THE INTERRELATIONSHIP BETWEEN DIVIDEND PAYOUT, CORPORATE GOVERNANCE AND OWNERSHIP STRUCTURE: THE CASE OF GCC

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by

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ABSTRACT

This thesis is built on three different topics in corporate dividend policy and governance. The first paper, studied in the second chapter, empirically examines the determinants of the dividend policy of nonfinancial nonutility widely traded firms in Gulf Cooperation Countries (GCC) markets. Applying a multivariate logit model, with Fama and Macbeth statistical methodology (1973), to yearly unbalanced panel data for a sample of 199 GCC-listed firms over the period 1996-2011. The findings indicate that dividends-paying firms are older, more lucrative and internally generate funds with various opportunities to expand than those firms that do not payout dividends. In addition, the findings emphasize that the main determinants that help explaining the variation in GCC firms' dividend policy are profitability, assets growth, firm size, leverage, ownership structure and retained earnings. The results show a significant positive relationship between the propensity of the firm to pay dividends, size of the firm, retained earnings and institutional investors, but a significant negative relationship with growth, block holding and leverage. However, so long as firms grow, their cash balances and historical dividends became immaterial to their tendency to payout dividends. These findings are consistent with the life cycle theory and free cash flow hypothesis of agency cost theory.

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The second paper, examined in the third chapter, is on the dynamic nature of the linkage between the ownership structure of a firm and its performance as measured through Tobin's Q ratio. The study consists of 290 nonfinancial nonutility companies incorporated in GCC financial markets, over the period 2008-2013. It uses a dynamic approach (i.e. system dynamic generalized method of moments (SDGMM) estimator) to address the 'dynamic endogeneity' issue considered by Wintoki et al. (2012) and Nugyen et al. (2014). The findings emphasise the role of the 'dynamic nature' of the relationship in enhancing the firms' performance. Specifically, concentrated ownership (as a proxy for internal corporate governance mechanisms), do substitute the poor external corporate control by markets of GCC countries.

The third paper, examined in the fourth chapter, builds a bridge between the first and the second paper by examining the linkage between the corporate dividend policy and corporate governance. Given the fact that dividends can be substituted with gender-manifold boards in mitigating agency-related costs (Saeed and Sameer, 2017). For this effect, this chapter will investigate the impact of gender diversity on the probability of the firm to pay dividends. The Logit model is estimated to bilateral (treated vs. control firms) data over the period 2006-2016, after employing two statistical methods, namely, (i) the propensity score matching method to address selection biases; and (ii) all independent variables are one-year lagged to mitigate the effect of unobserved omitted variables (Chen et al., 2017). The findings indicate that female directors do influence the decision making of corporate's board they work for. The inclusion of the female in corporates' boards has a significant positive impact on dividends payout decision. In addition, using different specifications and identifications did not change the main conclusion approached by applying Logit model.

Keywords: Dividends; Payout policy; Life cycle; Free cash flow; Agency costs; Earned equity; Contributed capital; Corporate Governance; Emerging Markets; Firm Performance; GCC countries; Ownership structure.
JEL classification: G3; G30; G32; G34; L25; N25

DEDICATED TO MY HUSBAND MURAD AND MY KIDS RATANIYA, KHALID & ASSER

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Ruba Shira
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DECLARATION

'I certify that this work has not been accepted in substance for any degree, and is not concurrently being submitted for any degree or award, other than that of the PhD, being studied at Brunel University. I declare that this work is entirely the result of my own investigations except where otherwise identified by references and that I have not plagiarized another's work. In this regard, this thesis has been evaluated for originality checking by the University Library through Wise-flow plagiarism detection software prior to the formal submission. I also grant powers of discretion to the University Librarian to allow this thesis to be copied in whole or in part without the necessity to contact me for permission. This permission covers only single copies made for study purposes subject to the normal conditions of acknowledgment.'

Ruba Shira
Dr. Bryan Mase
January 2019

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CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND: THE GULF CO-OPERATION COUNCIL

This section presents the main features of the Gulf Co-operation Council (GCC) countries, particularly the economic, financial, societal, institutional and cultural features.

