies, starting from the Anderson and Reeb (2003) study that specifically examines the effect of family firms on firm performance.

As the following Section 2.5 highlights, the proportion of listed firms founded by families in the GCC is considerable, with more than a third of listed firms family-founded. In addition to this noticeable presence, founding family owners play a special role in GCC listed firms as they enhance their voting power through the influence they have, and can exploit it to control firms' decision making processes by intervening in critical board of directors decisions such as the

appointment of managers and the selection of directors (Sirmon et al., 2008; Eulaiwi et al., 2016). These factors greatly motivate the investigation of the performance effect of family founder ownership in the GCC context, which has not been conducted before. Relating to theory, some arguments suggest that family founders pursue various socio-emotional goals, and these tend to come at the expense of shareholder wealth maximisation (Gomez-Mejia et al., 2007). In contrast, others suggest that families help maximise shareholder wealth as they are more prepared to invest greater proportions of their private funds to help save their firms if they become financially troubled (Friedman et al., 2003). It is important to note that royal family founders are also present amongst family founders in GCC listed firms, and there are arguments about the differentiating characteristics that royal family owners possess, such as the amount of wealth they have or their greater political engagements (Al-Hadi et al., 2016b). Appreciating these various elements, the thesis tests these arguments by examining not only the performance effect of family founder ownership and board membership in GCC listed firms, but also by distinguishing royal family founders from family founders when examining the performance effect of both their ownership and board membership to help reach a more meaningful understanding of the case in question.

2.5 The GCC Context

2.5.1 Background of the Region

The Cooperation Council for the Arab States of the Gulf, commonly referred to as the Gulf Cooperation Council (GCC), was established on 25 May 1981 with a charter officially issued in Riyadh, Saudi Arabia, where a Foreign Ministers' meeting was held comprising all six member states less than four months earlier. The GCC is a strategic, economic, and political alliance between six Arab states that have a coastline on the Persian Gulf[3]: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). The World Bank (2019) categorises all six states as high-income countries. The main source of income for all six countries is oil exportation meaning that this high income is heavily reliant on a finite resource (Shubita, 2015). Nevertheless, all six countries have initiated clear and strong visions (i.e. plans) to ensure that

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[3] Despite the historical prevalence of its name, the Persian Gulf is referred to as the "Arabian Gulf" or simply "The Gulf" within the seven Arab States of the Persian Gulf, all of which are part of the GCC with the exception of Iraq.

their respective national economies are transformed and diversified in the near future. The visions have similar overall objectives, but some are customised in certain aspects to better match the particular situation of their country. The overall objectives include diversification of the main source of income from other industries such as tourism and transport, and plans for economic development and growth, and digital transformation (Bahrain Economic Vision 2030, 2008; Kuwait Vision 2035, 2010; Oman Vision 2040, 2019; Qatar National Vision 2030, 2008; Saudi Vision 2030, 2016; Abu Dhabi Economic Vision 2030, 2007; Dubai Industrial Strategy 2030, 2016).

The economic significance of the GCC region has been on the rise in recent years. In addition to holding about 35.7% of the world's proven oil reserves (Shubita, 2015), the GCC region's collective share of global GDP experienced a twofold increase from 1.1% to 2.2% between the years 2002 and 2013, reflecting the rapid expansion of its economies (Held and Ulrichsen, 2013). More recently, the aggregate GDP of the GCC region grew by 43.7% during the previous decade, between the years 2010 and 2019, from 1,141 to 1,640 USD billions, respectively (World Bank, 2021). This growth rate of the GCC region's GDP exceeded that of global GDP, which was at 32.7% during the same period, by a significant margin of 11%, demonstrating persistence in the fast economic expansion of the region. The process of the diversification of income in the GCC started gaining its momentum quickly in the early 2000s, as not only was real GDP growth at an average of 7% for the region during the 5-year period of 2003-2007, but importantly, the non-oil GDP growth exceeded the oil GDP growth during those years (Sturm et al., 2008). The GCC stock markets represent companies which comprise three quarters of the region's total GDP, and that is considered high relative to other emerging economies, which stand at an average of 58% (Kern, 2012). The dynamic economic growth that the region is experiencing, along with the arrival of long-awaited, yet rapid developments in corporate governance codes and practice, make the contribution of this research to the emerging economies literature worthwhile.

Benbouziane and Benamar (2010) express how the economies of GCC countries are almost identical in various aspects including their economic, social, and political characteristics. They continue to further emphasise how they all principally share the same political regime (i.e. constitutional monarchy), religion (i.e. Islam), ethnicity (i.e. Arab), and culture. Several scholars

highlight how the six GCC countries share a common Islamic, Arabic speaking culture that is unique to them even when compared with other Arab countries in the Middle East and North Africa (MENA) region (Kantor et al., 1995; Islam and Hussain, 2003; Baydoun et al., 2013). Moreover, Darrat and Al Shamsi (2005) perform efficient cointegration tests on the economic and financial structures of the six GCC countries and find that they are sufficiently compatible with one another for them to form a viable economic and financial regional integration. Specifically, they highlight that the evidence is strongly suggestive of a common, long-term, trend that links together both the macro economies and the financial markets of the GCC countries; the former is measured by inflation rates and real GDP levels, while the latter is measured by exchange rates and monetary aggregates. The homogeneity of many characteristics of the GCC countries provides assurance that the stock markets in the region are comparable and that investigating them together is reasonable.

Furthermore, the GCC countries are also comparable within the context of corporate governance. Even though there is variation in the year of issuance of the corporate governance code for each country, they are mostly similar in various areas which include board composition (Shehata, 2015), one of the main governance mechanisms examined in this thesis. Table 2.1 below summarises the main specifications of the corporate governance codes for each GCC country, showing essential similarities and differences between them. The UAE enforces its corporate governance code most strictly as it applies a mandatory "comply or penalise" system, while the other five countries apply it on a relatively more lenient "comply or explain" basis (Al-Malkawi et al., 2014; Shehata, 2015). With the exception of Kuwait, all GCC countries mandate the separation of the roles of CEO and board chairmen. Companies in the GCC are required to have a number of independent directors, representing at least a third of boards of directors. Only Bahrain is not explicit with a specific proportion, but requires at least three independent directors on a board; this means that companies with more than nine members (as boards can have up to a maximum of 15 members according to the code), can have less than a third of independent directors on their board. The general requirement for board meetings set by the GCC codes is that there should be at least four board meetings per year, with some countries having additional rules on the maximum allowed time between any two meetings. Qatar requires at least six meetings per year.

Table 2.1: Corporate Governance Code Main Specifications for each Country

Country	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	UAE
Name of Corporate Governance Code	Corporate Governance Code: Kingdom of Bahrain	Corporate Governance Regulations for Companies Regulated by Capital Markets Authority	Code of Corporate Governance for Public Listed Companies	Governance Code for Companies and Legal Entities Listed on the Main Market	Corporate Governance Regulations	Corporate Governance Guide for Public Joint Stock Companies
Organisation Issuing Code	Ministry of Industry and Commerce, in cooperation with the Central Bank of Bahrain	Capital Market Authority	Capital Market Authority	Qatar Financial Markets Authority	Capital Market Authority	Ministry of Economy and the Securities and Commodities Authority
Initial Year of Issue	2011	2013	2002	2009	2006	2009
Year Last Updated	2018	2016	2015	2016	2021	2020
Compliance Requirement	Comply or explain	Comply or explain	Comply or explain	Comply or explain	Comply or explain	Mandatory
Board Size	At least 5 members and no more than 15	Not specified	Not specified	Not specified	At least 3 members and no more than 11	Not specified
No. of Meetings/Year	At least 4 meetings	At least 4 meetings	At least 4 meetings, no less than once every 4 months	At least 6 meetings, no less than once every 3 months	At least 4 meetings, no less than once every 3 months	At least 4 meetings
Chairman of Board and CEO Positions	Must be separate	Should be separate	Must be separate	Must be separate	Must be separate	Must be separate
No. of Non-executive Directors	At least half of board	Majority of board	All members	Majority of board	Majority of board	Majority of board
No. of Independent Directors	At least 3 members	At least one-third of board, with a minimum of 2 members	At least one-third of board, with a minimum of 2 members	At least one-third of board	At least one-third of board, with a minimum of 2 members	At least one-third of board

Sources: Corporate Governance Codes issued by each country.[4]

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[4] All the corporate governance codes can be retrieved from the European Corporate Governance Institute website at: https://ecgi.global/content/codes, except that of Kuwait as it is not available there, and so it can be retrieved directly from the Capital Market Authority website at: https://www.cma.gov.kw/en/web/cma/cma-board-releases/-/cmaboardreleases/detail/320009.

2.5.2 Previous Research

Each of the three empirical chapters (Chapters 3, 4, and 5) reviews the literature relevant to its specific area of research, which includes comprehensive reviews of previous empirical studies in both developed and emerging economies. This section reviews prior research on corporate governance in the GCC countries, with special attention devoted to those studies concerned with the relationships between corporate governance, its various mechanisms, and firm performance. It starts with a review of the individual country studies that examine one of the six countries, from Bahrain to the UAE, followed by those that investigate the GCC region altogether. Finally, the gaps in the literature are identified and the contributions of this research to the field are highlighted.

2.5.2.1 Individual GCC Countries

Hussain and Mallin (2002) analyse the state of corporate governance in Bahrain by sending a questionnaire to all listed companies in the country. The responses show that Bahraini firms follow 'best practice' aspects of corporate governance as their boards generally have a majority of non-executive directors and the roles of the CEO and board chairman are separated, while the authors note that further development is required. In a further study of Bahraini listed firms, Hussain and Mallin (2003) find that none of them has a Nominations Committee, and therefore non-executive directors are generally nominated by CEOs, board chairmen, large shareholders, or the boards of directors. Najjar (2012) uses a sample of five insurance companies listed on the Bahrain Stock Exchange from 2005 to 2010 to investigate the impact of several corporate governance mechanisms on firm performance, as measured by ROE. The results indicate that there is no significant performance effect of ownership concentration and CEO duality, while there is a significant positive performance effect of board size and the number of blockholders.

Ahmed and Hamdan (2015) employ a sample of 42 Bahraini listed firms from 2007 to 2011 to examine the relationship between corporate governance mechanisms and firm performance, as measured by ROA and ROE. They find a significant positive effect of board size and board independence on firm performance, while they find no significant performance effect of CEO duality and ownership concentration. Moreover, Al-Sartawi and Sanad (2019) investigate a sample 39 Bahraini listed firms between 2013 and 2016 and find a negative relationship between institutional ownership and the level of corporate governance, as measured by an index

comprising overall board characteristics (i.e. CEO duality, board independence, board size, and board ownership), while the level of corporate governance is positively related with firm performance.

There are numerous studies conducted in the context of Kuwait. Al-Saidi and Al-Shammari (2012) find that responses from semi-structured interviews conducted with various stakeholder groups indicate that boards of directors are dominated by major shareholders, and they highlight the inefficiency of independent board members appointed by companies and that banks have limited roles. For a sample of 66 Kuwaiti listed financial firms in the year 2010, Hamdan and Al-Sartawi (2013) find that, contrary to previous research, the quality of corporate governance does not have a role in attracting institutional investors to acquire shares in a company. Al-Saidi and Al-Shammari (2013) employ a small sample of nine banks listed on the Kuwait Stock Exchange between the years 2006 and 2010 to test the effect of board composition on bank performance. They find that the performance effect is positive for CEO duality, negative for board size, and non-existent for the proportion of non-executive directors and family directors on company boards.

In contrast, Al-Shammari and Al-Sultan (2009) find that both CEO duality and board size have a positive impact on firm performance, as measured by both accounting- and market-based measures, for a sample of 66 Kuwaiti listed non-financial firms between 2004 and 2007. Al Faraih et al. (2012) find a similar negative performance effect of government ownership for a sample of 134 Kuwaiti listed firms during 2010, while the performance effect is positive for institutional ownership. Controlling for the endogeneity of ownership structure, Al Mutairi and Hasan (2011) find that ownership concentration has no significant impact on firm performance, while the impact of government and individual ownership concentration is negative for the sample of 80 Kuwaiti listed firms from 2000 to 2008. Al-Saidi (2013) finds that there is no relationship between overall ownership concentration and firm performance for 130 Kuwaiti listed non-financial firms from 2009 to 2012, while, interestingly, both government and individual ownership is found to be positive; it is worth noting that there is no reference to the endogeneity of ownership structure in this study. Such contrasting findings indicate that the evidence is far from conclusive, and highlights the importance of controlling for endogeneity issues.

Al-Matari et al. (2014) use a sample of 81 Omani listed non-financial firms during the years 2011 and 2012 and find that there is no performance effect of numerous internal corporate governance mechanisms, including board size, board meeting frequency, board independence, and CEO tenure. In terms of the Qatari context, Sharar (2011) examines the extent to which Qatar's corporate governance framework complies with the OECD Principles of Corporate Governance 2004. Almudekhi and Zeitun (2012) examine a sample of 29 Qatari listed non-financial firms from the year 2006 to 2011 and find that overall ownership, board ownership, and foreign ownership have a significant positive impact on firm performance, while institutional ownership is found to have a significant negative impact on firm performance.

There are several studies that link various corporate governance mechanisms with firm performance in the Saudi Arabian context. Al-Matari et al. (2012) explore the literature on performance effects of board composition, CEO duality, and board size, and draw from this a set of hypotheses on the relationship between each mechanism and firm performance in the Saudi Arabian context, but they do not empirically test the hypotheses. They hypothesise a positive relationship between the proportion of non-executive directors and firm performance, and a negative relationship for both board size and CEO duality with firm performance. Buallay et al. (2017) find there to be a significant positive performance effect of ownership concentration and board size, and no performance effect of board independence and ownership concentration level of the largest shareholder, for 171 Saudi listed firms from 2012 to 2014.

Fallatah and Dickins (2012) investigate the performance effect of corporate governance characteristics, measured by an index that incorporates board size, CEO duality, board independence, board activity (i.e. frequency of board meetings), and various committee related characteristics; they find that corporate governance has a significant positive impact on firm performance for a sample of 94 Saudi listed companies between the years 2006 and 2009. Furthermore, Al Nasser (2019) examines the relationship between different aspects of royal family members on board of directors and firm performance for a sample 99 Saudi listed non-financial firms between the years 2009 and 2013. The author finds that royal family member meeting attendance and the proportion of royal family members on boards of directors have no effect on firm performance, as measured with a market-based measure (i.e. Enterprise Value),

while the performance impact of the number of independent royal family board members is significant and positive.

Al-Tamimi (2012) analyses the awareness of 23 UAE national banks in 2009 on corporate governance practice. The author finds that the banks are generally aware of shareholder and stakeholder relationships, the role of the board of directors, executive compensation, disclosure, and transparency. Aljifri and Moustafa (2007) utilise a sample of 51 UAE listed firms during the year 2004 to investigate the relationship between corporate governance mechanisms and firm performance. They find that there is a significant positive performance impact of government ownership, while there is no performance impact of institutional ownership and board size. Finally, there are some studies that investigate samples of listed companies from two GCC countries. Hamdan and Al-Mubarak (2017) find that board independence has a negative effect on firm performance for 162 Bahraini and Saudi listed firms between the years 2013 and 2015.

2.5.2.2 GCC Studies

Numerous empirical studies that are concerned with corporate governance mechanisms and that investigate the GCC region as a whole have been conducted. Al-Musalli and Ismail (2012) investigate the relationship between corporate governance mechanisms and intellectual capital performance, measured using the value-added intellectual coefficient (VAIC) method, for a sample of 74 GCC listed banks from 2008 to 2010, while all 11 Kuwaiti banks are excluded due to missing data. They find that the relationship with intellectual capital performance is significant and negative for board size, board independence, and family ownership, while it does not exist for domestic and foreign institutional ownership. Baydoun et al. (2013) construct a corporate governance efficacy scale and apply it to five GCC countries to provide a comparison of where each country stands. They find that Oman is best of the five based on the corporate governance scale, followed by Kuwait, the UAE, Bahrain, and Qatar, respectively. Interestingly, Pillai and Al-Malkawi (2016) assess the quality of corporate governance across the six countries GCC countries using both conventional and non-conventional corporate governance indices, and find that the UAE ranks best, followed by Oman, Saudi Arabia, Bahrain, Qatar, and Kuwait, respectively.

Abdullah and Ismail (2017) employ a sample of all listed firms on GCC markets between the years 2008 and 2012 to investigate the relationship between corporate governance quality and

firm performance; they find it to be significant and positive and to be stronger the lower the ownership concentration levels are, and strongest for firms which have the government or local corporations as their largest shareholders. Arouri et al. (2011) investigate the impact of ownership structure and board characteristics on the performance of GCC listed banks; the sample consists of 27 banks from the year 2008 and excludes Kuwait due to data unavailability. They find that while board size, CEO duality, and institutional ownership concentration have no impact on bank performance, the performance impact of foreign ownership concentration is significant and negative and that of overall ownership concentration is significant and positive. In contrast, Arouri et al. (2014) investigate a sample of 58 GCC listed banks from the year 2010, which also excludes Kuwaiti banks due to data unavailability, and find that foreign ownership, family ownership, and institutional ownership concentrations have a significant positive effect on bank performance, while government ownership concentration, board size, and CEO duality have no significant performance effect. Zeitun (2014) investigates a sample of 203 non-financial listed companies from five GCC countries (i.e. the UAE is excluded) between the years 2000 and 2010 and finds that overall ownership and government ownership have a significant positive effect on firm performance, while the performance effect of both foreign and institutional ownership is not significant. It is worth noting that the author controls for unobserved firm-level heterogeneities, but the endogeneity issue of reverse causality is not considered.

Santos (2015) assesses the ownership structures of listed firms on the GCC stock markets; further details on the findings from this study are highlighted in the next subsection. Martinez-Garcia et al. (2020) use a sample of 692 GCC listed firms covering the period 2009-2015 to uncover who the ultimate owners are, whether owner identity depends on the institutional context, and whether ownership concentration affects firm performance. They find that GCC listed firms are mainly controlled by government and family owners, that owner identity differs by institutional country setting, and that ownership concentration does not have a significant impact on firm performance, although formal institutions moderate the relationship between ownership concentration and firm performance. Finally, Martínez-García et al. (2021) employ a sample of 389 non-financial firms listed on the GCC stock markets between the years 2009 and 2015 to investigate the performance effect of family ownership and government ownership, and the interaction between the two types of ownership. They find no significant performance effect of ownership held by families as the largest shareholder. Nonetheless, they find a negative and

significant effect of government ownership as the largest shareholder, but that negative effect is negated when the government owns between 15% and 50% and coincides with the presence of families as other large shareholders on the ownership structure.

2.5.2.3 Research Contributions

Dalwai et al. (2015) conclude their review of previous research on corporate governance and firm performance in the GCC countries by advising that future research focusing on the region should include samples that cover a period of at least five years as prior studies have suffered from limitations because of short period samples. Therefore, the three empirical chapters (3, 4, and 5) cover all firms listed on GCC stock markets during the five-year period 2012-2016, for which data are available. Section 2.6 below highlights the specific internal corporate governance mechanisms that are examined in the empirical chapters of this thesis. Based on the literature review above, there are several research gaps in the field of corporate governance and firm performance within the GCC context. First, there is no study that includes all GCC listed companies (i.e. financial and non-financial) when investigating the impact of ownership concentration on firm performance, while also examining the different performance effects of various owner identities, particularly differentiating between institutional and corporate owners. Chapter 3 fills this gap with an empirical study that comprises these aspects, while ensuring that the endogeneity problem of reverse causality is controlled for.

Second, no previous study investigates the relationship between board characteristics and firm performance in financial and non-financial companies listed on the GCC stock markets. Chapter 4 fills this gap as it examines the performance effect of five board characteristics, while controlling for potential endogeneity bias caused by reverse causality. Third, previous studies in the GCC region overlook the impact of founder ownership and control on firm performance. Chapter 5 addresses this, while also examining the performance effects of various founder groups distinguished by identity. Furthermore, Chapter 5 contributes to the field of corporate governance research in general by introducing the dimensions of royal family founder ownership and royal family founder presence on boards of directors.

2.5.3 Summary Statistics from the Dataset

This section provides a brief discussion on how the characteristics of the corporate governance mechanisms compare across the GCC countries, based on the three datasets from the empirical

chapters. It also compares the characteristics with those documented in previous studies in the GCC region. The data samples for the empirical chapters 3, 4, and 5, consist of all available data for all firms listed on the GCC stock markets between the years 2012 and 2016. Due to the fact that each of the three chapters investigates different internal corporate governance mechanisms, the data availability, and therefore the sample size, for each varies. Table 2.2 below provides a snapshot of the datasets in the year 2014, presenting average values of the main corporate governance mechanism variables for each country individually, and for the GCC countries combined. The ownership concentration variable averages for 621 firms are from Chapter 3, the board characteristics variable averages for 276 firms are from Chapter 4, and the founding member variable averages for 258 firms are from Chapter 5.

Ownership structure is comparable in all six countries as it is concentrated with large shareholders owning more than half of the respective stock markets on average (Table 2.2). The concentrated nature of the ownership structures is evident even in the country with the lowest average overall ownership concentration, Qatar, which stands at 28%. The average ownership concentration of 50.9% across GCC markets is in line with previous findings. For example, Abdallah and Ismail (2017) find that average ownership concentration is 51.4% for a similar sample of 532 firms covering a 5 year period from 2008-2012, while Santos (2015) reports the average for each GCC country in the year 2013, ranging from the lowest average at 31.7% in Saudi Arabia up to the highest at 53.0% in Oman; these averages are comparable to those found for other emerging economies as presented by Alves (2010), who employs a similar 5% minimum ownership concentration threshold.

The average family ownership concentration level in all listed GCC firms reported in this study is 11%, which is somewhat higher than the average of 7.8% reported by Eulaiwi et al. (2016) for 1,091 observations between 2005 and 2013 in GCC markets. This difference can be attributed to the fact that, unlike the sample covered in Chapter 3, their sample excludes financial firms, Kuwaiti firms, and the vast majority of Qatari firms. For a brief idea on how this compares with the US, Villalonga and Amit (2006) report the average to be at 6% for 508 US listed firms from Fortune 500 firms between years 1994 and 2000. The average family founder and non-family founder ownership concentrations in each country are in close proximity of one another, with the exception of the average family founder ownership concentration in Qatar at 9.1%, but this

seems to be compensated for by relatively high board control, measured by the average family founder board of director presence at 41%, the joint-highest average. Based on the sample from Chapter 5, more than one-third (36%) of listed firms are family founded, confirming previous views that a considerable proportion of companies listed on stock markets in the region are founded by families (e.g. Eulaiwi et al., 2016; Musa, 2002).

Furthermore, there are no major variations in the averages of board characteristics in the countries for which data are available, with board independence at relatively high levels, with an average of 59%. This not only reflects the fulfilment of the basic requirements set by the corporate governance codes (i.e. independent directors at a minimum level representing one-third of board membership), but it more importantly reflects the strong adoption of practices that are merely advisable within the codes. The influence of the Anglo-Saxon corporate governance system on the GCC stock markets is therefore evident in the sample. Whether this application is ideal for a set of countries with relatively weak shareholder protection and concentrated ownership structures (i.e. completely opposite to the main countries adopting the Anglo-Saxon system, namely the UK and the US), is an interesting question that naturally arises and is one that this thesis helps to address.

CEO duality is non-existent in the UAE, which is expected as compliance with its corporate governance code is mandatory (Shehata, 2015). While CEO duality is also non-existent in Oman, it is present in Saudi Arabia, albeit on a low level. The corporate governance codes in both countries are enforced on a "comply-or-explain" basis (Al-Malkawi et al., 2014; Abdallah and Ismail, 2017**),** and while this allows for non-compliance under certain circumstances, the articles concerned with CEO duality are strict, stating that the roles of the board chairman and the CEO must be separate. Its low prevalence in Saudi Arabia indicates strong compliance with the relevant articles of the code, while its non-existence in Oman indicates complete compliance by listed companies. Despite the codes of the two countries being identical in terms of the articles on CEO duality, there is a small difference in compliance. This difference can be attributed to that fact the code of Oman was the first to be issued in the GCC in 2002, while that of Saudi Arabia was issued four years after it in 2006, and so the Omani firms had more time to adjust to the requirements.

Table 2.2: Corporate Governance Variable Averages by Country for the Year 2014

Country/ Variable	Bahrain	Kuwait	Oman	Qatar	SA	UAE	GCC
No. of Firms	**38**	**188**	**99**	**41**	**151**	**104**	**621**
Firm Size	3,646	1,907	840	7,574	5,448	6,214	**3,800**
Firm Age	11.9	14.7	18.2	12.1	14.8	10.1	**14.2**
Ownership Concentration	56.0%	55.8%	67.1%	28.2%	39.9%	50.5%	**51.0%**
Government Ownership Concentration	24.5%	3.7%	13.4%	16.3%	10.3%	18.2%	**11.4%**
Institutional Ownership Concentration	18.0%	29.2%	21.1%	7.1%	13.8%	9.6%	**18.8%**
Corporate Ownership Concentration	3.8%	14.1%	17.0%	2.6%	5.3%	5.1%	**9.5%**
Family Ownership Concentration	8.6%	8.4%	15.3%	2.1%	10.3%	17.1%	**11.0%**
No. of Firms	-	-	**97**	-	**150**	**29**	**276**
Board Size	-	-	7.3	-	8.5	8.0	**8.1**
Board Activity	-	-	5.9	-	5.3	6	**5.6**
CEO Duality	-	-	0.00	-	0.04	0.00	**0.02**
Proportion of Independent Directors	-	-	0.71	-	0.48	0.73	**0.59**
Board Remuneration Per Director	-	-	0.29	-	0.12	0.19	**0.19**
No. of Firms	**15**	**43**	**16**	**22**	**41**	**29**	**166**
Founding Members Ownership Concentration (Non-family Firms)	39.8%	22.7%	32.0%	23.9%	31.6%	26.8%	**28.2%**
No. of Firms	**3**	**21**	**8**	**10**	**31**	**19**	**92**
Founding Members Ownership Concentration (Family Firms)	42.7%	24.2%	26.6%	9.1%	36.9%	19.5%	**26.7%**
Proportion of Founding Members on Board of Directors (Family Firms)	0.41	0.27	0.15	0.41	0.30	0.23	**0.28**

SA is Saudi Arabia and UAE is the United Arab Emirates. Firm Size is the total assets measured in $USD millions and Firm Age is the number of years since its Initial Public Offering date. Ownership Concentrations are the overall ownership concentration of shareholders owning at least 5%. Board Size measured by the total number of members serving on the board of directors. Board Activity is measured by number of board meetings during the year. CEO Duality is a dummy variable assigned "1" when CEO also serves as chairman of the board, and "0" otherwise. The Proportion of Independent Directors is that of the total number of directors serving on a board. Board Remuneration Per Director is measured in $USD and Scaled to Total Assets. Founding Members Ownership Concentration is measured by total percentage of shares owned by founding members, while in brackets are the two mains subsamples: Non-family Founder Firms and Family Founder Firms. Proportion of Founding Members is that of the total number of directors serving on a board. - denotes missing values due to unavailability of data.

2.6 Conclusion

This chapter examines the most prominent definitions and theories of corporate governance in order to determine the ideal foundations upon which to base the thesis. Additionally, the relevant empirical literature is considered to ensure suitable application and to allow for comparability. It is concluded that the focussed view of corporate governance is adopted, which asserts that it deals with the ways and mechanisms that investors (principals) attempt to persuade self-interested managers (agents) to reliably engage in wealth maximising decisions (Shleifer and Vishny, 1997; Denis and McConnell, 2003). This view is maintained in the three central theories of corporate governance that motivate the formulation of the hypotheses in this thesis, namely, agency theory, stewardship theory, and resource dependence theory.

Ownership structure and board characteristics are the two main internal mechanisms of corporate governance examined in relation to firm performance. The literature frequently emphasises the importance of specifically investigating various aspects of each internal mechanism. These include the distinction between different identities of owners due to their often disparate objectives (Cubbin and Leech, 1983; Short, 1994), including family founder and non-family founder owners and controllers (Amit and Villalonga, 2013; Villalonga and Amit, 2020), and the many characteristics of boards of directors including board size, activity, composition, and remuneration (Jensen and Meckling, 1976; Jensen, 1993; Brick et al., 2006). These are considered within the investigations conducted.

The review indicates that the GCC countries are similar in most respects, with all six being significantly influenced by the Anglo-Saxon corporate governance system. However, the question remains as to whether this system is appropriate and efficient, especially after taking into account that this governance system originated in countries with dispersed ownership structures and high shareholder protection. This thesis contributes to the literature by conducting empirical tests to ascertain whether the approach to corporate governance by the GCC countries improves firm performance and so helps achieve shareholder wealth maximisation. It assesses the relationship between internal mechanisms of corporate governance and firm performance in ways that previous research in the GCC context has not, while it also contributes to the examination of a dimension that previous studies overall have overlooked, that is, the performance effect of royal family founder ownership and control. Specifically, the thesis

investigates the firm performance impact of overall ownership concentration, ownership concentration by identity (i.e. government, institutional, corporation, and family), board size, CEO duality, board activity, board independence, board remuneration, founder ownership concentration by identity (i.e. government, institutional, family, royal family, and mixed), and family founder and royal family founder control through presence on boards of directors, for all firms listed on the GCC markets, while taking into consideration and controlling for potential issues of endogeneity.

Chapter 3 – The Effect of Ownership Structure on Firm Performance

3.1 Introduction

This chapter investigates the impact of one of the main internal corporate governance mechanism, namely ownership structure, on firm performance. Ownership structure can refer to the concentration of ownership by shareholders of company; a company with larger shareholders has an ownership structure that is concentrated and a company with smaller shareholders has one that is dispersed. It can also refer to the identity of the owners. Both measurements of ownership structure are employed in this chapter to allow for a better and more specific understanding of the relationship between ownership structure and firm performance. It is argued that the agency problem is mitigated in firms with concentrated ownership structures, and therefore those firms are expected to perform better as most of the owners are also the managers (Jensen and Meckling, 1976). Moreover, Shleifer and Vishny (1986) argue that large shareholders are more incentivised to closely monitor management due to their higher financial commitment and therefore firms with large shareholders are expected to perform better. On the other hand, other theories propose that the large shareholders may exploit firm assets at the expense of minority shareholders, leading to worse firm performance (Barclay and Holderness, 1989; Bebchuk 1999). Furthermore, other scholars highlight the importance of accounting for, in addition to the concentration, the identities of those shareholders in order to better assess such theories and relationships (Cubbin and Leech, 1983; Short, 1994), hence the choice to include both measurements of ownership structure in this chapter.

However, the relationship between ownership structure and firm performance may not be straightforward. Demsetz (1983) raises concerns with the agency theory and argues that ownership structure is determined endogenously by the balancing of several cost advantages and disadvantages of share ownership. Subsequently, Demsetz and Lehn (1985) investigated empirically whether ownership structure is endogenous by assessing its determinants. They find that it is significantly affected by firm size, firm specific risk, and systematic regulation. Ownership structure was therefore considered endogenous, and such variables were used as instruments for it in the recursive model they used to determine its impact on firm performance. They find no significant relationship between ownership structure and firm performance.

Although some following studies find a significant relationship (Morck et al., 1988; McConnel and Servaes, 1990), they do not treat for endogeneity issues, while most others that do treat for such issues find no significant relationship (Loderer and Martin, 1997; Cho, 1998; Demsetz and Villalonga, 2001).

Nevertheless, those studies are mostly concerned with developed economies, mainly the US and the UK, and the results may not be generalizable to other parts of the world, especially when corporate governance structures have been found to be different (Shleifer and Vishny, 1997; La Porta et al., 1999). Such countries are generally considered to have market-based governance systems as opposed to those with control-based governance systems (see Thomsen et al., 2006). Later studies which investigate the relationship in other countries, mainly countries that have control-based governance systems which generally have more concentrated ownership structures, find a significant relationship even after treating for endogeneity (Pedersen and Thomsen, 2003; de Miguel et al., 2004; Thomsen et al., 2006; Boone et al., 2011; Nguyen et al., 2015). On the other hand, other studies in similar countries do not find a significant relationship after treating for endogeneity (Earle et al., 2005; Omran et al, 2008). Wang and Shailer (2015) perform a meta-analysis on the relationship between ownership concentration and corporate performance by employing a sample of 42 primary studies of listed companies in 18 different emerging markets; they emphasise that their results highlight the importance of sufficient endogeneity treatment and model specification. Moreover, they support additional research regarding the ownership concentration and firm performance relationship, specifically comparative studies between countries that have apparently similar corporate governance structures. The results are mixed and there is no consensus yet, and even those studies that conclude with a significant relationship find different directions of the relationship and therefore the evidence they find supports different theories. Due to this, many of these studies emphasise that further research in such countries is required to have evidence that is more conclusive on the relationship between ownership structure and firm performance.

The current chapter employs a sample of listed companies from seven emerging markets that have seemingly similar corporate governance structures. The sample includes all seven stock exchanges in the six countries of the Gulf Cooperation Council (GCC), namely Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). The sample choice is

motivated by several factors. First, the ownership structures in the GCC markets are highly concentrated relative to other markets around the world as documented in previous literature (Alves, 2010; Santos, 2015). Second, an important characteristic of the GCC markets is the relatively large government ownership of listed firms (Abdullah and Ismail, 2017) and their general position being in the centre of the ownership structure networks (Santos, 2015). Third, since investor protection is generally weak, the concentrated ownership structures pose higher risks of expropriation of smaller shareholders by larger shareholders. Nevertheless, the markets in the GCC have recently had numerous regulatory reforms and corporate governance code enforcements (Al-Hadi et al., 2016a).

Fourth, the markets have been growing rapidly recently and one reflection of this growth can be seen through the increase of total listed firms in all the GCC markets from 473 firms in 2005 to 705 firms in 2013 (Eulaiwi et al., 2016). Kern (2012) highlights that the GCC stock markets make up 75% of GDP which exceeds the average of emerging economies found to be 58%. More importantly, such rapid growth is not only for a short period in the near past but is expected to continue in the near future as the GCC markets aim to expand, develop, and improve in numerous areas, including corporate governance. An example of this is the publication of *Saudi Vision 2030* in which Saudi Arabia highlights how it aims to diversify the capabilities of its economy and its revenues, how it is determined to become a global investment powerhouse, immediately take on significant transparency and accountability reforms, and provide the most favourable government services (Saudi Vision 2030, 2018). Finally, the growth is not only limited to domestic investors as the GCC markets have recently experienced increases in foreign direct investment (Mina, 2007), which naturally increases the importance of investigating such markets.

Each of these characteristics of the GCC markets relates to at least one theory of ownership structure and its effects on firm performance. Testing the specific relationships empirically will provide better insight on which theories are supported and which are challenged in the context and nature of such markets. To the best of the researcher's knowledge, no previous study investigates the impact of ownership concentration and owner identity on firm performance in the GCC context, while controlling for the potential reverse causality of firm performance on ownership structure.

3.2 Literature Review

3.2.1 General Literature

Despite a significant amount of literature in the field of corporate governance studies, the impact of ownership structure on firm performance is not yet clear. The motivation of this chapter stems mainly from some basic corporate governance theories. One of the core theories in the field is that of Berle and Means (1932), who state the possible consequences of having ownership (shareholders) and control (management) separated. A main concern they raise is about the assumption that those in control will always choose to function in the best interests of the owners. They argue that if the main force motivating each party is assumed to be the desire to pursue personal profit, then it must be concluded that the interests of ownership and control are essentially different, meaning that those in control will often not pursue the same goals that owners expect them to.

Jensen and Meckling (1976) further developed the Berle and Means theory by explaining the separation of ownership and control as the agency problem. The authors argue that when the agency problem is present, it is likely that the managers will not always act in the best interests of the owners as each party will usually seek to attain their own maximum utilities. Agency theory suggests that as managers own more firm shares, they are more incentivised to act in the owners' best interests; hence the agency problem should be lessened. The agency theory therefore proposes that one solution for the agency problem is greater managerial ownership, which in turn is expected to improve firm performance.

The idea of greater managerial ownership is expanded by Shleifer and Vishny (1986) to more concentrated ownership by investors. They explain how having large shareholders in general can help achieve better firm performance due to them undertaking closer management monitoring. This is because smaller shareholders do not have the same financial commitments as large shareholders, and the trade-off between that commitment and the costs associated with close monitoring is not likely to be worth it. Large shareholders are more committed financially and therefore would be more willing to tolerate the higher costs which could eventually pay off with higher returns. The main idea implied by their work is that the larger the shareholders are, the better a company will perform.

In contrast, other literature suggests that large shareholders could instead cause an adverse effect on firm performance as they could misuse their influential positions to exploit the assets of a firm for their private benefits at the expense of small shareholders (Barclay and Holderness, 1989; Bebchuk, 1999). The agency problem in this case would be worse as small shareholders could be mistreated by two parties instead of one. Not only could they be the victims of management decisions that are not in their own best interests, but they could also be exploited by large shareholders. This theoretical approach suggests an opposite effect in that large shareholders could actually diminish firm performance.

3.2.2 Empirical Literature

This section reviews empirical studies that are concerned with the relationship between ownership structure and firm performance. In this chapter, ownership structure is first measured by overall ownership concentration, which includes all large shareholders. Ownership structure is then measured by four sub-categories of ownership (i.e. owner identity) which are government, institutional, corporate, and individual/family. The relevant literature for each ownership structure category is reviewed under each of the sub-sections below.

3.2.2.1 Overall Ownership Concentration

Overall ownership concentration refers to the extent to which ownership structure is concentrated, as opposed to it being dispersed. As highlighted above, one theoretical approach suggests that large shareholders (i.e. higher ownership concentration) lead to better firm performance due to improved management monitoring (Shleifer and Vishny, 1986), while other theoretical approaches suggest that firms with large shareholders will have lower performance compared with firms that have dispersed ownership structures due to the exploitation of the firm's assets by large shareholders at the expense of small shareholders (Barclay and Holderness, 1989; Bebchuk, 1999).

Demsetz and Lehn (1985) were among the first to empirically test the theory of Berle and Means (1932). They were also among the first to provide evidence that the ownership structure of firms is endogenously determined, as argued by Demsetz (1983). They use 511 listed US firms to investigate the relationship between ownership concentration and firm performance, and find no significant relationship. Demsetz and Villalonga (2001) revisit this study and raise concerns about its finding due to endogeneity issues concerning ownership concentration. They deal with

endogeneity but still find no significant relationship between ownership concentration and firm performance. They state that their findings are in line with the view that markets are successful in determining the appropriate ownership structure (i.e. whether concentrated or diffused) for each firm. Agrawal and Knoeber (1996) use a sample of 383 listed US firms and also find no relationship between ownership concentration and firm performance after accounting for endogeneity. Weiss and Hilger (2012) use a sample of 1079 listed firms from 8 countries to investigate the relationship and although they initially find a curvilinear effect of ownership concentration on firm performance, the effect is insignificant after controlling for endogeneity and therefore their findings are in line with those of Demsetz and Villalonga (2001). There are several other studies that also come to the conclusion that there is no significant relationship between ownership concentration and firm performance after accounting for endogeneity (Loderer and Martin, 1997; Cho 1998; Himmelberg et al., 1999).

However, there are a few studies that find a negative relationship between ownership concentration and firm performance (Hill and Snell, 1989; Oswald and Jahera, 1991; Gedajlovic and Shapiro, 2002), and there are several that find a positive relationship. The positive relationship that is found is usually curvilinear, and while some of these studies find this positive association without treating for possible endogeneity issues (Morck et al., 1988; McConnell and Servaes, 1990), others find this relationship after controlling for endogeneity (de Miguel et al., 2004; Kapopoulus and Lazaretou, 2007; Hu and Izumida, 2008; Nguyen et al., 2015). Hu and Izumida (2008) employ a large sample of 715 listed Japanese firms from 1980 to 2005 and find a positive, U-shaped relationship between ownership concentration and performance. The authors state that this finding is consistent with the theory that large shareholders improve management monitoring, which in turn leads to better firm performance.