Established in 1981[1], the GCC is comprised of the six Gulf Arab states: Bahrain, Kuwait, Oman, Qatar, the Kingdom of Saudi Arabia, and the United Arab Emirates. One of the main factors that helped in the establishment of the GCC was the geographical proximity. Other reasons were political, economic, social conditions, regulations and cultural similarities (Bianco and Stansfield, 2018). The GCC is a regional, political and economic co-operation system, and social organisation, and thus can be deemed homogeneous nations (At-Twaijr and Al-Muhaiza, 1996). This homogeneity, deeply rooted in Arabian heritage and national values, was one of the biggest motivations for forming a cooperative alliance in the early 1980s (At-Twaijr and Al-Muhaiza, 1996; and Neaime, 2012). Precisely, the alliance had more than one impetuses; the main impetus, as stated in Article (4)[2] of the GCC Charter, was to allow for security arrangements between the signatory members to encounter the challenges enforced by surrounding circumstances.

However, Patrick (2011) pointed out that the alliance is to a great extent an intellectual approval to form comprehensive union, but it was not intended to dissolve the political regimes of each member country and force them into one political template; the sovereignty of the signatory members has not been fundamentally compromised. Kelly (2007) said that the GCC is an international organisation (IO) that "reinforces, not erodes, sovereignty" (p. 216). Bley and Chen's (2006) study states that the GCC countries are not identical but are "gradually integrating" (cited in Balli et al., 2013). Gulf integration started with the establishment of the GCC Supreme Council and ad-hoc committees and election

[1] According to the Co-operation for the Arab States of the Gulf (Article no. 22) the countries of the Arab Gulf region ratified the charter that established the Gulf Co-operation Council (GCC) on 4 February 1981, held its first summit meeting on 25 May 1981, and summits have been held every year since then.
[2] Article no. (4) of the Charter sets out the objectives of the Council.

of ministers, followed by the formation of the free trade zone in 1983. After that, the GCC Customs Union was formed in 2003 and the Gulf Common Market in 2008. Currently, the GCC is working on issuing a single GCC currency to form a monetary union (UAE Ministry of Finance, 2018). Decisively, Sen Rahul (2006) has classified the nature of agreement among GCC countries, based on the stipulated objectives of the formation as it was being proposed, as an Economic Partnership Agreement (EPA).

1.1.1. GCC Cultural Environment

Mainly, there are five broad different cultures around the world, namely; African, Easton, Latin, Middle-eastern, and Western culture. Geographically speaking, GCC-culture is predominantly classified as a Middle-Eastern culture in which Arabic language and Islam are the two key features. The GCC countries are considered together as they share a number of legal, social, cultural and geographic similarities. While many are obvious, one aspect that is often overlooked is culture, and how culture influences the ability of institutions and organisations to work together, cooperates, and behaves in a similar way. As Hofstede (2010) notes, 'culture … influences institutional rules … sets the unwritten rules of the games of collaboration and competition (p. 31).' While there are many aspects and attributes that help to preserve and facilitate the working of an alliance, culture is an important component that contributes to the stability of an alliance. Hofstede argues that 'national culture is ultimate', and that it could be defined as the 'collective programming of the mind distinguishing the members of one group or category of people from another' (Hofstede, 2011, p.3).

Hofstede is a Dutch researcher in the fields of management, organizational studies, cultural economics, and organizational culture. He is regarded as the originator of comparative studies of cross-cultural dimensions (Sordo, 2015). He is a pioneer in his research of cross-cultural dimensions, which demonstrates that the behavioural practices of societies and organizations are related to their countries' cultural backgrounds. It is an analysis to explore linkages through which the salient values of individuals in the work place can be linked with their cultural backgrounds. In other words, the theory scrutinises the connection between society's culture and individual values, while the dimensions scrutinise the effect of the values on the behavioural patterns (Hofstede and Minkov, 2010). Hofstede's intercultural-dimensions studies (first published in 1980, updated in 1983, 1995, 2001, 2002, 2005, and lastly in 2010) are most widely used by researchers in order to evaluate and distinguish different cultures (Alfiero et al., 2018).

However, defining and determining culture and cultural similarities or differences is not straightforward. Possibly the most cited model of culture from a business point of view is that of Hofstede (1980) in which there are four main aspects or measures, individualism, masculinity, power distance and uncertainty avoidance. Since then, a now or later dimension has also been included[3]. While such a model is relatively parsimonious, it has been argued that Hofstede is overly restrictive in the dimensions proposed. As a result, other models have proposed alternative classifications along similar but different and more extensive sets of dimensions, see, for example, House et al. 2004. Kogut and Singh (1988) applied Hofstede's dimensions to measure cultural differences at the country level, and they found that cultural difference was an important factor in determining the interaction between firms in different countries.

GCC-national culture4, based on the 6-Ds metrics scores, concurs with inherent inequalities among individuals (female and male), respects bureaucracy and follows a hierarchical system in which subordinates take the commands from the boss without justification, assuming he is an exemplary and benevolent leader. In such cultures, there is the notion of relational contracting where enforcement is not because of contractual obligation, but rather on trust and the continuity of the relationship as a whole (Hofstede, 2001; and Hofstede et al., 2010).

In addition, GCC cultures are aligned underneath the collective shelter (i.e. collectivist culture), encouraging group initiatives over individual ones in the work place. Gulf people are born in an extended family, which protect each other in exchange for unquestioning loyalty. However, GCC-cultures might be less organised, intolerance of unexpected situations and very emotional, accept changes that are planed step-by-step and by implementing rules, need lots of clarity and instructions, work in jobs even if they are unsatisfied, see unusual things as dangerous, and tend to be very 'pragmatic' (Hofstede, 2011). Another fundamental feature in this society is that this culture can be classified as a masculine culture. On of the values that masculinity culture promotes are power, materialism, competitiveness, ambition, and assertiveness. In masculine cultures, the differences between women and men's roles are very dramatic, and men tend to be driven and ambitious while women tend to be marginalised (Hofstede & Minkov, 2010). Indeed, patriarchy, institutional policies, individual motivators, concerns and perceptions from the private and public sector, tribal origins and religious background are factors associated

[3] The Hofstede's 2010 model of national culture is based on six different cultural dimensions. The six dimensions (6-Ds) are; Power Distance Index, Individualism versus Collectivism, Uncertainty Avoidance, Masculinity versus Femininity, Long-term Orientation versus Short-term Normative Orientation, and Indulgence versus Restraint.
[4] For further information regarding Hofstede's cultural-dimensions definitions and scores of GCC countries See Appendix A1.2.

with masculine culture, which were the indirect reason behind establishing ‘wasta’. According to Sidani and Al Ariss (2013), and Abalkhail and Allan (2016), wasta is an informal institution tries to hire women based on interpersonal connections, kinship and family ties or social links. Although these links may improve the chances of success for women to overcome sociocultural barriers (Sikdar & Mitra, 2012), it can also be the reason women are limited in the workplace, since such social ties are not accessible to regular women (Abalkhail & Allan, 2016). Similarly, as indicated by Al-Alawi (2016), since men do not rely on wasta to get to the boardroom, this accounts for disparity between women and men in GCC society (Shammari and Al-Saidi, 2014); Elewa and Nasr, 2016); and Forster, 2017).

Generally, members of this society place greater emphasis on short-term performance, spend a lot in social life, attribute success/failure to luck, and consider best moments in their life had occurred in the past or will take place in the present but not in the future (Hofstede and Minkov, 2010). In sum, this society controls gratification of needs, and regulates it by means of strict social norms (Hofstede, 2011). Das and Teng (1998) note that in alliances, neither culture can dominate to determine the behaviour and attitude of the members of the alliance. Each member of an alliance is independent, and therefore must retain their own identity. This identity is closely related to national culture, and thus the ability to cohere and collaborate within an alliance will be enhanced by having a similar culture. An important aspect of the alliance, and its ability to be successful, is that members of the alliance must trust each other, and associated with this trust is the issue of fairness and constrained leadership.

Since Arabic communities are homogeneous and they share the same language, religious beliefs, and ethnic backgrounds GCC is expected to have a high score on trust due to their middle-eastern background (Mujtaba et al., 2010). Hofstede and Hofstede (2005) suggest that alliances are more likely to be successful where the cultures are more individualistic, there are shorter power differences between different levels of hierarchy, and where greater uncertainty is tolerated. Amongst the GCC countries, these cultural aspects are not observed as strongly as among for example the Anglo world, which implies that the long-term viability of an alliance will be less strong. The traditional unity amongst GCC populations has caused in GCC countries being a highly collective society (Mujtaba et al., 2010).

However, one mitigating factor is that individualism is highly correlated with incomes, and therefore this will have increased in the GCC countries as they have become relatively wealthier (Mujtaba et al., 2010). Al-Twaijri and Al-Muhaiza (1996) said, "The discovery of oil has caused a change in the life styles of the GCC citizens" (p. 122). As these oil-fed nations become wealthier, people would become more independent and less dependent on each other. "However, as explained by Hofstede's 'Law of Conservation,' values tend to be long-lasting and often survive over time, even in new settings." (Mujtaba et al., 2010, p. 175). Hofstede (2002) found that cultural values are time-invariant and hard to change as they are deeply rooted in society.