Empirical research in the context of the GCC countries includes Zeitun (2014) who uses a sample of 203 listed firms from five GCC countries and finds a positive and significant relationship between ownership concentration and firm performance. Abdullah and Ismail (2017) use a sample of 532 listed firms from the six GCC countries to investigate whether the level of ownership concentration affects the relationship between corporate governance quality and firm performance. They find that the positive relationship between governance quality and performance is stronger at low levels of ownership concentration whereas the value addition of

better governance is not maintained with more concentrated ownership. Even though Abdullah and Ismail (2017) do not directly test the relationship between ownership concentration and firm performance, it is yet of relevance to this chapter mainly for its empirical and geographical context. Finally, Martinez-Garcia et al. (2020) find that ownership concentration does not have a significant impact on firm performance for a sample of 692 GCC listed firms between the years 2009 and 2015, but that the relationship between ownership concentration and firm performance is moderated by formal institutions.

3.2.2.2 Government Ownership Concentration

The goal of a government shareholder can be different to that of other shareholders in that it may not always pursue the most common goal of share ownership, which is to maximise profits. Government owners may have other goals, such as to reduce unemployment or offer greater job security for employees. Some of these goals come at the expense of shareholder value maximisation. Shleifer (1998) argues that government ownership results in worse corporate governance than private ownership, which in turn exacerbates agency costs, and high agency costs usually lead to lower firm performance. Therefore, government ownership is expected to have a negative impact on firm performance. Other scholars state that the reason for this negative impact is the conflict of goals between government shareholders and other shareholders (Capobianco and Christiansen, 2011).

Nevertheless, previous empirical studies provide mixed results. There are several empirical studies that find a negative relationship between government ownership and firm performance. Gunasekarage et al. (2007) find that government ownership has a negative impact on firm performance using a sample of 1,034 Chinese listed firms between 2000 and 2004. Similarly, Megginson et al. (1994) investigate 61 companies from 18 countries that have been privatised and find that they become more profitable after privatization, indicating that firm performance is negatively influenced by state ownership. Li et al. (2009) use a sample of 643 non-financial Chinese listed firms and find a significant and robust negative relationship between government ownership and firm performance amongst only the more profitable firms in the sample. In their literature survey Megginson and Netter (2001) report that the majority of previous empirical studies find a negative relationship between government ownership and firm performance.

While government share ownership can negatively impact firm performance, it can sometimes be beneficial to firm performance. Firth et al. (2008) find that having government ownership in a firm makes it easier for the firm to raise capital from bank loans. Firms that are partly government owned may enjoy more advantages from the government such as better management monitoring than that of other shareholders (Le and Buck, 2011). Moreover, if a partly government owned firm requires help in a threatening situation, the government may prioritise it and choose to help as it has an ownership share of the firm. This can be very useful in such situations, given that the government is very powerful compared with other shareholders.

Tian and Estrin (2007) use a large sample of Chinese listed firms for the years between 1994 and 2004 to investigate the impact of government ownership on corporate value. They find a U-shaped relationship where government ownership negatively impacts corporate value up to a certain point, but beyond that the impact becomes positive. Their findings suggest that when the government has a large ownership share in a firm, it can actually improve firm performance. The result of this study is in contrast to the view that government ownership is expected to have a negative impact on firm performance as the government typically aims for economic, political, or social goals instead of value maximisation. One explanation for this finding is that concentrated share ownership by government can decrease agency costs, hence improve management monitoring, the same way as any other large shareholder would, as opposed to having a dispersed ownership structure. Another explanation suggests that the finding can be due to the nature of Chinese business, in which the government, through state officials or politicians, typically helps some firms by providing them with better loan access, government contracts, or even exceptions from the law. This explanation suggests the need for further research in other developing countries as it will help to better understand whether these findings are generalizable.

Hess et al. (2010) investigate a sample of Chinese listed firms from the year 2000 to 2004 and find a convex relationship between government ownership and firm performance after they account for endogeneity issues; they suggest that firm performance increases when government ownership levels are high in firms because governments put higher efforts into these firms. Moreover, several other studies use Chinese privatised firms to investigate the relationship between government ownership and firm performance and find similar relationships, and while

some do not account for endogeneity (Wei and Varela, 2003), others do (Shirai, 2004; Ng et al., 2009).

With regards to research on government ownership and firm performance in the countries of the GCC, there are a number of studies. Arouri et al. (2014) study a sample of 58 banks in the GCC and find that there is no significant impact of government ownership on firm performance. Nonetheless, Zeitun (2014) finds a positive and significant relationship between government ownership and performance. Also, Abdullah and Ismail (2017) find that the positive association between good governance and firm performance is strongest when government ownership concentrations are high.

3.2.2.3 Institutional Ownership Concentration

There are three different views as to how institutional ownership can affect firm performance. The first view concerns active monitoring, whereby institutional owners are actively involved in management monitoring, which helps reduce agency problems, and therefore improve firm performance (Shleifer and Vishny, 1986). Firm performance is improved as institutional investors use their developed management skills and wide knowledge to influence managers to perform more efficiently (Lin and Fu 2017). Additionally, somewhat like governments, institutional investors can make use of their relationships to provide greater funding opportunities for a firm (Shleifer and Vishny, 1986; Lin and Fu, 2017), hence improving firm performance. The second view concerns passive monitoring, whereby institutional owners have a short-term perspective and trade their shareholdings depending on their portfolio balancing requirements (Elyasiani and Jia, 2010) instead of actively monitoring management. As opposed to the active monitoring view, institutional owners under the passive monitoring view are not involved in the corporate governance of firms, and therefore are not expected to have a significant impact on the performance of firms. The third view is that of exploitation, whereby institutional owners work alongside management to expropriate the firm's assets at the expense of small shareholders. In this case, the main goal of institutional owners is their private benefit regardless of the consequences for other shareholders, and so they may provide instinctive support to the management and will be inclined to ignore management fraud (Lin and Fu, 2017). Institutional ownership is expected to have a negative influence on firm performance under the exploitation view.

There are numerous empirical studies that find a positive relationship between institutional ownership and firm performance and so support the active monitoring view. McConnell and Servaes (1990) provide evidence in support of this view using a sample of 1,173 and 1,093 US listed firms for the years 1976 and 1986, respectively. Similarly, Smith (1996) provides findings that support the active monitoring view using a sample of 51 US listed firms targeted by the California Public Employees Retirement System for the years from 1987 to 1993. Woidtke (2002) uses a pooled sample of Fortune 500 firms for the years from 1989 to 1993 and finds that ownership by private pension funds is positively related to firm performance. It is worth noting that for the same sample Woidtke (2002) finds that ownership by public pension funds is negatively related to firm performance. A possible explanation for this finding is that, as mentioned in the previous sub-section, governments, in this case public pension funds, typically pursue goals other than wealth maximisation - such as social and political goals. Cornett et al. (2007) use a sample of all S&P 100 firms for the years from 1993 to 2000 and find that the positive relationship between institutional owners and firm performance only holds for institutional owners that are less likely to have a business relationship with the firm. Yuan et al. (2008) use a sample of 1,211 Chinese listed firms for the years from 2001 to 2005 and find a positive relationship between ownership by mutual funds and firm performance. Additionally, Lin and Fu (2017) use a large sample of 2,465 Chinese listed firms for the years from 2004 to 2014 and find that although institutional ownership generally has a positive impact on firm performance, the large, foreign, and pressure-insensitive institutional owners[5] (i.e. firms that are less subject to management influence such mutual funds and public pension funds) have a greater positive impact than small, domestic, and pressure-sensitive institutional owners.

Nonetheless, some empirical studies find no significant relationship between institutional ownership and firm performance and therefore support the passive monitoring view. Agrawal and Knoeber (1996) find no significant relationship between institutional ownership and firm performance. Furthermore, Duggal and Millar (1999) investigate the impact of institutional ownership on firm performance using a sample of US listed firms that experienced takeovers

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[5] A study that provides a better understanding of the terms pressure-sensitive and pressure-insensitive institutional investors is that by Brickley et al. (1988), where they investigate a sample of 201 US firms which have 308 antitakeover amendments during 1984 and find a significant difference between the two types of institutional investors when they are voting for amendments. The pressure-insensitive firms (i.e. mutual funds, foundations, and public employee pension funds) were more likely to oppose management than pressure-sensitive institutional investors (i.e. banks, insurance companies, and trusts).

54

from 1985 to 1990 and find no significant relationship between bidder gains and institutional ownership.

There are however some empirical studies that support the exploitation view as they find a negative relationship between institutional ownership and firm performance. As mentioned above, Woidtke (2002) finds a significant and negative relationship between ownership by public pension funds and firm performance. Moreover, Ferreira and Matos (2008) employ a large sample of 11,224 unique firms from 27 countries for the years 2000 through 2005 and find a negative relationship between domestic institutional ownership and firm performance.

In the context of the GCC countries, while Zeitun (2014) finds no significant relationship between institutional ownership and firm performance, Arouri et al. (2014) find a significantly positive relationship. In addition, Abdullah and Ismail (2017) find that the positive relationship between good governance and firm performance is at its highest levels when domestic institutional ownership concentrations are high.

3.2.2.4 Corporate Ownership Concentration

It is important to distinguish corporate ownership (i.e. non-financial institutional owners) from institutional ownership (i.e. financial institutional owners) as the two owners are very likely to have different goals and objectives of share ownership. While the main objective of institutional owners is expected to be wealth maximisation, it is not necessarily that of corporate owners as it typical for them to own parts of other companies as part of their cross-holding and group structures (Kester, 1992). Nevertheless, the same theories can be applied on corporate owners of the effects of large shareholders on firm performance; either that they have a positive performance effect through the closer monitoring of management (Shleifer and Vishny, 1986) or that they have a negative performance effect due to the exploitation of firm assets at the expense of small shareholders (Barclay and Holderness, 1989). A more detailed discussion of the potential costs and benefits of having such owners is presented below in the hypothesis development section.

With regards to the empirical research on the relationship between corporate ownership and firm performance, the results are mixed. Several studies find that the relationship between corporate ownership and firm performance is negative (Lins and Servaes, 1999, 2002; Claessens et al.,

2000). Moreover, Thomsen and Pedersen (2000) find that corporate ownership has a significant negative influence on firm performance compared with institutional owners. Nevertheless, other studies find that it is positive but only after a certain percentage of share ownership is exceeded (Khanna and Palepu, 2000a, 2000b; Sarkar and Sarkar, 2000). Additionally, Pedersen and Thomsen (2003) find that corporate ownership exerts a significant and positive influence on firm performance.

3.2.2.5 Individual/Family Ownership Concentration

There are two views that can be associated with the relationship between individual/family ownership and firm performance. Both views revolve around the fact that individual and family owners typically also take on management roles because of their relationship with the firms they own. One view is that owners who are also managers are less likely to expropriate the assets of a firm as it is their own wealth, and therefore a positive performance effect is expected (Demsetz and Lehn, 1985). Nevertheless, another view is that owner managers may use their positions to expropriate a firm's assets at the expense of small shareholders, and therefore a negative performance effect is expected (Fama and Jensen, 1983).

Several studies find a positive relationship between family ownership and firm performance. Mishra et al. (2001) examine a sample of 120 Norwegian firms and find that family ownership has a positive effect on firm performance, with the relationship being stronger in the older firms, when they have larger boards, and when the firms have several classes of shares. Krivogorsky and Burton (2012) investigate the relationship using a sample of 1,533 firms from six different European countries and find a positive performance effect in firms in which individuals and families are the dominant owners. Other studies also provide evidence of family ownership and control having a positive performance effect on firms (McConaughy et al., 1998; McConaughy et al., 2001). On the other hand, Morck et al. (2001) investigate companies from 41 different countries and find that second generation family ownership has a negative performance effect. Nonetheless, numerous studies find no significant relationship between family ownership and firm performance (Daily and Dalton, 1992; Jayaraman et al., 2000; Pedersen and Thomsen, 2003; Andres, 2008; Sacristan-Navarro et al., 2011; Manawaduge and Zoysa, 2013).

3.2.3 Conclusion

The vast literature concerning firm performance and ownership structure, whether it is measured by overall concentration or by investor type, presents mixed results. While the empirical work of many studies finds that higher ownership concentrations are positively associated with firm performance, and so support the view that large shareholders improve management monitoring (Shleifer and Vishny, 1986), many other studies find that higher ownership concentrations are negatively associated with firm performance and so are in support of opposing views (Barclay and Holderness, 1989; Bebchuk, 1999).

With regards to empirical studies in the GCC context, the results are also mixed. The studies are few, with only two studies that include companies from all countries of the GCC and directly test for the relationship between ownership structure and firm performance. The major limitation of these studies is that they overlook critical issues of endogeneity. Arouri et al. (2014) do not control for any endogeneity issues in any way. Furthermore, while Zeitun (2014) does control for unobserved firm level heterogeneity using a fixed effects regression model, the critical endogeneity issue of reverse causality between ownership structure and firm performance is overlooked (see Himmelberg et al., 1999)[6]. Moreover, both studies include only some of all the listed firms across the GCC stock exchanges, as one includes only 58 banks and the other includes only 203 non-financial firms (Arouri et al., 2014; Zeitun, 2014, respectively). The aforementioned limitations suggest a call for further research that addresses them appropriately. This chapter fills this gap by empirically testing the relationship between ownership structure and firm performance using a sample that includes all listed firms in the GCC stock exchanges, while controlling for the endogeneity of ownership structure using an instrumental variable approach.

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[6] Himmelberg et al. (1999) emphasise the evidence from the Demsetz and Lehn (1985) cross-sectional study which points towards firm level heterogeneity in the ownership structure of firms; to control for this, they use a fixed effects regression model to estimate the impact of ownership concentration on firm performance. However, from their results, they find that the evidence against the exogeneity of ownership concentration is too strong and they suggest that a more model structure is required to sufficiently control for this endogenous nature of ownership. Therefore, they employ an instrumental variables approach to determine the impact of ownership on firm performance.

3.3 Hypotheses Formulation

The impact of ownership structure on firm performance can be tested using various methods; in addition, each variable can be measured in several ways. The first objective of this paper is to investigate whether the concentration of ownership structure (i.e. dispersed or concentrated) has an impact on firm performance. One way to measure this concentration is by calculating the percentage of shares owned by a firm's largest shareholders. Another way is to find the percentage of shares owned by the firm's single largest shareholder. The chosen method is discussed in the following sub-section.

Testing the relationship between ownership structure and firm performance simply by examining the overall concentration of ownership may be insufficient to accurately test the true relationship. Cubbin and Leech (1983) argue that it is crucial to take into account the location of control to accurately test such theories and relationships, and while the location of control in general can be classified as either internal or external to management, further classification (i.e. identification) of the external controlling parties is as important. They propose several possible divisions of external control including large individual shareholders, institutional investors such as insurance companies or pension funds, and other corporation shareholders either within the same industry or from another industry. Short (1994) highlights that these divisions are not limited meaning that additional divisions are possible and evaluates the theories which concern how the various identities of the external controlling parties can have different effects on firm performance. This chapter follows the previous literature that emphasises on the importance of accounting for the identity of owners as they differ on many levels including wealth, goals, knowledge, costs of capital, and non-ownership relations with the firm (Short, 1994; Pedersen and Thomsen, 1997; Thomsen and Pedersen, 2000). Therefore, in addition to the investigating the impact of overall ownership concentration on firm performance, the impact of owner identity is also considered.

3.3.1 Overall Ownership Concentration

The first part of this chapter aims to test the impact of overall ownership concentration (i.e. all large owners regardless of their identity) on firm performance. Some scholars argue that if large owners have different objectives than shareholder value maximisation, there could be an adverse effect on firm performance. For example, large owners may exploit the firm's assets for their own benefits on the expense of smaller shareholders (Barclay and Holderness, 1989). There are

58

various ways large owners could do this, including the use of insider information access for their private benefits and the exploitation of cash flow payments for themselves using their superior voting power (Shleifer and Vishny, 1997; La Porta et al., 2000; Holderness, 2001).

As would be expected, such exploitations would be much more difficult in countries where significant shareholder protection is present. Similarly, the risks of them happening are much less in countries where ownership structures are dispersed, as fewer large owners are present. Most previous studies covered developed countries such as the US and the UK, and in those countries such exploitations are typically less frequent due to their dispersed ownership structures and high shareholder protection. However, in developing countries such as those in continental Europe where ownership structures are typically more concentrated and shareholder protection is usually low, there are higher risks for those exploitations to happen (La Porta et al., 2000; Pedersen and Thomsen, 2003). In the GCC countries both ownership structures and shareholder protection levels are expected to be similar to those in continental Europe (i.e. concentrated and low, respectively). Empirical evidence on a negative effect of ownership concentration on firm performance would support these views.

Nevertheless, if it is assumed that the main objective of shareholders is to maximise their wealth through increasing the market value of a firm's shares, then, in theoretical terms at least, higher ownership concentration levels should increase monitoring of management and minimise agency costs, leading to improved firm performance (Shleifer and Vishny, 1986). As argued above, this is expected to have a more significant effect especially with larger shareholders as they are more committed financially than smaller shareholders, which is the case of the concentrated ownership structures in the GCC markets. Following this view, the main objective of shareholders seems to determine the expected ownership-performance relationship and therefore it is important to carefully evaluate the main objective of shareholders, which certainly differs from one shareholder to another.

Since this chapter divides the owners by identity, considers what costs and benefits each owner brings to a firm, and evaluates how these in turn affect firm performance, it is more appropriate that the expected impact of the overall ownership concentration is based on the aggregate impact of all the owners. Therefore, the expected effects of each owner and their magnitudes, which depend on the weights of their market shares, should be considered. As will be discussed in the

59

following sub-section, the only owners that are expected to have a negative impact on firm performance are governments, mainly due to them typically having goals of share ownership that do not include shareholder value maximisation. Even though governments are central in the ownership networks of the GCC markets and own significant stakes in the market (Santos, 2015), they do not own as much as institutions do (Abdullah and Ismail, 2017), and corporate and individual/family owners own almost as much as governments. Taking into consideration the expected positive impact of institutional and individual/family ownership and their relatively and significantly large stakes, respectively, the aggregate impact is expected to be positive. Moreover, previous empirical research in the GCC context finds a positive performance effect of overall ownership concentration (Arouri et al., 2011; Zeitun, 2014). Therefore, the first hypothesis is stated as follows:

Hypothesis 3.1: Overall ownership concentration has a significant positive effect on firm performance

3.3.2 Owner Identity

The second part of this chapter aims to investigate the impact that the identity of large owners has on firm performance. There are four ownership sub-categories that this chapter focuses on: government, institutional, corporate, and individual/family ownership. The reason for these choices is that the mentioned categories have a considerable presence in companies listed on the GCC stock markets (Zeitun, 2014; Abdallah and Ismail, 2017; Martínez-García et al., 2021). The four types of ownership are mutually exclusive and collectively exhaustive, meaning that measurements of ownership concentration do not overlap, and all large shareholdings are covered in the sample, respectively. The current chapter follows previous studies including Hansmann (1988) and Pedersen and Thomsen (2003) in the way that it considers the costs and benefits of each ownership category to determine its main objectives and to conclude its expected impact on firm performance.

Government ownership in a firm can bring some benefits that private owners cannot. First, because governments have access to tax revenues, they have greater potential to provide funds at lower costs for firms they own than do other private owners (Pedersen and Thomsen, 2003). With regards to the GCC countries and the fact that government tax revenues are relatively insignificant, this view is still unchanged as tax revenues are replaced with oil revenues. Second,

government owned firms typically have more protection when compared with private owned firms. For example, governments can usually increase the barriers to entry of the industry they operate in and can sometimes, using their power, go to the extreme of deciding who can and cannot participate in that industry. Nonetheless, the question remains as to whether or not these benefits can have a direct positive impact on firm performance.

As far as governments are concerned, firm value maximisation is not the main objective in almost all cases. Government owners typically prioritise other objectives including social welfare maximisation and various politically motivated objectives (Hart et al., 1997; Shleifer, 1998). Such objectives can come at the expense of value maximisation. For example, governments are ready to bear higher costs by choosing to keep hiring unneeded employees in order to maintain low unemployment rates. Moreover, as it is politically motivated, a government will very likely choose to transfer its resources for a certain job to its supporters, who are inefficient, over efficient opposition (Shleifer and Vishny, 1994). The views of government inefficiency, arising from politically motivated goals, suggest a negative effect of government ownership on firm performance (Shleifer, 1998). An additional cost of government ownership, which may not necessarily be present in every country, is the cost resulting from corruption. Governments that are corrupt can cause serious inefficiencies in government owned firms, which inevitably lead to low performance levels.

These factors are especially applicable to governments in the GCC, which have been documented to prioritise using their wealth for various objectives, such as balancing power between the most wealthy families, intervening in stock markets, and maintaining the country's economic and social development (Hanieh, 2011; Fainshmidt et al., 2018; Young, 2018; Martínez-García et al., 2021). All of these objectives can easily shift the focus away from shareholder wealth maxisimation, and its attainment therefore becomes considerably less likely with government owners as large shareholders in firms. Based on the discussion above, and based on previous empirical evidence on the negative performance effect of government ownership in the GCC stock markets provided in recent research (Martínez-García et al., 2021), the second hypothesis is formed as follows:

Hypothesis 3.2: *Government ownership concentration has a significant negative effect on firm performance*

The general assumption for institutional owners is that they invest in firms with the main objective of shareholder value maximisation (McConnell and Servaes 1990; Smith, 1996; Pedersen and Thomsen, 2003). Even though this is expected to be true in most cases, it must be noted that this is not always the case. For example, Woidtke (2002) finds that public pension fund ownership has a negative performance effect and highlights that some institutional owners may have other goals, which may be social or political goals in the case of public pension funds. With each type of institution (e.g. pension funds, mutual funds, banks, and insurance companies), there are slightly different objectives and therefore, slightly different costs and benefits of having them as institutional owners (Monks and Minow, 2012). However, the general objective remains that of maximising shareholder value.

Furthermore, institutions are typically monitored by governing bodies and therefore may have less freedom than other types of large owners to exploit a firm's assets at the expense of smaller shareholders. At higher levels of ownership, institutional owners have greater power and are expected to make use of it by closely monitoring management and ultimately, have a greater effect on shareholder value maximisation (Pedersen and Thomsen, 2003). Additionally, the amount of resources available to institutions is usually greater compared with other shareholders, such as individuals/families, including the funds readily available to them. Institutional owners in the GCC play a major role in the development of their respective economies, with their total investments in listed firms equaling about 370% of the region's GDP, which is significantly above the worldwide average institutional assets to GDP ratio of approximately 230% (Kern, 2012; Abdallah and Ismail, 2017). The idea that institutions have access to relatively more resources is therefore more applicable and magnified in the GCC context. Finally, previous empirical evidence in the GCC context supports a positive performance effect of institutional ownership concentration (Arouri et al., 2014). The third hypothesis is therefore stated as follows:

Hypothesis 3.3: *Institutional ownership concentration has a significant positive effect on firm performance*

The costs and benefits of corporate ownership must also be analyzed as non-financial investor companies are expected have different goals to financial investor companies. There can be various reasons and goals for corporations to own shares of other firms. One reason for corporate ownership is to vertically integrate, and this provides the firms with internal access to different

stages of the supply chain, which therefore places them at an advantage over other competitors that need to obtain required resources externally at relatively higher costs, and thereby improves their financial performance (Williamson, 1995). In addition, when corporations have ownership stakes in other firms, they are more incentivised to provide them with unique technologies and resources, which help increase firm performance (Kester, 1992; Caves, 1996).

The business relationships that are associated with company integration may, however, provide corporate owners with opportunities to expropriate firm assets at the expense of small shareholders, which in turn damages firm performance. Bertrand et al. (2002) suggest ways in which this can be done, including agreeing to business transactions in terms that are only to the advantage of the largest owners (i.e. the corporate owners themselves). Furthermore, an important reason that motivates a corporate owner to cross-own another firm is to protect itself from potential takeover, which is ensured through management entrenchment (Kester, 1992). This reason causes an additional prominent threat to the performance of a firm. It is important to note that there are no empirical studies that investigate the relationship between corporate ownership concentration and firm performance in the GCC context. Since both the costs and benefits of corporate ownership have strong arguments, hypothesis 3.4 is stated as follows:

Hypothesis 3.4: *Corporate ownership concentration has no significant effect on firm performance*

Single individuals or family shareholders often manage firms in addition to having control over them. Having owner managers can be beneficial to a company as it reduces the risk of asset expropriation by management (Demsetz and Lehn, 1985). In the cases where individuals and family owners are not managers, there are other potential benefits of their share ownership. First, as individuals and family owners typically invest large proportions of their wealth compared to the other types of owners, it is expected that they are more incentivised to monitor management closely to ensure good firm performance and hence protect their wealth. Another reason for them to be more incentivised is that as owners, they directly represent themselves, while other owners are usually indirect representatives of their principals (Pedersen and Thomsen, 2003). Such reasons are unique to individual/family owners and therefore provide them with strong incentives, relative to other owners, to closely monitor management.

On the other hand, the management entrenchment hypothesis suggests that owner managers may potentially use their positions of management and control to expropriate the firm's assets for their private benefits at the expense of small shareholders (Fama and Jensen, 1983). Moreover, having large proportions of total wealth invested can also be disadvantageous. Being wealth constrained can lead single individuals and families to be less willing to take risks and be more protective of their capital (Fama and Jensen, 1985), even in situations where taking additional risks may be necessary for survival, such owners are more likely to choose not to take more debts or issue shares to raise additional capital. Furthermore, family members may not show disagreement with those in management even if they should, to avoid hurting fellow family members and conflicts amongst family members concerning succession or other important decisions that can potentially have negative effects firm performance (James, 1999). Firm performance can also be damaged in instances where family ties undermine the decisions made and, for example, possibly unqualified family members are hired or executives are overpaid (La Porta et al., 2000). Morck et al. (1988) provide empirical evidence supporting the negative management entrenchment effect of family ownership and show that the effect is observed in family owners at much lower ownership levels than other types of owner managers.

Nevertheless, it is important to note that most of the costs of individual/family ownership highlighted apply specifically to family owners and not individual owners, while the benefits apply to both individual and family owners. Moreover, in an environment of weakly connected ownership networks, family owners stand out in the GCC with strong ownership networks and a high number of links, indicating that they have a relatively greater number of business ties and therefore greater access to resources (Santos, 2015). Previous research in the GCC context finds that family ownership concentration has a positive impact on firm performance (Arouri et al., 2014). The fifth hypothesis is therefore stated as follows:

Hypothesis 3.5: *Individual/Family ownership concentration has a positive significant effect on firm performance.*

3.4 Methodology

3.4.1 Sample

The data sample for this chapter includes all companies (i.e. financial and non-financial companies) listed on all seven stock exchanges in the countries of the Gulf Cooperation Council (GCC). There are six member countries of the GCC: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (UAE). Every country has one stock exchange except the UAE where there are two: the Abu Dhabi Securities Exchange and the Dubai Financial Market. The initial data sample for all companies yields a total of 734 listed companies, that is, a total of 3,670 firm-year observations for the five-year period between 2012 and 2016. However, 607 firm-year observations are dropped from the sample due to missing data, firms suspended from trading, or firms cross-listed in another GCC stock market and not headquartered in the country of the stock exchange. Therefore, over the five-year period from 2012-2016, the final sample comprises a total of 3,063 firm-year observations, covering 663 listed companies. Table 3.1 presents the stock exchanges included in the sample and the respective number of firms from each. Table 3.2 presents the distribution of the firms across the different stock market industries; the industry groups are based on the most commonly used industry classifications in the seven GCC stock markets. All the data were collected from the Thomson Reuters EIKON database. The ownership concentration data were cross-checked by hand with the corporate governance reports of the firms, where available, and from the websites of their respective stock exchange. In the rare cases where the ownership concentration information contradicted that found in the Thomson Reuters EIKON database, the corporate governance reports were deemed to be the more reliable sources and therefore the data provided in them was used.

Table 3.1: Number of Firms by Stock Exchange

Stock Exchange (Country)	Number of Firms (% of Total)
Bahrain Bourse (Bahrain)	40 (6.0%)
Boursa Kuwait (Kuwait)	194 (29.3%)
Muscat Securities Market (Oman)	110 (16.6%)
Qatar Stock Exchange (Qatar)	42 (6.3%)
Tadawul Stock Exchange (Saudi Arabia)	161 (24.3%)
Abu Dhabi Stock Exchange (United Arab Emirates)	63 (9.5%)
Dubai Financial Market (United Arab Emirates)	53 (8.0%)
Total Number of Firms	**663 (100%)**

Table 3.2: Number of Firms by Industry

Industry	Number of Firms (% of Total)
Banks	69 (10.4%)
Financial Services & Investment	101 (15.2%)
Insurance	79 (11.9%)
Real Estate	71 (10.7%)
Consumer Services (Discretionary)	59 (8.9%)
Consumer Goods (Staples)	54 (8.2%)
Basic Materials	71 (10.7%)
Industrials	81 (12.2%)
Energy & Utilities	37 (5.6%)
Telecommunications	21 (3.2%)
Healthcare & Technology	20 (3.0%)
Total Number of Firms	**663 (100%)**

3.4.2 Approach – Instrumental Variables Method and Instrument Choice

The literature review highlights the evidence about the endogeneity of ownership structure, the importance of controlling for this issue, and the various methods that can be used to do so. Himmelberg et al. (1999) provide empirical evidence that even though fixed effects models deal

with potential heterogeneity of the ownership structure among firms, they are insufficient in controlling for other endogeneity issues such as reverse causality, and that other methods such as instrumental variables models, which they also perform, should better control for such issues. Several other scholars also identify the instrumental variables method as one of the more plausible methods available to mitigate potential reverse causality between ownership and firm performance (Demsetz and Lehn, 1985; Cho, 1998; Demsetz and Villalonga, 2001; Pedersen and Thomsen, 2003). Nevertheless, it is important to note that such an approach can be difficult to implement as its success depends on the strength of instruments used (i.e. the instruments must be sufficiently correlated with the endogenous variable) and that it meets the exclusion restriction, which means that the instrument is not correlated with the error term of the main equation.

An ideal instrument for the current situation is a variable that is expected to have an impact on firm performance only through its impact on ownership structure. In other words, the instrument should not have a direct effect on firm performance. To ensure that the selected instruments are viable, they are chosen according to their success in previous studies. Demsetz and Lehn (1985) investigate the determinants of ownership structure and find that firm size and firm risk have a significant impact on ownership structure. Later empirical studies follow this finding and use those two variables as instruments of ownership structure when estimating the performance equation and provide evidence of their viability (Demsetz and Villalonga, 2001; Pedersen and Thomsen, 2003). Furthermore, Richter and Weiss (2013) employ a sample of 900 firms from 9 countries and provide empirical evidence that firm- and country-level factors affect ownership concentration much more strongly than industry-level factors; the firm-level factors account for a significant portion of the variation of ownership concentration and the two significant factors specifically are firm size and firm risk, which as they highlight confirm the findings in the previous studies. The current chapter follows these studies and initially employs both firm size and firm risk as instruments of ownership concentration. However, the preliminary analysis and results show that firm risk is not a significant predictor of ownership concentration in the GCC markets. Two different measures of firm specific risk are used but it is deemed not a viable instrument as both measures are not sufficiently correlated with ownership concentration and therefore, to avoid weak instrument bias in the results, it is dropped from the model.

Following evidence presented in the reviewed literature, firm size is expected to be strongly and significantly correlated with ownership concentration, with an inverse relationship between firm size and ownership concentration. A possible reason for this relationship is that it is typically more difficult financially to buy large percentages of larger companies, especially for investors that are wealth constrained relative to other investors. Another reason is that larger companies usually appear more frequently on the prominent trading indices in markets and therefore attract a wider range of investors; a higher number of investors normally leads to less concentrated ownership structures. Such reasons are thought to be the main causes of a negative relationship between firm size and ownership concentration. Although this strong correlation is sufficient to meet one of the two instrument assumptions, the exclusion restriction must also be met.

It may be argued that firm size can be correlated with firm performance as it reflects future growth opportunities. For example, it may be expected that smaller firms have greater growth opportunities than the mature, larger firms, and that would have a significant impact on firm performance. Himmelberg et al. (1999) acknowledge such an argument but highlight that the arguments against operating margins, capital ratios, advertising, research and development, and investment, all of which reflect future growth opportunities, are stronger. They choose to include the latter three in their performance equation. In the case of the current chapter, this is not a reasonable option as the study employs all firms listed in the GCC markets, financial and non-financial companies. Therefore, capital expenditure and free cash flow, scaled by total sales and total assets, respectively, are two variables that are included in the performance equation to control for growth opportunities and available resources. The argument to include firm size in the performance equation is now addressed and its possible impact on firm performance is controlled for using variables with a relatively stronger argument; this means that firm size is no longer included in the performance equation, is not expected to be correlated with the error term and satisfies the exclusion restriction as its possible effect is captured by other variables which are included in the performance equation, and therefore can be used as a viable instrument for ownership concentration (Himmelberg et al., 1999).

The simultaneous equation model, Model 3.1, is estimated with a two-stage least squares (2SLS) panel data regression and is specified in the following form:

The main performance equation (second-stage regression):

$$FP_{it} = \beta_0 + \beta_1 OC_{it} + \beta_2 LEV_{it} + \beta_3 SG_{it} + \beta_4 lnFA_{it} + \beta_5 CAPEX_{it} + \beta_6 FCFA_{it} + \beta_7 AFPI\_c_{it} + \beta_8 AFPC\_c_{it} + \beta_9 Year + e_{it}$$

Where the endogenous variable, OC, comprises its predicted values which are obtained from the first-stage regression:

$$OC_{it} = \delta_0 + \delta_1 lnFS_{it} + \delta_2 LEV_{it} + \delta_3 SG_{it} + \delta_4 lnFA_{it} + \delta_5 CAPEX_{it} + \delta_6 FCFA_{it} + \delta_7 AFPI\_c_{it} + \delta_8 AFPC\_c_{it} + \delta_9 Year + u_{it}$$

lnFS (natural logarithm of firm size) is the excluded exogenous variable that is employed as the instrumental variable for the instrumented variable, OC (ownership concentration). Following the estimation of OC as the dependent (i.e. instrumented) variable in the first stage, its predicted values are used to replace the original endogenous variable in the second stage, that is, the performance equation. After the two-stage least squares estimation of the equations with OC as the endogenous variable, the other four measures ownership concentrations are substituted for OC one at a time and the equations are estimated again to assess whether owner identity plays a role in the ownership performance relationship. The four measures of ownership concentrations by identity are: GOC, IOC, COC, and FOC (government ownership concentration, institutional ownership concentration, corporate ownership concentration, and individual/family ownership concentration, respectively). All of the models are estimated with heteroscedasticity- and autocorrelation-consistent estimates; the details follow in Section 3.5.1.

3.4.3 Variables

Table 3.3 below summarises the variables and their descriptions. Firm Performance (FP) is the main dependant variable and is measured by two different market-based measures for robustness: Tobin's Q (TQ) and the Market to Book Value of Equity (MBTE). The choice to employ market-based measures is motivated by three central factors. First, this thesis is based on the focused definition of corporate governance, which suggests that corporate governance refers to the set of mechanisms investors use to make managers provide them with maximum returns on their investments (Shleifer and Vishny, 1997; Denis and McConnell, 2003). The three theories

empirically tested in this thesis all apply to this definition; agency theory, stewardship theory, and resource dependence theory revolve in a similar manner around the effects of internal corporate governance mechanisms on shareholder value; and the higher is shareholder value, the better a firm is considered to be performing. The implication therefore is that shareholder value is an appropriate measure of firm performance.[7]

Second, as Demsetz and Villalonga (2001) emphasise, a crucial difference between accounting-based measures and market-based measures of firm performance is the time perspective, as the former are backward-looking as the values are from past results, while the latter are forward-looking as they reflect an estimation of what future results are expected to be. This difference becomes even more important when the issue of reverse causality between ownership structure and firm performance is taken into account. Endogeneity bias in the estimations of the regression model will only increase if the measure of firm performance used is based on past results (e.g. ROA), making it very difficult to establish the causal effect of ownership structure on firm performance. Third, Tobin's Q is the most frequently employed measure of firm performance in this line of research (Wintoki et al., 2012), and so to allow for a better comparison with previous findings, it is employed as the main focus in this thesis.

An approximation of Tobin's Q is used, following Chung and Pruitt (1994) who provide evidence that their equation, approximate Q, yields results that explain 97% of the variability of Tobin's Q as estimated using Lindenberg and Ross' (1981) more theoretically correct equation. This calculation of Tobin's Q is also commonly adopted in the literature (Loderer and Martin, 1997; Demsetz and Villalonga, 2001; Thomsen et al., 2006, among others). Therefore, TQ is calculated as the total of market value of equity, plus the value of preferred stock and total debt, all divided by the total assets. MBTE is calculated as the market value of total equity divided by the book value of total equity. The difference between the two measures is that while TQ includes the value of total debt in its numerator and denominator, MBTE excludes it totally, and focuses only on the market and book values of total equity. The two measures therefore offer different perspectives on the market value of firms, and it should be noted that the higher the

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[7] It is worth noting that because market-based measures of firm performance reflect shareholder value, some scholars prefer to differentiate them by referring to them as measures of firm value, rather than firm performance. Nevertheless, the two terms, firm value and firm performance, are used interchangeably in this thesis, in line with many previous studies (e.g. Demsetz and Lehn, 2001; Guest, 2009; Nguyen et al., 2015).

proportion of debt in a firm's capital structure, the greater is the variance between the two measures.

The main independent variables are different measures of ownership concentration: Overall Ownership Concentration (OC), Government Ownership Concentration (GOC), Institutional Ownership Concentration (IOC), Corporate Ownership Concentration (COC), and Individual/Family Ownership Concentration (FOC). There are various ways for ownership concentration levels to be measured (see Mavruk et al., 2020), including the percentage of shares owned by the largest shareholder, by the total percentage of shares held by a specified number of largest shareholders, or by Herfindahl indices. After reviewing the literature, it is evident that each study employs the measure that best suits the data sample used. This is done to avoid inappropriate measurements as for example it would not be practical to use the measure of all shareholders owning more than 5% shares in countries where ownership structures are generally dispersed (such as the US and the UK) and where such concentrated owners are rare (La Porta et al., 1999; Demsetz and Villalonga, 2001). Therefore, taking into consideration the typically concentrated ownership structures in the GCC countries (Abdallah and Ismail, 2017), and following previous studies that employ samples with such concentrated ownership structure (Pedersen and Thomsen, 2003; Thomsen et al., 2006), the current chapter measures each of the ownership concentration variables by adding together the total percentages of shares held by all shareholders holding at least 5%.

Table 3.3: Variable Definitions

Variable	Definition
TQ	Tobin's Q of company: (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$
MBTE	Market Value of Equity$_t$ / Book Value of Equity$_t$
OC	Total ownership concentration of all shareholders owning at least 5%
GOC	Total ownership concentration of all government shareholders owning at least 5%
IOC	Total ownership concentration of all institutional shareholders owning at least 5%
COC	Total ownership concentration of all corporate shareholders owning at least 5%
FOC	Total ownership concentration of all individual/family shareholders owning at least 5%
LEV	Leverage measured by Total Debt$_t$ / Total Assets$_t$
SG	Sales Growth (Sales$_t$ – Sales$_{t-1}$ / Sales$_{t-1}$)
FA	Firm age in years from date of IPO
lnFA	Natural logarithm of Firm Age
CAPEX	Capital Expenditure$_t$ / Total Sales$_t$
FCFA	Free Cash Flow$_t$ / Total Assets$_t$
FS	Firm Size measured by Book Value of Total Assets$_t$ in USD thousands
lnFS	Natural logarithm of Firm Size
AFPI	Average Firm Performance by Industry
AFPC	Average Firm Performance by Country
AFPI_c	Average Firm Performance by Industry *Centred* by subtracting the mean from all obs.
AFPC_c	Average Firm Performance by Country *Centred* by subtracting the mean from all obs.
NGI	National Governance Index: An aggregate of three national governance quality indicators
GDPG	Annual GDP Growth
FDIG	Annual Foreign Direct Investment scaled by GDP

Following the empirical literature, the variables that are controlled for are Leverage (LEV), Sales Growth (SG), Firm Age (FA), the Capital Expenditure / Total Sales ratio (CAPEX), the Free Cash Flow / Total Assets ratio (FCFA), Average Firm Performance by Industry (AFPI), and

Average Firm Performance by Country (AFPC). Firm Size (FS) is measured as the book value of total assets of a firm and its natural logarithm (lnFS) is the instrument of ownership concentration (see Himmelberg et al., 1999; Pedersen and Thomsen, 2003; Abdallah and Ismail, 2017). FA is firm age measured by the number of years since the firm's Initial Public Offering (IPO) date, while lnFA is the natural logarithm of firm age, included to control the non-linearity in the relationship between firm age and firm performance (see Wintoki et al., 2012; Liu et al., 2015). LEV is calculated as total debt divided by total assets. SG is the annual growth rate in sales as a percentage. CAPEX and FCFA are capital expenditure scaled by total sales and free cash flow scaled by total assets, respectively, included to account for growth prospects and firm resources (Himmelberg et al., 1999) as discussed above in Section 3.4.2.