Adopting an institutions-based view (IBV)[5] or theory, one can distinctly understand the relationships between organizations and institutions and those relationships' implications for strategic decisions and societal transactions (Peng et al., 2008). Scott posits that institutions are "regulative, normative, cognitive structures and activities that provide stability and meaning to social behaviour" (1995, p.33). Likewise, North[6] defines institutions from the perspective of social, economics, and political science as the rules and regulations that are established for the purpose of regulating human behaviours (North, 1995). Institutions, being formal (rules) or informal (culture), are "the rules of the game" (North, 1990, p.3), by which constraints and remunerations for individuals are determined, firms' strategies are shaped (Peng, 2008), and strategic alliances are regulated. Therefore, institutions are a means of communication used in the debate between economic parties when contracts are formed (North, 1999). IBV considers strategic alliances (such as the GCC) to be the outcome of interaction between the formal and informal constraints of institutions, and to be an echo of institution-organisation interaction (Peng et al., 2008).

Broadly speaking, there is a causal relationship between informal and formal institutions; these types of institutions were the main variables of North's 1990 economic growth model. Similarly, Vachris and Isaacs's (2017) study states that less formal cultural standards are the predominant factors in variations in political and economic institutions. Therefore, it is impossible to disentangle institutions from culture, unless one considers the formal parts of institutions to be the main institutions (Alesina and Giuliano, 2015). In the

[5] IBV can be traced back to the 1970s (Scott, 1995), and considered one of the top dominants theories in emerging markets (Hoskisson et al., 2000). International business theories such as resource-based (exemplified by Barney (1991)) and industry-based view (exemplified by Porter (1980)) have been criticized for neglecting the formal and informal institutions and treating them as a "background". Given the differences between formal and informal institutions of emerging markets and those in well-established economies, researchers have realized the deficiency of these theories and became more aware of the significance of the institutions-organizations nexus when investigating emerging markets. Therefore, Kiggundu, Jorgensen, and Hafsi's (1983) announced the urge for a theory, knowing as IBT today, which can snap the complexity and fluctuations in the environment-organisations relationship in these markets (Peng et al., 2008).

[6] The author defines institutions as "the humanly devised constraints that structure human interactions. They are made up of formal constraints (rules, laws, constitutions), informal constraints (norms of behaviour, convention, and self-imposed codes of conduct), and their enforcement characteristics." (North, 1990).

same vein, Hofstede (2007) also discovered that culture is a segment of the informal institutions that support formal ones. Alesina and Giuliano (2015) also emphasised the notion that cultures, as sets of informal norms, and institutions, as sets of formal rules, are interdependent. Therefore, institutions are not just "background" as mentioned in previous studies (Peng et al., 2008), but rather channels through which macro-factors (i.e., formal institutions at the national level) and micro-factors (i.e., informal institutions at the firm level) may interact to affect cultural values and behavioural practices of individuals in the society (North, 1990; Hofstede, 2011; Peng, 2009; Meyer et al., 2008; Daniel et al., 2012; and Alesina and Giuliano, 2015).

1.1.2. GCC Economic Environment

GCC countries have both similarities and differences in their economic patterns. The GCC generally differs from any other major bloc, such as the EU or NAFTA. It also differs from developed markets, transitional economies, and other emerging markets (Arouri et al., 2011), including MENA (Mohanty et al., 2011). GCC are major actors in energy markets (Arouri and Rault, 2012). In addition, GCC are the world's major oil-exporting countries, reaching nearly 70% of total GCC exports (IMF, 2016). GCC economies remain highly dependent on oil and are less diversified than the norm (Fasano and Zubair, 2003; IMF, 2010), enduring reductions in oil prices render diversification necessary (IMF, 2016). Most Arab exporting countries have the same challenges, but some of them have cut down on government spending to cover reduced oil revenues (IMF, 2016).

Although it is true that oil and natural gas are solely responsible for the salience of GCC economies in the headlines of global economic growth news (Hertog, 2014), they are not the major factor identifying the GCC states. In addition to oil and gas, the GCC economies are dependent on expatriate labour; Kapiszewski (2006) reports that roughly 70% of the GCC states' total labour force consists of overseas workers (Malik and Awadallah, 2013). The GCC native populations are small, but the GCC national workforce has increased nevertheless (Sturm et al, 2008). Particularly, 90% of GCC private sectors are held by expatriates, while the same percentage of nationals have public sector jobs (Devaux, 2013).

1.1.2.1.Oil dependence and economic diversification

Oil- and natural resource-rich nations such as the GCC countries are extensively reliant on the oil sector, and their non-oil industrial and services sectors are greatly driven by hydrocarbon revenues, which support government expenditures and dominate total government revenues (Husain et al., 2008; Khalifa et al., 2013; Hvidt, 2013; and OPEC, 2014). Reflecting this are the percentage of oil revenues in total fiscal and export earnings and the proportion of the oil sector to the total GDP; more precisely, the oil sector contributes about 80 percent of average total revenue for GCC governments, as of the end of 2013 (IMF, 2014).

The GCC countries are globalized states, and they participate significantly in the world economy (Saidi, 2009) by investing most of their hydrocarbon revenues abroad (Peeters, 2011). In 2016, the GCC countries have amassed capital worth over US$2.99 trillion, managed by their SWFs (sovereign wealth funds), in the global markets (Al-Balushi, 2018). Regrettably, such wealth is not sustainable. Changes in oil prices can push the whole region into unexpected crisis. For instance, in January 2014 the oil prices declined from US$100 per barrel to less than US$30 per barrel in January 2016. This sharp fluctuation in oil prices, by almost 70 per cent, has raised serious concerns about the ability of the Gulf countries to withstand oil price shocks (Al-Balushi, 2018). According to IMF the recent geopolitical instability in the GCC-region, and the persistent fluctuation of oil prices have pushed the region toward an expected near-crisis (IMF, 2016).

The likelihood of economic shocks and spillover effects on GCC economies, the non-renewable nature of oil resources, oil's susceptibility to depletion, rapid demographic growth, specifically the surges in foreign labour, and the fluctuations in oil prices are common economic challenges for the GCC states (Sturm et al., 2008; and Devaux, 2013), making the diversification imperative not a choice (El-Kharouf et al., 2010). To this effect, over the past couple of decades, the GCC governments have undergone economy-diversifying efforts to steer partly away from the capital-generating oil sector by stimulating the private non-oil sector, for which oil is an input (Devaux, 2013; Callen et al., 2014). The GCC countries have taken important steps to increase the productivity of the local private non-oil sector for the purposes of diversification and job creation. To diversify the region's economy away from oil industry, generous investments have also been made in infrastructure, education, healthcare, roads, ports, telecommunications, natural gas exploration, power generation, petrochemical sectors, and water desalination. 'Socio-economic conditions and social welfare have improved substantially, with gross

domestic product (GDP) per capita of Qatar and UAE exceeding US$100,000 and US$66,000 per annum, respectively, making them among the highest per capita income rate countries in the world' (Al-Balushi, 2018, p.1).

The current vision towards the creation of knowledge-based economy is an extended path back to 1970s. The infinite nature of oil has been long realised by GCC, but the options for diversifications were inadequate. Recently, GCC countries have started paving the way to shift from traditional to modern economic model that is led by two main drivers, are; public sector and private sector. Hvidt (2013) argues that success in diversifying the economy depends on the trade-off between the contribution of public sector and private sector in the process of diversification; however, this is not the case in GCC (Al-Balushi, 2018). In GCC, the oil sector is a public sector supported and owned by government. Thus, investment in other state-financed industries, like petrochemicals that rely on oil in its production, would not lower the government's dependence on oil's revenues since "their production depends largely on the availability of low-cost energy." (Al-Balushi, 2018, p.6). The second driver is the private sector, which is less efficient than the public sector in GCC especially when it comes to economic diversification. However, GCC citizens prefer to work in public sector while private enterprises depend on expatriates. For this effect, private sector became 'the driving force of diversification' because the oil sector does not provide many jobs while public sector is markedly overcrowded and ingest new applicants. The second driver is the private sector, which is less efficient than the public sector in GCC, especially when it comes to economic diversification. However, GCC citizens prefer to work in the public sector to get better salaries, which are around 10-20% on average more than those of private sector, so, the private sector depends on expatriates (Ubaydli, 2016). In addition, the public sector is markedly overcrowded and does not ingest new applicants, while the oil sector does not provide many jobs. For this effect, the private sector became the new driving force of diversification. Al-Balushi, (2018) stated "there is an emerging trend across the Gulf region to develop private sector enterprises as vehicles for employment and engines of growth." (Al-Balushi, 2018, p.7). Ubaydli (2016) elucidated that more than 50% of GCC citizens are working in government-run sector, while in advanced markets around 20% only of employed nationals have been working in the public sector. In the same note he added, "Transferring jobs to the private sector over the coming years constitutes a key component of the six countries' economic visions." (Ubaydli, 2016).