The thesis acknowledges that there are industry- and country-level factors that may have a significant impact on firm performance. Examples of these include market concentration measures and overall stock market measures, respectively. To ensure that heterogeneity bias caused by these differences is controlled for, the average firm performance by industry (AFPI) and average firm performance by country (AFPC) variables are included in the regression model to account for any performance impact that industry- and country-level factors may have. Both variables are replaced by their centred transformations, AFPI_c and AFPC_c, in the main model to mitigate issues of multicollinearity as explained in Section 3.5.1 below.

Three additional time-varying country-level control variables are included for additional robustness checks that are performed in Section 3.5.5: NGI, GDPG, and FDIG. NGI is a national governance index that is employed to control for country-level differences in the national quality of governance. NGI is constructed using the *Worldwide Governance Indicators*[8], which are considered to be the most commonly used indicators in cross-country empirical studies (Ngobo and Fouda, 2012; Nguyen et al., 2015). There are six dimensions of the Worldwide Governance Indicators: control of corruption, government effectiveness, political stability and absence of violence, regulatory quality, rule of law, and voice and accountability. The indicators comprise values that range between -2.5 and +2.5, where the higher the value the better the governance quality is (Kaufmann et al., 2011). Previous scholars that employ the Worldwide Governance Indicators in this line of research suggest that out of the six dimensions, three are most relevant

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[8] The Worldwide Governance Indicators are developed by Kaufmann et al. (2011), and are available at: https://info.worldbank.org/governance/wgi/

to business operations and activities, namely government effectiveness, regulatory quality, and rule of law (Knudsen, 2011; Van Essen et al., 2013; Nguyen et al., 2015). Following Knudsen (2011) and Nguyen et al. (2015), NGI is constructed as an aggregate index of the three governance indicators (government effectiveness, regulatory quality, and rule of law) to avoid the problem of severe multicollinearity that arises when the three governance indicators are separately included in one equation model. Finally, GDPG and FDIG control for differences in economic growth and development amongst the countries, where GDPG is annual GDP growth and FDIG is annual foreign direct investment scaled by GDP.

3.5 Empirical Results

The results reported cover all firms that were listed on all seven stock exchanges in the six GCC countries during the five-year period from 2012-2016 for which data are available. The complete data available yield a sample of 3,063 firm-year observations, representing a total of 663 GCC listed firms.

3.5.1 Data Diagnostics

The sample is assessed for outliers using graphical techniques, such as dot plots and spike plots (see Appendix A for examples), and numerical techniques, such as the mean and standard deviation method. Numerous variables have some observations that seem to be problematic outliers (i.e. the observations that clearly deviate from the sample based on the graphs and deviate from the mean by more than 10 standard deviations). Therefore, all of the variables are winsorized at the 1% and 99% levels, which is a common approach in the literature (e.g. Balbat et al., 2004; Schultz et al., 2010; Nguyen et al., 2015; Abdallah and Ismail, 2017). Following the estimation of the initial models, several issues were prominent. First, two variables, AFPI and AFPC, appear to suffer from severe multicollinearity with Variance Inflation Factors (VIF) that are well over 10 (Wooldridge, 2016; Asteriou and Hall, 2016). They are therefore replaced with their centred transformations after which no signs of severe multicollinearity are present as all VIFs are lower than 10 (Appendix B). In fact, no VIF is greater than 5 in all the models, and so the possibility of severe multicollinearity issues is mitigated. In addition, preliminary tests indicated that all the estimations suffer from heteroscedasticity and autocorrelation (i.e. the White-Koenker and the Arallano-Bond tests, respectively) meaning that the estimates are

inefficient and that the t-statistics and confidence intervals are not valid. So, to correct for this, all the models are estimated using heteroscedasticity- and autocorrelation-consistent (HAC) variance estimates.

3.5.2 Descriptive Statistics

Table 3.4 summarises the descriptive statistics of all the variables. The mean TQ is 1.249 and the mean MBTE is 1.62. As expected, and documented in the literature (Santos, 2015; Abdallah and Ismail, 2017), the overall ownership structure is highly concentrated relative to countries with market-based structures, averaging 50.9%. The averages of government and institutional ownership are the highest, at 11.3% and 19.0%, respectively, which is consistent with the literature that emphasises the significant size of both government and institutional ownership in the GCC context (Santos, 2015). Nonetheless, corporate and family/individual owners also have a significant presence in the GCC markets, averaging 9.3% and 11.0%, respectively. Table 3.5 presents a correlation matrix for all of the variables.

Table 3.4: Descriptive Statistics

	Mean	p25	p50	p75	SD	Min	Max
TQ	1.249	0.879	1.057	1.384	0.667	0.413	4.400
MBTE	1.620	0.718	1.183	1.910	1.541	0.236	9.799
OC	0.509	0.311	0.525	0.700	0.251	0.000	0.980
GOC	0.113	0.000	0.000	0.151	0.195	0.000	0.804
IOC	0.190	0.000	0.080	0.327	0.239	0.000	0.910
COC	0.093	0.000	0.000	0.109	0.173	0.000	0.739
FOC	0.110	0.000	0.000	0.165	0.169	0.000	0.706
FS	3808046	130272	362645	1311313	11077221	9507	74424765
lnFS	13.086	11.777	12.801	14.087	1.936	9.160	18.125
LEV	0.489	0.264	0.488	0.713	0.261	0.022	0.940
SG	0.181	-0.068	0.047	0.167	0.841	-1.048	5.708
FA	14.129	7.000	11.000	19.000	9.121	1.000	38.000
lnFA	2.416	1.946	2.398	2.944	0.735	0.000	3.638
CAPEX	0.100	0.008	0.033	0.101	0.177	0.000	0.846
FCFA	0.021	-0.018	0.017	0.060	0.084	-0.245	0.281
AFPI	1.259	1.002	1.139	1.529	0.420	0.724	2.893
AFPC	1.259	0.981	1.143	1.378	0.325	0.981	1.792
AFPI_c	0.000	-0.257	-0.120	0.270	0.420	-0.535	1.634
AFPC_c	0.000	-0.278	-0.116	0.119	0.325	-0.278	0.533
NGI	1.036	0.260	0.680	1.690	1.125	-0.280	3.260
GDPG	0.035	0.018	0.035	0.047	0.020	0.005	0.093
FDIG	0.014	0.005	0.012	0.020	0.017	-0.031	0.115
N	3,063						

The dependent variable, firm performance, is measured by two market-based measures, TQ and MBTE. Tobin's Q (TQ) is calculated as Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$, while Market-to-Book Value of Equity (MBTE) is calculated as Market Value of Total Equity$_t$ / Book Value of Total Equity$_t$. The independent variable, ownership structure, is measured by five variables: Overall Ownership Concentration (OC) is the total ownership concentration of all shareholders owning >5%, while GOC is the total ownership concentration of all government shareholders, IOC is the total ownership concentration of all institutional shareholders, COC is the total ownership concentration of all corporate shareholders, FOC is the total ownership concentration of all individual/family shareholders, all of which own at least 5% of shares. FS is Firm Size measured by USD thousands and lnFS is the natural logarithm of Firm Size. LEV is leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, FA is the Firm Age in years since its Initial Public Offering date, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. There are three time-varying country-level controls: NGI is the National Governance Index, which is an aggregate of three national governance quality indicators, GDPG is the Annual GDP Growth, and FDIG is the Annual Foreign Direct Investment scaled by GDP.AFPI and AFPC are the Average Firm Performance (as measured by TQ) by Industry and by Country, respectively, while AFPI_c and AFPC_c are their centred transformations. N denotes the number of firm-year observations.

Table 3.5: Correlation Matrix; N = 3,063

	TQ	MBTE	OC	lnFS	LEV	SG	lnFA	CAPEX	FCFA	AFPI_c	AFPC_c
TQ	1.000										
MBTE	0.830***	1.000									
OC	0.000	0.030*	1.000								
lnFS	-0.051***	-0.026	-0.105***	1.000							
LEV	-0.058***	0.160***	0.037**	0.502***	1.000						
SG	-0.003	0.011	-0.018	-0.021	0.004	1.000					
lnFA	-0.118***	-0.202***	-0.017	0.077***	-0.001	-0.116***	1.000				
CAPEX	0.031*	-0.034*	-0.044**	-0.069***	-0.050***	0.030*	-0.050***	1.000			
FCFA	0.180***	0.102***	0.097***	-0.002	-0.155***	-0.110***	0.076***	-0.161***	1.000		
AFPI_c	0.587***	0.518***	-0.149***	0.003	-0.017	-0.037**	-0.123***	0.332***	0.045**	1.000	
AFPC_c	0.461***	0.425***	-0.261***	0.166***	0.066***	-0.003	0.074***	0.196***	-0.004	0.774***	1.000

*** p<0.01, ** p<0.05, * p<0.1

The dependent variable, firm performance, is measured by two market-based measures, TQ and MBTE. Tobin's Q (TQ) is calculated as Market Value of Equity$_t$ + Total Debt$_t$)/ Total Assets$_t$, while Market-to-Book Value of Equity (MBTE) is calculated as Market Value of Total Equity$_t$/Book Value of Total Equity$_t$. The main independent variable, Overall Ownership Concentration (OC), is the total ownership concentration of all shareholders owning at least 5%. lnFS is the natural logarithm of Firm Size, which is measured by the Book Value of Total Assets$_t$. LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_t$, lnFA is the natural logarithm of Firm Age, measured in years since its Initial Public Offering date, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformations of Average Firm Performance (as measured by TQ) by Industry and by Country, respectively. N denotes the number of firm-year observations.

A significant strong correlation of 0.83 is found between MBTE and TQ, which is expected as both are market-based measures of firm performance. They are not employed together, but separately for robustness checks. To avoid multicollinearity issues, relatively high correlations (i.e. greater than 0.8) between the explanatory variables are regarded as problematic (Berry and Feldman, 1985). There are no correlations amongst the variables that are greater than 0.8. It is worth noting that although a significant high correlation of 0.774 is found between AFPI_c and AFPC_c, it is not an issue as it is an expected correlation between two variables that represent averages of the main dependent variable (TQ); the two variables are essential to control for industry and country differences, respectively. In addition, and as mentioned above, they are the centred transformations of the original variables, and after they were centred no signs of severe multicollinearity are present in all the estimations as the VIFs of all the variables is less than 10.

3.5.3 Effects of Overall Ownership Concentration

The regression model for overall ownership concentration is first estimated using Ordinary Least Squares (OLS) and the results are reported merely for comparison purposes (Table 3.7). The OLS regression estimates show a significant positive relationship between ownership concentration and TQ, which is consistent with the expectation in Hypothesis 3.1. Nevertheless, the extant literature that suggests possible endogeneity of ownership concentration means that such a result may be biased (Demsetz and Lehn, 1985; Loderer and Martin, 1997; Himmelberg et al., 1999, among others). The 2SLS estimation (Equation Model 3.1) with an instrumental variable (i.e. lnFS) for ownership concentration is therefore crucial to assess the consistency of the relationship. After controlling for the endogenous nature of ownership concentration, including possible reverse causality, with the instrumental variables method, the findings from the 2SLS estimation remain similar to the OLS findings, pointing to a significant positive effect of overall ownership concentration on TQ (t-statistic 2.16, $p < 0.05$). The result is robust against the alternate market-based performance measure, MBTE (Table 3.8).[9] Hypothesis 3.1 is

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[9] The results of both the overall ownership effects and the identity effects are not robust against the accounting-based measure of firm performance, ROA. This does not have an impact on the final conclusions of this study for two reasons, both of which have been mentioned. First, ROA is included merely for additional robustness checks and is not the main focus of the study; the main focus of the study is firm performance as measured by Tobin's Q which is necessary for comparison purposes as it is the most frequently used measure in the line of research. In addition, most theories in the line of research revolve around the effects of ownership structure on shareholder value, indirectly making the assumption that firm performance is measured by shareholder value; the assumption is not surprising since those theories actually stem from assuming that the main objective of most shareholders is shareholder value maximisation. Market-based measures of firm performance, as opposed to accounting-based

therefore accepted as the evidence supports the view that higher ownership concentration levels improve firm performance (Shleifer and Vishny, 1986). The control variables behave as predicted except for sales growth which seems to have no significant impact on firm performance.

Importantly, the instrument's strength is assessed using the F-statistic of the first-stage regression (F-statistic 30.98, $p < 0.001$). The F-statistic is significant and larger than 10, which is the minimum acceptable value in the weak instrument test suggested by Stock and Yogo (2005). Table 3.6 below reports the results of the weak instrument test for the five ownership concentration variables, all of which are robust to the test. Following this, exogeneity tests can be performed to assess whether ownership concentration is endogenously determined in the sample (Table 3.6). The robust score chi-square and the robust regression tests are used to check for this (Wooldridge, 1995). All of the results are significant ($p < 0.05$), rejecting the null hypothesis that the instrumented variables are exogenous, meaning that they suffer from endogeneity bias, which must be controlled for. This confirms that the use of econometric techniques, such as the instrumental variable method employed in this chapter, is necessary to deal with this bias. Finally, it is worth noting that the instrument, firm size (lnFS), behaves as expected and has a negative relationship with the instrumented variable, overall ownership concentration (OC).

Table 3.6: Weak Instrument Test and Instrumented Variable Exogeneity Tests

Instrumented / Instrument	OC / lnFS	GOC / lnFS	IOC / lnFS	COC / lnFS	FOC / lnFS
Weak Instrument Test					
First-stage Regression F-statistic	30.98	372.49	178.22	71.45	59.94
Exogeneity Tests					
Robust Score Chi^2 Test	0.002	0.000	0.000	0.001	0.000
Robust Regression Test	0.002	0.000	0.000	0.001	0.000
No. of Observations	3,063	3,063	3,063	3,063	3,063

Following Stock and Yogo (2005), the first-stage regression F-statistic is the Cragg-Donald Wald F-statistic (Cragg and Donald, 1993) of the first stage regression. The reported values for both tests of exogeneity are the p-values, where the null hypothesis is that the instrumented variable is exogenous, hence a significant p-value (p<0.05) would reject the null and indicate the presence of endogeneity.

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measures, naturally reflect shareholder value, hence the choice to employ and focus on the two market-based performance measures, Tobin's Q and Market to Book Value of Total Equity.

Table 3.7: Overall Ownership Effect on Firm Performance (as measured by TQ)

	Pooled OLS	First	2SLS
Variables	**TQ**	**OC**	**TQ**
lnFS		-0.01608***	
		(-3.41)	
OC	0.22528***		1.33602**
	(6.24)		(2.16)
LEV	-0.07341**	0.13725***	-0.15952**
	(-1.96)	(4.41)	(-1.98)
SG	0.01951	-0.00137	0.02050
	(1.46)	(-0.28)	(1.49)
lnFA	-0.04486***	0.00169	-0.04375*
	(-2.76)	(0.18)	(-1.66)
CAPEX	0.12879**	0.03599	0.11119
	(2.15)	(1.04)	(1.23)
FCFA	1.26844***	0.35488***	0.92010***
	(6.98)	(5.15)	(2.63)
AFPI_c	0.84881***	0.06201**	0.76102***
	(15.86)	(2.31)	(7.31)
AFPC_c	0.13780**	-0.25575***	0.45448**
	(2.34)	(-7.23)	(2.20)
Year	Yes	Yes	Yes
Constant	1.24223***	0.62845***	0.73402***
	(25.61)	(10.92)	(2.60)
Observations	3,063	3,063	3,063
F-value	82.61	30.98	33.59
R-squared	0.391		

t statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The dependent variable, firm performance, is measured by the market-based measure Tobin's Q (TQ), which is calculated as Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. lnFS is the logarithm of Firm Size and is the instrument of OC in the first-stage of the 2SLS estimation. The instrumented (first-stage) and main independent variable (second-stage), Overall Ownership Concentration (OC), is the total ownership concentration of all shareholders owning at least 5%. LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$)/Sales$_{t-1}$, lnFA is the natural logarithm of Firm Age, which is measured in years since its Initial Public Offering date. CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformation of the Average Firm Performance (as measured by TQ) by Industry and by Country, respectively. Year indicates whether time effects are controlled for. N denotes the number of firm-year observations.

Table 3.8: Overall Ownership Effect on Firm Performance (as measured by MBTE)

	Pooled OLS	First	2SLS
Variables	**MBTE**	**OC**	**MBTE**
lnFS		-0.01608***	
		(-3.41)	
OC	0.6349***		7.88115***
	(7.77)		(2.93)
LEV	1.02722***	0.13725***	0.46547
	(10.60)	(4.41)	(1.50)
SG	0.03805	-0.00137	0.04449
	(1.47)	(-0.28)	(1.09)
lnFA	-2.98794***	0.00169	-0.29156***
	(-8.39)	(0.18)	(-3.44)
CAPEX	-0.31597***	0.03599	-0.43084
	(-2.57)	(1.04)	(-1.39)
FCFA	1.89588***	0.35488***	-0.37659
	(5.13)	(5.15)	(-0.33)
AFPI_c	1.67606***	0.06201**	1.10331***
	(14.33)	(2.31)	(3.30)
AFPC_c	0.38490***	-0.25575***	2.44960***
	(2.86)	(-7.23)	(2.93)
Year	Yes	Yes	Yes
Constant	1.49685***	0.62845***	-1.81857
	(14.26)	(10.92)	(-1.48)
Observations	3,063	3,063	3,063
F-test	68.41	30.98	15.35
R-squared	0.354		

t-statistics in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$

The dependent variable, firm performance, is measured by the market-based measure Market to Book Value of Equity (MBTE), which is calculated as Market Value of Equity$_t$ / Book Value Equity$_t$. lnFS is the logarithm of Firm Size and is the instrument of OC in the first-stage of the 2SLS estimation. The instrumented (first-stage) and main independent variable (second-stage), Overall Ownership Concentration (OC), is the total ownership concentration of all shareholders owning at least 5%. LEV is leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, lnFA is the natural logarithm of Firm Age, which is measured in years since its Initial Public Offering date. CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformation of the Average Firm Performance (as measured by TQ) by Industry and by Country, respectively. Year indicates whether time effects are controlled for. N denotes the number of firm-year observations.

3.5.4 Effects of Ownership Concentration by Owner Identity

Table 3.9 presents the estimates of the same equation Model 3.1 but with the main independent variable, overall ownership concentration, replaced with the variables measuring the total ownership concentration of each of the four owner categories, one at a time. The ownership concentration variables are similarly treated as endogenous and firm size is employed as the instrument for each of them. To ensure that there is no weak instrument bias in the results, the strength of the instrument is checked in each of the four estimations using the F-statistic of the first-stage regression; the F-statistic is greater than 10 in all four equations (Table 3.5), which meets the minimum value of the Stock and Yogo (2005) weak instrument test. For additional robustness tests, all of the equations are estimated using the alternate firm performance measure, MBTE. The main results of each equation are robust to using MBTE and are similar to those reported in Table 3.10 (i.e. using TQ); in addition, all four estimates have higher t-statistics, indicating a higher significance in the relationship between each of the owner categories and MBTE (Table 3.9).

Before reporting the main findings, it is worth providing a brief discussion on the instrument's behaviour. The instrument behaves as expected with three of the four owner categories and has a negative relationship with institutional ownership, corporate ownership, and individual/family ownership. Nonetheless, firm size is found to have a strong positive relationship with government ownership (t-statistic 11.53, $p < 0.01$). This finding however is not very surprising since being wealth constrained (i.e. having limited funds) is a main reason for expecting an inverse relationship between firm size and ownership concentration; governments are much less wealth constrained and while they do not have unlimited funds, their funds are much less limited compared to the other investors, and so firm size seems not to be an issue for governments to acquire shares. Another explanation may be that since governments tend to buy shares for objectives other than shareholder value maximisation, such as for social or political goals, it is possible that the governments of the GCC countries prefer to acquire the larger firms to have greater control.

The first equation includes government ownership as the main independent variable, which has a significant negative impact on TQ (t-statistic -2.47, $p < 0.05$). The finding is consistent with expectations and so Hypothesis 3.2 is accepted. The second equation which investigates the

impact of institutional ownership on TQ shows a positive significant effect (t-statistic 2.48, $p <$ 0.05). A 10% increase in government ownership concentration is expected to decrease TQ by 0.046, all else being held constant. Hypothesis 3.3 is accepted as the finding is in line with what was predicted; it supports the view that the objective of institutions with share ownership is usually shareholder value maximisation and therefore a positive performance effect is expected. TQ is expected to increase by 0.064 for every 10% increase in institutional ownership concentration, all else being held equal.

Interestingly, the results reveal a significant positive impact of corporate ownership on TQ (t-statistic 2.33, $p < 0.05$); it was predicted that there is no significant relationship and therefore Hypothesis 3.4 is rejected. The magnitude of the significant performance effect is stronger, where an increase of 0.141 in TQ is expected for every 10% increase in corporate ownership concentration, all else being held constant. The results show a significant positive effect of individual/family ownership on TQ (t-statistic 2.26, $p < 0.05$) and therefore Hypothesis 3.5 is accepted. A 10% increase in individual/family ownership concentration is expected to result in an increase of 0.146 in TQ, all else being held equal. Most of the control variables have similar effects to those in the overall ownership concentration estimations. Sales growth acts as predicted in the third equation with a positive and significant effect on TQ. In addition, capital expenditure has a significant positive effect on TQ in all but the corporate ownership concentration equation.

Table 3.9: Owner Identity Effects on Firm Performance (as measured by TQ)

	First	2SLS	First	2SLS	First	2SLS	First	2SLS
Variables	**GOC**	**TQ**	**IOC**	**TQ**	**COC**	**TQ**	**FOC**	**TQ**
lnFS	0.0470***		-0.0334***		-0.0152***		-0.0147***	
	(11.53)		(-8.29)		(-5.43)		(-4.70)	
GOC		-0.4575**						
		(-2.47)						
IOC				0.6434**				
				(2.48)				
COC						1.4137**		
						(2.33)		
FOC								1.4568**
								(2.26)
LEV	-0.1271***	-0.0343	0.1778***	-0.0905	0.0367*	-0.0280	0.0536**	-0.0543
	(-5.01)	(-0.60)	(5.96)	(-1.58)	(1.66)	(-0.46)	(2.45)	(0.88)
SG	-0.0040	0.0167	0.0106**	0.0118	-0.0059**	0.0267*	-0.0017	0.0211
	(-1.49)	(1.17)	(2.24)	(0.81)	(-2.07)	(1.87)	(-0.62)	(1.45)
lnFA	0.0148**	-0.0347	-0.0076	-0.0366	-0.0145**	-0.0210	0.0098*	-0.0558**
	(2.10)	(-1.40)	(-0.91)	(-.148)	(-2.07)	(-0.76)	(1.71)	(-2.11)
CAPEX	0.0345	0.1750**	-0.0198	0.1720**	0.0622***	0.0714	-0.0376*	0.2141***
	(1.17)	(2.29)	(-0.63)	(2.17)	(2.58)	(0.80)	(-1.74)	(2.60)
FCFA	0.1575***	1.4663***	0.0013	1.3934**	0.2258***	1.0750***	-0.0373	1.4486***
	(2.94)	(5.90)	(0.02)	(2.17)	(3.99)	(3.53)	(-0.80)	(5.72)
AFPI_c	0.0255	0.8556***	-0.0457*	0.8733***	0.0353	0.7939***	0.0454**	0.7777***
	(1.20)	(9.65)	(-1.88)	(9.62)	(1.45)	(7.98)	(2.16)	(8.05)
AFPC_c	-0.0537*	0.0882	-0.0607*	0.1518	-0.1017***	0.2566**	-0.0357	0.1649
	(-1.94)	(0.91)	(-1.83)	(1.43)	(-3.98)	(1.96)	(-1.50)	(1.51)
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.4774***	1.3552***	0.5521	1.2183***	0.2947***	1.1571***	0.2560***	1.2007***
	(-10.04)	(21.45)	(10.52)	(15.90)	(8.54)	(11.56)	(7.25)	(13.43)
Observations	3,063	3,063	3,063	3,063	3,063	3,063	3,063	3,063
F-test	372.49	36.36	178.22	35.38	71.45	31.47	59.94	36.82

t-statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The dependent variable, firm performance, is measured by the market-based measure Tobin's Q (TQ), which is calculated as Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. lnFS is the logarithm of Firm Size and is the instrument of OC in the first-stage of the 2SLS estimation. The four owner identities are instrumented (first-stage) and included as the main independent variable (second-stage) one at a time. The first is the total ownership concentration of all government shareholders (GOC), the second is total ownership concentration of all institutional shareholders (IOC), the third is the total ownership concentration of all corporate shareholders (COC), and the fourth is the total ownership concentration of all individual/family shareholders (FOC), all of which own at least 5% of shares. LEV is leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, lnFA is the natural logarithm of Firm Age, which is measured in years since its Initial Public Offering date, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformation of the Average Firm Performance (as measured by TQ) by Industry and by Country, respectively. Year indicates whether time effects are controlled for. N denotes the number of firm-year observations.

Table 3.10: Owner Identity Effects on Firm Performance (as measured by MBTE)

	First	2SLS	First	2SLS	First	2SLS	First	2SLS
Variables	**GOC**	**MBTE**	**IOC**	**MBTE**	**COC**	**MBTE**	**FOC**	**MBTE**
lnFS	0.0470***		-0.0334***		-0.0152***		-0.0147***	
	(11.53)		(-8.29)		(-5.43)		(-4.70)	
GOC		-2.6989***						
		(-4.77)						
IOC				3.7956***				
				(4.66)				
COC						8.3393***		
						(3.81)		
FOC								8.5936***
								(3.39)
LEV	-0.1271***	1.2043***	0.1778***	0.8725***	0.0367*	1.2412***	0.0536**	1.10864***
	(-5.01)	(7.06)	(5.96)	(5.33)	(1.66)	(2.26)	(2.45)	(4.80)
SG	-0.0040	0.0230	0.0106**	-0.0066	-0.0059**	0.0828**	-0.0017	0.0479
	(-1.49)	(0.75)	(2.24)	(-0.20)	(-2.07)	(2.26)	(-0.62)	(1.27)
lnFA	0.0148**	-0.2383***	-0.0076	-0.2494***	-0.0145**	-0.1573*	0.0098*	-0.3628***
	(2.10)	(-4.23)	(-0.91)	(-4.27)	(-2.07)	(-1.92)	(1.71)	(-4.53)
CAPEX	0.0345	-0.0542	-0.0198	-0.07198	0.0622***	-0.6655**	-0.0376*	0.1762
	(1.17)	(-0.31)	(-0.63)	(-0.36)	(2.58)	(-2.48)	(-1.74)	(0.70)
FCFA	0.1575***	2.85454***	0.0013	2.4153***	0.2258***	0.5370	-0.0373	2.7412***
	(2.94)	(5.46)	(0.02)	(4.33)	(3.99)	(0.67)	(-0.80)	(4.28)
AFPI_c	0.0255	1.6610***	-0.0457*	1.7654***	0.0353	1.2975***	0.0454**	1.2016***
	(1.20)	(8.33)	(-1.88)	(8.05)	(1.45)	(4.32)	(2.16)	(4.29)
AFPC_c	-0.0537*	0.2890	-0.0607*	0.6643**	-0.1017***	1.2822***	-0.0357	0.7412**
	(-1.94)	(1.27)	(-1.83)	(2.41)	(-3.98)	(3.03)	(-1.50)	(2.20)
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.4774***	1.8457***	0.5521	1.0386***	0.2947***	0.6769**	0.2560***	0.9346***
	(-10.04)	(12.36)	(10.52)	(5.29)	(8.54)	(1.99)	(7.25)	(2.99)
Observations	3,063	3,063	3,063	3,063	3,063	3,063	3,063	3,063
F-test	372.49	35.97	178.22	25.12	71.45	14.74	59.94	18.99

t-statistics in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$

The dependent variable, firm performance, is measured by the market-based measure Market to Book Value of Equity (MBTE), which is calculated as Market Value of Equity$_t$ / Book Value Equity$_t$. lnFS is the logarithm of Firm Size and is the instrument of OC in the first-stage of the 2SLS estimation. The instrumented (first-stage) and main independent variable (second-stage), Overall Ownership Concentration (OC), is the total ownership concentration of all shareholders owning at least 5%. LEV is leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$)/Sales$_{t-1}$, lnFA is the natural logarithm of Firm Age, which is measured in years since its Initial Public Offering date, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformation of the Average Firm Performance (as measured by TQ) by Industry and by Country, respectively. Year indicates whether time effects are controlled for. N denotes the number of firm-year observations.

3.5.5 Additional Robustness Tests

Since the chapter employs a sample from six countries, country-level heterogeneities amongst the sample are inevitable. Although such heterogeneities are controlled for by including a country-level control variable, it is worth running additional robustness tests to ensure that cross-country heterogeneity bias is effectively mitigated. Therefore, three additional time varying country-level control variables replace average firm performance by country in the model, namely they are annual Gross Domestic Product Growth (GDPG), annual Foreign Direct Investment scaled to GDP (FDIG), and an aggregate National Governance Index (NGI), which reflects the quality of national governance in each country. Table 3.11 and Table 3.12 below present the estimates of regression Model 3.2, which is specified as follows:

The main performance equation (second-stage regression):

$$FP_t = \beta_0 + \beta_1 OC_t + \beta_2 LEV_t + \beta_3 SG_t + \beta_4 lnFA_t + \beta_5 CAPEX_t + \beta_6 FCFA_t + \beta_7 AFPI\_c_t + \beta_8 NGI_t + \beta_8 GDPG_t + \beta_{10} FDIG_t + \beta_{11} Year + e_t$$

Where the endogenous variable, OC, comprises its predicted values which are obtained from the first-stage regression:

$$OC_t = \delta_0 + \delta_1 lnFS_t + \delta_2 LEV_t + \delta_3 SG_t + \delta_4 lnFA_t + \delta_5 CAPEX_t + \delta_6 FCFA_t + \delta_7 AFPI\_c_t + \delta_8 NGI_t + \delta_9 GDPG_t + \delta_{10} FDIG_t + \delta_{11} Year + u_t$$

The results are robust to the estimates of equation Model 3.2, and therefore the conclusions are unaltered. Finally, even though reverse causality bias is accounted for using an instrumental variables approach, it is worth estimating an additional model to ensure that the bias is mitigated as much as possible. A similar model to the M1 performance equation is specified, in which all the right-hand side variables are lagged by one year. The idea behind this is that future firm performance cannot possibly determine previous corporate governance variables (e.g. Pedersen and Thomsen, 2003), and so concerns on the presence of reverse causality are further controlled for. The main results are also robust to this check, as they remain unchanged for all four types of ownership concentration (Appendix C).

Table 3.11: Overall Ownership Effect on TQ with Alternative Time-varying Country Controls

	First	2SLS
Variables	**OC**	**TQ**
lnFS	-0.0213***	
	(-4.53)	
OC		0.8374**
		(2.00)
LEV	0.1367***	-0.0999*
	(4.22)	(-1.70)
SG	-0.0047	0.0237*
	(-0.98)	(1.71)
lnFA	-0.0032	-0.0398
	(-0.33)	(-1.52)
CAPEX	0.0211	0.1469*
	(0.61)	(1.77)
FCFA	0.3981***	1.0614***
	(5.43)	(3.31)
AFPI_c	-0.0984***	0.0172
	(-5.23)	(1.15)
NGI	-0.0152**	0.0172
	(-2.09)	(1.15)
GDPG	0.5704**	0.7730
	(2.14)	(1.08)
FDIG	0.2190	-1.0001
	(0.57)	(-1.60)
Year	Yes	Yes
Constant	0.6846***	0.8920
	(11.44)	(4.59)
Observations	3,063	3,063
F-test	54.03	31.15

t-statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The dependent variable, firm performance, is measured by the market-based measure Tobin's Q (TQ), which is calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. lnFS is the logarithm of Firm Size and is the instrument of OC in the first-stage of the 2SLS estimation. The instrumented (first-stage) and main independent variable (second-stage), Overall Ownership Concentration (OC), is the total ownership concentration of all shareholders owning at least 5%. LEV is leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$)/Sales$_{t-1}$, lnFA is the natural logarithm of Firm Age, which is measured in years since its Initial Public Offering date. CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c is the centred transformation of Average Firm Performance (measured by TQ) by Industry. There are three time-varying country-level controls: NGI is the National Governance Index, which is an aggregate of three national governance quality indicators, GDPG is the Annual GDP Growth, and FDIG is the Annual Foreign Direct Investment scaled by GDP. Year indicated whether time effects are controlled for. N denotes the number of firm-year observations.

Table 3.12: Owner Identity Effects on TQ with Alternative Time-varying Country Controls

	First	2SLS	First	2SLS	First	2SLS	First	2SLS
Variables	**GOC**	**TQ**	**IOC**	**TQ**	**COC**	**TQ**	**FOC**	**TQ**
lnFS	0.0420***		-0.0296***		-0.0155***		-0.0182***	
	(10.69)		(-7.62)		(-5.42)		(-5.78)	
GOC		-0.4250**						
		(-2.07)						
IOC				0.6018**				
				(2.07)				
COC						1.1472**		
						(2.02)		
FOC								0.9780**
								(2.00)
LEV	-0.1325***	-0.0417	0.1831***	-0.0956*	0.0374*	-0.0283	0.0525**	-0.0367
	(-5.35)	(-0.76)	(6.30)	(-1.75)	(1.70)	(-0.48)	(2.40)	(-0.63)
SG	-0.0021	0.0188	0.0067	0.0156	-0.0084***	0.0293**	-0.0005	0.0202
	(-0.80)	(1.30)	(1.45)	(1.07)	(-2.93)	(1.98)	(-0.20)	(1.40)
lnFA	0.0212***	-0.0335	-0.0177**	-0.0318	-0.0201***	-0.0194	0.0141**	-0.0562**
	(3.11)	(-1.30)	(-2.05)	(-1.22)	(-2.82)	(-0.67)	(2.42)	(-2.12)
CAPEX	0.0592**	0.1897**	-0.0558*	0.1981**	0.0440*	0.1141	-0.0235	0.1876**
	(2.07)	(2.45)	(-1.80)	(2.46)	(1.80)	(1.34)	(-1.10)	(2.39)
FCFA	0.1690***	1.4590***	0.0034	1.3852***	0.2394***	1.1126***	-0.0308	1.4173***
	(3.26)	(5.87)	(0.05)	(5.41)	(4.17)	(3.59)	(-0.65)	(5.69)
AFPI_c	0.0015	0.9071***	-0.0962***	0.9643***	-0.0335**	0.9448***	0.0307**	0.8764***
	(0.14)	(16.28)	(-6.48)	(14.99)	(-2.32)	(15.29)	(2.31)	(15.82)
NGI	0.0259***	0.0155	-0.0444***	0.0312	-0.0161***	0.0229	0.0193***	-0.0144
	(4.92)	(1.13)	(-7.96)	(1.64)	(-3.88)	(1.38)	(3.83)	(-1.03)
GDPG	0.9140***	1.6391***	-0.6125**	1.6193***	0.0656	1.1754*	0.1803	1.0743
	(4.58)	(2.82)	(-2.23)	(2.74)	(0.29)	(1.83)	(0.95)	(1.63)
FDIG	0.8819**	-0.4419	-0.3421	-0.6108	-0.6399***	-0.0826	0.2545	-1.0656*
	(2.46)	(-0.82)	(-1.03)	(-1.11)	(-3.49)	(-0.13)	(1.06)	(-1.88)
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.5271***	1.2413***	0.6170***	1.0940***	0.3377***	1.0780***	0.2548***	1.2161***
	(-10.72)	(16.31)	(11.81)	(10.20)	(9.00)	(9.10)	(6.82)	(15.02)
Observations	3,063	3,063	3,063	3,063	3,063	3,063	3,063	3,063
F-test	316.47	31.18	147.41	30.29	69.79	28.26	89.56	32.25

t-statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The dependent variable, firm performance, is measured by the market-based measure Tobin's Q (TQ), which is calculated as Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. lnFS is the logarithm of Firm Size and is the instrument of OC in the first-stage of the 2SLS estimation. The four owner identities are instrumented (first-stage) and included as the main independent variable (second-stage) one at a time. The first is the total ownership concentration of all government shareholders (GOC), the second is total ownership concentration of all institutional shareholders (IOC), the third is the total ownership concentration of all corporate shareholders (COC), and the fourth is the total ownership concentration of all individual/family shareholders (FOC), all of which own at least 5% of shares. LEV is leverage measured by Total Debt $_t$/ Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$)/Sales$_{t-1}$, lnFA is the natural logarithm of Firm Age, which is measured in years since its Initial Public Offering date. CAPEX is Capital Expenditure$_t$/ Total Sales$_t$, and FCFA is Free Cash Flow$_t$/ Total Assets$_t$. AFPI_c is the centred transformation of the Average Firm Performance (as measured by TQ) by Industry. There are three time-varying country-level controls: NGI is the National Governance Index, which is an aggregate of three national governance quality indicators, GDPG is the Annual GDP Growth, and FDIG is the Annual Foreign Direct Investment scaled by GDP. Year indicates whether year effects are controlled for. N denotes the number of firm-year observations.

3.6 Discussion and Conclusion

3.6.1 Discussion

All of the results are as expected except for corporate ownership concentration. The results suggest a significant positive effect of overall ownership concentration on firm performance for the sample of all firms listed in the seven GCC stock markets from 2012-16. This finding does not support theories that argue that higher ownership concentration levels worsen firm performance due to higher risks of expropriation of firm assets by large shareholders at the expense of smaller, more vulnerable shareholders (Barclay and Holderness, 1989; Bebchuk, 1999); even though such theories are more likely to be true in markets in which shareholder protection is low, which is the case of the GCC markets, the evidence in this chapter is not supportive. In contrast, the result supports theories that suggest higher ownership levels improve firm performance as larger shareholders are more committed financially and are therefore more incentivised to monitor management to ensure a return on their investment (Shleifer and Vishny, 1986, 1997). In terms of previous empirical research, the result reported here is consistent with the findings of numerous studies that find a positive effect of overall ownership concentration on firm performance (de Miguel et al., 2004; Kapopoulus and Lazaretou, 2007; Hu and Izumida, 2008; Nguyen et al., 2015), including Zeitun (2014) who finds a similar effect for a sample of GCC listed companies.

Government ownership concentration is found to have a negative effect on firm performance. The evidence supports the view that shareholder value maximisation is typically not the objective of share ownership for governments, as they usually prioritise other goals which include social and political objectives (Hart et al., 1997; Shleifer, 1998). It is also consistent with the findings of several previous empirical studies (Megginson et al., 1994; Gunasekarage et al., 2007; Li et al., 2009), including Martínez-García et al. (2021), who find a negative performance effect of government ownership in companies listed on the GCC stock markets. Entities that make up this government ownership and therefore are responsible for this negative performance effect are GCC governments, local government agencies, and GCC government sovereign wealth funds. A rather interesting finding regarding government ownership concentration is that it has a positive relationship with firm size, contrary to what was expected and found for all the other ownership categories. There are two possible explanations for this: one is that governments are

not wealth constrained relative to other investors and are not affected by firm size when acquiring shares, and the other is that GCC governments may prioritise social and political goals and therefore prefer to acquire and control larger firms. This finding is also different to what Pedersen and Thomsen (2003) find, which is a negative relationship between firm size and each of the four ownership identities, including government ownership, in the sample of firms in Continental Europe that they employed.

Institutional ownership concentration is found to have a positive impact on firm performance. Even though institutions are considered indirect representatives of shareholders, the main objective of shareholder value maximisation is evidently maintained by institutional owners in the GCC listed companies, providing support for the argument that large shareholders are effective monitors of management (Shleifer and Vishny, 1986). The finding reported here is consistent with several empirical studies that find a positive relationship between institutional ownership and firm performance (McConnell and Servaes 1990; Smith, 1996; Woidtke, 2002). Institutional owners in the GCC that cause this positive performance effect include entities such as banks, financial institutions, pension funds, mutual funds, and hedge funds. As Santos (2015) stresses, high ownership concentration in GCC countries has strong corporate governance implications. Controlling shareholders have the power to appoint the majority of the members of the board of directors due to the typical pyramid ownership structures in GCC listed firms. This leaves minority shareholders unprotected and at risk of wealth expropriation by larger shareholders. Nevertheless, the empirical evidence presented in this chapter suggests that institutional owners in the GCC, in fact, help mitigate these agency conflicts with effective monitoring of management, which is reflected in the positive performance effect of institutional ownership concentration.

Corporate ownership concentration was expected to have no significant impact on firm performance. Surprisingly, however, it is found to positively influence firm performance. A plausible explanation for this is that, as discussed above in the hypotheses formulation Section 3.3.2, one reason for corporate ownership concentration is to achieve vertical integration, which puts firms at a competitive advantage as it provides them with internal access to required resources at relatively lower costs, resulting in a positive performance effect of corporate ownership (Williamson, 1995). Moreover, firms that are owned by corporations, regardless of

the direction of integration (i.e. horizontal or vertical), experience better firm performance because of the unique resources that corporate owners provide them with (Caves, 1996). Santos (2015) documents that, in companies listed on the GCC stock exchanges, corporate ownership networks consist mainly of hierarchical structures, which include both horizontal and vertical ties, while cross-ownership is almost non-existent, and this is confirmed by Martinez-Garcia et al. (2020). Given that the significant negative effects of corporate ownership concentration, such as management entrenchment, come specifically from cross-ownership (Kester, 1992), the aforementioned explanation for the finding is reasonable because these negative effects of corporate ownership are arguably not applicable to the sample employed in this research, while the positive effects are applicable. Limited research has been done on ownership concentration of corporation owners in the GCC stock markets, with Santos (2015) and Martinez-Garcia et al. (2020) being the only studies, and both have not specifically investigated the firm performance effect of ownership concentration of corporations, as a distinct owner identity. Compared with research in other countries, the positive performance effect of corporate ownership concentration is consistent with the results reported in numerous empirical studies (Khanna and Palepu, 2000a, 2000b; Sarkar and Sarkar, 2000, Pedersen and Thomsen, 2003).

Individual/family ownership is found to positively influence firm performance. This finding supports the argument that because individual/family owners invest relatively larger proportions of their total wealth and are direct representatives of themselves (Pedersen and Thomsen, 2003), they are more incentivised to closely monitor management. This is also consistent with the monitoring effect of large shareholders on firm performance (Shleifer and Vishny, 1986). The finding is also consistent with previous empirical studies that find a significant positive relationship between individual ownership and firm performance (McConaughy et al., 1998; Mishra et al., 2001; Krivogorsky and Burton, 2012). The evidence therefore indicates that individual/family owners in the GCC markets are effective monitors of management, help mitigate the agency problem, and ultimately improve firm performance. It is also in support of the notion that because family owners have strong ownership links in the GCC (Santos, 2015), they have better business ties and access to resources which provides them with advantages to successfully maximise shareholder wealth.

3.6.2 Conclusion

For the sample of all listed firms in the GCC stock markets from 2012-16, controlling for the endogeneity of ownership structure, the conclusion of this chapter is that higher ownership concentration generally has a positive impact on firm performance. One exception to this general trend is government ownership concentration, which is not surprising given the differing goals and objectives of governments. What is important is that most studies that employ samples with market-based ownership structures (such as the UK and US) find no significant relationship between ownership concentration and firm performance after controlling for endogeneity (Loderer and Martin, 1997; Cho 1998; Himmelberg et al., 1999; Demsetz and Villalonga, 2001), while there is no consensus yet on the relationship in markets with control-based ownership structures, and so the conclusion of this chapter adds to the increasing evidence supporting the management monitoring effect of large shareholders on firm performance in the control-based ownership structure markets (Pedersen and Thomsen, 2003; de Miguel et al., 2004; Kapopoulus and Lazaretou, 2007; Hu and Izumida, 2008; Nguyen et al., 2015).

An important conclusion regarding the ownership identity effects is that there are significant differences amongst the different categories. Government ownership has a negative influence on firm performance, while institutional, corporate, and individual/family ownership all positively influence firm performance. The implications of the results can have significant effects on various entities including governments, policymakers, regulating bodies, firms, shareholders, and potential domestic and foreign investors, all of whom may want to consider the possible implications of company ownership structure before making decisions. In particular, investors may want to revisit the firms in their investment portfolios by taking into consideration the identities of the owners and the concentration of the ownership structures to help ensure that they are well diversified. For a more comprehensive analysis of listed companies and to help find better candidates, potential investors may want to incorporate into their firm assessment criteria both owner identity and ownership structure.

Chapter 4 – The Impact of Board of Directors' Characteristics on Firm Performance

4.1 Introduction

Corporate governance research has been an increasingly significant part of corporate finance research during the last couple of decades, and studies on the relationship between corporate governance and firm performance have also been receiving increased attention from scholars, companies, investors, and others. Broadly, corporate governance refers to how companies are controlled and how, in all their operations, they consider the interests of all their stakeholders (i.e. investors, employees, customers, suppliers, etc.). Nonetheless, corporate governance research typically focuses on a narrower definition which states that corporate governance refers to the means that shareholders ensure returns on their financial investments (Shleifer and Vishny, 1997). Both internal and external mechanisms form a part of corporate governance structures and are used to govern companies and maintain the interests of the aforementioned entities. While the main objective of corporate governance may not be to improve firm performance, whether a relationship between the two exists, and its extent if it does, has proven to be an interesting question to many. Some empirical studies investigate the relationship in terms of overall corporate governance quality using various measures, while others focus individually on the mechanisms of corporate governance and how their different structures and characteristics are related to firm performance. The current chapter focuses on the board of directors, a central internal corporate governance mechanism, and it investigates the impact of its various characteristics on firm performance.

This chapter is motivated by three main theories of corporate governance: agency theory (Jensen and Meckling, 1976), resource dependence theory (Pfeffer and Salancik, 1978), and stewardship theory (Donaldson, 1990; Donaldson and Davis, 1991). The theories have different propositions on the effects of the structure of several internal corporate governance mechanisms, including board characteristics, on management monitoring and firm performance. The specific parts of the theories relevant to each board characteristic are explained in further detail in the next two sections. The main objective of this chapter is to investigate the impact of each of five main board characteristics on firm performance in the GCC stock markets; namely, the five board characteristics are board size, board activity, CEO duality, board independence, and board

remuneration. To the best of the researcher's knowledge, there is no previous study in the GCC that performs a comprehensive investigation of the relationships between each of the five aforementioned board characteristics and firm performance, or one that includes all GCC listed firms, and there is also no study in the region that accounts for the possible endogenous nature (i.e. reverse causality) present in some of the relationships.

4.2 Literature Review

4.2.1 Theory and Empirical Literature

4.2.1.1 Board Size

Board size refers to the number of board members who serve on a company's board of directors. Agency theory suggests a negative relationship between board size and firm performance (Jensen and Meckling, 1976). Larger boards are more likely to suffer from free riding effect, where one or more members depend on other members to do their share of work, and are therefore typically less efficient, which ultimately worsens performance (Lipton and Lorsch, 1992). In addition, Jensen (1993) argues that larger boards are less efficient because communication is harder within larger boards, causing delays decision making. On the other hand, resource dependence theory argues that larger boards have a greater combination of ideas and information than smaller boards, and are therefore expected to be more efficient, improving performance (Pfeffer and Salancik, 1978; Dalton et al., 1999).

With regards to empirical research, many studies investigate the relationship between board size and firm performance without addressing the issue of endogeneity. Most of those studies find a negative relationship between board size and firm performance (Vafeas, 1999; Loderer and Peyer, 2002; Lasfer, 2004; Bozec, 2005; de Andres et al., 2005; Cheng et al., 2008). Nonetheless, others find a positive relationship (Haniffa and Hudaib, 2006; Jackling and Johl, 2009; Gaur et al., 2015). In terms of studies that control for the potential endogeneity in the board size and firm performance relationship, the negative effect is the more prominent conclusion amongst the empirical literature. However, there is no consensus yet as some studies find a positive effect. These studies are reviewed in the following paragraph.

Yermack (1996) investigates a sample of 452 large US firms from 1984 to 1991 and finds a significant negative board size effect on firm performance. Conyon and Peck (1998) investigate the effect of board size on firm performance by employing a sample of listed companies from five European countries covering four years from 1992 to 1995. Their model is estimated separately for each country and their sample included a total of 615 unique firms from the UK (481), France (60), the Netherlands (31), Denmark (22), and Italy (21). They find a significant negative effect of board size on performance (measured by profitability) in the UK, Netherlands, and Denmark, while they find no significant effect in France and Italy. Similarly, Postma et al. (2003) investigate 94 Dutch firms in 1996 and find a significant negative board size effect. Other empirical studies report similar results after controlling for endogeneity (Beiner et al., 2004; Wintoki et al., 2012). Nevertheless, some studies contradict this rather prominent finding and report a positive board size effect on performance. For example, Beiner et al. (2006) investigate a sample of 109 Swiss firms in 2002 and find that board size is positively related to firm performance. Likewise, Adams and Mehran (2008) employ a sample of 35 firms covering the years from 1986 to 1999 to investigate the relationship and find that they are positively related. Moreover, Jackling and Johl (2009) use the top 180 listed companies on the Bombay Stock Exchange by market capitalization for the year 2006 to assess the relationship and find that board size has a positive significant impact on firm performance.

4.2.1.2 Board Activity

Board activity refers to board meeting frequency and is measured by the number of times a board of directors meets every year. There are different views on the association between board activity and firm performance. Resource dependence theory suggests that having more frequent board meetings is better for shareholders (Pfeffer and Salancik, 1978), as one main issue boards of directors typically deal with is insufficient time to fully perform their jobs (Lipton and Lorsch, 1992). Conger et al. (1998) support this view by highlighting how time is one of the essential resources that boards need in order to perform their jobs effectively.

In contrast, agency theory suggests that more frequent board meetings can come at a cost to shareholders (Jensen and Meckling, 1976). Jensen (1993) emphasises the issue that Chief Executive Officers almost always determine the plan of the meetings and information provided to the members of the board, and as Vafeas (1999) argues, this issue creates another problem of

the exchange of irrelevant ideas between outside directors themselves and also with management as they are typically not completely aware of all important happenings in the company. Under this view, having more frequent meetings may not only be a waste of time and money, but can also be a cause of inefficient decision making due to the exchange of irrelevant information, which ultimately can lead to worse performance. It is important to note that Jensen (1993) stresses that boards should be relatively inactive as an increase in board activity can be a sign that a firm is not performing well, and the increase is merely a response to this. The argument points to the possible endogenous nature of board activity, which explains why some empirical studies control for it.

Empirical studies with respect to the relationship between board activity and firm performance are less numerous relative to the other board characteristics. Vafeas (1999) was among the first to empirically test this relationship; the author used a sample of 307 of the top listed firms (from the Forbes compensation survey for 1992) covering the period from 1990 to 1994 and finds evidence supporting an inverse relationship between board meeting frequency and firm performance. On the other hand, Jackling and Johl (2009) find no significant relationship between board activity and firm performance for their sample of 180 listed Indian companies covering one year. Similarly, Grove et al. (2011) examine 236 US public commercial banks from 2005 to 2008 and find no significant relationship between board activity and bank performance. In contrast, Liang et al. (2013) find a significant positive relationship between board activity and bank performance for a sample of 50 largest Chinese banks from 2003 to 2010; it is worth noting that they do not control for possible endogeneity in board activity as they argue empirically why they believe board characteristics are not endogenous in Chinese banks and therefore why they believe their OLS estimates are not biased. Even though one study finds a similar positive effect of board activity on firm performance using a sample of Taiwanese listed firms from 2006 to 2008 (Lin et al., 2014), a more recent study that investigates a sample of Vietnamese listed firms from 2013 to 2015 finds that the board activity performance effect is negative (Hanh et al., 2018). Not only does prior empirical research on board activity and firm performance not provide any consensus on the relationship, but also it is relatively limited; further research seems to be required to help reach a more definitive conclusion.

4.2.1.3 CEO Duality

Chief Executive Officer (CEO) duality describes the situation when the CEO of a company also simultaneously serves as the chairman of the board of directors. There are two main theoretical views on the performance effects of CEO duality. On one hand, agency theory opposes CEO duality and suggests that its presence leads to a negative performance effect (Jensen, 1993). In essence the argument is that CEO duality allows CEOs too much power over the board of directors which reduces the independence between the board and executive management; this in turn is increases the risks of managerial entrenchment, which worsens firm performance as managers start to exploit their power to gain personal benefits from the firm at the expense of the shareholders (Fama and Jensen, 1983).

On the other hand, stewardship theory suggests that CEO duality leads to a positive performance effect. In contrast to agency theory, stewardship theory argues that executive managers do not exploit a firm's assets for their own benefit, but rather, want to be good stewards of a firm's assets (Donaldson and Davidson, 1991). The authors emphasise that executives can only achieve this aim effectively if the corporate structure of the company is set in a certain way, specifically when the CEO is also the chairman of the board, making it very clear as to who the leader is and who is responsible is for the company's affairs. This structure is argued to be facilitative and empowering to help hold together these two very intensive roles (i.e. CEO and Board Chairman), which in turn leads to improved firm performance.

Considering the extant empirical research on the issue, the relationship between leadership structures (i.e. CEO duality) of firms and their performance has proven to be a complex one. One study that is considered central to this line of research conducts a meta-analysis on 31 empirical studies that investigate board leadership structures and firm financial performance, and concludes that the evidence is weak in terms of finding an optimal leadership structure (Dalton et al., 1999). In addition, there is no agreement yet among scholars on whether leadership structure is strictly exogenous or whether it is endogenous. For example, Linck et al. (2008) investigate this issue and find that there is no reverse causality between CEO duality and firm performance, meaning that firm performance does not have a significant effect on leadership structure. Moreover, Iyengar and Zampelli (2009) perform tests on the studies that include CEO duality as an exogenous variable and find that there is no selection bias in them.

Some empirical studies find evidence in support of agency theory (i.e. a negative CEO duality performance effect). Rechner and Dalton (1991) find empirical evidence showing that firms that did not have CEO duality performed better than firms that did have CEO duality. In addition, Duru et al. (2016) provide evidence indicating a negative CEO duality performance effect for their sample of 950 listed firms over the 1997-2011 period. In contrast, other empirical work finds evidence supporting stewardship theory (i.e. a positive CEO duality performance effect). Peng et al. (2007) use 403 Chinese listed companies covering a three-year period and find evidence of stronger support for stewardship theory and relatively little support for agency theory. Moreover, Yang and Zhao (2014) find that firms with CEO duality outperform firms that have separated leadership structures during changes in the competitive environment.

It is important to note that several studies find no empirical support for any of the theories as their evidence suggests that there is no relationship between CEO duality and firm performance (Iyengar and Zampelli, 2009; Dalton and Dalton, 2011; Yasser et al., 2017). For example, Baliga et al. (1996) employ a sample of the Fortune 500 firms covering the years from 1980 to 1991, and find only weak evidence that CEO duality affects long-term firm performance, and therefore conclude that CEO duality does not significantly impact firm performance. Likewise, Abdullah (2004) employs a sample of that includes all Malaysian listed companies between 1994 and 1996 and finds no relationship between CEO duality and firm performance. Using a sample of 180 Indian listed companies during 2006, Jackling and Johl (2009) also find little evidence that a relationship exists.

It is worth mentioning two studies that report rather interesting findings in this line of research. One study, based on a sample of 128 Chinese listed companies, reports findings suggesting that the relationship is dependent on whether or not the business is family-controlled; their evidence suggests that there is positive CEO duality performance effect for non-family firms, but a negative effect for family-controlled firms (Lam and Lee, 2008). Another study investigates the relationship by employing a sample of listed firms from Indonesia, Malaysia, South Korea, and Thailand covering the years 2001 to 2002; they find a positive effect of CEO duality on firm performance for low performing firms, but a negative effect for high performing firms (Ramdani and Witteloostuijn, 2010). In other words, both agency theory and stewardship theory are supported or rejected depending on the initial performance of firms; for poorly performing firms

CEO duality is more beneficial whereas for high performing firms non-duality is the better option.

4.2.1.4 Board Independence

Board independence is measured by the proportion of independent directors serving on a board. Independent directors, sometimes referred to as outside directors, are in addition to being non-executive directors (i.e. do not hold any executive management positions at the firms they serve as board members on), are also directors who do not have any material or contractual relationship with the company or its related persons. In theoretical terms, the ideal proportion of independent directors on a board is an unresolved matter. Both theories mentioned in the CEO Duality sub-section above are applied to board independence in a similar manner; agency theory argues that board independence improves firm performance as having more independent directors reduces the risks of managerial entrenchment (Jensen, 1993), while stewardship theory argues that executive directors improve firm performance as they act as good stewards of a firm's assets and, as insiders, they are expected to be more aware of the specific issues within a company (Donaldson and Davidson, 1991).

Empirical studies that investigate the relationship between board independence and firm performance present mixed evidence. Several studies provide evidence in support of agency theory and find a positive relationship between board independence and firm performance (Jackling and Johl, 2009; Aggarwal et al., 2009; Bruno and Claessens, 2010; Liu et al., 2015). In contrast, evidence provided in other studies is in support of stewardship theory, showing a negative board independence performance effect (Agrawal and Knoeber, 1996; Bhaghat and Black, 2002; Kiel and Nicholson, 2003; Bhagat and Bolton, 2008). There are some empirical studies that do not find a relationship between board independence and firm performance (see Dalton and Dalton, 2011 for a summary). For example, Wintoki et al. (2012) employ of 6,000 listed firms covering the years 1991-2003 and find that, after controlling for endogeneity, there is no causal relationship between board independence and firm performance. Lastly, it is worth mentioning that one recent study finds that the negative effect between CEO duality and firm performance is positively moderated by board independence (Duru et al., 2016).

4.2.1.5 Director Remuneration

In this line of research, a prominent characteristic that scholars focus on is CEO compensation; for a review, see Murphy (1999). While director remuneration may be of similar importance, the focus on it and its relationship to firm performance is relatively less. The current chapter does not include CEO compensation due to the data lacking for GCC listed companies, and focuses on director remuneration, for which data are available. Brick et al. (2006) highlight how various famous failures of companies, including the Enron scandal in 2001, greatly increased the attention given to the high director compensations such companies gave; many critics and observers started questioning whether these excessive payments were part of the problem, especially whether they might have reduced their objectivity in terms of management monitoring.

From a theoretical point of view, Jensen (1993) suggests several reasons for the failure of boards of directors to effectively monitor management. For example, one reason for failure is that board culture, which emphasises on the politeness and courtesy of directors towards management that comes at the expense of truthfulness, discourages direct constructive criticism of management. Another reason, which is explained in the Board Activity sub-section above, is the information problems which arise due to CEOs determining what information board members have access to, reducing the ability of even the best directors to effectively monitor management. Brick et al. (2006) add to this theory, specifically on issues revolving around board culture, and hypothesise that such issues are related to director remuneration due to the idea that directors receiving high compensation may be less willing to cause dispute and therefore may avoid making constructive criticism of management, which is a critical component of effective management monitoring. Therefore, the final relationship they hypothesise is a negative association between director compensation and firm performance.

With regards to the empirical literature, Main et al. (1996) find a significant positive relationship between board of director remuneration and firm performance for a sample of 60 FTSE 100 firms between the years 1981 and 1989. In contrast, Brick et al. (2006) empirically test their hypothesis of an inverse director compensation-performance relationship using a sample 1,163 US listed firms from 1992 to 2001 and find that excessive director compensation is associated with firm underperformance. On the other hand, Doucouliagos et al. (2007) investigate the

relationship for a sample of all Australian banks from 1992 to 2005 and find no relationship between director remuneration and bank performance.

Abdulrahman and Zawawi (2005) find a weak positive relationship between directors' remuneration and firm performance for a sample of 246 listed Malaysian firms from 1996 to 2002. Likewise, Razali et al. (2018) find that directors' remuneration is positively related to firm performance for a sample of 40 listed Malaysian firms from 2012 to 2014. Moreover, Aggarwal and Ghosh (2015) investigate a sample of 40 listed Indian firms and find that directors' remuneration positively impacts firm performance, using accounting-based measures, but has no relationship with market-based performance measures. Although several studies investigate the relationship between stock-based director compensation and firm performance (Fich and Shivdasani, 2005; Cordeiro et al., 2005; Cordeiro et al., 2007, among others), they are not of direct relevance to this chapter as this type of compensation is not present in the countries of the GCC, based on the information available in the annual reports of all companies covered in this research. The relative lack of empirical studies investigating this relationship presents a need for further research to reach a more conclusive understanding of it and increases the significance of its inclusion in the current chapter.

4.2.2 Empirical Studies in the GCC

Research on the relationships in question within the GCC markets is limited. Arouri et al. (2014) study the impact of board size and CEO duality on firm performance in 58 GCC listed banks in 2010; they find no significant relationship. Although there are several studies in the GCC linking corporate governance mechanisms with firm performance (see Dalwai et al., 2015 for a review), they are country-specific and only two of them specifically link board characteristics with firm performance. Fatallah and Dickins (2012) construct a corporate governance index that covers various board characteristics for a sample of 94 Saudi listed firms from 2006-2009 and find that although it is not significantly related to firm performance using an accounting-based measure, it is significantly and positively related to firm performance using two market-based measures. In addition, Aljifri and Moustafa (2007) use a sample of 51 UAE listed firms from 2004 to investigate the impact of board size on firm performance and find no significant impact. No previous study in the GCC investigates all five board characteristics covered in this chapter. Also, none control for endogeneity or cover multiple industries in the GCC stock markets.

4.2.3 Conclusion of the Literature Review

The literature review presented the mixed results in prior empirical studies investigating the relationship between several board characteristics and firm performance. In most cases, the empirical studies are focused on developed markets, while emerging markets received less attention. In addition, there is a relative lack of research on the relationship between two important board characteristics (board activity and director compensation) and firm performance. The aforementioned circumstances suggest a call for further empirical research, especially in emerging economies, to help reach a better understanding of the relationship between each of five important internal corporate governance mechanisms and firm performance. The current chapter therefore fills these gaps by investigating these relationships in the GCC markets while accounting for endogeneity, while an additional contribution to the literature is the inclusion of all GCC listed firms in the sample which provides a more generalizable set of results.

4.3 Hypotheses Formulation

4.3.1 Hypotheses Formulation Approach

In this section, both theoretical and empirical research relevant to each board characteristic and its possible impact on firm performance is considered. In addition to those, the results and conclusions of relevant previous studies that cover developing markets are reviewed to ensure the formulated hypotheses are based on research that is more relevant to this chapter and, therefore, are more reasonable and logical; this is because firms listed in stock markets of emerging countries generally have comparable board characteristics to those in the GCC (for examples, see Abdullah 2004; Jackling and Johl, 2009; Liu et al., 2015). Relevant research concerning the GCC markets is prioritised in the cases where studies have been conducted.

4.3.2 Hypotheses for Five Board Characteristics

4.3.2.1 Board Size

Agency theory (Jensen and Meckling, 1976) suggests that the drawbacks of larger boards include an increased likelihood of free riding by directors and more difficult communication, both of which are argued to reduce board efficiency (Lipton and Lorsch, 1992; Jensen, 1993). In contrast, resource dependence theory (Pfeffer and Salancik, 1978) argues that aggregate

resources increase with larger boards, along with access to more information and external relations, all of which ultimately help boards make more informed decisions which in turn make them more efficient than smaller boards (Dalton et al., 1999). Moreover, it can be easier for a group of dysfunctional board members to dominate smaller boards which inevitably leads to more serious problems, such as a hostile board environment. Issues of this kind are less likely to occur in larger boards as they are more difficult to control; they are therefore expected to be more efficient in monitoring management.

The majority of empirical research on developed economies concludes a negative effect of board size on firm performance, which is evidence in support for agency theory (Yermack, 1996; Conyon and Peck, 1998; Vafeas, 1999; Loderer and Peyer, 2002; Postma et al., 2003; Lasfer, 2004; Beiner et al., 2004; Bozec, 2005; Cheng et al., 2008; Wintoki et al., 2012). Surprisingly, the majority of studies on developing markets find the exact opposite effect, that is, a positive effect of board size on firm performance, supporting resource dependence theory (Haniffa and Hudaib, 2006; Jackling and Johl, 2009; Babatunde and Olanirian, 2009; Topal and Dogan, 2014). Two studies on firms from GCC countries find no significant relationship between board size and firm performance, but both cover a small part of the GCC and data for one year only (Aljifri and Moustafa, 2007; Arouri et al., 2011); the former covers one country only with 51 UAE listed firms for the year 2004 and the latter covers 27 listed banks from five GCC countries for the year 2008. Given that the samples covered in the aforementioned GCC studies are relatively limited, the hypothesis for the board size performance effect is mainly based on the results of most empirical studies on developing markets, which mostly point to a positive effect. Hypothesis 4.1 is therefore stated as follows:

Hypothesis 4.1: *Board size has a significant positive effect on firm performance*

4.3.2.2 Board Activity

On one hand, agency theory suggests that effective boards should generally be moderately active and being more frequently active can be a sign that a firm is performing poorly (Jensen, 1993). In addition, scholars in support of this view argue that the total amount of information provided to the board, even when sufficient does not require many meetings and those extra meetings can be a waste of time, money, and lead to irrelevant decisions being made, all of which can worsen firm performance (Vafaes, 1999; Jensen, 1993). On the other hand, resource dependence argues

that more active boards of directors are more efficient for various reasons (Pfeffer and Salancik, 1978). One main reason is that boards need that time to help deal with a critical issue they face: inadequate time to fully perform their jobs (Lipton and Lorsch, 1992). Time is an essential resource to board members to better perform their jobs (Conger et al., 1998), and so under this view, more frequent board meetings are expected to positively affect firm performance.

In terms of empirical literature in developed markets, while Vafaes (1999) finds a negative effect of board activity on firm performance using a sample of US listed firms, Grove et al. (2011) find that board activity has no significant effect on firm performance using a sample of US listed banks. The results of studies on developing markets are mixed, one study on Indian listed firms finds no significant relationship (Jackling and Johl, 2009), two studies find a positive effect using samples of Chinese listed banks and Taiwanese listed firms (Liang et al., 2013; Lin et al., 2014), respectively, and one study finds that the effect is in fact negative for a sample of Vietnamese listed firms (Hanh et al., 2018). There are no previous studies that investigate this relationship in the GCC context. There is no general consensus amongst the studies. Taking into consideration theory followed in Hypothesis 4.1, Hypothesis 4.2 follows resource dependence theory and is stated as follows:

Hypothesis 4.2: *Board activity has a significant positive effect on firm performance*

4.3.2.3 CEO Duality

Agency theory views CEO duality as a characteristic that allows one person too much power, reducing the independence between executive management and directors, and increasing risks of managerial entrenchment which ultimately hinder firm performance (Fama and Jensen, 1983; Jensen 1993). On the other hand, Stewardship theory argues that CEOs who are also board chairmen are motivated to perform well because they act as good stewards of the firm assets (Donaldson and Davidson, 1991). Stewardship theory therefore supports the notion that CEO duality enhances firm performance.

Empirical studies that employ samples from developed markets provide mixed evidence. While some find that CEO duality has negative effect on firm performance (Rechner and Dalton, 1991; Duru et al., 2016), others find no significant effect (Baliga et al., 1996; Iyengar and Zampelli, 2009; Dalton and Dalton, 2011). In contrast, some empirical studies on developing markets find

that CEO duality positively impacts firm performance (Peng et al., 2007; Yang and Zhao, 2014), while several others find no significant relationship (Abdullah, 2004; Jackling and Johl, 2009; Yasser et al., 2017). With regards to studies in the GCC, Arouri et al. (2014) investigate a sample covering all listed banks in the region and find no significant relationship between CEO duality and firm performance. Most previous empirical studies employing samples from developing markets conclude that there is no relationship; Hypothesis 4.3 is therefore stated as follows:

Hypothesis 4.3: *CEO Duality has no significant effect on firm performance*

4.3.2.4 Board Independence

The theories regarding board independence are similar to those theories comprehending board size and CEO duality. On one hand, agency theory argues that board independence limits the risks of managerial entrenchment and therefore improves firm performance (Jensen and Meckling, 1976). On the other hand, Stewardship theory opposes this idea by arguing that not only do executive directors act as good stewards of firm assets, but also as insiders, they have higher awareness, relative to outsiders, of the detailed issues associated with the company (Donaldson and Davidson, 1991). They have access to better information, in terms of both amount and relevance, than outsiders, which helps them make more informed decisions. Consequently, according to this view, board independence is expected to worsen firm performance

Empirical studies on developed markets mainly conclude that board independence has a negative impact on firm performance (Agrawal and Knoeber, 1996; Bhaghat and Black, 2002; Kiel and Nicholson, 2003; Bhagat and Bolton, 2008), while some studies find no relationship (Dalton and Dalton, 2011; Wintoki et al., 2012). Other studies in developing markets find an opposite effect, that is a positive board independence performance effect (Jackling and Johl, 2009; Liu et al., 2015). Nevertheless, there is one empirical study that employs a sample of two countries from the GCC region (i.e. Saudi Arabia and Bahrain) that investigates this relationship; the authors find a significant negative effect of board independence on firm performance (Hamdan and Al Mubarak, 2017). Motivated by stewardship theory, Hypothesis 4.4 is stated as follows:

Hypothesis 4.4: *Board independence has a significant negative effect on firm performance*

4.3.2.5 Director Remuneration

Brick et al. (2006) argue that well-paid directors become less willing to cause dispute as they try to keep hold of their position, which typically leads them to avoid making constructive criticism of executive management or taking more crucial decisions such as replacing underperforming managers, both of which are important mechanisms of effective management monitoring. The argument hypothesises that increased director pay worsens firm performance. They use a sample 1,163 US listed firms from 1992 to 2001 to empirically test their hypothesis of a negative director compensation-performance relationship and find that excessive director compensation is associated with firm underperformance. Nevertheless, Doucouliagos et al. (2007) find no simultaneous relationship between director remuneration and performance for a sample of all Australian banks from 1992 to 2005.

With regards to empirical studies on developing markets, none provide evidence in support of the hypothesis proposed by Brick et al. (2006). In fact, they all provide evidence that is opposes it. Two different studies investigate the relationship using samples of Malaysian firms; one finds a weak positive relationship (Abdulrahman and Zawawi, 2005) and another finds a significant positive relationship (Razali et al., 2018). In addition, Aggarwal and Ghosh (2015) also find that board of director remuneration positively impacts firm performance for their sample of Indian listed firms. There are no previous studies in the GCC that investigate this relationship. Therefore, based on the relatively consistent conclusions amongst studies on developing markets, Hypothesis 4.5 is stated as follows:

Hypothesis 4.5: *Board remuneration has a significant positive effect on firm performance*

4.4 Methodology

4.4.1 Sample

The initial data sample employed in this chapter consists of all listed firms, both financial and non-financial, in all seven stock markets in the six member countries of the Gulf Cooperation Council (GCC): Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). The UAE is the only country with two stock markets while the other five countries have one (refer to Table 4.1 for details). For the years covered in this chapter from 2012 to 2016, there are a total of 658 listed firms (excludes those that are cross listed in other GCC markets or suspended from trading). However, due to corporate governance codes not requiring companies (yet) to publish corporate governance reports in some countries, data on board characteristics are not available for companies listed on the Bahrain Bourse (Bahrain), Boursa Kuwait (Kuwait), and Qatar Stock Exchange (Qatar), and so they could not be included in this chapter.

The final sample therefore consists of 349 listed firms on four GCC markets. Table 4.1 and Table 4.2 below present the distribution of the listed firms across the four stock markets and across the stock market industries, respectively. The data are not complete for all firms for every year between 2012 and 2016. Consequently, 350 firm-year observations with missing data are dropped from the sample. Therefore, over the five-year period from 2012-16, there are a total of 1,395 firm-year observations available. Nevertheless, the sample is still considered representative of the GCC markets for two main reasons. First, it includes 349 firms out of a possible 658 listed firms which is more than half the total number of firms listed on the GCC stock markets. Second, those firms that are included in the sample have a total market capitalisation of USD 528,628,506m, representing almost two thirds of the total market capitalisation of all listed firms in the GCC markets of USD 811,367,298m.[10] The financial data were collected from the Thomson Reuters EIKON database, while the board characteristics data were collected by hand from the yearly corporate governance reports of firms which were retrieved from their respective stock exchange official websites.

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[10] The market capitalisation of all firms included in the sample is calculated using the exchange rate (at the end of each calendar year) between the USD and the respective currency of the country in which the firm is headquartered, for each of the five years in the sample. The values are the average of the five years covered in the sample. The total market capitalisation for all listed domestic companies in the GCC countries is obtained from *The World Bank* at: https://data.worldbank.org/indicator/CM.MKT.LCAP.CD?end=2016&start=2012

Table 4.1: Number of Firms by Stock Exchange

Stock Exchange (Country)	Number of Firms (% of Total)
Muscat Securities Market (Oman)	108 (31.0%)
Tadawul Stock Exchange (Saudi Arabia)	161 (46.1%)
Abu Dhabi Stock Exchange (United Arab Emirates)	46 (13.2%)
Dubai Financial Market (United Arab Emirates)	34 (9.7%)
Total Number of Firms	**349 (100%)**

Table 4.2: Number of Firms by Industry

Industry	Number of Firms (% of Total)
Banks	22 (6.3%)
Financial Services & Investment	26 (7.4%)
Insurance	61 (17.5%)
Real Estate	20 (5.7%)
Consumer Services (Discretionary)	40 (11.5%)
Consumer Goods (Staples)	37 (10.6%)
Basic Materials	64 (18.3%)
Industrials	35 (10.0%)
Energy & Utilities	25 (7.2%)
Telecommunications	10 (2.9%)
Healthcare & Technology	9 (2.6%)
Total Number of Firms	**349 (100%)**

4.4.2 Approach – Instrumental Variables Method and Instrument Choice

Several studies covered in the literature review present theoretical and empirical evidence on the endogeneity issues of various board characteristics. It was concluded that there is some evidence for three main independent variables included in this chapter: board size, board activity, and the proportion of independent directors. Estimating the performance equation with a simple Ordinary Least Squares (OLS) regression will lead to biased estimates. One method that has been employed in previous research to mitigate endogeneity issues is the fixed effects model

(Yermack, 1996; Adams and Mehran, 2005); this model controls for unobserved heterogeneities which can arise if firm performance and board size (for example) are jointly determined by an unobservable firm specific variable, and so it controls for firm fixed effects (Guest, 2009; Wintoki et al., 2012). However, its limitation is that it does not control for reverse causality between corporate governance variables and firm performance, meaning that if this type of endogeneity bias is present, the fixed effect estimator will also produce biased estimates.

A more plausible approach to deal with the endogeneity problems prominent in this line of research is an instrumental variables approach. Many studies that employ this approach are able to control for reverse causality (Postma et al., 2003; Beiner et al., 2004; Beiner et al., 2006; de Andres et al., 2005, among others), but their success depends highly on the viability of instruments employed. This is considered the main risk of using this approach, and there are two main conditions for its viability: (1) the instruments must be sufficiently correlated with the endogenous variables, or they will be "weak instruments", causing additional bias in the estimates; and (2) the instruments must not be correlated with the error term in the main equation (i.e. performance equation), meaning that they must not have a direct effect on the main dependent variable, and only indirectly affect it through their effect on the endogenous variables.

Where possible, it is considered practical to employ instruments that have been tested and successful in previous empirical research. The instrument choice is motivated by the numerous empirical studies that instrument endogenous firm-level variables with their respective industry averages (Faulkender and Petersen, 2005; Laeven and Levine, 2009; Lin et al., 2011; Yang and Zhao, 2014; Liu et al., 2015). Yang and Zhao (2014) explain how firm characteristics are likely to be correlated with those of their industry peers due to business mix and investment opportunities being fairly similar amongst them, and that industry averages of those firm characteristics are not expected to directly affect individual firm performance, making them viable instrumental variables. Based on the fact that this approach has been successful for different studies that also investigate the relationship between endogenous board of director characteristics and firm performance (e.g. Yang and Zhao, 2014; Liu et al., 2015), the approach is followed in this chapter. Therefore, board size and the proportion of independent directors are instrumented with the average board size by industry (ABSI) and the average proportion of independent directors by industry (APIDI), respectively. A dummy variable, executive director

109

(ED), measuring whether or not there is at least one executive board director on a board is used as an instrument for board activity, and the argument for this is twofold. First, boards meet less frequently when there is an executive member on the board due to the busyness and engagement of executive members. Second, non-executive board members tend to trust that the executive board members help in monitoring management while conducting their executive duties, and therefore feel that extra meetings may be unnecessary.

Table 4.7 in Section 4.5.4 reports the results of two tests of exogeneity, both of which reject the null hypothesis (p-value: 0.003) that the instrumented variable, lnBS, is exogenous, indicating that board size suffers from endogeneity bias. However, following the instrumentation of both the proportion of independent directors and board activity (with APIDI and ED, respectively), exogeneity tests show that, for the sample covered in this chapter, both variables are not endogenous (p-values: 0.225 and 0.387, respectively), and should in fact be treated as exogenous variables (Table 4.6). Consequently, the two instruments, APIDI and ED, are dropped from the model.

The simultaneous equation model, Model 4.1, estimated with a two-stage least squares (2SLS) panel data regression, is therefore specified in the following form:

The main performance equation (second-stage regression):

$$FP_{it} = \beta_0 + \beta_1 lnBS_{it} + \beta_2 BA_{it} + \beta_3 CEOD_{it} + \beta_4 PID_{it} + \beta_5 BRPDS_{it} + \beta_6 lnFA_{it} + \beta_7 SG_{it} + \beta_8 LEV_{it} + \beta_9 CAPEX_{it} + \beta_{10} FCFA_{it} + \beta_{11} AFPI\_c_{it} + \beta_{12} AFPC\_c_{it} + \beta_{13} Year + e_{it}$$

Where the endogenous variable, lnBS, comprises its predicted values which are obtained from the first-stage regression:

$$lnBS_{it} = \delta_0 + \delta_1 ABSI_{it} + \delta_2 BA_{it} + \delta_3 CEOD_{it} + \delta_4 PID_{it} + \delta_5 BRPDS_{it} + \delta_6 lnFS_{it} + \delta_7 SG_{it} + \delta_8 LEV_{it} + \delta_9 CAPEX_{it} + \delta_{10} FCFA_{it} + \delta_{11} AFPI\_c_{it} + \delta_{12} AFPC\_c_{it} + \delta_{13} Year + u_{it}$$

ABSI (average board size by industry) is the excluded exogenous variable that is employed as the instrumental variable for the instrumented variable, lnBS (natural logarithm of board size). After the estimation of lnBS as the dependent (i.e. instrumented) variable in the first stage, its predicted values are used to replace the original endogenous variable in the second stage (i.e. performance equation). The equations are estimated using heteroscedasdicity-consistent and autocorrelation-consistent estimations for reasons that follow in Section 4.5.1.

4.4.3 Variables

All the variable abbreviations and definitions are presented in Table 4.3 below. The main dependent variable is Firm Performance (FP), measured by two different market-based measures, for robustness checks; they are Tobin's Q (TQ) and Market-to-Book Value of Total Equity (MBTE). The main focus is typically on Tobin's Q in most studies in this line of research and so to allow for more appropriate comparisons, it is prioritised in this chapter. Chung and Pruitt (1994) suggest a simplified equation to estimate Tobin's Q, which even though it is slightly different to the more accurate equation provided in Lindenberg and Ross (1981), is a very close approximation that, based on their sample, explains 97% of the variation in the results of the more accurate equation. Their equation, "Approximate Q", is followed in this chapter to calculate TQ; it is the market value of equity, preferred stock, and total debt, all added together and then divided by the total assets. MBTE is calculated by dividing the market value of total equity by the book value of total equity.