1.1.3. GCC Financial Environment

GCC countries' financial systems and financial sectors in particular, remain bank-centric, similar to other emerging regions (IMF, 2010; WB, 2015). Although GCC private sectors have accumulated huge amounts of funds since the first oil boom, private sector companies depend on bank loans or retained earnings to fund investments (Hertog, 2014). The use of retained earnings as funding sources plays a major role in determining the capital structures of firms, and thus in firms' financial decisions. All GCC banks focus on intermediating local deposits into local lending except those of Bahrain, which do not serve the local economy. Amongst GCC financial markets, the cross-border presence of other GCC banks and foreign banks is limited, and is mostly in the form of branches. Foreign bank presence is important in Bahrain and the UAE, with regulators opening up the financial sector to foreign banks on a reciprocal and selective basis.

It must be mentioned here that during the oil booms between 2003 and 2008, the GCC countries had abundant liquidity that led to excessive credit growth: almost 50% in Qatar, the United Arab Emirates, Bahrain, and Oman, and more than 30% in Kuwait and Saudi Arabia (Khamis and Senhadji, 2010). This led to a significant increase in intra-GCC capital flow (Neaime, 2012). By 2011, GCC had achieved surplus in reserve corresponding to one-fifth of GDP (IMF, 2012). In contrast, during the economic downturn of 2008, the GCC countries were able to limit the fallout of the by providing financial sector support along with counter-cyclical measures, using earnings retained from the oil price boom of 2003 (See Appendix A1, Table A1.1) for a set of key economic indicators from 2009-2014).

However, varying financial integration between GCC and US/UK markets (Yu and Hassan, 2008), coupled with GCC markets' leverage, made the GCC equity markets the focus of overseas investors' attention with regard to portfolio diversification (see, for example, Arouri et al., 2011; or Balli et al., 2013). Indeed, the spillover effects of the 2008 crisis on each GCC stock market varied for each market based on extent of integration with global financial markets (IMF, 2010). The fact that the UAE, Kuwait, and, to a lesser extent, Bahrain are more integrated with global equity and credit markets than other Gulf countries like Saudi Arabia, resulted in financial sector imbalances within the GCC during the global financial turmoil (Khamis and Senhadji, 2010; Neaime, 2012). Since 2008, stock market capitalization in GCC countries has declined significantly. The decline in the UAE's and Kuwait's stock market capitalisations was about 100%, while the decline in Saudi Arabia was about 60% (Neaime, 2012).

Recently, the Global Competitiveness Report (GCI) issued by the World Economic Forum in 2017 assessed and compared GCC countries based on their 2016 performance and economic growth on a scale of 1 to 7 (Qatar 5.23, down from 5.30; UAE 5.26, up from 5.24; Saudi Arabia 4.84, down from 5.07; Kuwait 4.53, down from 4.59; Bahrain 4.52, down from 4.47; Oman 4.28, up from 4.25) (Schwab, 2017). Based on their scores, it seems that Oman, Bahrain, Kuwait, and Saudi Arabia are roughly analogous peers, while Qatar and the UAE significantly outperformed them.

1.1.3.1. Companies Laws and Taxation in GCC countries

The number of listed firms across the GCC is not comparable to the numbers found in mature markets. Most GCC firms are either from the bank sector or dealing in services. This pattern reflects both the lack of economic diversification in the GCC, as discussed above, and the fact that industrial and services small firms do not see advantages in listing. In terms of transparency and disclosure, requirements for listing are considerable in the GCC region. Financial firms, especially banks, are generally subject to higher reporting requirements than non-financial firms, and some countries require financial firms to be listed. However, family-owned firms in industry and services generally avoid the transparency and disclosure requirements that accompany stock market listings because, according to La Porta et al. (1999), family-owned firms are more reluctant to be listed because of the loss of control associated with listing.