Table 4.3: Variable Definitions

Variable	Definition
TQ	Tobin's Q of company: (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$
MBTE	Market Value of Equity$_t$ / Book Value of Equity$_t$
BS	Board Size measured by total number of members serving on board of directors
lnBS	Natural logarithm of Board Size
BA	Board Activity measured by the total number of board meetings during the year
CEOD	CEO Duality. If chairman of board also serves as company CEO: "1", otherwise: "0"
PID	Proportion of Independent Directors serving on a board
BRPDS	Board Remuneration Per Director Scaled to Total Assets
LEV	Leverage measured by Total Debt$_t$ / Total Assets$_t$
SG	Sales Growth (Sales$_t$ – Sales$_{t-1}$ / Sales$_{t-1}$)
FA	Firm Age in years from date of IPO
lnFA	Natural logarithm of Firm Age
CAPEX	Capital Expenditure$_t$ / Total Sales$_t$
FCFA	Free Cash Flow$_t$ / Total Assets$_t$
ABSI	Average Board Size by Industry
LOS	Largest Owner Shareholding where the ownership of the largest owner is at least 5%
MSP	Minority Shareholder Protection index by country
NGI	National Governance Index: An aggregate of three national governance quality indicators
GDPG	Annual GDP Growth
FDIG	Annual Foreign Direct Investment scaled by GDP
AFPI	Average Firm Performance by Industry
AFPC	Average Firm Performance by Country
AFPI_c	Average Firm Performance by Industry *Centred* by subtracting the mean from all obs.
AFPC_c	Average Firm Performance by Country *Centred* by subtracting the mean from all obs.

There are five main independent variables in this chapter: Board Size (BS), Board Activity (BA), CEO Duality (CEOD), Proportion of Independent Directors (PID), and Board Remuneration Per Director Scaled (BRPDS). BS is measured as the total number of directors serving on a board. BA is measured by the total number of board meeting during the year. The natural logarithm of BS (lnBS) is employed, in line with previous empirical research, to account for the non-linearity of the relationship between board size and firm performance (e.g. Yermack, 1996; Guest, 2009; Wintoki et al., 2012; Liu et al., 2015). CEOD, a dummy variable, is assigned "1" when the chairman of the board also serves as the CEO of the company, and "0" otherwise. PID is calculated as the number of independent directors divided by the total number of directors serving on a board. BCPDS is the total remuneration in USD paid to each director during the year divided by the Total Assets of a firm, so that it is scaled to the size of the firm.

There are several variables that are likely to have an effect on firm performance and therefore must be included in the equation as controls. The choice of variables is based on the many empirical studies reviewed earlier (e.g. Brick et al., 2006; Jackling and Johl, 2009; Wintoki et al., 2012), and they are as follows: Leverage (LEV), Sales Growth (SG), Firm Age (FA), the Capital Expenditure / Total Sales ratio (CAPEX), the Free Cash Flow / Total Assets ratio (FCFA), Average Firm Performance by Industry (AFPI), and Average Firm Performance by Country (AFPC). FA is simply the number of years since the IPO of a firm, while the natural logarithm of FA (lnFA) is included as a transformation of the variable to control for its non-linear relationship with firm performance, which is in line with previous studies (e.g. Jackling and Johl, 2009; Guest, 2009; Wintoki et al., 2012; Liu et al., 2015). LEV controls for the capital structure of firms and is measured as total debt divided by total assets. SG captures prior growth and is measured as the difference between current and previous year sales, divided by previous year sales. Following Himmelberg et al. (1999), CAPEX controls for future growth prospects and is measured as capital expenditure scaled by total sales, and FCFA accounts for the surplus resources available and is measured by free cash flow scaled by total assets. ABSI is average board size by industry and is employed as an instrument for the instrumented variable, lnBS, to control for endogeneity bias.

To mitigate multicollinearity problems in the main equation, AFPI and AFPC are changed into their centred transformations, AFPI_c and AFPC_c, respectively, which are included to control

for industry-level and country-level differences and heterogeneities in the sample. There are three additional time-varying country-level control variables that are included for additional robustness checks in Section 4.5.5, namely NGI, GDPG, and FDIG. NGI is a national governance index that is included to control for differences in the national quality of governance amongst the GCC countries, and is constructed using the *Worldwide Governance Indicators[11]* developed by Kaufmann et al. (2011). The Worldwide Governance Indicators comprise six dimensions: control of corruption, government effectiveness, political stability and absence of violence, regulatory quality, rule of law, and voice and accountability. Each indicator has a value range of -2.5 to +2.5 to reflect the quality of governance, where better governance is reflected with higher values (Kaufmann et al., 2011). Previous scholars suggest that three (namely government effectiveness, regulatory quality, and rule of law) out of the six dimensions are most relevant to firm operations and activities, and this chapter follows these multi-country empirical studies and includes these three dimensions (Knudsen, 2011; Van Essen et al., 2013; Nguyen et al., 2015). Knudsen (2011) and Nguyen et al. (2015) report high levels of collinearity amongst the three dimensions that can cause biased estimates when employed in one regression, and to avoid this they construct an index that is an aggregate of government effectiveness, regulatory quality, and rule of law; this index, NGI, is adopted in this chapter. GDPG and FDIG control for country-level differences in economic growth and development; GDPG is annual GDP growth and FDIG is annual foreign direct investment scaled by GDP.

Finally, LOS and MSP are two additional variables employed for robustness checks in Section 4.5.5. LOS is largest owner shareholding where ownership of the largest owner is at least 5%. MSP is a minority shareholders protection index for each country, obtained from the *Doing Business* regulatory reform measurements database, which is part of *The World Bank*. [12]

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[11] The Worldwide Governance Indicators are available at: https://info.worldbank.org/governance/wgi/
[12] The methodology and data of the minority shareholder protection index can be accessed at: https://www.doingbusiness.org/en/data/exploretopics/protecting-minority-investors/faq

114

4.5 Empirical Results

4.5.1 Data Diagnostics

Following assessment of the sample, outliers were found to be a prominent problem in the data. Both graphical techniques (dot plots and spike plots; Appendix A provides examples) and numerical techniques (the mean and standard deviation method) show that several variables have observations that clearly deviate from the mean. In such cases where most variables have problematic outliers, a frequently used technique is to have the variables winsorized. Therefore, all the variables (except for CEOD and PID) are winsorized at the 1% and 99% levels, which is line with many empirical studies in the literature (e.g. Balbat et al., 2004; Schultz et al., 2010; Nguyen et al., 2015; Abdallah and Ismail, 2017). Another issue was of multicollinearity, where after the estimations of the models two variables (AFPI and AFPC) had a Variance Inflation Factor (VIF) higher than 10 (Wooldridge, 2016). To correct for this, they are replaced with their centred transformations, AFPI_c and AFPC_c, after which the VIF of each variable was reduced to less than 10. None of the other variables had a high VIF and so severe multicollinearity issues no longer exist. On a final note, preliminary estimates of the model suffer from both heteroscedasticity and autocorrelation; the White-Koenker and Arellano-Bond tests show evidence for both issues, respectively. These issues are serious, because if they are not appropriately controlled for, not only are the estimates inefficient, but the confidence intervals and t-statistics (and ultimately the p-values) are invalid. Therefore, so that this problem is controlled for, the models are estimated with heteroscedasdicity- and autocorrelation-consistent (HAC) variance estimates.

4.5.2 Descriptive Statistics

Descriptive statistics for all the variables are presented in Table 4.4 below. The average board size in the sample is approximately 8 board members, which is comparable to that documented in two previous empirical studies covering the GCC banking sector and two GCC markets, with a mean board size of 8.88 directors and 9.14 directors, respectively (Arouri et al., 2014; Hamdan and Al Mubarak, 2017). Moreover, boards held between 5 and 6 meetings every year on average. It is worth mentioning that the average of CEO duality is found to be very low at 0.022, showing that almost all firms decide to separate the roles of the CEO and the chairman of the board. This in line with previous research that finds that more than 88% of 355 listed companies in the GCC

stock markets during the year 2012 do not have CEO duality (Pillai and Al-Malkawi, 2016). The finding is also not surprising given that corporate governance codes across the respective GCC markets state that firms must not have CEO duality, with the UAE enforcing their governance code on a strict "comply or penalise" basis, and Saudi Arabia and Oman applying their codes on a "comply or explain" basis (Al-Malkawi et al., 2014; Shehata, 2015).

The average proportion of independent directors, at 58.9%, is relatively high, especially given that a recent survey finds that 39.2% of boards have no independent directors (GCC Board Directors Institute, 2017). However, it must be noted that this survey is based on responses from 63 GCC listed firms only. Also, there are two possible explanations for this: one is that even though all corporate governance codes (most of which are applied on a comply-or-explain basis) require at least a third of directors to be independent, this is a relatively recent change in the GCC markets and therefore several companies are taking time to adjust. The second explanation is that the definition of independent directors has also recently changed in most corporate governance codes in the GCC markets and so firms are in a similar position, namely trying to adapt. Nevertheless, the relatively high average found in this chapter, along with the high proportions in the first three quartiles, show that not only do firms comply with the minimum proportion required, but also that they have boards that are composed of proportions of independent directors that are considerably higher than the minimum proportion required.

Table 4.5 presents a correlation matrix for all the variables included in Model 4.1. Berry and Feldman (1985), amongst others, suggest that high correlations between independent variables that are greater than 0.8 can be problematic and cause multicollinearity issues. Due to the high correlation (i.e. hence the high VIF aforementioned in the methodology section) between the two industry and country control variables, AFPI and AFPC, they are centred from their means to become AFPI_c and AFPC_c, respectively. The problem is controlled as the correlation between the centred variables is less than 0.8 (0.68), hence the VIF is also lowered to an acceptable value, and the potential presence of severe multicollinearity can therefore be dismissed. No other correlations amongst the variables seem problematic.

Table 4.4: Descriptive Statistics of all Variables

	Mean	p25	p50	p75	SD	Min	Max
TQ	1.486	1.016	1.227	1.725	0.778	0.413	4.559
MBTE	2.143	1.052	1.554	2.504	1.841	0.183	9.799
BS	8.027	7.000	8.000	9.000	1.622	4.000	12.000
lnBS	2.062	1.946	2.079	2.197	0.208	1.386	2.485
CEOD	0.022	0.000	0.000	0.000	0.147	0.000	1.000
BA	5.667	4.000	5.000	6.000	2.025	2.000	15.000
PID	0.589	0.400	0.556	0.778	0.237	0.000	1.000
BR	434837	107152	352200	562043	436488	0	2115775
BRPDS	0.192	0.025	0.101	0.219	0.270	0.000	1.403
LEV	0.506	0.288	0.515	0.728	0.253	0.022	0.944
SG	0.160	-0.050	0.054	0.168	0.667	-1.028	5.708
FA	15.532	7.000	13.000	24.000	10.496	1.000	39.000
lnFA	2.455	1.946	2.565	3.178	0.839	0.000	3.664
CAPEX	0.106	0.010	0.042	0.113	0.178	0.000	0.852
FCFA	0.024	-0.023	0.017	0.069	0.092	-0.245	0.281
ABSI	8.027	7.858	7.975	8.133	0.456	7.335	9.229
MSP	5.981	5.200	6.000	6.670	0.737	5.000	7.200
NGI	1.028	0.340	0.680	1.250	0.914	0.280	3.260
GDPG	0.039	0.025	0.037	0.044	0.019	0.017	0.093
FDIG	0.013	0.012	0.012	0.020	0.013	-0.031	0.027
AFPI	1.507	1.156	1.458	1.735	0.454	0.844	2.893
AFPC	1.507	1.217	1.792	1.792	0.313	1.006	1.792
AFPI_c	0.000	-0.351	-0.050	0.227	0.454	-0.664	1.386
AFPC_c	0.000	-0.289	0.286	0.286	0.313	-0.499	0.286
N	1,395						

The dependent variable, firm performance, is measured by two market-based measures, TQ and MBTE. Tobin's Q (TQ) is calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$, while Market-to-Book Value of Equity (MBTE) is calculated as Market Value of Total Equity$_t$ / Book Value of Total Equity$_t$. There are five independent variables: BS is Board Size measured by the total number of members serving on the board of directors and lnBS is the natural logarithm of BS; BA is Board Activity measured by number of board meetings during year and lnBA is the natural logarithm of BA; CEOD, CEO Duality, is a dummy variable assigned "1" when CEO also serves as chairman of the board, and "0" otherwise; PID is the Proportion of Independent Directors of the total number of directors serving on a board; BR is total Board Remuneration $USD received by all members on a board and BRPDS is the total Board Remuneration Per Director Scaled to Total Assets. FS is Firm Size, which is Total Assets$_t$ measured by USD thousands and lnFS is the natural logarithm of Firm Size. LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$)/Sales$_{t-1}$, FA is the Firm Age in years since its Initial Public Offering date, and lnFA is the natural logarithm of FA. CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, FCFA is Free Cash Flow$_t$ / Total Assets$_t$, and ABSI is the Average Board Size by Industry. There are four time-varying country-level variables: MSP is the Minority Shareholder Protection index, NGI is the National Governance Index, which is an aggregate of three national governance quality indicators, GDPG is the Annual GDP Growth, and FDIG is the Annual Foreign Direct Investment scaled by GDP. AFPI and AFPC are the Average Firm Performance (as measured by TQ) by Industry and by Country, respectively, while AFPI_c and AFPC_c are their centred transformations. x N denotes the number of firm-year observations.

Table 4.5: Correlation Matrix; N = 1,395

	TQ	MBTE	lnBS	CEOD	BA	PID	BRPDS	LEV	SG	lnFA	CAPEX	FCFA	ABSI	AFPI_c	AFPC_c
TQ	1.000														
MBTE	0.780***	1.000													
lnBS	0.103***	0.120***	1.000												
CEOD	-0.002	-0.018	0.044	1.000											
BA	-0.061**	-0.112***	-0.071***	-0.004	1.000										
PID	-0.186***	-0.171***	-0.100***	-0.054**	0.132***	1.000									
BRPDS	0.112***	0.018	-0.395***	-0.050*	0.002	0.158***	1.000								
LEV	-0.197***	0.157***	0.142***	0.001	0.032	-0.063**	-0.332***	1.000							
SG	-0.003	0.033	0.025	-0.026	-0.048*	0.024	-0.059**	0.078***	1.000						
lnFA	-0.178***	-0.297***	-0.106***	-0.017	0.142***	0.179***	0.111***	-0.148***	-0.112***	1.000					
CAPEX	0.059**	-0.041	0.055**	0.066**	0.028	-0.101***	-0.062**	-0.122***	0.105***	-0.053**	1.000				
FCFA	0.188***	0.088***	0.027	-0.009	-0.023	-0.001	0.093***	-0.222***	-0.134***	0.097***	-0.342***	1.000			
ABSI	-0.130***	-0.018	0.273***	-0.014	0.078***	0.015	-0.186***	0.364***	0.034	0.050*	-0.115***	-0.079***	1.000		
AFPI_c	0.528***	0.438***	0.190***	0.049*	-0.119***	-0.306***	-0.080***	-0.082***	-0.003	-0.245***	0.114***	0.002	-0.248***	1.000	
AFPC_c	0.360***	0.309***	0.329***	0.076***	-0.181***	-0.455***	-0.257***	0.018	0.019	-0.167***	0.147***	-0.024	0.022	0.680***	1.000

*** p<0.01, ** p<0.05, * p<0.1

The dependent variable, firm performance, is measured by two market-based measures, TQ and MBTE. Tobin's Q (TQ) is calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$, while Market-to-Book Value of Equity (MBTE) is calculated as Market Value of Total Equity$_t$ / Book Value of Total Equity$_t$. There are five independent variables: lnBS is the natural logarithm of Board Size, which is measured by the total number of members serving on the board of directors; BA is Board Activity, which is measured by number of board meetings during the year; CEOD is a dummy variable assigned "1" when CEO also serves as chairman of the board, and "0" otherwise; PID is the Proportion of Independent Directors of the total number of directors serving on a board; BRPDS is the total Board Remuneration Per Director (in $USD) Scaled to Total Assets. LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$)/ Sales$_{t-1}$, and lnFA is the natural logarithm of Firm Age, which is the number of years since a firm's Initial Public Offering date. CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, FCFA is Free Cash Flow$_t$ / Total Assets$_t$, and ABSI is the Average Board Size by Industry. AFPI_c and AFPC_c are the centred transformations of Average Firm Performance (measured by TQ) by Industry and by Country, respectively. N denotes the number of firm-year observations.

4.5.3 OLS and Fixed Effects Estimates

Table 4.5 below presents the results using two estimators of the regression: the pooled OLS and the fixed effects estimators with TQ as the main dependent variable. They are included merely to allow for comparison within the chapter itself and, more importantly, with previous empirical research that employs such estimators. Based on the pooled OLS estimates, while board activity and CEO duality are not significantly related with firm performance, both board size and board remuneration have a significant positive relationship with firm performance. On the other hand, the proportion of independent directors has a significant negative relationship with firm performance. However, many previous empirical studies in this line of research present evidence on the endogenous nature of board characteristics as internal corporate governance mechanisms; unobserved heterogeneities caused by unobservable firm specific effects are a main problem (Guest, 2009). In the presence of such a problem, OLS estimates are biased, and the results are therefore misleading.

Fixed effects estimators are considered an efficient way to control for unobserved heterogeneities amongst samples. Estimates in Table 4.6 show that most findings from the pooled OLS regression are consistent with those from the fixed effects regression; board size and board remuneration have a significant positive relationship with firm performance, the proportion of independent directors has a significant negative relationship, and board activity has no significant relationship. However, the insignificant relationship of CEO duality with firm performance is significant and negative after controlling for unobservable individual effects and unobservable time effects. Nevertheless, other studies in the literature reviewed in this chapter present evidence of an additional endogeneity issue; that is, the issue of causality. It is argued that some board characteristics may appear to have a significant effect on firm performance, but because they are endogenously determined, they could be a product of (i.e. determined by) previous firm performance. This means that there might be reverse causality between the dependent and endogenous variable, and the significant effect found may only be present because of the presence of this bias. In this case, the fixed effects estimates will also suffer from endogeneity bias and will therefore be misleading. Exogeneity tests of the sample show that of the three potentially endogenous board characteristics investigated, board size must be treated as an endogenous variable (Table 4.7).

Table 4.6: Pooled OLS and Fixed Effects Regression Estimates

Variables	Pooled OLS TQ	Fixed Effects TQ
lnBS	0.2259**	0.3747**
	(2.42)	(2.35)
BA	0.0112	0.0003
	(1.41)	(0.04)
CEOD	-0.1390*	-0.3238**
	(-1.78)	(-2.26)
PID	-0.1464**	-0.2044**
	(-2.01)	(-2.32)
BRPDS	0.4167***	0.5519***
	(4.76)	(6.36)
LEV	-0.2783***	-0.4286***
	(4.01)	(-3.10)
SG	0.0210	-0.0125
	(0.86)	(-0.80)
lnFA	-0. 0850***	-0.3732***
	(-3.59)	(-5.46)
CAPEX	0.2136*	-0.0160
	(1.76)	(-0.17)
FCFA	1.5862***	-0.0344
	(5.31)	(-0.21)
AFPI_c	0.7936***	
	(11.58)	
AFPC_c	0.0418	
	(0.47)	
Year	Yes	Yes
Constant	1.3129***	1.8538***
	(6.11)	(4.96)
Observations	1,395	1,395
No. of Unique Firms	349	349
R-squared	0.375	0.240
F-test	34.15	23.33

t statistics in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$

The dependent variable, firm performance, is measured by the market-based measure, Tobin's Q (TQ), which is calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. There are five independent variables: lnBS is the natural logarithm of Board Size, which is measured by the total number of members serving on the board of directors; BA is Board Activity, which is measured by number of board meetings during year; CEOD is a dummy variable assigned "1" when CEO also serves as chairman of the board, and "0" otherwise; PID is the Proportion of Independent Directors of the total number of directors serving on a board; BRPDS is the total Board Remuneration Per Director (in $USD) Scaled to Total Assets. lnFA is the natural logarithm of Firm Age, which is the number of years since a firm's Initial Public Offering date, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, and LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformations of Average Firm Performance (measured by TQ) by Industry and by Country, respectively. Year indicates whether time effects are controlled for. Observations denotes the number of firm-year observations.

4.5.4 Instrumental Variables Estimates - 2SLS

To control for the aforementioned endogeneity problems, and so that causality can be more confidently established, equation Model 4.1 (in which firm performance is measured by TQ) is estimated with a 2SLS wherein the endogenous variable, board size, is instrumented in the first stage with the instrumental variable, average board size by industry; the results are presented in Table 4.8 below. In line with the theoretical arguments and empirical evidence provided by previous scholars that instrument board characteristics with their respective industry averages and show that they are significantly correlated (Yang and Zhao, 2014; Liu et al., 2015), the first stage shows that average board size by industry is a significant predictor of board size. Stock and Yogo (2005) highlight two main problems with 2SLS estimates in the presence of weak instruments: the first is that 2SLS estimators are biased and the second is that the hypothesis tests of parameters estimated using 2SLS can suffer from significant size distortions. It is therefore crucial that the instrument employed is tested with a weak instrument test: Stock and Yogo (2005) suggest that the rule of thumb for a single endogenous variable and a single instrumental variable, is a minimum first-stage F-statistic of 10. To make sure that the estimates do not suffer from weak instrument bias, this test is performed for equation Model 4.1. The result shows that the first-stage F-statistic is larger than the minimum acceptable value, at 124.77 (Table 4.6), and so concerns about the strength of the instrument are safely dismissed.

The second stage results are consistent with those from the pooled OLS estimations. First, board size has a significant positive impact on firm performance (t-statistic: 2.49, p-value < 0.05), and so Hypothesis 4.1 is accepted. On average, a 10% increase in board size is expected to increase TQ by 0.119, all else being held constant. Second, board activity has no significant relationship with firm performance, and therefore Hypothesis 4.2 is rejected. Third, Hypothesis 4.3 is accepted as CEO duality shows to have no significant effect on firm performance. Fourth, the proportion of independent directors has a significant negative effect on firm performance (t-statistic: -2.00, p-value < 0.05), so Hypothesis 4.4 is accepted. TQ is expected to decrease by 0.023 for every 10% increase in the proportion of independent directors, all else being held equal. Fifth, Hypothesis 4.5 is accepted as board remuneration has a significant positive effect on firm performance (t-statistic: 3.87, p-value < 0.01). The magnitude of this effect is reflected with an increase of 0.067 in TQ for every 10% increase in board remuneration scaled to total assets,

all else being held constant. All of the results are robust to the alternative market-based measure of firm performance, MBTE (Appendix D).

Table 4.7: Weak Instrument Test and Instrumented Variable Exogeneity Tests

Instrumented / Instrument	lnBS / ABSI	PID / APIDI	BA / ED
Weak Instrument Test			
First-stage Regression F-statistic	124.77	72.58	12.53
Exogeneity Tests*			
Robust Score Chi^2 Test	0.003	0.225	0.387
Robust Regression Test	0.003	0.223	0.391
No. of Observations	1,395	1,395	1,395

*The reported values for both tests of exogeneity are the p-values, where the null hypothesis is that the instrumented variable is exogenous, hence a significant p-value (p<0.05) would reject the null and indicate the presence of endogeneity.

Table 4.8: 2SLS Regression Estimates of Model 4.1

Variables	First Stage lnBS	2SLS TQ
ABSI	0.1205***	
	(7.65)	
lnBS		1.2436**
		(2.49)
BA	-0.0049	0.0142
	(-1.47)	(1.36)
CEOD	0.0177	-0.1519
	(0.33)	(-1.00)
PID	0.0734**	-0.2315**
	(2.21)	(-2.00)
BRPDS	-0.2374***	0.6676***
	(-8.99)	(3.87)
LEV	-0.0162	-0.3268***
	(-0.47)	(-3.14)
SG	-0.0019	0.0219
	(-0.23)	(0.90)
lnFA	-0.0117	-0.0754**
	(-1.33)	(-2.24)
CAPEX	0.0775**	0.1637
	(1.97)	(1.02)
FCFA	0.2310***	1.3717***
	(3.14)	(3.14)
AFPI_c	0.0455**	0.7988***
	(2.10)	(7.96)
AFPC_c	0.1278***	-0.1504
	(3.78)	(-0.97)
Year	Yes	Yes
Constant	-0.8948***	1.7187***
	(-7.21)	(15.62)
Observations	1,395	1,395
No. of Unique Firms	349	349
F-test	124.77	17.48

t statistics in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$

The dependent variable, firm performance, is measured by the market-based measure, Tobin's Q (TQ), which is calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. ABSI, Average Board Size by Industry, is the instrumental variable (employed in the first-stage of the 2SLS regression) for the endogenous (instrumented) variable, lnBS. There are five independent variables: lnBS is the natural logarithm of Board Size, which is measured by the total number of members serving on the board of directors; BA is Board Activity, which is measured by number of board meetings during year; CEOD is a dummy variable assigned "1" when CEO also serves as chairman of the board, and "0" otherwise; PID is the Proportion of Independent Directors of the total number of directors serving on a board; BRPDS is the total Board Remuneration Per Director (in \$USD) Scaled to Total Assets. lnFA is the natural logarithm of Firm Age, which is the number of years since a firm's Initial Public Offering date, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, and LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$ and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformations of Average Firm Performance (measured by TQ) by Industry and by Country, respectively. Year indicates whether time effects are controlled for. Observations denotes the number of firm-year observations.

4.5.5 Additional Robustness Checks and Potential Omitted Variable Bias

Although the possibility that the board characteristics might suffer from reverse causality has been addressed using the instrumental variables approach above, it is worth running an additional robustness check to reinforce the confidence in the results. To try and mitigate potential reverse causality bias further, there are some empirical studies that take one additional step and use lags of the corporate governance variable observations instead of current year observations (see, for example, Pedersen and Thomsen, 2003). The argument follows the logic that past values of corporate governance variables cannot possibly be determined by future firm performance. Therefore, to further address the issue, one-year lags of all the right-hand side variables and the instrumental variable are employed in the main equation Model 4.1 instead of their current year observations. The main results are robust to this check (Appendix E).

The empirical evidence from Chapter 3 shows that ownership concentration is a significant determinant of firm performance for the sample of companies listed in the GCC stock exchanges. Not controlling for ownership concentration in equation Model 4.1 may therefore be a source of omitted variable bias in the estimates, which can lead to misleading conclusions being made about the relationship between board characteristics and firm performance. Since the exact firms covered in the samples employed in each empirical chapter are not the same due to data limitations that depend on the corporate governance mechanisms being investigated, the ownership concentration variables from Chapter 3 are not complete for all firms included in this chapter. Therefore, an alternative variable has to be identified; the variable should both control for ownership structure and be a variable for which data are complete for all 1,395 firm-year observations. The largest owner shareholding (LOS) where ownership is at least 5%, meets those two conditions; hence, it is the chosen variable. Numerous previous studies use a similar measure to reflect ownership concentration when investigating its relationship with firm performance (see Mavruk et al., 2020 for examples).

Taking into consideration the evidence from the Chapter 3, ownership structure is endogenously determined. Therefore, the largest owner shareholding cannot be treated as an exogenous variable in the equation model as, if it is, its endogeneity will cause bias in all of the estimates. A

viable instrument for the endogenous variable has to be identified[13]; it must both be sufficiently correlated with the endogenous variable and must not be correlated with the error term of the main (performance) equation. Richter and Weiss (2013) analyse the determinants of ownership concentration while investigating the importance of firm-, industry-, and country-level factors. They find that firm- and country-level factors affect ownership concentration much more than industry-level factors, while shareholder protection is a significant and negative predictor of ownership concentration. This finding is in line with the work of various scholars who explain that ownership is concentrated (dispersed) in countries with low (high) shareholder protection, and that this concentrated ownership generally occurs as a natural solution and acts as an effective corporate governance mechanism for mitigating the agency problems arising from low shareholder protection (Shleifer and Vishny, 1997; La Porta et al., 1998; La Porta et al., 1999). It is therefore expected that shareholder protection only affects firm performance indirectly through its direct effect on ownership concentration, making it a viable instrument choice. This is generally the rationale behind the use of shareholder protection as an instrument for ownership concentration in empirical research that investigates the ownership-performance relationship (e.g. Weiss and Hilger, 2012; Omran et al., 2008). Based on the above, minority shareholder protection (MSP) is used as the instrumental variable for largest owner shareholding (LOS).

Wooldridge (2010) highlights that economists tend to use regional variation to instrument endogenous variables, and explains how this is an example of a sensible instrumental variables approach that can be applied to endogenous variables that are part of an individual-level (i.e. firm-level in the case of this research) equation model. It is important though, that other regional factors that directly affect firm performance are properly controlled for. This helps ensure that the instrumental variable meets the exclusion restriction, which is only met if the instrument is not correlated with the error term of the second-stage equation. In the case of this chapter, these regional factors are captured by the inclusion of average firm performance by country (AFPC_c) in the main performance equation. To mitigate concerns on this issue further, an alternative set of

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[13] The natural logarithm of firm size (lnFS) was used as the instrument for ownership concentration in Chapter 3; it has a strong first-stage (F-statistic > 10) for the endogenous variable, largest owner shareholding (LOS), when it is included in the equation as the only excluded instrument for the single endogenous variable, LOS. However, once both endogenous variables (board size and largest owner shareholding) are instrumented with ABSI and lnFS, the Cragg-Donald F-statistic is less than 7.03, which is the minimum value for sufficient instrument strength according to the weak identification test for two endogenous regressors and two instrumental variables (Stock and Yogo, 2005). Therefore, lnFS could not be used and an alternative instrument had to be identified.

three regional factors that are expected to have a direct effect on firm performance are controlled for in an additional robustness check that follows the model specified below. In this case of two endogenous variables and two instrumental variables, the Cragg-Donald F-statistic must be greater than 7.03 according to the weak identification test (Stock and Yogo, 2005) to ensure that the estimates do not suffer from weak instrument bias. The test is passed with a Cragg-Donald F-statistic of 13.58 (Table 4.9) when the two endogenous variables, board size and largest owner shareholding, are instrumented with average board size by industry (ABSI) and minority shareholder protection (MSP), respectively.

Regression Model 4.2, estimated with a 2SLS estimator, is therefore stated in the following form:

The main performance equation (second-stage regression):

$$FP_t = \beta_0 + \beta_1 \ln BS_t + \beta_2 BA_t + \beta_3 CEOD_t + \beta_4 PID_t + \beta_5 BRPDS_t + \beta_6 \ln FA_t + \beta_7 SG_t + \beta_8 LEV_t + \beta_9 CAPEX_t + \beta_{10} FCFA_t + \beta_{11} LOS_t + \beta_{12} AFPI\_c_t + \beta_{13} AFPC\_c_t + \beta_{14} Year + e_t$$

Where the endogenous variables, BS and LOS, comprise their predicted values which are obtained from the two first-stage regressions:

$$\ln BS_t = \delta_0 + \delta_1 ABSI_t + \delta_2 MSP_t + \gamma_3 BA_t + \delta_4 CEOD_t + \delta_5 PID_t + \delta_6 BRPDS_t + \delta_7 \ln FA_t + \delta_8 SG_t + \delta_9 LEV_t + \delta_{10} CAPEX_t + \delta_{11} FCFA_t + \delta_{12} AFPI\_c_t + \delta_{13} AFPC\_c_t + \delta_{14} Year + u_t$$

$$LOS_t = \gamma_0 + \gamma_1 ABSI_t + \gamma_2 MSP_t + \gamma_3 BA_t + \gamma_4 CEOD_t + \gamma_5 PID_t + \gamma_6 BRPDS_t + \gamma_7 \ln FA_t + \gamma_8 SG_t + \gamma_9 LEV_t + \gamma_{10} CAPEX_t + \delta_{11} FCFA_t + \gamma_{12} AFPI\_c_t + \gamma_{13} AFPC\_c_t + \gamma_{14} Year + v_t$$

ABSI (average board size by industry) and MSP (minority shareholder protection) are the excluded exogenous variables that are employed as the instrumental variables for the two instrumented (endogenous) variables, lnBS (natural logarithm of board size) and LOS (largest owner shareholding), respectively. After the estimation of lnBS and LOS as the dependent (instrumented) variables in the first stage, their predicted values are used to replace the original endogenous variable in the second stage (main performance equation). All of the equations are estimated with heteroscedasdicity- and autocorrelation-consistent estimations.

The results of the estimation of equation Model 4.2 are reported in Table 4.10 below. The main conclusions are unaltered as board size and board remuneration have a significant positive effect

on firm performance, board independence has a significant negative effect on firm performance, and board activity and CEO duality have no significant relationship with firm performance. The largest owner shareholding has no significant relationship with firm performance. An alternative set of three time-varying country-level control variables replace average firm performance by country[14] (AFPC_c) in equation Model 4.2, and it is re-estimated as a final robustness check (Table 4.11). The three country-level controls are the national governance index (NGI), annual GDP growth (GDPG), and annual foreign direct investment scaled to GDP (FDIG). The main results and conclusions remain unchanged.

Table 4.9: Weak Instrument Tests, Instrumented Variables Exogeneity Tests, and Weak Identification Test

Instrumented / Instrument	lnBS / ABSI	LOS / MSP
Weak Instrument Test		
First-stage Regression F-statistic	118.60	26.23
Exogeneity Tests*		
Robust Score Chi^2 Test	0.003	0.000
Robust Regression Test	0.003	0.000
Weak Identification Test		
Cragg-Donald F-statistic	13.58	
No. of Observations	1,395	

*The reported values for both tests of exogeneity are the p-values, where the null hypothesis is that the instrumented variable is exogenous, hence a significant p-value (p<0.05) would reject the null and indicate the presence of endogeneity. The weak identification test is the required weak instrument test when more than one endogenous variable is in the equation. When two endogenous variables and two instrumental variables are included, the minimum acceptable value of the Cragg-Donald F-statistic to pass the weak identification test is 7.03 (Stock and Yogo, 2005).

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[14] The three country-level control variables are highly correlated with average firm performance by country, and therefore replace it to avoid bias from severe multicollinearity.

Table 4.10: 2SLS Regression Estimates of Model 4.2

Variables	First Stage lnBS	First Stage LOS	2SLS TQ
ABSI	0.1181***	0.0047	
	(6.88)	(0.26)	
MSP	0.0170	-0.0411***	
	(1.56)	(-3.98)	
lnBS			1.2310**
			(2.07)
BA	-0.0049	0.0114***	0.0286*
	(-1.37)	(3.12)	(1.75)
CEOD	0.0127	0.0302	-0.1290
	(0.22)	(0.77)	(-0.69)
PID	0.0762**	-0.1581***	-0.4203**
	(2.17)	(-4.99)	(-2.42)
BRPDS	-0.2323***	-0.0285	0.6444***
	(-8.18)	(-0.96)	(3.21)
LEV	-0.0093	0.0284	-0.2703**
	(-0.25)	(0.78)	(-2.19)
SG	-0.0019	-0.0142**	0.0041
	(-0.23)	(-2.29)	(0.14)
lnFA	-0.0090	-0.0198**	-0.0921**
	(-0.92)	(-2.20)	(-2.28)
CAPEX	0.0769*	0.0911*	0.2773
	(1.86)	(1.94)	(1.43)
FCFA	0.2312***	0.2472***	1.6853***
	(2.97)	(3.32)	(3.10)
LOS			-1.2545
			(-1.33)
AFPI_c	0.0456*	0.0216	0.8267***
	(1.92)	(0.84)	(7.17)
AFPC_c	0.1114***	-0.1388***	-0.3725*
	(3.01)	(-3.75)	(-1.79)
Year	Yes	Yes	Yes
Constant	-0.9875***	0.5519***	2.1188***
	(-6.94)	(3.68)	(6.17)
Observations	1,395	1,395	1,395
No. of Unique Firms	349	349	349
Cragg-Donald Wald F-stat	13.58		F-test: 13.20

t statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The dependent variable, firm performance, is measured by the market-based measure, Tobin's Q (TQ), which is calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. ABSI is Average Board Size by Industry and MSP is the Minority Shareholder Protection index: ABSI and MSP are the instrumental variables (employed in the first-stages of the 2SLS regression) for the endogenous (instrumented) variables, lnBS and LOS, respectively. There are five independent variables: lnBS is the natural logarithm of Board Size, which is measured by the total number of members serving on the board of directors; BA is Board Activity, which is measured by number of board meetings during year; CEOD is a dummy variable assigned "1" when CEO also serves as chairman of the board, and "0" otherwise; PID is the Proportion of Independent Directors of the total number of directors serving on a board; BRPDS is the total Board Remuneration Per Director (in $USD) Scaled to Total Assets. lnFA is the natural logarithm of Firm Age, which is the number of years since a firm's Initial Public Offering date, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, and LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$ and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. LOS is Largest Owner Shareholding and is measured as the percentage of total shares owned by the largest shareholder. AFPI_c and AFPC_c are the centred transformations of Average Firm Performance (measured by TQ) by Industry and by Country, respectively. Year indicates whether time effects are controlled for. Observations denotes the number of firm-year observations.

Table 4.11: Equation Model 4.2 Estimates with Alternative Time-varying Country Controls

Variables	First Stage lnBS	First Stage LOS	2SLS TQ
ABSI	0.1199***	0.0006	
	(7.06)	(0.03)	
MSP	0.0327***	-0.0576***	
	(2.97)	(-5.48)	
lnBS			1.1206**
			(2.00)
BA	-0.0053	0.0122***	0.0244*
	(-1.48)	(3.34)	(1.65)
CEOD	0.0142	0.0280	-0.1479
	(0.25)	(0.71)	(-0.85)
PID	0.0746**	-0.1511***	-0.3110**
	(2.12)	(-4.73)	(-2.50)
BRPDS	-0.2365***	-0.0214	0.6500***
	(-8.41)	(-0.72)	(3.35)
LEV	-0.0114	0.0304	-0.2848**
	(-0.31)	(0.83)	(-2.47)
SG	-0.0022	-0.0139**	0.0116
	(-0.28)	(-2.24)	(0.42)
lnFA	-0.0091	-0.0204**	-0.0863**
	(-0.93)	(-2.27)	(-2.13)
CAPEX	0.0776*	0.0881*	0.2290
	(1.87)	(1.88)	(1.23)
FCFA	0.2288***	0.2512***	1.5984***
	(2.92)	(3.38)	(3.04)
LOS			-0.7457
			(-0.93)
AFPI_c	0.0524**	0.0058	0.7752***
	(2.33)	(0.23)	(7.46)
NGI	-0.0316***	0.0321***	0.0523
	(-2.72)	(2.78)	(1.40)
GDPG	-0.4100	0.7305	2.9461
	(-0.80)	(1.46)	(1.47)
FDIG	0.5364	-0.6328*	-1.6335
	(1.32)	(-1.76)	(-1.24)
Year	Yes	Yes	Yes
Constant	-1.0473***	0.6138***	1.7287***
	(-7.34)	(4.07)	(5.20)
Observations	1,395	1,395	1,395
No. of Unique Firms	349	349	349
Cragg-Donald Wald F-stat	17.64		F-test: 12.67

t statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The dependent variable, firm performance, is measured by the market-based measure, Tobin's Q (TQ), which is calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. ABSI is Average Board Size by Industry and MSP is the Minority Shareholder Protection index: ABSI and MSP are the instrumental variables (employed in the first-stages of the 2SLS regression) for the endogenous (instrumented) variables, lnBS and LOS, respectively. There are five independent variables: lnBS is the natural logarithm of Board Size, which is measured by the total number of members serving on the board of directors; BA is Board Activity, which is measured by number of board meetings during year; CEOD is a dummy variable assigned "1" when CEO also serves as chairman of the board, and "0" otherwise; PID is the Proportion of Independent Directors of the total number of directors serving on a board; BRPDS is the total Board Remuneration Per Director (in $USD) Scaled to Total Assets. lnFA is the natural logarithm of Firm Age, which is the number of years since a firm's Initial Public Offering date, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, and LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$ and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. LOS is Largest Owner Shareholding and is measured as the percentage of total shares owned by the largest shareholder. AFPI_c is the centred transformation of Average Firm Performance (measured by TQ) by Industry. There are three time-varying country-level controls: NGI is the National Governance Index, which is an aggregate of three national governance quality indicators, GDPG is the Annual GDP Growth, and FDIG is the Annual Foreign Direct Investment scaled by GDP. Year indicates whether time effects are controlled for. Observations denotes the number of firm-year observations.

4.6 Discussion and Conclusion

4.6.1 Discussion

Taking into consideration the hypotheses in this chapter, all of the main findings are as expected but one, board activity, is not. The results discussed in this section are based on the sample of all listed firms in the GCC stock markets from 2012 to 2016, for which data are available; it includes firms from 4 out of 7 stock markets. The results suggest a significant positive effect of board size on firm performance. This finding is not supportive of agency theory which argues that larger boards are less efficient (Jensen and Meckling, 1976; Jensen, 1993). In contrast, the finding is supportive of resource dependence theory which argues that larger boards have access to more resources, information, and external relations, and so make better informed decisions and therefore are more efficient (Pfeffer and Salancik, 1978; Dalton et al., 1999). The significant positive effect of board size on firm performance found here is consistent with the findings of previous empirical studies on developed markets (Beiner et al., 2006; Adams and Mehran, 2008), and is consistent with the findings of several previous empirical studies on developing markets (Haniffa and Hudaib, 2006; Jackling and Johl, 2009; Babatunde and Olanirian, 2009; Topal and Dogan, 2014).

Although a positive board activity performance effect was expected, the results showed that there is no significant relationship between board activity and firm performance. This finding does not support either theory and is in line with the results of Jackling and Johl (2009) and Grove et al. (2011). Similarly, and as expected, CEO duality does not appear to have a significant relationship with firm performance, and therefore neither theory is supported. This result is not particularly surprising as it is consistent with most previous empirical studies on developed markets (Baliga et al., 1996; Iyengar and Zampelli, 2009; Dalton and Dalton, 2011) and most studies on developing markets (Abdullah, 2004; Jackling and Johl, 2009; Yasser et al., 2017).

Furthermore, the results show that board independence has a significant negative effect on firm performance. Once again, this finding is not supportive of agency theory which argues that board independence is expected to mitigate the agency problem and therefore improve firm performance (Jensen and Meckling, 1976). On the other hand, it provides support for stewardship theory which argues that executive directors, as insiders, have access to greater and more relevant information than outsiders and therefore make more informed decisions,

ultimately improving firm performance (Donaldson and Davidson, 1991). In terms of previous empirical research on developing markets, the negative board independence performance effect is consistent with most previous studies (Agrawal and Knoeber, 1996; Bhaghat and Black, 2002; Kiel and Nicholson, 2003; Bhagat and Bolton, 2008; Hamdan and Al Mubarak, 2017). Finally, board remuneration is found to have a significant positive effect on firm performance, and therefore the finding does not support the argument proposed by Brick et al. (2006) that well-paid directors are less willing to cause dispute with executive management as they try not to lose their positions, which leads to weakened monitoring of management and firm performance. The positive effect is consistent with several previous empirical studies (Abdulrahman and Zawawi, 2005; Aggarwal and Ghosh, 2015; Razali et al., 2018).

4.6.2 Conclusion

In conclusion, for the sample employed in this chapter, and controlling for endogeneity issues, the results do not provide any support for agency theory. Nonetheless, larger boards and lower board independence are found to be associated with higher firm performance, which are supportive of arguments proposed by resource dependence theory and stewardship theory, respectively. Board activity and CEO duality are not significantly related to firm performance and therefore are not supportive of any of the theories. Board remuneration is found to be positively associated with firm performance.

Various entities are advised to consider the results of this research as it could have implications on their decision-making processes; the entities include investors, firms, governments, and policymakers, among others. Specifically, relevant policymakers may want to revise the corporate governance code articles that enforce strict limits on the total number of directors and on the number of executive directors serving on a board. Allowing firms and shareholders with more freedom to adjust their board characteristics so that they better suit their unique setting can provide them with economic advantages and help them achieve greater performance. The research implications for companies and shareholders are also therefore that they should carefully assess the best combination of board characteristics for higher efficiency and performance when proposing potential board candidates, and voting on them, respectively.

On a final note, the negative effect of board independence on firm performance does not necessarily mean that board independence is not a good attribute for firms to possess, as having

some level of board independence is necessary for objective management oversight, and it is required by the corporate governance codes of all the GCC countries. However, the main conclusion is that too much board independence is associated with lower firm performance, and on average, firms in the GCC markets that depend more on insiders outperform others that depend more on outsiders.

Chapter 5 – The Influence of Founder Ownership Concentration and Family Founder Board Membership on Firm Performance

5.1 Introduction

One perspective on corporate governance is that it comprises the decision-making processes and controls that achieve a balance between the interests of all stakeholders in a company, which include investors, employees, suppliers, customers, and the community (The Chartered Governance Institute, 2020). Another perspective, which dominates the academic finance literature, is that the main focus of corporate governance is on shareholders, and on the ways in which companies are directed and controlled in order to ensure that they receive an adequate return on their investments (Shleifer and Vishny, 1997). Corporate ownership and control represent two main internal mechanisms of corporate governance, making them central to determining how firms are controlled and towards what objectives they are directed. Jensen and Meckling (1976) propose that the separation of ownership and control (i.e. shareholders and management) is the main cause of agency problems due to the conflict of interests between owners and managers, as managers may not always act in line with the best interests of owners, and that such conflicts lead to inefficiencies in firm management and performance.

Shleifer and Vishny (1986) argue that concentrated ownership structures help improve firm financial performance as large shareholders tend to monitor management more closely than smaller shareholders, due to their larger financial commitment. In contrast, Barclay and Holderness (1989) argue that concentrated ownership structures tend to worsen firm financial performance as large shareholder exploit firm assets at the expense of small shareholders. These theories, that are an essential part of corporate governance, motivate scholars to conduct studies that test them empirically not only to check their consistency, but also to better understand them and the implications they might have on all company stakeholders. Contributing to the debate on ownership concentration, Short (1994) stresses the importance of taking into consideration the identities of shareholders - what Cubbin and Leech (1983) as the 'location of control' - to account for the different objectives, and therefore potential effects on firm performance, they likely have.

The aforementioned theories generally extend to the founder ownership and control debate, which mostly revolves around comparisons between family founder and non-family founder firms. Villalonga and Amit (2020) provide a review on the existing literature that covers ownership by individuals and families (mainly founders), which is the most prevalent form of corporate ownership worldwide, as highlighted in their research. They highlight the importance of this topic in the field of corporate governance while it was viewed as a niche topic affecting few companies and therefore received little interest by academics up until the beginning of the 21st century. Only two decades ago, it started to gain more attention when La Porta et al. (1999) provided compelling evidence about the prevalence of family firms around the world. Further empirical research showed how important it is to understand such firms by providing empirical evidence on how family firms have systematic differences compared to non-family firms (Anderson and Reeb, 2003; Villalonga and Amit, 2006). Such differences are argued to be responsible for various findings; one is that family firms generally outperform non-family firms financially (Villalonga and Amit, 2020).

Combining this with arguments emphasising how crucial it is to distinguish between ownership identities due to their different characteristics (Cubbin and Leech, 1983; Short, 1994), this chapter divides both sides of the family and non-family founder identities into four mutually exclusive groups of founders, with the addition of a mixed-founders group that results in five groups. These founder groups are: family, royal family, government, institutional, and mixed founder firms. This categorisation helps to achieve a better understanding of the separate impact of each group on firm performance. This chapter argues that the differences, and therefore the effects each exert, between the sub-components of the main groups that the literature mostly focuses on are too large to be ignored. For example, it becomes clear how crucial it is to divide family founders into the two groups of general family founders and royal family founders when the objectives of founding and owning/controlling firms are compared and contrasted; the former generally prioritise the maximisation of wealth and are therefore better aligned with the financial goals of other private investors, while the latter can be easily inclined to seek to achieve political objectives, even if they come at the expense of financial goals.

This chapter therefore aims to investigate the impact of founder ownership concentration and family founder board membership on firm performance. The setting of the sample being in the

six countries of the Gulf Cooperation Council (GCC) suits the objectives of this chapter well, especially with the presence of royal family founded firms in the stock markets allowing for the intended comparisons to be performed. To the best of the researcher's knowledge, no previous study investigates the impact of royal family founder ownership and royal family founder board of director presence on firm performance. In addition, the impact of founder ownership and family control on firm performance in the stock markets of the GCC countries has not been examined before. This chapter contributes to the literature by providing an empirical study that investigates these relationships.

5.2 Literature Review

5.2.1 Founder Ownership Concentration

Founder ownership theory generally follows the main ownership and control theory in which the separation of the two is thought to cause and worsen agency problems (Berle and Means, 1932; Jensen and Meckling, 1976). Shleifer and Vishny (1986) argue that concentrated ownership structures help mitigate agency problems (i.e. those that occur between owners) as large shareholders are better monitors of managers, due to them being more committed financially. On the other hand, some scholars argue that concentrated ownership structures can worsen agency problems as large shareholders expropriate firm assets at the expense of small shareholders (Barclay and Holderness, 1989; Bebchuk, 1999). The idea of potential expropriation by large shareholders can be more applicable to corporate governance systems with low shareholder protection, which is the case in most emerging markets (La Porta et al., 1999). Nonetheless, depending on whether they are founders of the firms, and on their identities and their goals, the benefits of large shareholders may outweigh their drawbacks.

Like most investors, firm founders typically have the aim of wealth maximisation. It is important to note however that not all founders have the same goals. For example, in addition to the goal of wealth maximisation, family founders usually pursue socio-emotional goals (Gomez-Mejia et al., 2011) which include maintaining family control, binding social ties, and enhancing family bonds via succession (Torchia et al., 2018). This family ownership theory is central in the management discipline and suggests that pursuing such non-financial goals hinders financial performance (Gomez-Mejia et al., 2007). Nevertheless, some scholars argue that family owners are more

135

inclined to employ their private funds in order to save financially troubled firms, which typically results in benefiting small shareholders (Friedman et al., 2003), and that is thought to be a main reason to why family firms outperform non-family firms financially during economic crises and are more stable over time (Villalonga and Amit, 2010). Another example is government founders, which do not necessarily focus on wealth maximisation as they have other goals such as maintaining social welfare or achieving political objectives (Hart et al., 1997; Shleifer, 1998).

For this reason, and despite the fact that almost all of the extant founder ownership and firm performance literature focuses specifically on family founders and compares them to non-family founders (see Villalonga and Amit, 2020 for a review), this thesis argues that it is important to distinguish between the identities of firm founders as each group of founders may pursue different goals. Therefore, to better understand the founder ownership-performance relationship, and after investigating the effects of founder ownership concentration on firm performance, this chapter divides not only non-family founders into two groups, but also family founders into a further two groups, while including a final group for firms with mixed founders. The five founder categories are as follows: Government (GF), Institutional (IF), Family (FF), Royal Family (RFF), and Mixed Founders (MF). As mentioned above, almost all of the empirical literature on the founder ownership-performance relationship is centred on family founders. A review of the studies, the samples they employ, and their main results follows.

Studies in developed markets present mixed results, although many find a positive effect of family ownership on firm performance. Anderson and Reeb (2003) use a sample of all firms in the S&P 500 from 1992 to 1999 and find a positive performance effect of founding family ownership, while firms with a family CEO perform better than those with outside CEOs. Lee (2004) employs a sample of the largest 150 publicly listed family firms in the US in 2002 and finds evidence for a positive performance effect of family ownership, as well as support for the idea that such ownership structures are typically better than their counterparts economically as they enhance cost efficiency and therefore register higher returns. Using a sample of 1,672 Western European non-financial firms, Maury (2006) finds evidence showing that family firms with active family control are associated with higher profitability than non-family firms, while those with passive family control has no effect on profitability. Andres (2008) finds a similar ownership-performance effect for a sample 275 German listed firms where the positive effect

holds only when family owners are active on boards, while there is no effect in family firms without family board representation.

Ben-Amar and Andre (2006) investigate 327 acquiring Canadian listed firms and find that abnormal returns following the acquiring announcement are higher in family firms. For a sample of Belgian listed firms, Hamadi (2010) finds a positive effect of large shareholders in family firms on firm performance exists unless the shareholders are organised in voting blocks. Hamberg et al. (2013) investigate a sample of all Swedish listed firms between 2001 and 2010 and find that firms with founding family ownership perform better than their counterparts, and the performance is higher the more concentrated are the ownership structures. Vieira (2018) finds evidence of a positive relationship between family ownership and performance for a sample of Portuguese listed firms between 2002 and 2013. Eugster and Isakov (2019) find a similar effect for all non-financial firms listed on the Swiss stock market between 2003 and 2013. Poutziouris et al. (2015) examine the effects of family ownership and firm performance in 141 UK listed firms from 1998-2008 and find a positive non-linear relationship, where it increases up until the family ownership level of 31% and then starts to decrease.

In contrast, there are several empirical studies that find no relationship between family ownership and firm performance. Westhead and Howorth (2006) use a sample of privately held family firms in the UK and find no difference in firm performance between lower and higher family ownership concentrations; it is worth noting though that they find that family firms with larger boards of directors and management teams perform better than others. Similarly, Sciascia and Mazzola (2008) investigate a sample of 620 privately held Italian family firms and find no relationship between family ownership and performance, while they find evidence of a negative relationship between family involvement in management and performance. Sacristán-Navarro et al. (2011) analyse 118 non-financial listed Spanish firms from 2002 to 2008 and find that family ownership has no impact on firm performance. Likewise, Rouyer (2016) finds no significant relationship between family ownership and performance for a sample covering the largest 250 listed French firms in the years 2006 to 2008. Furthermore, other empirical studies in developed markets find evidence suggesting that the relationship is more complex as it varies according to firms' share-class structures (King and Santor, 2008), whether firm founders or their descendants

serve as CEOs (Villalonga and Amit, 2006), and that it changes with different levels of ownership concentration meaning that it is not a linear relationship (Dawson et al., 2018).

With regards to empirical research in emerging economies, the evidence is mixed. Wang and Shailer (2017) conduct a meta-analysis reviewing 43 empirical studies covering 17 countries on the relationship between family ownership and firm performance in emerging markets; their results show support for the notion that higher family ownership levels improve firm performance through better monitoring of management or better alignment of large and small shareholder interests. Martínez et al. (2007) find a positive effect of family ownership on firm performance for a sample of 175 Chilean listed firms with family firms outperforming non-family firms; Bonilla et al. (2010) revisit this evidence and use additional estimation techniques that control for unobserved firm heterogeneity and confirm their results while adding that not only do family firms perform better but also exhibit less return volatility.

Moreover, Chu (2011) finds that the relationship is positive for 786 Taiwanese listed firms between 2002-2007 while noting that the positive performance effect of ownership concentration is weak with no family involvement in management or control, but strong with that family involvement; the author also notes that the positive effect is stronger in small- and medium-sized enterprises (SMEs) compared to large firms (Chu 2009). Other scholars investigate Thai listed firms between 2000-2007 and find that founding family-run firms have higher earnings and accrual quality than other family firms and non-family firms (Boonlert-U-Thai and Sen, 2019); the distinction made by the authors between founding families and other non-founding families in firms' ownership structures in this chapter is a crucial one and while this is not necessarily applied in many studies in this line of research for various reasons, some of which are not explicitly mentioned, it provides a clearer and more specific understanding of the ownership-performance relationship. The current chapter acknowledges the importance of this and therefore makes the distinction between founding family owners and other non-founding family owners.

Shyu (2011) employs a sample of 465 Taiwanese listed firms and finds a positive effect of family ownership on firm performance, and while this effect stands for all levels when Tobin's Q is used as the measure of performance, it only holds for up to 30 per cent family ownership concentration when Return on Assets (ROA) is used, and after that it is associated with worse performance. Beuren et al. (2016) follow Shyu's (2011) study to allow for a comparison of

138

results and employ a sample of 187 Brazilian listed firms for the years 2010 and 2011 to find that even though the performance of family firms is lower than that of non-family firms, the influence of family ownership in family firms is positive on firm performance and that the positive effect is maximised at ownership levels of 60 and 70 per cent. Ng (2005) investigates a sample of 335 Hong Kong non-financial listed firms between 1995-1998 and finds that the relationship is cubic (i.e. inverted U-shaped) where low and high levels of family ownership concentration have a negative effect on firm performance but that effect is positive at middle levels of ownership concentration; Kowalewski et al. (2010) find a similar inverted U-shaped relationship between family ownership concentration and firm performance for a sample of 217 Polish companies from 1997 to 2005.

In contrast, some empirical studies find a negative family ownership-performance relationship. Achmad et al. (2009) use a sample of 105 Indonesian listed firms from 2003-2006 and find that family firms perform worse than non-family firms. In addition, Gupta and Nashier (2017) investigate a sample of 1,100 Indian listed between 2007-2014 and find that family firms perform worse than non-family firms and that family ownership has a negative impact on firm performance. Silva and Majluf (2008) use a sample of all non-financial Chilean companies from the years 2000 and 2003 and although they find that lower family ownership concentrations have a positive effect on firm performance, that effect becomes negative at higher concentration levels, and that negative effect worsens if families are more involved in firms' boards of directors. Other scholars provide evidence supporting the notion that the relationship is more complex. For example, Jiang and Peng (2011) study 744 publicly listed firms from eight East Asian countries and find support for all three positions of the relationship (i.e. positive, negative, and non-existent) on a country-by-country basis while on an aggregate basis their results show no relationship.

Several other studies find no relationship between family ownership and firm performance as well. Chen et al. (2004) study 412 Hong Kong listed firms during 1995-1998 and find no family ownership-performance relationship while Tsao et al. (2009) report a similar finding for 688 Taiwanese firms in 2004, although they find evidence of significant relationships when accounting for the moderating role of different levels of high-performance work systems in firms. Chang and Shin (2006) investigate 15 Korean conglomerates for the years 1999-2000 and

139

find no relationship between family ownership and performance. Moreover, Singal and Singal (2011) use a large sample of 4,384 Indian firms and also find no difference in the effects of family ownership and other types ownership on firm performance. As mentioned above, the distinction between different types of non-family firms in this line of research is rare, but Singal and Singal (2011) are amongst the few who divide them into further parts for a clearer understanding, represented by state and foreign ownership in their case. Nevertheless, the authors do not go further in checking whether such firms were actually founded by those owners, so they do not explicitly investigate the effects of different types of founder ownership in non-family firms, probably due to low founder data availability. The current chapter retrieves the founder names of firms upon establishment to distinguish different types of founders before investigating the ownership levels of each founder.

5.2.2 Founding Family Board of Directors Presence

Agency theory emphasises how firm control (i.e. management) is an integral part of every firm as it is a main determinant of agency conflict levels, while the theory argues that the separation of ownership and control exacerbates such issues as top managers in organisations may start to seek the fulfilment of their own private interests at the expense of the owners' profit maximisation objectives, causing a detrimental conflict of interests (Jensen and Meckling, 1976). Top-level decision control and management in an organisation is normally exercised by the board of directors, and this is why boards are considered one of the most important internal corporate governance mechanisms that help to mitigate agency problems (Fama and Jensen, 1983). Fama and Jensen (1983) explain that even though boards in most large corporations delegate many decision-management functions and some control-management functions to the executive managers, they retain ultimate control over those managers and have the right to appoint and dismiss them, and to monitor and approve (or disapprove) major projects of the organisation.

Since the current chapter investigates the effects of firm founders (whether they are in positions of ownership or control) on firm performance, it incorporates the assessment of the relationship between founder control, in terms of their presence on boards of directors, and firm performance. Data concerning boards of directors could only be accurately attributed to any specific group of founders when the founders are families, while it is difficult to ascertain from the data available

which board members represent the respective institutional or government founders. Due to the proposition in this chapter that the effects of different founders vary, it is important that different types of family founders are separated as in the founder ownership sub-section above. Therefore, the proportions of founding family and founding royal family members serving on a board are evaluated and the impacts of each of their levels on firm performance are examined.

Although the empirical literature on family control and firm performance is less, relative to the literature reviewed on family ownership above, the number of studies conducted is still significant. Several studies measure family control of management by their presence on boards of directors, while others measure it based on whether the Chief Executive Officer (CEO) is a family member or on the number of family members holding top executive positions in a company. As this chapter measures family control by their presence on boards of directors, the focus of this section of the literature review is on those that employ this particular measure, but studies employing other measures are also reviewed towards the end. For a sample of all non-financial Chilean firms from 2000 to 2003, Silva and Majluf (2008) find that family involvement in boards of directors improves the positive firm performance effect of family ownership concentration when the ownership levels are below 70%, but their involvement on boards also exacerbates the negative performance effect of family ownership when it is at the higher levels. Using a sample of all listed firms in the S&P 500 between 1992 and 1999, Anderson and Reeb (2004) find evidence that founding family owners generally seek to have fewer independent board directors, and that this has a negative performance effect for family firms, whilst non-family owners prefer a higher presence of independent directors. It is worth noting that the authors highlight the importance of expanding the debate from its focus on ownership and control conflicts (i.e. shareholder-manager conflicts) to conflicts arising between shareholder groups.

Furthermore, Villalonga and Amit (2006) find that the positive performance effect of family ownership only holds when a founder or a member of their family serves as board chairman or CEO for a sample of 508 Fortune 500 firms from 1994 to 2000. Anderson and Reeb (2003) define family firms as those either owned by founding families and/or those with founding family members' presence on company boards of directors and find that family firms perform better than non-family firms for their sample of S&P 500 non-financial firms; Allouche et al.

(2008) employ a comparable definition of family firms and also find that family firms outperform non-family firms for a sample of Japanese listed firms covering the years 1998-2003. Lee (2006) investigates whether the proportion of founding family members and their descendants on board of directors has an effect on firm performance and finds that it is higher when more family members are involved in management (i.e. serving on boards) for a sample of S&P 500 non-financial firms from 1992 to 2002.

Moreover, Andres (2008) reports higher profitability in family firms than in non-family firms for 275 German listed firms from 1998-2004, in which the definition of a family firm is a firm where either the founders and their relatives own more than 25% of voting rights or they are represented on at least one of the executive and the supervisory boards. Poutziouris et al. (2015) examine the effects of family involvement, in terms of family CEO and family board representation, on firm performance in their sample of UK listed firms from 1998-2008 and find that the higher the family involvement, the higher the long-term performance sustainability is for family firms. McConaughy et al. (1998) study US public firms from 1986 to 1988 to compare founding family and non-family firms; they report three main findings: (1) founding family controlled firms where the CEO is the founder, or a relative of the founder, perform better than non-founding family controlled firms, (2) descendent controlled firms are more efficient than founder controlled firms, and (3) younger founder controlled firms are more efficient than their older counterparts. On the other hand, Giovannini (2010) employs a sample of 56 Italian IPOs issued between the years 1999 and 2005 and finds that founding family involvement on boards of directors negatively impacts firm performance.

Martínez et al. (2007) define family controlled firms as those in which families own a majority of shares or where family members participate in boards of directors or top management positions, and from their empirical results on 175 Chilean listed firms covering the years 1995-2004 they find that family firms outperform non-family firms. For a sample of Hong Kong listed firms between 1998 and 2000, Jaggi et al. (2009) find that board independence improves monitoring effectiveness in family firms, and that the relationship is moderated by family control, either through ownership concentration or the presence of family members on boards of directors. Filatotchev et al. (2005) use 228 Taiwanese listed firms in 1999 and find that board independence from founding family members positively impacts firm performance; in other

words, family presence on boards of directors worsens firm performance. Nonetheless, Wu (2013) investigates Taiwanese listed firms from 2007-2010 and finds that family member presence on boards of directors does not have a relationship with firm performance when the CEO is a non-family one, while their presence on boards improves firm performance for those firms with a family CEO. Additionally, Bhatt and Bhattacharya (2017) investigate Indian listed firms from 2002-2012 and find no significant impact of family ownership and family representation on boards on firm performance. Similarly, Ciftci et al. (2019) find no effect of the proportion of family members on boards of directors on firm performance for 210 Turkish listed firms from 2010-2013.

5.2.3 Empirical Studies in the GCC

In the GCC context, empirical studies concerning the relationship between family ownership and firm performance are scarce. Furthermore, they include all family owners, as opposed to clearly distinguishing between founding family owners and other non-founding family owners. For example, Arouri et al (2014) study 58 banks in the GCC markets in 2010 and find a positive relationship between family ownership and bank performance, but the authors do not mention whether those family owners are founders at all, meaning that they have included all individual shareholders under their measure of family ownership concentration and have not identified whether those individual or family owners are actually the founders of firms. Additionally, no study in the GCC investigates the relationship between founding family board representation and firm performance.

Nevertheless, there are a few studies covering all GCC markets that include at least one of the main variables encompassed in this chapter, and it is worth mentioning them. Abdallah and Ismail (2017) employ a sample 532 listed firms on all GCC markets from 2008-2012 and investigate the relationship between good corporate governance and firm performance, and they find that it is positive and is strongest when the largest shareholders of firms are governments or institutions. Eulaiwi et al. (2016) use 185 non-financial listed firms on all GCC markets from 2005-2013 to investigate the association between founding family ownership concentration and outside board directorships. They find that the association is positive supporting the idea that founding family ownership hinders the capabilities of board monitoring. Moreover, for a sample of listed firms on all GCC markets from 2007-2011, Al-Hadi et al. (2016b) find that the presence

of ruling family members on boards has a negative relationship with the quality and extent of risk reporting, particularly during times of high levels of risk and financial distress.

Pillai and Al Malkawi (2018) employ a sample of 349 companies listed on GCC stock markets from 2005-2012 to investigate the effects of ownership structure and board of director characteristics on firm performance. They report a positive performance effect of insider ownership in the United Arab Emirates (UAE) only, while that effect is non-existent in all 5 other countries. In contrast, government ownership has a negative effect on firm performance in Kuwait, Saudi Arabia, and the UAE, while that effect is positive in Qatar, and although institutional ownership has a negative performance effect in Saudi Arabia, that effect is positive for Oman. Furthermore, board size has a negative effect on firm performance in all GCC stock markets, and CEO Duality has a positive performance effect in Kuwait and the UAE, while that effect is negative in Oman. In addition, Al Nasser (2019) empirically examines the effect of royal family involvement in firms, in terms of presence on boards of directors, meeting attendance, and share ownership, has on firm performance, as measured by Enterprise Value, for a sample of 99 Saudi non-financial listed firms from 2009-2013; the author finds no significant firm performance effect of royal family board meeting attendance, proportion of royal family members on boards, and royal family share ownership. Interestingly however, firms with a greater number of independent royal family members on boards have better firm performance. To the best of our knowledge, no previous study on the GCC markets empirically tests the impact of founder ownership concentration and founding family involvement in boards of directors on firm performance.

5.2.4 Conclusions from the Literature Review

This chapter investigates the effects of founders' ownership concentration and founding (royal) family control, through their presence on boards of directors, on firm performance. The literature review highlights that no similar previous studies exist in the GCC context. An important contribution of this chapter is its addition of a new dimension to the founding family ownership/control and performance relationship line of research, and that is the inclusion (separation) of royal family founders with (from) normal family founders. To the best of our knowledge, there are no previous studies that investigate these particular relationships, with the potential of such a study to be conducted in at least 26 countries that have a monarchy system

worldwide (Central Intelligence Agency, 2020)**,** and that includes the United Kingdom but excludes the other 15 Commonwealth realm countries, all of which are sovereign states under one constitutional monarchy (i.e. the UK).

To summarise, this chapter contributes to the literature in three ways: (1) it assesses the impact of founding family ownership/control on firm performance in a group of emerging markets that have not been investigated before (i.e. the GCC markets); (2) the addition of a dimension in which the performance effects of different types of founding owners (i.e. government, institution, family, royal family) are compared rather than only comparing founding family with non-founding family owners; and (3) the addition of a new dimension that differentiates between founding family and founding royal family owners to assess the performance effects of each in terms of both their ownership and control (i.e. board of director representation).

5.3 Hypotheses Formulation

5.3.1 Founder Ownership Concentration

5.3.1.1 Government Founder Ownership

Government owners can bring both benefits and drawbacks to companies. One important advantage government owners bring that other types of owners are more likely to sometimes struggle with is easy access to funds, usually from tax revenues, at lower costs of capital (Pedersen and Thomsen, 2003). Even though tax revenues are relatively less in the GCC countries, the notion persists as governments in these countries have large oil revenues as an alternative significant source for their income and access to funds. In addition, governments typically have more power relative to other types of owners, and they can exploit that to the favour of the company they own. For example, they may modify certain rules of trade to the advantage of their firms at the expense of the market share of their competitors.

Nevertheless, governments do not necessarily exercise such advantages frequently, and even when they do it is not always done with the goal of value maximisation and improvement of firm performance as government owners are different to other private shareholders, with multiple alternative potential objectives, such as the maximisation of social welfare and political objectives (Shleifer and Vishny, 1994; Shleifer, 1998). Hart et al. (1997) suggest two main types

of investment incentives for private owners: cost reduction and quality improvement, both of which are expected to ultimately lead to better financial performance. On the other hand, they argue that these investment incentives are significantly weaker for governments, and therefore for the managers of their firms too, due to the notion that making returns on their investments is typically not their main priority. Shleifer (1998) argues that such characteristics of government owners cause inefficiencies in firms and can therefore worsen their financial performance. An additional important aspect that could also impair firm performance is the presence and level of government corruption.

When governments are founder owners, the expectation is that they carry all the same characteristics highlighted above, in addition to the reasons that motivate them to found firms. Governments may choose to establish a company to provide society with essential goods and services at reasonable prices to maintain social welfare. Similarly, they may do so solely to achieve politically motivated goals. Nevertheless, even though those reasons might hinder firm performance from a shareholder value maximisation view, firms founded by governments are expected to be more stable than others during periods of financial distress given the better fund accessibility and stronger financial back-up they have. The more government founders retain their ownership stakes in the firms they have founded, the more these ideas are applicable. However, since there is strong support for arguments on both sides, the expected impact of government founder ownership on firm performance is unclear. Therefore, Hypothesis 5.1 is stated as follows:

Hypothesis 5.1: *Government founder ownership has no significant effect on firm performance*

5.3.1.2 Institutional Founder Ownership

In this chapter, institutional ownership refers to all private organisations, financial and non-financial, that own shares in listed companies. Although there may be several incentives for them to own stakes in companies, there is little doubt that the main incentive for the vast majority is to maximise shareholder value (Shleifer, 1998). The costs and benefits of having any specific type of institution as an owner differs to others and these types include mutual funds, banks, corporations, insurance, and investment companies, but the main objective of them all is typically to make a return of their investments (Monks and Minow, 2012). In addition, they

generally have better access to resources and funds relative to individual and family shareholders.

For the financial commitment institutional owners make, they expect a return on investment. Shleifer and Vishny (1986) argue in favour of a positive performance effect of higher ownership concentration as large shareholders monitor management more closely due to them being more financially committed than smaller shareholders, and therefore improve firm performance. On the other hand, other scholars argue for an opposite performance effect as large shareholders would expropriate firm assets at the expense of small shareholders, especially in cases where shareholder protection is low (Barclay and Holderness, 1989; Bebchuk, 1999). Nevertheless, the likelihood of this expropriation theory applying to institutional owners is lowered when the fact that they are more regulated by governing agencies than other types of owners is taken into consideration.

From this, it can be concluded that the most prominent reason that an institution, or a group of institutions, will choose to establish a firm is if they see a good opportunity to maximise shareholder wealth. The positive performance effects of their main goal and of the benefits they bring to firms are expected to remain present for as long as they remain holding their stakes as founder owners. As founders, while the firm grows and ages, they will always be the most experienced owners in terms of wealth maximisation for that specific firm. Hypothesis 5.2 is stated as follows:

Hypothesis 5.2: *Institutional founder ownership has a significant positive effect on firm performance*

5.3.1.3 Family Founder Ownership

Family founded firms include all companies that are founded by an individual and/or members of their family. Family firms are the most prevalent form of corporate ownership in firms around the world (Villalonga and Amit, 2020). Several studies provide empirical evidence that family firms are different from other firms in behavioural terms and their financial performance, emphasising the significance of such firms in the corporate world (Claessens et al., 2002; Anderson and Reeb, 2003; Villalonga and Amit, 2006). Although family owners have various goals, similar to other private owners, shareholder value maximisation is a priority for them.

Their other goals include socio-emotional objectives such as the maintenance family control, social ties, and enhancing family bonds through succession (Gomez-Mejia et al., 2011; Torchia et al., 2018).

It is argued that the pursuit of such non-financial goals can have a negative impact on financial performance (Gomez-Mejia et al., 2007). As highlighted in the previous section however, other scholars argue that family ownership actually improves financial performance as families are more prepared to invest more of their private funds to save their firms when they are in financial trouble, which typically results in maximising the wealth of the smaller shareholders (Friedman et al., 2003). Based on their empirical evidence, Villalonga and Amit (2010) suggest these benefits of family ownership as a main explanation as to why family firms perform better than non-family firms financially during periods of economic crises, and have greater financial stability.

The positive effects of family owners on firm performance are expected to be similar for family founder owners. In fact, one can expect them to be amplified as founder families are even more attached to their businesses and are therefore have greater willingness to make more sacrifices for the financial stability and performance of their firms. Such attributes may stem from various characteristics of family founder owners, such as the feeling of pride towards their company, or having the sense that there always is a family reputation to be maintained with their business. Importantly, the literature documents that founding family owners in GCC listed firms exploit their influence to build their voting power, which they use to control the decision making processes of firms, as they intervene in various critical board of directors decisions, including the hiring of management and the determination of potential board of director candidates (Sirmon et al., 2008; Eulaiwi et al., 2016). These factors provide founding families with greater control, and so when the idea that their main goal is shareholder wealth maximisation stands, this additional control in the GCC context allows them with a stronger platform to achieve their financial objective. Regardless of the reasons, the end product seems to be, in many occasions, the occurrence of superior financial performance by family firms compared to non-family firms (Villalonga and Amit, 2020). Moreover, founding family Hypothesis 5.3 is stated as follows:

Hypothesis 5.3: *Family founder ownership has a significant positive effect on firm performance*

5.3.1.4 Royal Family Founder Ownership

As mentioned in the previous section, the performance effect of royal family ownership is a subject that has rarely been researched, while no study investigates the performance effect of royal family founder ownership. To be able to hypothesise the expected effect, the costs and benefits that their ownership brings to a firm must be considered. Members of the royal family are generally wealthy, and they also have a reputation to maintain, and so during difficult financial periods it is expected that they act similar to other family owners in terms of their willingness to do whatever is necessary to save their firms, even if they have to use their own private funds. In addition, they could exploit the weight of their family names in a country to achieve greater access to funds for their firm.

On the other hand, an important argument that casts doubt on them acting in these ways is that the notion of shareholder wealth maximisation being their main priority remains unclear, and that is due to two main reasons. First, royal family members are typically wealthier relative to other family owners, meaning that even though they will highly likely still want to increase their wealth by maximising shareholder value, they will more easily give up that goal to achieve others when the situation arises, as they can afford to do so. Second, royal family members have greater political connections (Al-Hadi et al., 2016b), so in addition to socio-emotional goals, they are expected to have political goals which are also non-financial goals; this is usually due to them being part of the constitutional monarchy in a sovereign country, or being part of its extensions at least because they carry the name of the royal family. This particular cost of having alternative goals and priorities has a significant effect on their firms as it means that they will not be focused on one of the most important elements of better financial firm performance. As founders, royal family founder owners are expected to have all the characteristics above, probably in a slightly amplified state, and so Hypothesis 5.4 is stated as follows:

Hypothesis 5.4: *Royal family founder ownership has a significant negative effect on firm performance*

5.3.1.5 Mixed Founder Ownership

Any company that is founded by at least two different types of the four founder categories discussed above is considered a mixed founder firm. Due to the unique and complex characteristics that each founder group have, it is difficult to ascertain that mixed founder

ownership has any effect on firm performance. This is true especially after considering the fact that mixed founder firms could be anything from being formed by founders with similar goals (i.e. institutional and family founders) to founders with extremely differing goals (i.e. government and institutional founders), or a combination of three or all founder types. Hypothesis 5.5 is stated as follows:

Hypothesis 5.5: *Mixed founder ownership has no significant effect on firm performance*

5.3.2 Founding Family Presence on Boards of Directors

5.3.2.1 Family Founder Board Presence

When family founders serve on boards of directors, they have direct control over management and their day-to-day activities, while the way in which they exercise their control rights is what is expected to influence firm performance. Villalonga and Amit (2020) review the literature to explain many reasons for the systematic differences between family firms and non-family firms, some of which are a cause of the superior firm performance witnessed in family firms. One difference of family owners compared to other owners is their preference to have management control due to the emotional attachment, feeling of pride, and maintenance of their family heritage that are only achieved if members of the family run the business. Jensen and Meckling (1976) argue that the separation of ownership and control leads to agency problems as managers (i.e. boards of directors and top management) do not always act in the best interests of owners and make decisions that do not necessarily maximise the wealth of the owners, leading to worse firm performance. The agency problems that they discuss are mitigated when the owners manage their companies (i.e. owner managers), as the conflicts of interest are no longer there. In addition, other scholars argue that managers (who are not the owners) might exploit their positions in the firm to expropriate firm assets at the expense of the owners, impeding firm performance (Demsetz and Lehn, 1985). Therefore, family founders on boards of directors should help mitigate such problems and improve firm performance. Hypothesis 5.6 is stated as follows:

Hypothesis 5.6: *Family founder board presence has a significant positive effect on firm performance*

5.3.2.2 Royal Family Founder Board Presence

The appointment of royal family members on company boards of directors in the GCC occurs for various reasons including being founders of a firm, holding a large proportion of shares, or having a high status amongst the royal family (Hertog, 2012; Al-Hadi et al., 2016b). There is little doubt that their presence on boards of directors can have significant influences on how a firm performs. The political connections that ruling family members bring to firms can be beneficial to companies. Not only can they provide easier access to funds, but they can have direct access to government resources and have an impact of government economic decisions (Al-Hadi et al., 2017). For example, they may exploit their status to influence government rules in order to protect their company from threats such as new entrants into their industry, or reduce the amount of corporate tax they are asked to pay.

On the other hand, these powers might be used by ruling family members on boards against the best interests of firms and their owners. According to Al-Nasser (2019), companies with political connections and royal family members serving as directors are generally protected by the monarchy, and in some cases, royal family members exploit their power to expropriate firm assets at the expense of others and are not stopped by other members of management or owners due to the protection they have. Such issues are exacerbated when transparency, disclosure, and risk reporting are low as the expropriators can continue without being noticed. In this case, shareholders are not provided with complete information regarding the company they are invested in. Al-Hadi et al. (2016b) use a sample of GCC listed firms from 2007-2011 to investigate if there is a link between presence of ruling family members on boards of directors and the quality and extent of risk reporting. They find empirical evidence for a negative association between risk reporting and both the existence of a ruling family member as board chairman and the proportion of ruling family board directors, and suggest that their results support the notion that directors with political connections expropriate private benefits at the expense of firm shareholders. Taking these arguments into consideration, in addition to the alternative non-financial goals that royal family members seek, mentioned above, Hypothesis 5.7 is stated as follows:

Hypothesis 5.7: *Royal family founder board presence has a significant negative effect on firm performance*

5.4 Methodology

5.4.1 Sample

The data sample for this chapter consists of all listed firms in all seven stock exchanges of the six Gulf Cooperation Council (GCC) countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (UAE), all of which have a single stock exchange except for the UAE, which has two stock exchanges. During the five-year period from 2012 to 2016 that the sample covers, there are 734 listed firms, but there are firms that could not be included due to the lack of availability of data, being cross-listed in more than one GCC stock market, or being suspended from trading during the period. The cross-listed companies are removed from the sample except for the data retrieved from the country in which they are headquartered, and that is to avoid double entry of data. Therefore, the total number of listed firms for which data are available and complete in the sample is 275 listed firms. Although the data for most firms are available for all five years, not all are, and therefore the total number of firm-year observations available in the final sample is 1,267. Table 5.1 below summarises the number of firms and firm-year observations included from each stock exchange, while Table 5.2 presents the distribution of firms across the stock market industries.

Table 5.1: Number of Firms and Firm-Year Observations by Stock Exchange

Stock Exchange (Country)	No. of Firms (% of Total)	Firm-Year
Bahrain Bourse (Bahrain)	18 (6.6%)	84
Boursa Kuwait (Kuwait)	65 (23.6%)	319
Muscat Securities Market (Oman)	26 (9.5%)	110
Qatar Stock Exchange (Qatar)	33 (12.0%)	162
Tadawul Stock Exchange (Saudi Arabia)	80 (29.1%)	355
Abu Dhabi Stock Exchange (UAE)	24 (8.7%)	120
Dubai Financial Market (UAE)	29 (10.5%)	117
Total	**275 (100%)**	**1,267**

The financial data are obtained from the financial statements of companies available from two main sources: the official websites of their respective stock exchanges and the Thomson Reuters EIKON database. For some stock exchanges, only the most recent years are available so not all years are available, so in that case the EIKON database is the main source. For most firms however, all years are available from both sources and are therefore cross-checked. Furthermore, the main independent variables in this chapter depend on detailed corporate governance information such as the names of the founders, their identities, fraction of shares owned by founders, board size, and the names of the board members.

5.2: Number of Firms by Industry

Industry	Number of Firms (% of Total)
Banks	39 (14.2%)
Financial Services & Investment	35 (12.7%)
Insurance	46 (16.7%)
Real Estate	20 (7.3%)
Consumer Services (Discretionary)	25 (9.1%)
Consumer Goods (Staples)	16 (5.8%)
Basic Materials	24 (8.7%)
Industrials	36 (13.1%)
Energy & Utilities	18 (6.6%)
Telecommunications	6 (2.2%)
Healthcare & Technology	10 (3.6%)
Total Number of Firms	**275 (100%)**

As of yet, there is no corporate governance database for the six GCC countries, so such data are challenging to obtain. The only viable method to collect such data is by hand, which typically requires greater effort and is more time-consuming. The board data are hand-collected from the Thomson Reuters EIKON database, while the founding member data are hand-collected from the Memorandum of Association (MoA) of each company, but this document once again does not have a unified source across all countries in the GCC. For most countries, it is found in the

official gazettes published on a date that is close to each company's establishment date, and this requires extended searches through historical records and archives.

The search was made easier by a relatively small number of companies which provided a downloadable soft copy of their Memorandum of Association on their official online websites. Qatar also helped mitigate challenges as they provide soft copies of the MoAs of most Qatari listed companies on the country's official legal portal (Al Meezan, 2020). Unfortunately, the full archives of the official gazettes are not available for all six countries. Regardless of data retrieval success of each company, the websites of all companies are visited to check if the information is provided there (data are cross-checked where already retrieved from another source), and all their respective investor relations departments are queried via e-mail. Although the response rate is very low, the responses provided the founding member information required and this helped expand the sample covered as much as practically possible.

5.4.2 Approach – Fixed Effects Regression Model

A standard approach to investigate the effects in question following the specification of the regression model is to estimate it using the Ordinary Least Squares (OLS) method, specifically a pooled OLS estimate considering the nature of the sample being a panel dataset. However, this method is not without its limitations, especially with the endogeneity concerns repeatedly raised in the corporate governance empirical line of research. A critical endogeneity issue with corporate governance and performance variables is that of unobservable firm-specific effects (Himmelberg et al., 1999; Wintoki et al., 2012), which if not properly controlled for, result in unobserved heterogeneity and therefore omitted variable bias (Wooldridge, 2010). Under the presence of such heterogeneity, the assumption that the sampling distribution is equal to the true mean is violated, meaning that the OLS estimates are biased and therefore unreliable. Surprisingly, in the sample they employ for their meta-analysis of empirical studies on the ownership-performance relationship in emerging markets, Wang and Shailer (2015) find that almost two thirds of 42 empirical studies estimate their performance equation using an OLS estimator, meaning that they do not control for any biases arising from potential endogeneity concerns.

It is well documented that fixed effects models efficiently deal with endogeneity caused by unobserved heterogeneity (Gormley and Matsa, 2014; Wooldridge, 2016), making it a much

more favourable method than simple OLS. The Hausman test (Hausman, 1978) is employed to test whether the random effects or fixed effects model is more appropriate. It is important to note that it should only be performed after appropriate data diagnostics of the sample (see next section) and therefore that is when it is performed. Following estimations of the model with random effects and fixed effects, the result of the Hausman test for the full sample ($Chi^2 = 43.19$, p-value = 0.000) is significant indicating that only fixed effects estimations should be used. The Hausman test is also performed and is significant (i.e. $p\text{-value} < 0.05$) for all five sub-samples. A two-way fixed effects model is employed to control for both unobservable firm-specific effects and unobservable time effects (Baltagi, 1995). Several previous empirical studies in this line of research employ this approach to control for unobserved heterogeneity bias (e.g. Himmelberg et al., 1999; Claessens et al., 2002; King and Santor, 2008; Poutziouris et al., 2015).

Data for the second main independent variable, FPB (founding member proportion on board of directors), are only available for family and royal family founded firms. Therefore, two fixed effects panel data regression models are required. Model 5.1, which includes the first main independent variable, FMO (founding member ownership concentration), is estimated for the full sample, government, institutional, and mixed founder sub-samples and is stated as follows:

Model 5.1:

$$FP_{it} = \beta_0 + \beta_1 FMO_{it} + \beta_2 LEV_{it} + \beta_3 SG_{it} + \beta_4 FA_{it} + \beta_5 CAPEX_{it} + \beta_6 FCFA_{it} + \beta_7 Year + u_{it}$$

Model 5.2, which includes both main independent variables, FMO and FPB, is estimated for the family and royal family founded firm sub-samples, is stated as follows:

Model 5.2:

$$FP_{it} = \beta_0 + \beta_1 FMO_{it} + \beta_2 FPB_{it} + \beta_3 LEV_{it} + \beta_4 SG_{it} + \beta_5 FA_{it} + \beta_6 CAPEX_{it} + \beta_7 FCFA_{it} + \beta_8 Year + u_{it}$$

5.4.3 Variables

All the variable abbreviations and their respective descriptions are presented in Table 5.3 below. Firm Performance (FP) is the main dependent variable and is measured by two different market-based measures: Tobin's Q (TQ) and Market to Book Value of Total Equity (MBTE). The focus is on the former, while the latter is included for robustness checks. TQ is calculated by taking the

sum of total market value of equity and total debt and dividing it by total assets. Although this is not the advanced and accurate method of calculating it proposed by Lindenberg and Ross (1981), it is one of the best approximations; proposed by Chung and Pruitt (1994), it explains 97% of the variation in the results from the advanced equation in the sample they employ, so it provides fairly good estimates. It is referred to as Approximate Q and is employed in several empirical studies in the ownership and firm value line of research (Loderer and Martin, 1997; Thomsen et al., 2006; Nguyen et al., 2015). Focusing on TQ as the main dependent variable also aids in better comparison of results as most studies employ it as the main measure of firm performance (e.g. Morck et al., 1988; Anderson and Reeb, 2003; Villalonga and Amit, 2006; Dawson et al., 2018). The alternative measure of firm performance, MBTE, is calculated by dividing the total market value of equity by the total book value of equity.

Since the aim of this chapter is to investigate the performance effects of founder ownership and founder board of director presence, there are two main independent variables of interest: Founding Member Ownership Concentration (FMO) and Founding Member Proportion of Board of Directors (FPB), with observations for the latter only available for firms that are Family Founded (FF) and Royal Family Founded (RFF) due to limited data availability. FMO observations are available for all five sub-samples and so include firms that are Government Founded (GF), Institution Founded (IF), and those with Mixed Founders (MF). FMO is measured by adding the ownership percentage levels of all founder shareholders owning 5% or more of a firm. The reason that the percentage threshold is set at five per cent is data availability as all seven GCC stock markets do not require firms to disclose any ownership information unless it meets that threshold. Previous empirical research studies that involve ownership structure in the GCC countries employ the same measure (Eulaiwi et al., 2016; Abdallah and Ismail, 2017).

FPB is measured by dividing the number of founding members serving on a board of directors by the total number of board members. Family and royal family founder members are easily distinguishable in the GCC countries by their family names. Table 5.4 below presents the name of the royal family of each country, and each emirate in the case of the UAE. Firm history information from official websites and recent annual reports is examined to help cross-check evidence on founder names and family links, which is especially helpful in cases firms founded

by two families as they explain the historical ties between them. In some cases, rather than direct individual ownership by the founders, family founders have ownership stakes through institutions which they founded and fully own (Eulaiwi et al., 2016). These are also carefully examined and distinguished from other non-founder institutions using similar investigation techniques to ensure that the accuracy of founder data is maximised.

Table 5.3: Variables and Descriptions

Variable Name	Description
TQ	Tobin's Q of company: (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$
MBTE	Market Value of Equity$_t$ / Book Value of Equity$_t$
FMO	Founding Member Ownership Concentration
FPB*	Founding Member Proportion of Board of directors
LEV	Leverage measured by Total Debt$_t$ / Total Assets$_t$
SG	Sales Growth (Sales$_t$ – Sales$_{t-1}$ / Sales$_{t-1}$)
FA	Firm Age in years since initial public offering date
lnFA	The natural logarithm of Firm Age
CAPEX	Capital Expenditure$_t$ / Total Sales$_t$
FCFA	Free Cash Flow$_t$ / Total Assets$_t$
FS	Firm Size measured by book value of total assets$_t$ in USD thousands
lnFS	The natural logarithm of Firm Size
AFPI_c	Centred transformation of Average Firm Performance (TQ) by Industry
AFPC_c	Centred transformation of Average Firm Performance (TQ) by Country
GF	Government Founded Firm ("1" if yes, "0" otherwise)
IF	Institution Founded Firm ("1" if yes, "0" otherwise)
FF	Family Founded Firm ("1" if yes, "0" otherwise)
RFF	Royal Family Founded Firm ("1" if yes, "0" otherwise)
MF	Mixed Founders Firm ("1" if yes, "0" otherwise)

*FPB only has 455 firm-year observations as it could only be measured for Family and Royal Family Founded Firms.

Reviewing the literature, it is evident that there are numerous additional variables that can potentially have an effect on firm performance, making it necessary that they are captured in the performance equation as control variables. The control variables in both models 5.1 and 5.2 are as follows: Leverage (LEV), Sales Growth (SG), the natural logarithm of Firm Age (lnFA), the Capital Expenditure / Total Sales ratio (CAPEX), and the Free Cash Flow / Total Assets ratio (FCFA). LEV reflects the capital structure and is calculated by dividing total debt by total assets. In addition, SG reflects revenue growth and is calculated by taking difference between the sales of the current and previous year and dividing it by previous year sales. FA measures firm age by the number of years since the initial public offering date, and lnFA is the natural logarithm of firm age, included to control for non-linearity in its relationship with firm performance, in line with previous empirical research (e.g. Wintoki et al., 2012; Liu et al., 2015). CAPEX and FCFA capture prospects of future growth and firm resources, and are measured by capital expenditure dividing by total sales and free cash flow dividing by total assets, respectively (Himmelberg et al., 1999; Abdallah and Ismail, 2017). FS is firm size measured by the book value of total assets in USD thousands and lnFS is the natural logarithm of firm size, which is employed as an instrumental variable in Section 5.5.5 below.

To mitigate multicollinearity issues, Average Firm Performance by Industry (AFPI) and Average Firm Performance by Country (AFPC) are centred and therefore transformed to become AFPI_c and AFPC_c, respectively, and are included to control for country and industry effects for the pooled OLS estimates. Nonetheless, they are not required in the fixed effects estimates as they are fixed at the firm level, thus already accounting for the effects of the larger groups (i.e. industry and country effects). The final five variables are a set of mutually exclusive binary variables employed to divide sub-samples appropriately for the purposes of this chapter and are as follows: firms that are Government Founded (GF), Institution Founded (IF), Family Founded (FF), Royal Family Founded (RFF), and Mixed Founders (MF).

Table 5.4: Royal Family Names in the GCC Countries

Country	Royal Family Name
Bahrain	Al Khalifa
Kuwait	Al-Sabah
Oman	Al Said / Al Busaidi
Qatar	Al Thani
Saudi Arabia	Al Saud
United Arab Emirates*	
Abu Dhabi	Al Nahyan
Ajman	Al-Nuaimi
Dubai	Al Maktoum
Fujairah	Al-Sharqi
Ras Al-Khaimah and Sharjah	Al-Qasimi
Umm Al-Quwain	Al-Mualla

*The United Arab Emirates consists of seven Emirates, and these are presented in an italic font. Each emirate is ruled by a different royal family, with the exception of Ras Al-Khaimah and Sharjah, which are both ruled by the same royal family.

5.5 Empirical Results

5.5.1 Data Diagnostics

Outliers in the sample are identified through the use of numerical and graphical techniques, which include the mean and standard deviation method, dot plots, and spike plots (examples in Appendix A). The results from all techniques for most variables indicate significant deviations from their means, signalling for a presence of outliers that are problematic and should be dealt with prior to the estimation of any regressions. Taking into consideration the fact that most variables suffer from the same issue, employing a general approach to solve the outliers issue for all variables seems to be the most logical option. One method that has demonstrated its success is the winsorization of variables so that a specified percentage of the variable observations that fall on each end of the two extremes (low or high; left or right) are replaced by the values of the variable that fall at the cut percentage level. Abdallah and Ismail (2017) gather and investigate data on a comparable sample of listed firms from GCC markets; they experience a similar outlier issue and employ an identical approach. Excluding binary variables, all the variables are therefore winsorized at the 1% and 99% levels to mitigate potential bias caused by the outliers, which is line with the method adopted in several empirical studies in the literature (Balbat et al., 2004; Schultz et al., 2010; Nguyen et al., 2015; Abdallah and Ismail, 2017).

A cause of inefficiency in estimates is the presence of heteroskedasticity and autocorrelation in the estimates of regression models. More importantly, these issues also invalidate the t-statistics and therefore p-values, meaning that the statistical significance of each variable is misleading. The White-Koenker and the Arellano-Bond tests are applied following the preliminary estimates; the results from them point to the presence of both issues. Thus, all the fixed effects regressions are estimated with clustered standard errors that are robust to both heteroskedasticity and autocorrelation.

5.5.2 Descriptive Statistics

The descriptive statistics of all variables for the sample are presented in Table 5.5 below. TQ has an average of 1.33 which seems to be a typical value, especially given that it is comparable to the values in previous studies of listed firms in the GCC markets, such as the value of 1.20 reported in Arouri et al. (2014) for example. The average sales growth of a firm at any given year is 15.1%, while the average firm age is 13.4 years. Capital expenditure scaled by total sales averages at 9%, while free cash flow scaled by total assets averages at 1.9%. The other variables presented have typical values too. The quartiles, standard deviation, minimum, and maximum values are also provided in Table 5.5.

The full sample is then divided into five mutually exclusive and collectively exhaustive sub-samples, as follows: Government Founded Firms (GF = 1), Institution Founded Firms (IF = 1), Family Founded Firms (FF = 1), Royal Family Founded Firms (RFF = 1), and Mixed Founders Firms (MF = 1). The descriptive statistics of the main independent variables for each of the five sub-samples are presented in Table 5.6. Government founded firms have the highest average founder ownership concentration at 37.7%, indicating that they prefer to hold on to their ownership the most, or perhaps have the best access to funds and resources to help them to do so, compared to other founders. Institution founded firms and family founded firms both have founder ownership concentration averages that are similar to that of the full sample at 27.9%, which is not unexpected as they try to retain ownership stakes for as long as they are achieving their wealth maximisation goals. In contrast, royal family founded firms and mixed founder firms have significantly lower levels, possibly explained by their differing goals and, in the specific case of the latter, potential clashes between the different founder identities. For a visual representation of how each founder type differs to others in terms of ownership levels and firm

performance, two bar charts are presented in Figure 5.1 and Figure 5.2 below. The founding member proportion of board of directors is similar for both family founded firms and royal family founded firms where average founder board representation is between 27% and 29%, with family founded firms closer to the higher end.

The distribution of the firms per founder type across the sample is presented in Table 5.7 below. The most common type of firm founders is families/royal families, representing more than a third (36.4%) of the 275 firms in the sample. While previous research documents that family owners have a considerable presence in GCC stock markets (Musa, 2002; Eulaiwi et al., 2016), this finding adds an alternative dimension to the literature, revealing that their presence persists, even as founders of GCC listed firms. Divided further, royal family founded firms account for 5.1% of the sample, while family founded firms account for 31.3%. This is not surprising, considering that there are many wealthy families in the GCC that compete with the royal families. Wealthy (non-royal) families lead the stock market family ownership rankings in four out of the six GCC countries as The National Investor (2008) documents (Eulaiwi et al., 2016). Finally, government founded firms, institution founded firms, and mixed founders firms each represent approximately a fifth of the sample at 20.3%, 22.2%, and 21.1%, respectively.

A correlation matrix is presented in Table 5.8. The two market-based measures of firm performance, TQ and MBTE, have a high correlation of over 0.8, but that is expected and not an issue as they are not used together in any one regression model. All the correlations are assessed for values higher than 0.8, as they can cause multicollinearity issues (Berry and Feldman, 1985) which can in turn lead to inflated VIFs, which interfere with the reliability of the standard error estimates and results (Wooldridge, 2016). There are no other correlations between any two variables in the sample that are higher than that value.

Table 5.5: Descriptive Statistics of Full Sample (N = 1,267)

	Mean	p25	p50	p75	SD	Min	Max
TQ	1.332	0.921	1.080	1.467	0.763	0.454	5.184
MBTE	1.910	0.782	1.312	2.220	1.905	0.222	11.198
FMO	0.279	0.000	0.238	0.459	0.253	0.000	0.900
FPB*	0.284	0.143	0.250	0.400	0.205	0.000	0.750
LEV	0.550	0.343	0.567	0.789	0.260	0.027	0.947
SG	0.151	-0.051	0.055	0.163	0.650	-1.000	4.286
FA	13.374	7.000	10.000	17.000	9.203	1.000	38.000
lnFA	2.336	1.946	2.303	2.833	0.770	0.000	3.638
CAPEX	0.090	0.007	0.034	0.097	0.151	0.000	0.719
FCFA	0.019	-0.015	0.016	0.056	0.083	-0.256	0.313
FS	6,407,267	204,525	561,004	3,083,291	15,882,948	9,995	88,924,138
lnFS	13.645	12.228	13.237	14.942	2.007	9.210	18.303
AFPI_c	0.000	-0.367	-0.198	0.339	0.575	-0.853	2.296
AFPC_c	0.000	-0.373	-0.162	0.661	0.440	-0.464	0.661

The dependent variable, firm performance, is measured by two market-based measures, TQ and MBTE, and one accounting-based measure, ROA. Tobin's Q (TQ) is calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$, while Market-to-Book Value of Equity (MBTE) is calculated as Market Value of Total Equity$_t$ / Book Value of Total Equity$_t$. Return on Assets (ROA) is calculated as Net Income$_t$ / Total Assets$_t$. The main independent variables are FMO, Founding Members Ownership measured by total percentage of shares owned by founding members, and FPB, Proportion of Founding Members on Board of Directors. LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, FA is Firm Age in years since its Initial Public Offering date, lnFA is the natural logarithm of Firm Age, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. FS is Firm Size measured by the Book Value of Total Assets$_t$ in USD thousands and lnFS is the natural logarithm of Firm Size. AFPI_c and AFPC_c are the centred transformations of Average Firm Performance (as measured by TQ) by Industry and by Country, respectively. N denotes the number of firm-year observations.

* N = 455 observations for FPB as this variable is measured for Family and Royal Family Founded Firms only.

Table 5.6: Main Independent Variables Descriptive Statistics by Sub-sample

	N	Mean	p25	p50	p75	SD	Min	Max
FMO (GF=1)	264	0.377	0.166	0.350	0.581	0.260	0.000	0.900
FMO (IF=1)	277	0.274	0.000	0.274	0.462	0.245	0.000	0.900
FMO (FF=1)	385	0.278	0.000	0.256	0.459	0.237	0.000	0.823
FMO (RFF=1)	70	0.191	0.000	0.000	0.300	0.286	0.000	0.900
FMO (MF=1)	271	0.213	0.000	0.150	0.330	0.235	0.000	0.865
FPB (FF=1)	385	0.287	0.143	0.273	0.400	0.204	0.000	0.750
FPB (RFF=1)	70	0.270	0.111	0.250	0.375	0.209	0.000	0.750

The main independent variables are FMO, Founding Members Ownership Concentration measured by total percentage of shares owned by founding members, and FPB, Proportion of Founding Members on Board of Directors. In brackets is the condition applied to divide the sample. In the first row for example, only observations that represent Government Founded Firms are included. The five sub-samples are Government Founded Firms (GF = 1), Institution Founded Firms (IF = 1), Family Founded Firms (FF = 1), Royal Family Founded Firms (RFF = 1), and Mixed Founders Firms (MF = 1). N denotes the number of firm-year observations for each sub-sample.

Figure 5.1: Average Founder Ownership Concentration by Sub-sample
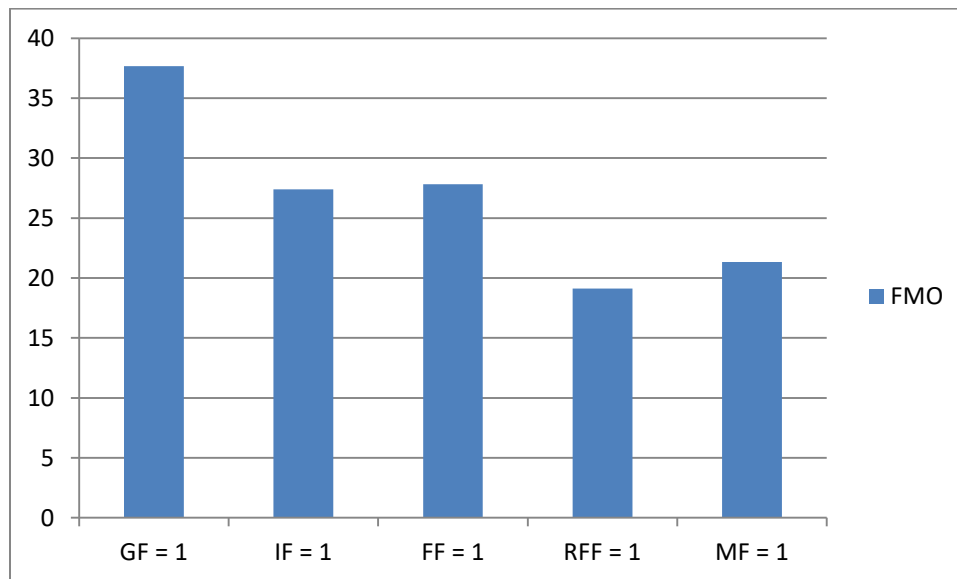
The five sub-samples are Government Founded Firms (GF = 1), Institution Founded Firms (IF = 1), Family Founded Firms (FF = 1), Royal Family Founded Firms (RFF = 1), and Mixed Founders Firms (MF = 1). FMO is Founding Members Ownership Concentration measured by total percentage of shares owned by founding members.

Figure 5.2: Average Firm Performance by Sub-sample
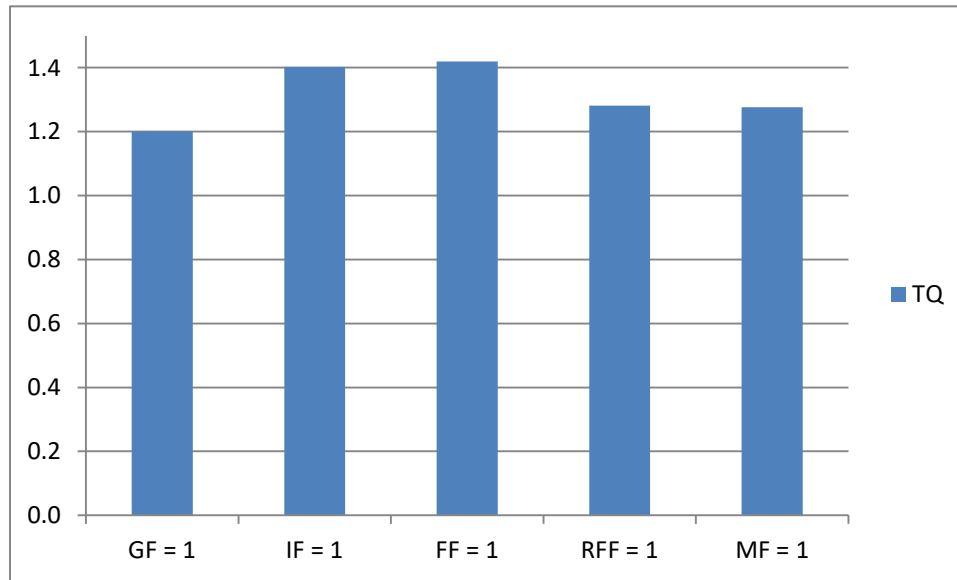
The five sub-samples are Government Founded Firms (GF = 1), Institution Founded Firms (IF = 1), Family Founded Firms (FF = 1), Royal Family Founded Firms (RFF = 1), and Mixed Founders Firms (MF = 1). TQ is the market-based measure of firm performance, Tobin's Q, calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$.

5.7: Number of Firms by Founder Type

Founder Type	Number of Firms (% of Total)
Government Founded Firms	56 (20.3%)
Institution Founded Firms	61 (22.2%)
Family Founded Firms	86 (31.3%)
Royal Family Founded Firms	14 (5.1%)
Mixed Founders Firms	58 (21.1%)
Total	**275 (100%)**

Table 5.8: Correlation Matrix; N = 1,267

	TQ	MBTE	FMO	FPB^	LEV	SG	lnFA	CAPEX	FCFA	AFPI_c	AFPC_c
TQ	1.000										
MBTE	0.811***	1.000									
FMO	0.142***	0.111***	1.000								
FPB^	0.119**	0.160***	0.231***	1.000							
LEV	-0.110***	0.151***	-0.053*	0.122***	1.000						
SG	-0.022	0.012	-0.001	-0.070	0.030	1.000					
lnFA	-0.247***	-0.329***	-0.224***	0.047	0.014	-0.131***	1.000				
CAPEX	0.060**	-0.040	0.143***	0.017	-0.039	0.018	-0.013	1.000			
FCFA	0.180***	0.107***	0.008	0.087*	-0.173***	-0.118***	0.049	-0.273***	1.000		
AFPI_c	0.698***	0.598***	0.104***	0.066	-0.072**	-0.020	-0.310***	0.078***	0.041	1.000	
AFPC_c	0.536***	0.498***	0.106***	0.095**	-0.010	0.010	-0.273***	0.087***	-0.004	0.760***	1.000

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

The dependent variable, firm performance, is measured by two market-based measures, TQ and MBTE. Tobin's Q (TQ) is calculated as Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$, while Market-to-Book Value of Equity (MBTE) is calculated as Market Value of Total Equity$_t$ / Book Value of Total Equity$_t$. The main independent variables are FMO, Founding Members Ownership measured by total percentage of shares owned by founding members, and FPB, Proportion of Founding Members on Board of Directors. LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, lnFA is the natural logarithm of Firm Age, which is measured in years since its Initial Public Offering date, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformations of Average Firm Performance (as measured by TQ) by Industry and by Country, respectively. N denotes the number of firm-year observations. ^ denotes variable with 455 firm-year observations as it is measured for Family Founder and Royal Family Founder Firms only.

5.5.3 Fixed Effects Regressions

The estimates of equation Model 5.1 for the full sample using two estimation techniques are presented in Table 5.9 below. The first estimation is a pooled OLS regression that is performed merely to portray the differences before and after heterogeneity bias is controlled for. The second estimation is a two-way fixed effects regression that controls for unobservable firm specific effects and unobservable time effects, which helps control for bias caused by unobserved heterogeneities between the unique observations in the sample and the variables of interest.

The results from the pooled OLS show a positive and significant effect of founding member ownership concentration on firm performance (TQ), as well as a significant positive performance effect of capital expenditure and free cash flow, and a significant negative effect of leverage. The estimates from this regression however are biased and therefore unreliable, and once the causes of endogeneity are addressed by employing the fixed effects regression, most effects lose their significance. Most importantly, founding member ownership concentration seems to no longer have any significant impact on firm performance, as measured by TQ. This finding is not particularly surprising given that it is based on the full sample which includes all types of founders which, as discussed above, have varying incentives when founding firms and very different goals and objectives as shareholders.

Therefore, dividing the sample by founder type is of substantial importance before any inferences of the founder ownership and firm performance relationship are made. Table 5.9 below presents five estimates of the two-way fixed effects regression by each sub-sample. Equation Model 5.1 is used for government founder, institution founder, and mixed founder firms, while equation Model 5.2 is used for family founder and royal family founder firms as it includes the second main independent variable, founding member proportion of board of directors. As expected, founding member ownership concentration does not have a significant effect on firm performance (TQ) for government founder firms, thus Hypothesis 5.1 is accepted. Surprisingly for institution founder firms, founding member ownership concentration also does not seem to have a significant effect on firm performance (TQ) and so Hypothesis 5.2 cannot be accepted.

In addition, founder ownership concentration has a significant positive effect on firm performance (TQ) for firms that are family founded, while it has a significant negative performance effect for firms that are royal family founded, and therefore both Hypothesis 5.3

166

and Hypothesis 5.4 are accepted. The change in 1 unit of founder ownership concentration and its effect (coefficient) on TQ can be divided by five for an inference that can be grasped more easily. In the case of firms that are family founded, this means that an increase of 0.2 (20%) in FMO is expected to increase TQ by 0.141 (calculated by 0.7052 / 5) on average, all else held constant, supporting the notion that family founder owners prioritise shareholder wealth maximisation over other objectives. In contrast, for firms that are royal family founded, an increase of 0.2 (20%) in founder ownership concentration is expected to decrease TQ by 0.112 (calculated by -0.5617 / 5) on average, all else held constant. This finding is supportive of the idea that royal family founder owners are likely to prioritise political goals even if they are at the expense of shareholder value maximisation. Finally, founder ownership concentration does not have a significant effect on TQ for mixed founder firms, and so Hypothesis 5.5 is accepted.

The absence of a significant effect of founding member proportion of board of directors on TQ for the two sub-samples family founded firms and royal family founded firms is an additional set of unexpected findings, as firm founder control via board of director presence is expected to create a similar effect of founder ownership on firm performance. From the regressions in Table 5.10 below, it is evident that no significant relationship exists. Hypothesis 5.6 and Hypothesis 5.7 therefore cannot be accepted. The controls seem to have minimal effects on firm performance with the exception of capital expenditure and firm age in the sub-sample of firms that are family founded, which have a significant negative effect on TQ, and the exception of free cash flow in the sub-sample of firms that are royal family founded, which has a significant positive effect on TQ.

Generally, when firms spend more on capital expenditure, it signals a higher projected performance in the near future, and since TQ reflects future or long-term financial performance as it is a market-based measure of performance (Gentry and Shen, 2010), it is expected to be positively related with capital expenditure. The finding here is the opposite of this, but it is worth noting that it is not uncommon in the empirical literature. One plausible explanation for the negative relationship between capital expenditure and firm performance is the potential of making overinvestments, which lead to negative effects on firm performance (e.g. Cordis and Kirby, 2017).

Table 5.9: Overall Sample Estimates: Pooled OLS and Firm Fixed Effects Regressions

	Pooled OLS	Fixed Effects
Variables	**TQ**	**TQ**
FMO	0.1807***	-0.2193
	(3.15)	(-0.70)
LEV	-0.0815**	-0.0525
	(-1.46)	(-0.09)
lnFA	-0.0222	-0.4533**
	(-0.80)	(-2.17)
SG	0.0062	-0.0457*
	(0.32)	(-1.86)
CAPEX	0.2199**	0.0571
	(1.95)	(0.43)
FCFA	1.5024***	0.1379
	(4.30)	(0.41)
AFPI_c	0.8784***	
	(13.03)	
AFPC_c	0.0329	
	(0.50)	
Year	Yes	Yes
Constant	1.3678***	2.4257***
	(15.84)	(3.47)
Observations	1,267	1,267
R-squared	0.526	0.121

t-statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The dependent variable, firm performance, is measured by the market-based measure Tobin's Q (TQ), which is calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. FMO is the main independent variable, Founding Member Ownership Concentration, and is measured as the total percentage of all founder shareholdings. LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, lnFA is the natural logarithm of Firm Age, which is measured in years since its Initial Public Offering date, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformations of Average Firm Performance (measured by TQ) by Industry and by Country, respectively. Year indicates whether time effects are controlled for.

Table 5.10: Sub-sample Estimates: Firm Fixed Effects Regressions with Clustered Standard Errors

	GF = 1	IF = 1	FF = 1	RFF = 1	MF = 1
Variables	**TQ**	**TQ**	**TQ**	**TQ**	**TQ**
FMO	-0.5896	-0.4323*	0.7052***	-0.5617***	0.0949
	(-0.99)	(-1.65)	(2.43)	(-7.98)	(0.15)
FPB			0.3096	-0.6649	
			(1.12)	(-1.22)	
LEV	-0.2424	0.1336	0.1407	0.8367*	0.4801
	(-0.65)	(0.18)	(0.77)	(1.72)	(0.87)
lnFA	0.0244	-1.0837	-0.4838***	-0.0033	0.2653**
	(0.20)	(-1.59)	(-5.95)	(-0.01)	(2.10)
SG	0.0394	-0.1565**	0.0252	-0.0374	-0.0029
	(1.57)	(-2.23)	(0.80)	(-1.34)	(-0.41)
CAPEX	0.2223	0.0186	-0.1894***	-1.2259	0.1057
	(1.08)	(0.08)	(-2.47)	(-0.98)	(0.49)
FCFA	0.4375	-1.3566	0.2449	0.8422***	0.4177
	(1.16)	(-1.29)	(0.97)	(6.01)	(0.70)
Year	Yes	Yes	Yes	Yes	Yes
Constant	1.4494***	3.4743***	2.0682***	1.2258	0.4246
	(3.62)	(2.41)	(12.61)	(0.52)	(1.03)
Observations	264	277	385	70	271
R-squared	0.195	0.271	0.236	0.306	0.048

t-statistics in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$

The dependent variable, firm performance, is measured by the market-based measure Tobin's Q (TQ), which is calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. FMO is the first main independent variable, Founding Member Ownership Concentration, and is measured as the total percentage of all founder shareholdings. FPB is the second main independent variable, Founding Member Proportion of Board of Directors, measured by dividing number of founding board members by the total number of board members. LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$)/Sales$_{t-1}$, lnFA is the natural logarithm of Firm Age, which is measured in years since its Initial Public Offering date, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. Year indicates whether time effects are controlled for. The top row refers to each sub-sample by founder category in which observations are included: Government Founded Firms (GF = 1), Institution Founded Firms (IF = 1), Family Founded Firms (FF = 1), Royal Family Founded Firms (RFF = 1), and Mixed Founders Firms (MF = 1).

5.5.4 Robustness Checks

To test the robustness of the results above, the regressions applied for equations M1 and M2 are estimated again using an alternative market-based measure of firm performance as the dependent variable, the Market to Book Value of Total Equity (MBTE). Table 5.11 below presents the results for the five sub-samples. They are supportive of the main findings as they indicate no significant performance effect of founder ownership concentration for government founder firms, institution founder firms, and mixed founder firms, a significant positive effect for family founded firms, and a significant negative effect for royal family founded firms. For family founded firms, an increase of 0.2 (20%) in founder ownership concentration is expected to increase MBTE by 0.223 on average (1.1152/5), while for royal family founded firms, an increase of 0.2 (20%) in founder ownership concentration is expected to decrease MBTE by 0.183 on average (0.9149/5), all else held constant. The effects of founder ownership concentration on the variability of both TQ in the main regression and MBTE in Table 5.11 below are very similar in terms of magnitude too, as the effect of a change of 20% results in changes that are approximately one tenth of the mean values in both firm performance measures (refer to Table 5.5). For both family founded firms and royal family founded firms, the founding member proportion of the board of directors has no significant effect on firm performance (measured by MBTE) and therefore also confirms the main findings.

In terms of the behaviours of the control variables, none seem to be out of the ordinary. It is worth noting that the negative relationship between capital expenditure and TQ for family founder firms disappears when MBTE is employed as the firm performance measure. Leverage has a significant positive effect on MBTE for all five sub-samples. Even though this particular relationship is not a main concern of this research, it is worth commenting on. Despite the fact that firms with higher financial leverage carry greater risks, they may outperform those with lower levels of financial leverage due to various reasons. One explanation is offered by the free cash flow hypothesis which argues that managers of companies bearing higher amounts of debt are less inclined to engage in projects with a negative Net Present Value, hence improving firm performance (Jensen, 1986). Another explanation is motivated by the monitoring hypothesis which refers to idea that higher leverage helps mitigate agency conflicts in firms through credit monitoring by lenders, resulting in lower levels of managerial entrenchment and therefore a positive performance effect (Jensen and Meckling, 1976; Grossman and Hart, 1982).

Table 5.11: Firm Fixed Effects Regressions with Clustered Standard Errors using MBTE as Alternative Measure of Firm Performance

	GF = 1	IF = 1	FF = 1	RFF = 1	MF = 1
Variables	**MBTE**	**MBTE**	**MBTE**	**MBTE**	**MBTE**
FMO	-0.5895	-0.2668	1.1152**	-0.9149***	1.1419
	(-0.83)	(-0.23)	(2.16)	(-6.24)	(0.81)
FPB			-0.0762	-0.2754	
			(-0.09)	(-0.84)	
LEV	1.0308***	5.1310***	2.4827***	1.2804**	4.3373***
	(9.46)	(4.95)	(3.50)	(2.15)	(2.60)
lnFA	0.0495	-2.7280*	-0.2684	0.6278	-0.3186
	(0.25)	(-1.73)	(-0.93)	(0.56)	(-1.23)
SG	0.0770	-0.3201	0.0122	-0.0407	0.0401***
	(1.48)	(-2.06)	(0.23)	(-1.10)	(5.73)
CAPEX	0.4077	-0.6828	0.0150	-0.2002	0.5822
	(0.99)	(-0.69)	(0.10)	(-0.12)	(1.37)
FCFA	1.1288***	-2.0072	0.8918	1.5760**	0.9534
	3.41	(-1.21)	(1.31)	(2.15)	(0.89)
Year	Yes	Yes	Yes	Yes	Yes
Constant	0.9776**	4.5776**	3.1228***	-0.3764	-0.1472
	(2.10)	(2.14)	(1.02)	(-0.13)	(-0.13)
Observations	264	277	385	70	271
R-squared	0.194	0.292	0.188	0.197	0.193

t-statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The dependent variable, firm performance, is measured by the market-based measure Market to Book Value of Total Equity (MBTE), which is calculated as Market Value of $Equity_t$ / Book Value of $Equity_t$. FMO is the first main independent variable, Founding Member Ownership Concentration, and is measured as the total percentage of all founder shareholdings. FPB is the second main independent variable, Founding Member Proportion of Board of Directors, measured by dividing number of founding board members by the total number of board members. LEV is Leverage measured by Total $Debt_t$ / Total $Assets_t$, SG is Sales Growth measured by $(Sales_t–Sales_{t-1})/Sales_{t-1}$, lnFA is the natural logarithm of Firm Age, which is measured in years since its Initial Public Offering date, CAPEX is Capital $Expenditure_t$ / Total $Sales_t$, and FCFA is Free Cash $Flow_t$ / Total $Assets_t$. Year indicates whether time effects are controlled for. The top row refers to each sub-sample by founder category in which observations are included: Government Founded Firms (GF = 1), Institution Founded Firms (IF = 1), Family Founded Firms (FF = 1), Royal Family Founded Firms (RFF = 1), and Mixed Founders Firms (MF = 1).

5.5.5 Reverse Causality

Potential bias from unobserved heterogeneities is controlled for with the use of two-way fixed effects models as presented above. However, additional sources of endogeneity bias that the relationship may suffer from are reverse causality (i.e. simultaneity) and measurement error (Wooldridge, 2010). Various empirical studies that investigate the relationship between firm ownership structures and firm performance suggest that causality could run from firm performance to ownership, rather than the other way round, and provide different methods of addressing the problem, which includes instrumental variable approaches such as two-stage least squares models (Himmelberg et al., 1999; Demsetz and Villalonga, 2001; Pedersen and Thomsen, 2003). This endogeneity bias in general ownership structures might also extend to founder ownership structures, and if it exists, the previous fixed effects model estimates will suffer from this bias. It is therefore crucial that this issue is appropriately addressed. The evidence on the endogeneity of founder ownership structure is mixed. Some empirical studies find evidence indicating that the relationship between family founder ownership concentration and firm performance suffers from reverse causality, and so they control for this by employing instrumental variable methods (Maury, 2006; Villalonga and Amit, 2006; Sacristán-Navarro et al., 2011). In contrast, other empirical studies employ the same methods to ensure endogeneity bias is mitigated, but find evidence that family founder ownership concentration is, in fact, exogenously determined (Anderson and Reeb, 2003; Fahlenbrach, 2009; Eugster and Isakov, 2019).

To test for the presence of endogeneity bias in the estimations above, a suitable instrument for the potentially endogenous variable (i.e. FMO) must be identified. There are two main requirements that the instrument must meet. The first is that the instrument must be significantly correlated with the endogenous variable, so that it provides a strong first stage. The second is that it must satisfy the exclusion restriction, which states that the instrument must not be correlated with the error term in the main equation, that is, the second stage of the instrumental variables method (Wooldridge, 2010). Motivated by empirical studies that find firm size to be a determinant of ownership structure (Demsetz and Lehn, 1985; Himmelberg et al., 1999; Demsetz and Villalonga, 2001), Anderson and Reeb (2003) test whether it also affects family founder ownership; they find that it significantly affects it, and therefore use firm size as an instrument for family founder ownership. This chapter tests whether firm size is significantly related with each of the five subsets of founder ownership, which include family and royal family founder ownership. Following Himmelberg et al.

172

(1999), to ensure that firm size is not correlated with the error term of the performance equation, capital expenditure and free cash flow (i.e. CAPEX and FCFA) are included in the performance equation as measures of growth prospects and firm resources, which is what firm size is generally included to account for in empirical corporate governance studies (Dang et al., 2018).

The results indicate that the relationship is significant for all subsets, and therefore the weak instrument test is conducted to ensure that the strength of the instrument is sufficient. Table 5.12 below reports the F-statistic for the first-stage regressions of the five sub-samples, all of which are above 10, which according to Stock and Yogo (2005), is the minimum acceptable value for dismissing concerns on weak instrument bias in the results. Since the two requirements for the instrument are met, exogeneity tests can now be conducted to check whether founder ownership concentration suffers from endogeneity, and therefore, whether the application of the instrumental variables method is required to control for it. Wooldridge (1995) provides two tests of exogeneity: the robust score chi-square test and the robust regression test. The null hypothesis of both tests is that the instrumented variable is exogenous. A significant p-value ($p < 0.05$) therefore, rejects the null and indicates that there is endogeneity bias that must be controlled for. The p-values of the robust score chi-square tests for all five sub-samples are greater than 0.05, and so they fail to reject the null hypothesis, indicating that founder ownership concentration is exogenously determined. As an additional check, the robust regression test is conducted for the five sub-samples and all of the p-values are also greater than 0.05, supporting this conclusion. The results are presented in Table 5.12 below.

Consequently, concerns on the presence of reverse causality bias in the two-way fixed effects estimations above are dismissed. The fixed effects models applied are sufficient, which importantly, control for unobservable firm-level heterogeneities, and their estimations can be relied upon. There are several empirical studies that reach a similar conclusion for the relationship between family founder ownership and firm performance (Anderson and Reeb, 2003; Fahlenbrach, 2009; Eugster and Isakov, 2019). The evidence presented here is also in line with the finding of Wang and Shailer (2017) in their meta-analysis of 43 empirical studies investigating family ownership concentration and firm performance in emerging markets; after they highlight the importance of controlling for reverse causality, they explain that the evidence from previous empirical studies challenges the popular expectation that the relationship between the family ownership and performance is endogenous and disappears

173

after controlling for that endogeneity bias. Therefore, based on the sample in this chapter, the finding the relationship between family founder ownership and firm performance does not suffer from reverse causality bias is not unexpected.

Table 5.12: Weak Instrument Test and Instrumented Variable Exogeneity Tests

	GF = 1	IF = 1	FF = 1	RFF = 1	MF = 1
Weak Instrument Test					
First-stage Regression F-statistic	22.75	14.35	14.37	90.47	14.56
Exogeneity Tests*					
Robust Score Chi^2 Test	0.5928	0.4545	0.4087	0.7269	0.2357
Robust Regression Test	0.6019	0.4812	0.4077	0.7541	0.2112
No. of Observations	264	277	385	70	271

*The reported values for both tests of exogeneity are the p-values, where the null hypothesis is that the instrumented variable is exogenous, hence a significant p-value (p<0.05) would reject the null and indicate the presence of endogeneity.

5.6 Discussion and Conclusion

5.6.1 Discussion

The main findings of this empirical chapter are based on the full sample of all firms listed on the seven stock exchanges in the GCC countries from the year 2012 up to and including the year 2016, for which data are available. Since this relies on hand-collection of firm founder information that does not have a specifically designated directory in the GCC countries, not only was the data collection process more time-consuming, but the total amount of data available is limited as not all information is obtainable. Nevertheless, there was success in that the complete data required for each company were retrieved for more than a third of the total possible number of listed companies, that is, for 275 out of the 734 companies. In addition, these firms still cover listed companies from all seven stock markets, keeping the sample as representative as possible (refer to Table 5.1 above). As highlighted in the literature review section, the focus in this line of research is generally on the performance effects of family and non-family founder owners, with no further distinction between the different types of each (i.e. family, royal family, government, institution). This section

therefore discusses the findings for each but can only compare them with findings from studies on general ownership rather than founder ownership. Family founded firms are the exception to this as empirical studies on them are many.

The main findings are tested with various robustness checks, and are confirmed by each. The results of the hypotheses tests are established based on these checks and are therefore accepted or not accordingly. As expected, government founder ownership does not have a significant relationship with firm performance. While government founders bring unique benefits to firms including greater access to funds and higher levels of power (i.e. legal), they can be a burden for firm performance as they are typically motivated by political and social objectives, which can come at the expense of other shareholders seeking to maximise their wealth. The idea is that the positive performance effect of government founders is balanced out by other negative factors, and therefore the overall effect is neutral due to the aggregate impact of these characteristics. This notion has been previously established for (general) government ownership in several empirical studies on emerging markets (Hovey et al., 2003; Yuan et al., 2008; Aluchna and Kaminski, 2017), including one covering a sample of 58 banks in the GCC countries (Arouri et al., 2014).

The finding that institutional founder ownership has no significant relationship with firm performance is surprising considering the benefits that this type of ownership brings to firms. These include better access to funds and resources compared to family owners. In general, since wealth maximisation is their main priority (Shleifer, 1998), it would only be reasonable for them to establish a new company if they are confident of the presence of an opportunity allows them to achieve their main goal. If however they start engaging in expropriation behaviours to achieve such goal at the expense of minority shareholders (Barclay and Holderness, 1989), then their actions are a cause of agency conflict and that will likely damage firm performance. The finding is not supportive of either theory, and a possible explanation for this is that the benefits of institutional founder ownership are negated by the drawbacks. For a mere sense of comparison, numerous empirical studies investigating the performance effect of (general) institutional ownership conclude with no significant relationship in developed markets (Agrawal and Knoeber, 1996; Duggal and Millar, 1999; Bhattacharya and Graham, 2009) and emerging markets (Lee, 2008; Al-Najjar 2015), including one that employs a sample of listed firms in GCC countries (Zeitun, 2014).

175

Family founder ownership is found to have a significant positive effect on both market-based measures of firm performance, Tobin's Q and Market to Book Value of Equity, which is consistent with the expectation. This confirms that the benefits of family founder ownership outweigh the costs which can include focus on alternative non-financial goals based on socio-emotional factors (Gomez-Mejia et al., 2007). The literature highlights various advantages of family founder ownership including the greater willingness of investing into their firms from their own funds relative to other private investors, helping maximise the wealth of all shareholders (Friedman et al., 2003), and making them more stable during periods of financial distress (Villalonga and Amit, 2010). The finding is supportive of these theories and consistent with many previous empirical studies that also find a significant positive effect of founding family ownership on firm performance covering samples from developed markets (Anderson and Reeb, 2003; Hamberg et al. 2013; Vieira, 2018) and emerging markets (Chu, 2011; Boonlert-U-Thai and Sen, 2019). An additional plausible explanation for this effect is that the pursuit of socio-emotional objectives does not necessarily always worsen financial performance, because the objectives can sometimes actually contribute to the accomplishment of financial goals. This can include for example choosing to rescue a firm from financial failure using private funds solely based on the feelings of family pride and reputation. This idea is reflected in the innovative study of Belenzon et al., (2017) in which they find empirical evidence showing that firms with names that include the founding family name, referred to as 'firm eponymy' by them, outperform other family founded firms, while they attribute the effect to the notion that founders of such firms develop an association with their firms that increases the reputational benefits (costs) of successful (unsuccessful) decision outcomes.

Royal family founder ownership is found to have a significant negative effect on both market-based measures of firm performance, consistent with the expectation that the drawbacks of having such owners outweigh the benefits. The political connections that royal family members have (Al-Hadi et al., 2016b) mean that they, like governments, are likely to frequently engage in political goals, which are non-financial goals that are likely pursued at the expense of financial objectives. The characteristic of having greater wealth compared to other family founders inhibits the motivation and incentive to pursue shareholder wealth maximisation, causing further suppression of firm performance. These ideas are supported by the finding which importantly, is new to the field as, to the best of the researcher's knowledge, it has not been investigated before. Due to this, there are no studies to compare it

with. Nevertheless, it is worth noting that Al Nasser (2019) finds no significant relationship between (general) royal family member ownership and firm performance for a sample of Saudi Arabian non-financial listed firms. Mixed founder ownership is found to have no significant impact on firm performance, consistent with the idea that having more than one different type of founder results in a mixture of various effects going one way or the other.

It is expected that the benefits of family founders are extended to their presence on boards of directors, as they become more involved in the day-to-day activities of their firms, reducing agency conflicts because they act as owner managers (Jensen and Meckling, 1976; Fama and Jensen, 1983), and help to mitigate risks of non-founder manager expropriation of firm assets at the expense of the owners (Demsetz and Lehn, 1985), thereby improving firm performance. Interestingly, no evidence is found for any performance effect of family founder board of director presence, and agency theory is therefore not supported. A possible explanation for finding a positive performance effect for family founder ownership but not for their presence on boards of directors is that the family founders as owners are closely monitoring boards and taking the most suitable decisions in board appointments to ensure their financial objectives are achieved, even if that means employing non-founder board members. This would lead to the indifference of the firm performance effect from having either family founder or non-founder board members because family founder owners are choosing what works best for their firm and specific objectives, hence why the significant performance effect is only captured for family founder ownership. This finding is contrary to the positive performance effect most empirical studies conclude with as highlighted in the literature review section (e.g. Lee, 2006; Poutziouris et al., 2015), but it is in line with the results of a couple of empirical studies on emerging markets that also find no significant relationship between family board of director presence and firm performance (Bhatt and Bhattacharya, 2017; Ciftci et al., 2019).

Royal family founder board of director presence was expected to have significant negative performance effect, but is found to have no significant impact. A similar explanation can be applied where royal family founder owners appoint directors that best achieve their non-financial objectives, without differentiating between royal family founders and non-founders, thereby resulting in the negative performance effect to only be caused by their ownership and not by their board of director presence. On a final note, it is worth mentioning that even though time limitations constricted the number of years covered in the sample, the five-year time period covered in this chapter is comparable to many empirical studies in the line of

research. In addition, the five-year period is considered significant as samples employed in most previous empirical research in the GCC countries are limited to shorter time periods (Dalwai et al., 2015). Furthermore, the number of listed firms covered is the maximum possible for which founder data are available, and this helps to ensure that the results are as representative as practically possible of listed firms in the GCC region.

5.6.2 Conclusion

To conclude, the results in this chapter are based on a sample of 275 firms listed in the seven GCC stock markets covering the five-year period 2012-2016. Government, institutional, and mixed founder ownership does not have a significant effect on firm performance. Nevertheless, the firm performance effect is significantly positive for family founder ownership and significantly negative for royal family founder ownership. The former provides support for various concepts relating to founding family ownership as mentioned in the discussion above, while the latter is the first finding of its kind. Therefore, it may be viewed as a start for a new theoretical contribution, whereby the notion is that, due to their entrenchment in politics and connections with the government, royal family founder owners are more likely to pursue politically motivated objectives. Inevitably, this pursuit comes at the expense of shareholder wealth maximisation more often than not, ultimately leading to firm underperformance. However, it is early to make assertions, especially as this result is based on a sample of the GCC countries only. Future studies concerned with founder ownership and firm performance in countries with constitutional monarchies can help in reaching a more conclusive understanding by empirically testing these ideas further. Finally, the significant performance effects of family and royal family founders as owners are not extended to their presence on boards of directors as the results show that there is no relationship with firm performance.

The implications of these findings may concern family and royal founder owners, especially with regards to how much of their ownership stakes they choose to retain given the significant relationship found, but also who they choose to appoint to boards of directors. In addition, corporations and shareholders can benefit from the findings when making decisions on board structure and investment analysis, respectively. The different performance effects in each of the findings established in this empirical chapter demonstrate the importance of distinguishing between the different identities of founders, as opposed to the traditional, general family versus non-family founder comparison adopted in the vast majority of studies in this line of research. Future empirical studies on founder involvement in firms are

encouraged to apply similar strategies that further distinguish the different types of founders to help achieve a fuller understanding of the relationships in question.

Chapter 6 – Conclusion

6.1 Introduction

This chapter summarises the findings and contributions of each chapter, the implications of the results, the limitations of the thesis, and suggestions for future research. The thesis investigates the relationship between internal mechanisms of corporate governance and the performance of firms listed on the stock markets of the GCC countries. Firm performance is measured by two market-based performance measures: Tobin's Q and market to book value of total equity. The two most prominent internal mechanisms of corporate governance, ownership structure and board characteristics, are studied; various aspects of each are examined across the three empirical chapters. To identify the theoretical foundations on which the three empirical chapters should be based, Chapter 2 reviews the central theories of corporate governance, while it also presents the GCC context and identifies the research gaps in the literature that are addressed in this thesis.

Chapter 3 examines the impact of overall ownership concentration on firm performance, and whether that impact on firm performance changes depending on whether the identity of the large shareholders is government, institution, corporation, or individual/family. Chapter 4 investigates the firm performance effect of five main board characteristics, namely board size, board activity, CEO duality, board independence, and board remuneration. Finally, Chapter 5 studies the firm performance effect of founder ownership concentration by identity and family founder presence on boards of directors, while making the vital distinction between family founders and royal family founders. The empirical chapters use data samples that cover all companies listed on the seven GCC stock markets between the years 2012 and 2016, for which data are available.

6.2 Findings and Contributions

The empirical evidence shows that some internal governance mechanisms have no effect on firm performance, and these include board activity, CEO duality, and founder ownership concentration when the founder is the government or an institution. Nevertheless, the empirical evidence also shows that several internal governance mechanisms are significant determinants of firm performance and these are overall ownership concentration, ownership concentration by identity, board size, board independence, board remuneration, and founder ownership concentration when the founder is a family or a royal family. The findings provide answers to the research questions of the thesis stated in Section 1.3, which focus on

determining whether internal mechanisms of corporate governance affect firm performance in the GCC context, and for those that do affect firm performance, whether they are efficient governance mechanisms. Moreover, an important objective of this research is to determine whether the corporate governance codes that the GCC countries adopt and enforce on listed companies are effective in improving shareholder value.

From the theoretical review in Chapter 2, it was concluded that agency theory, stewardship theory, and resource dependence theory are the three most prominent theories in the corporate governance field of research. It is important to note that the three theories adopt the focussed definition of corporate governance, which defines it as the ways (mechanisms) that investors use to convince self-interested managers to consistently make decisions that uphold shareholder wealth maximisation (Shleifer and Vishny, 1997). The empirical chapters followed this definition of corporate governance as they test various assertions derived from the three theories. Further, the review indicates that ownership structure and board characteristics are central aspects of the three theories and are the two main internal mechanisms of corporate governance (Denis and McConnell, 2003). The literature highlights the importance of distinguishing owners by their identity to account for their differing goals (Cubbin and Leech, 1983; Short, 1994), which extends to the identity of founder owners and controllers (Villalonga and Amit, 2020), and the importance of accounting for the various characteristics of boards of directors (Jensen, 1993). Lastly, Chapter 2 documents that the many similarities between the GCC countries includes that all their corporate governance codes are mostly influenced by the Anglo-Saxon corporate governance system, despite the fact that their ownership structures and shareholder protection levels are very different to the countries that adopt the Anglo-Saxon model, such as the US and the UK. The empirical chapters take all of these characteristics into consideration when investigating the relationship between internal corporate governance mechanisms and firm performance.

The results from Chapter 3 indicate that overall ownership concentration, and the ownership concentration of institutions, corporations, and individuals/families all have a significant positive effect on firm performance. These findings are supportive of agency theory and the idea that large shareholders are more incentivised to be efficient monitors of management due to their large financial commitment (Jensen and Meckling, 1976; Shleifer and Vishny, 1986). The findings also refute the notion that large shareholders exploit their power to expropriate firm assets at the expense of minority shareholders (Barclay and Holderness, 1989). This study is the first to examine the impact of ownership concentration of corporations (as a

separate owner identity) on firm performance in the GCC context, and so based on previous theoretical and empirical research in other countries, no relationship between the two was expected. However, the interesting finding that corporate ownership concentration has a significant positive effect on firm performance may be due to the rarity of cross-ownership in GCC listed firms (Santos, 2015) so that the possible negative performance effect of corporate ownership concentration caused by managerial entrenchment does not apply (Kester, 1992). On the other hand, the argument that corporate owners bring benefits and unique resources to the companies they integrate with (Caves, 1996) is more likely to apply to GCC listed companies as they are characterised by hierarchical corporate ownership structures (Santos, 2015).

Government ownership concentration is found to have a significant negative effect on firm performance, supporting the idea that government owners often prioritise achieving social and political goals over shareholder value maximisation (Hart et al., 1997). This contrasts with the results of a positive performance effect of both institutional and individual/family ownership concentration, which are supportive of the notions that these owners pursue and prioritise the maximisation of shareholder value (McConnell and Servaes 1990; Smith, 1996; Pedersen and Thomsen, 2003). The varying effects on firm performance emphasise the importance of accounting for owner identity when examining the relationship between ownership structure and firm performance. Chapter 3 contributes to the literature in two aspects which have been overlooked by previous research in the GCC context. First, it provides an empirical study that differentiates between institutional and corporate owners when investigating the ownership-performance relationship. Second, it controls for reverse causality bias in the relationship between ownership concentration and firm performance using a two-stage least squares instrumental variables approach.

The empirical results from Chapter 4 show that board activity and CEO duality do not have an effect on firm performance, and therefore provide no support for the claims of any of the three theories. In contrast, board size and board remuneration have a significant positive effect on firm performance. The positive performance effect of board size is not supportive of the assertions of agency theory that large boards of directors are less effective than small boards due to the greater potential of free riding and more complex communication between directors (Lipton and Lorsch, 1992; Jensen, 1993). On the contrary, this finding provides support for resource dependence theory as it argues that compared to small boards, large boards have better access to external relations, resource, and information, all of which help

them make decisions that are more informed (Pfeffer and Salancik, 1978; Dalton et al., 1999). The significant positive effect of board remuneration on firm performance contradicts the ideas of Brick et al. (2006) who argue that greater director pay results in an entrenchment effect whereby the willingness of directors to hold executive management to account is greatly reduced, leading to ineffective management monitoring. Instead, the finding suggests that providing directors with better pay helps improve their effectiveness at maintaining and increasing shareholder value.

Board independence is found to have a significant negative effect on firm performance, which, although in line with the expectation, is an interesting finding. The benefits of having independent directors on boards are well established, with the mitigation of the agency problem between owners and managers being at the centre of those benefits (Jensen and Meckling, 1976). However, the result is not supportive of this notion, and instead, is supportive of stewardship theory which argues that executive directors have more relevant insider information which allows them to make decisions that are more informed (Donaldson and Davidson, 1991). This means that boards with a greater number of outsider directors (or independent directors) make less informed decisions, ultimately leading to worse firm performance. From a firm performance perspective, the empirical evidence suggests that high levels of board independence are an ineffective internal governance mechanism, and this questions the GCC countries' adoption of the Anglo-Saxon corporate governance system, as although its success may have been proven in countries like the UK and the US, it might not be the best approach for GCC countries. Chapter 4 contributes to the literature in two ways that previous research in the GCC context has not. First, it examines the impact of board of director remuneration on firm performance. Second, it accounts for reverse causality bias in the relationship between board size and firm performance by employing a two-stage least squares instrumental variables approach.

The empirical evidence from Chapter 5 indicates that founder ownership concentration of government, institutional, and mixed founders does not affect firm performance. Family founder ownership concentration is found to have a significant positive effect on firm performance. This finding is supportive of agency theory and the large shareholder monitoring effect. Importantly, it supports the idea that even though family founders may sometimes prioritise non-financial goals motivated by socio-emotional factors (Gomez-Mejia et al., 2007), the benefits of their ownership are greater than the costs attached with their pursuit of such goals. These benefits include the higher willingness of family founder owners

to invest in their companies compared to other owners (Friedman et al., 2003), which in turn improves firm performance, and contributes to their greater stability during times of financial distress (Villalonga and Amit, 2010). In contrast, royal family ownership concentration is found to have a significant negative impact on firm performance, demonstrating a difference between the performance effect of family founder and royal family founder ownership and the importance of making this distinction. The finding is in line with the expectation and can be explained by the idea that because royal family members have many political connections (Al-Hadi et al., 2016b), they typically engage in and prioritise the pursuit of political objectives, and this often comes at the expense of shareholder value maximisation.

Although the performance effects of family founder and royal family founder board of director presence were expected to follow those of their respective ownership concentrations, they are found to have no significant performance effect. There is therefore no support for any of the theories. This may be explained by the idea that the more influential mechanism for family founders and royal family founders is ownership, through which they effectively monitor boards of directors regardless of the level of their presence on them. Chapter 5 contributes to the literature in two ways that previous research in the GCC context has not. First, it studies the firm performance effect of founder ownership and control. Second, it distinguishes between the various identities of firm founders by dividing them into five groups. Finally, a noteworthy contribution of Chapter 5 is that it introduces the dimensions of royal family founder ownership and royal family founder presence on boards of directors to the corporate governance research field in general.

6.3 Implications of the Results

The implications of the results extend to numerous entities including policymakers, companies, governments, investors, boards of directors, and managers. The significant impact of ownership concentration on firm performance, and the variation in the direction of that impact between the different owner identities, is a finding that both small and large investors in GCC listed companies may want to consider the implications of before making any decisions regarding their financial commitments. Specifically, investors may want to consider whether the ownership structure and its potential performance effect are in line with their main objectives. This is also applicable to the result indicating a significant positive (negative) performance effect of (royal) family founder ownership concentration. Potential investors might want to consider the possible effects that the identity of firm founders and the level of their ownership stakes in firms can have on the attainment of their goals before

making final investment decisions. Depending on what their financial and non-financial goals are, family and royal firm founders in the GCC may want to reconsider the level of their ownership stakes as they may have an effect on the financial performance of their firms. Nevertheless, it is important not to be too dependent on one factor or the other. Rather, basing analysis on the combined results in this thesis, along with that from other relevant academic research, is considered to be a more rational approach.

Moreover, policymakers and governments may want to consider whether the adoption of the Anglo-Saxon model of corporate governance, typically suited to countries characterised with low ownership concentration and high shareholder protection, such as the UK and the US, is the best approach for the GCC stock markets, in which the aforementioned characteristics are absent. The concern stems mainly from the finding that board independence has a significant negative impact on firm performance, contrary to what is generally expected according to this corporate governance model. Similar to Bhagat and Black (2002), the suggestion here is that this result should not be considered as support for a return to boards with an insider majority, as the benefits of having independent directors on boards are crucial and appreciated. Instead, the result implies that high levels of board independence should not always be viewed as best practice, as more moderate levels of board independence are actually more effective in the context of the GCC stock markets. The findings of the significant performance effect of board size, board independence, and board remuneration may be of interest to companies and investors, especially when they come to determine board composition and review board remuneration.

6.4 Thesis Limitations and Suggestions for Future Research

The lack of availability of data is the main source of the limitations of this thesis. Compared to Chapter 3, the data samples for Chapters 4 and 5 are reduced in size because of this lack of data. Moreover, some internal corporate governance aspects such as managerial share ownership and CEO compensation could not be incorporated in the empirical investigations due to this. The fact that the publication of annual corporate governance reports is not yet compulsory for listed firms in Bahrain, Kuwait, and Qatar, makes the retrieval of the relevant data difficult. Another limitation of the thesis is that does not examine the relationship of external corporate governance mechanisms, such as the market for corporate control and the legal system, with firm performance. It is worth noting, however, that this is beyond the scope of the thesis. Finally, the data samples investigated in this thesis only include publicly listed companies, while private firms are not considered, due to the difficulty of retrieving the

required data. This limitation applies to the majority of empirical corporate governance studies in this line of research, but more studies are now shifting their focus towards private firms as data accessibility is increasing.

Future studies in the GCC region that involve data from private firms can aid in improving the understanding of the corporate governance and firm performance relationships in question and the extent as to which the empirical findings are applicable. Private firms carry considerable economic importance and therefore results from such studies can have key implications for many, including investors, policymakers, and companies. Future research may examine whether there are differences in the firm performance effect of domestic ownership and foreign ownership in the GCC context. In addition, the firm performance effect of internal ownership structure may be investigated, which includes share ownership by managers and insider board members, although retrieving the necessary data may prove to be a challenge. As a final note, this thesis demonstrates how crucial it is that endogeneity bias is appropriately addressed when investigating the relationship between corporate governance mechanisms and firm performance in the GCC listed companies, and therefore an essential suggestion for future research in the region is to ensure that this issue is taken into account.

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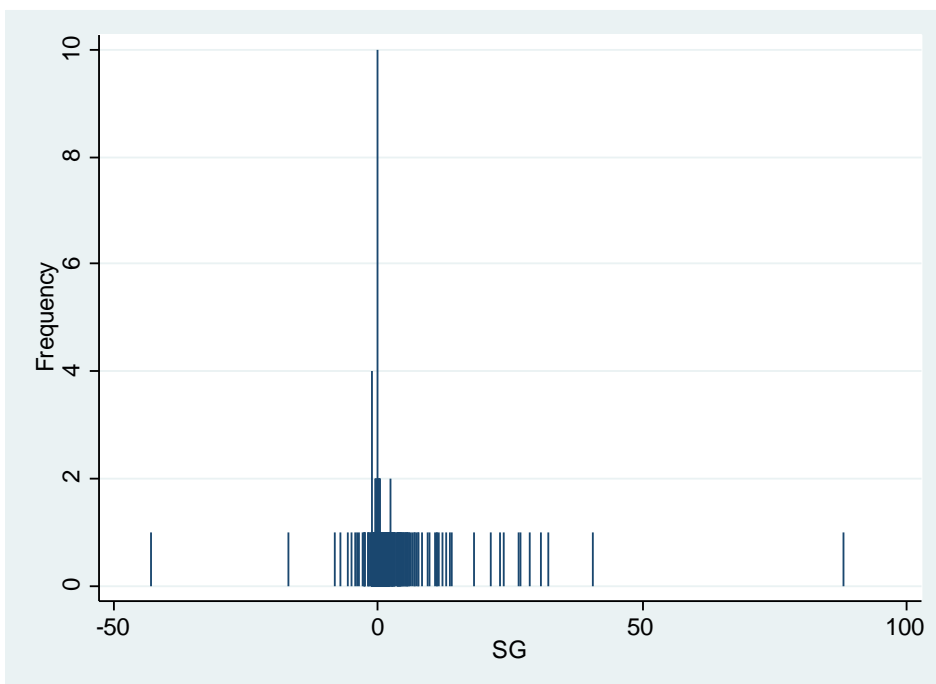
Appendix A

Examples of Graphical Techniques Employed to Detect Problematic Outliers

Dot Plot of Market-to-book Value of Equity (MBTE)
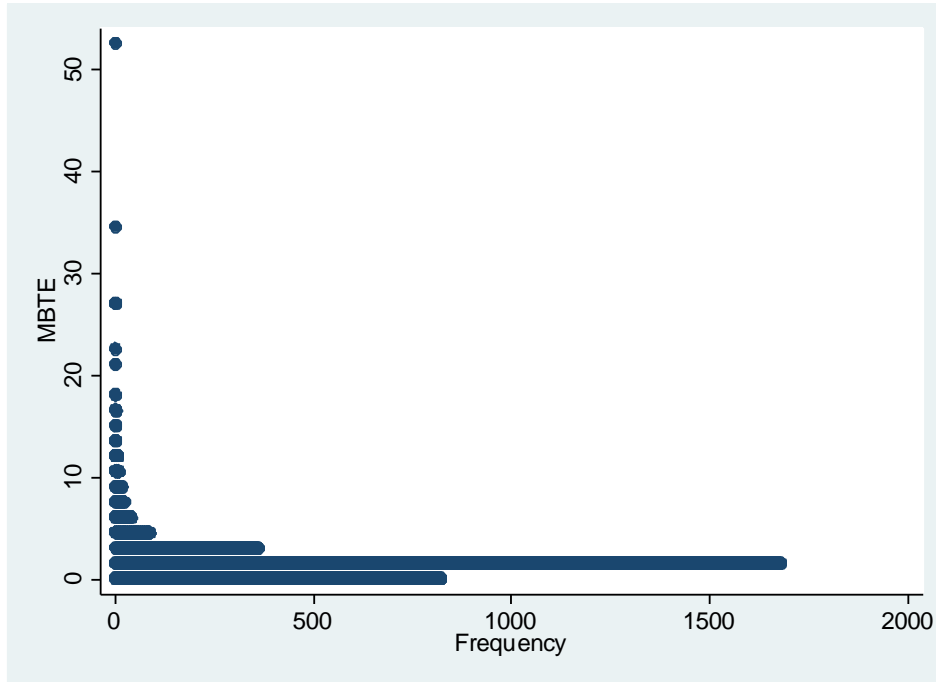
Spike Plot of Sales Growth (SG)

Appendix B

Variance Inflation Factors for Model 3.1 Estimations AFPI and AFPC

Variable	VIF	1/VIF
OC	4.19	0.238794
LEV	4.56	0.219131
SG	1.07	0.936966
lnFA	3.39	0.295403
CAPEX	1.72	0.581144
FCFA	1.19	0.840639
AFPI	28.35	0.035272
AFPC	34.63	0.028876
Year		
2013	1.88	0.532705
2014	1.91	0.523332
2015	1.94	0.516087
2016	1.94	0.515843
Mean VIF	7.23	

Variance Inflation Factors for Model 3.1 Estimations with AFPI_c and AFPC_c

Variable	VIF	1/VIF
OC	4.52	0.221266
LEV	3.71	0.269784
SG	1.06	0.947222
lnFA	3.09	0.323795
CAPEX	1.67	0.600151
FCFA	1.18	0.849598
AFPI_c	2.84	0.352623
AFPC_c	2.75	0.363901
Year		
2013	1.70	0.588249
2014	1.74	0.576148
2015	1.77	0.564055
2016	1.76	0.567042
Mean VIF	2.31	

Appendix C

2SLS Estimates of Equation Model 3.1 with Lagged Right-hand Side Variables

	First	2SLS	First	2SLS	First	2SLS	First	2SLS
Variables	**L.GOC**	**TQ**	**L.IOC**	**TQ**	**L.COC**	**TQ**	**L.FOC**	**TQ**
L.lnFS	0.0476***		-0.0342***		-0.0136***		-0.0159***	
	(17.39)		(-12.35)		(-7.19)		(-7.40)	
L.GOC		-0.2967**						
		(-2.29)						
L.IOC				0.4131**				
				(2.29)				
L.COC						1.0394**		
						(2.22)		
L.FOC								0.8902**
								(2.24)
L.LEV	-0.1234***	-0.0044	0.1660***	-0.0364	0.0411***	-0.0106	0.0634***	-0.0248
	(-7.08)	(-0.11)	(7.92)	(-0.89)	(2.61)	(-0.25)	(4.17)	(-0.59)
L.SG	-0.0037	0.0251	0.0082	0.0228	-0.0044	0.0308*	-0.0022	0.0281*
	(-1.22)	(1.57)	(1.49)	(1.45)	(-1.32)	(1.89)	(-0.66)	(1.75)
L.lnFA	0.0110**	-0.0218	-0.0092	-0.0213	-0.0152***	-0.0093	0.0112***	-0.0350**
	(3.61)	(-1.28)	(-1.56)	(-1.26)	(-3.06)	(-0.48)	(2.81)	(-2.04)
L.CAPEX	0.3435***	2.3866***	-0.3257***	2.4192***	0.4598***	1.8068***	0.2379***	2.0729***
	(3.61)	(7.67)	(-2.99)	(7.68)	(4.90)	(4.52)	(2.81)	(6.27)
L.FCFA	0.1753***	1.6094***	-0.0098	1.5614***	0.2543***	1.2930***	-0.0126	1.5686***
	(3.78)	(8.10)	(-0.17)	(7.85)	(5.47)	(5.42)	(-0.33)	(7.85)
L.AFPI_c	0.0121	0.7252***	-0.0387**	0.7376***	0.0149	0.7060***	0.0333**	0.6919***
	(0.79)	(11.61)	(-2.24)	(11.75)	(0.89)	(10.46)	(2.28)	(10.64)
L.AFPC_c	-0.0481***	0.1105*	-0.0580***	0.1487**	-0.0934***	0.2219**	-0.0310*	0.1524**
	(-2.57)	(1.69)	(-2.62)	(2.12)	(-5.46)	(2.51)	(-1.92)	(2.17)
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.4863***	1.3193***	0.5837***	1.2224***	0.2613***	1.1920***	0.2487***	1.2421***
	(-15.17)	(29.41)	(15.78)	(20.92)	(11.05)	(16.69)	(10.14)	(22.55)
Observations	2,385	2,385	2,385	2,385	2,385	2,385	2,385	2,385
F-test	302.39	70.94	152.44	70.81	51.76	66.56	54.70	72.85

t-statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1

L.*variable* indicates that the variable is lagged one year (t-1). The dependent variable, firm performance, is measured by the market-based measure Tobin's Q (TQ), which is calculated as Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. lnFS is the logarithm of Firm Size and is the instrument of OC in the first-stage of the 2SLS estimation. The instrumented (first-stage) and main independent variable (second-stage), Overall Ownership Concentration (OC), is the total ownership concentration of all shareholders owning at least 5%. LEV is leverage measured by Total Debt$_t$ / Total Assets$_t$, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, lnFA is the natural logarithm of Firm Age, which is measured in years since its Initial Public Offering date. CAPEX is Capital Expenditure$_t$ / Total Sales$_t$, and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformation of the Average Firm Performance (as measured by TQ) by Industry and by Country, respectively. Year indicates whether time effects are controlled for. N denotes the number of firm-year observations.

Appendix D

2SLS Estimates of Equation Model 4.1 with MBTE as the Main Dependent Variable

Variables	First Stage lnBS	2SLS MBTE
ABSI	0.1205***	
	(7.65)	
lnBS		5.9453**
		(2.31)
BA	-0.0049	0.0424
	(-1.47)	(1.34)
CEOD	0.0177	-0.4353
	(0.33)	(-1.00)
PID	0.0734**	-0.8522**
	(2.21)	(-2.05)
BRPDS	-0.2374***	1.3008***
	(-8.99)	(3.30)
LEV	-0.0162	2.0911***
	(-0.47)	(5.68)
SG	-0.0019	0.0477
	(-0.23)	(0.82)
lnFA	-0.0117	-0.2932***
	(-1.33)	(-3.08)
CAPEX	0.0775**	0.2546
	(1.97)	(0.75)
FCFA	0.2310***	2.9579***
	(3.14)	(3.12)
AFPI_c	0.0455**	1.2878***
	(2.10)	(5.08)
AFPC_c	0.1278***	-0.2283
	(3.78)	(-0.52)
Year	Yes	Yes
Constant	-0.8948***	6.1390***
	(-7.21)	(4.69)
Observations	1,395	1,395
No. of Unique Firms	349	349
F-test	124.77	11.72

t-statistics in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$

The dependent variable, firm performance, is measured by the market-based measure, Market-to-Book Value of Total Equity (MBTE), which is calculated as Market Value of Equity$_t$ / Book Value of Equity$_t$. ABSI, Average Board Size by Industry, is the instrumental variable (employed in the first-stage of the 2SLS regression) for the endogenous (instrumented) variable, lnBS. There are five independent variables: lnBS is the natural logarithm of Board Size, which is measured by the total number of members serving on the board of directors; BA is Board Activity, which is measured by number of board meetings during year; CEOD is a dummy variable assigned "1" when CEO also serves as chairman of the board, and "0" otherwise; PID is the Proportion of Independent Directors of the total number of directors serving on a board; BRPDS is the total Board Remuneration Per Director (in $USD) Scaled to Total Assets. lnFA is the natural logarithm of Firm Age, which is the number of years since its Initial Public Offering date, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, and LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$ and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformations of Average Firm Performance (measured by TQ) by Industry and by Country, respectively. Year indicates whether time effects are controlled for. Observations denotes the number of firm-year observations.

Appendix E

2SLS Estimates of Equation Model 4.1 with Lagged Right-hand Side Variables

Variables	First Stage L.lnBS	2SLS TQ
L.ABSI	0.1208***	
	(9.41)	
L.lnBS		1.2954***
		(3.06)
L.BA	-0.0045	0.0130
	(1.57)	(1.34)
L.CEOD	-0.0220	-0.0530
	(-0.50)	(-0.40)
L.PID	0.0766***	-0.2164**
	(2.74)	(-2.26)
L.BRPDS	-0.2407***	0.5880***
	(-10.52)	(4.04)
L.LEV	-0.0115	-0.3705***
	(-0.41)	(-4.24)
L.SG	0.0010	0.0223
	(0.12)	(0.79)
L.lnFA	-0.0131*	-0.0441*
	(-1.84)	(-1.77)
L.CAPEX	0.0589*	0.3310***
	(1.66)	(2.59)
L.FCFA	0.2071***	1.1704***
	(2.99)	(4.94)
L.AFPI_c	0.0473***	07774***
	(2.85)	(10.00)
L.AFPC_c	0.1334***	0.2621**
	(4.78)	(-2.02)
Year	Yes	Yes
Constant	-0.8936***	1.7516***
	(-8.93)	(19.67)
Observations	1,028	1,028
No. of Unique Firms	320	320
F-test	88.59	24.27

t-statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1

L.*variable* indicates that the variable is lagged one year (t-1). The dependent variable, firm performance, is measured by the market-based measure, Tobin's Q (TQ), which is calculated as (Market Value of Equity$_t$ + Total Debt$_t$) / Total Assets$_t$. ABSI, Average Board Size by Industry, is the instrumental variable (employed in the first-stage of the 2SLS regression) for the endogenous (instrumented) variable, lnBS. There are five independent variables: lnBS is the natural logarithm of Board Size, which is measured by the total number of members serving on the board of directors; BA is Board Activity, which is measured by number of board meetings during year; CEOD is a dummy variable assigned "1" when CEO also serves as chairman of the board, and "0" otherwise; PID is the Proportion of Independent Directors of the total number of directors serving on a board; BRPDS is the total Board Remuneration Per Director (in $USD) Scaled to Total Assets. lnFA is the natural logarithm of Firm Age, which is the number of years since its Initial Public Offering date, SG is Sales Growth measured by (Sales$_t$–Sales$_{t-1}$) / Sales$_{t-1}$, and LEV is Leverage measured by Total Debt$_t$ / Total Assets$_t$, CAPEX is Capital Expenditure$_t$ / Total Sales$_t$ and FCFA is Free Cash Flow$_t$ / Total Assets$_t$. AFPI_c and AFPC_c are the centred transformations of Average Firm Performance (measured by TQ) by Industry and by Country, respectively. Year indicates whether time effects are controlled for. Observations denotes the number of firm-year observations.