For ages, the oil-fed GCC economies did not rely on funds generated from taxes for government spending (Hertog, 2014). However, in 2017, the Saudi government issued a new tax system for expatriates' dependents that collects 100 SAR per month per dependent of foreign residents; the monthly fee will increase by 100 SAR each year until it reaches 300 SAR in 2019. In addition, Saudi Arabia imposed a 5% rate of VAT on all local business activities starting in 2018 (Deloitte, 2017). Zakat[7], and income tax are levied on Saudi companies, but dividends and capital gains are not liable for tax.

In line with the Gulf Cooperation Council VAT Agreement, Bahrain's VAT law took effect 1 January 2019 at a standard rate of 5%. Dividends and capital gains are not liable for tax in Bahrain, but a 46% tax is levied on net profits of companies engaged in oil, gas, or petroleum activities (Deloitte, 2019).

[7] Payment made annually (taxation in Islam) under Islamic law on certain kinds of property and used for charitable and religious purposes, one of the Five Pillars of Islam. All companies and persons: male, female, adults, minors or legally incompetent, are subject to zakat (2.5% of net profit) after completion of one year under the provisions of Islamic Jurisprudence.

In Oman's latest tax regulations, implemented in 2010, there are exemptions for securities income like dividends (partially exempt) and capital gains (fully exempt), for companies that are taxed at all. Omani firms are taxed 15% for income above 30,000 OMR, but 0% for income under 30,000 OMR (PWC, 2016); certain business types in Oman, such as education and farming, are exempt for were exempt for 5 years (Stephens, 2015; PWC, 2016). Dividends are subject to 15% tax in Oman if received from a foreign company, but dividends distributed and received between Omani companies are tax-exempt; capital gains follow essentially the same rules (Deloitte, 2018).

In Qatar, tax is categorized under two regimes, the "State regime" and the Qatar Financial Centre (QFC); the first applies to most companies in Qatar. Tax is imposed on a company's income if it originates from sources in Qatar. A 10% tax rate is applied to oil and gas companies. Dividends are not subject to tax, but capital gains are taxable. In addition, foreign companies that sell shares of Qatar-based companies are levied 10% on the gains. Companies owned by Qataris or by nationals of GCC countries are exempt from income tax (Deloitte, 2018).

Companies operating in Kuwait are taxed on net profits (PWC, 2015). However, net profits earned by trading on the Kuwait stock exchange (KSE) are exempt from tax (Deloitte, 2018). Dividends and capital gains are taxed at 15%. All companies are obligated to pay 1% zakat from their year-end net profits. The UAE's VAT was introduced at 5% after the Federal Tax Authority was established on 1 January 2018. VAT is applied to all transactions (goods and services), with some exemptions. There are no tax laws for individuals in the UAE, so dividends and capital gains are not subject to tax (Deloitte, 2018).

In sum, firms that operate in GCC countries are susceptible for extra charge by officials that is the Zakat, which is applied only to Muslims. Firms must pay 2.5% on their net profit if they are Muslims, but foreign firms are subject to the income tax, which is 25% of the net income. According to the GCC Companies Law, companies must: save 10% of net profits annually to form the statutory reserve of the Company; withhold from setting aside statutory reserve when it reaches an amount equal to (30%) of the Company's paid share capital, and distribute the surplus of such percentage to the Company's shareholders in financial years where the Company does not generate net profits; use the Company's consensual reserve, if such has not been set aside for a specific purpose, provided that using such reserve shall be based on a proposal submitted by the Board and used in ways that benefit the Company or the shareholders; and form other reserves besides the statutory reserve and consensual reserve and disposal of the same.

1.1.3.2. Corporate Governance and Ownership Structure

GCC corporate governance structures are far behind international standards (Hertog, 2014), which is one of several obstacles that have been quietly blocking new foreign entrants' and multinational enterprises' (MNEs) road to the GCC. This is attributed to the fact that most firms in the GCC are family or private empires that do not obey formal market controls (Hertog, 2014). This being said, the "patrimonial nature" of GCC culture increases the difficulty of adopting international corporate governance standards, which also precludes local shareholders from acquiring part of the earnings obtained from the private sector (Hertog, 2014). Essentially, there are six different ownership structures common to the GCC's corporate sectors: domestic, foreign, public, private, state, and concentrated ownership. Excepting Bahrain, GCC countries have limits on foreign ownership. GCC governments hold almost a third of total shares. Generally, the ownership structures in the GCC are strongly interlocked. In 2012, the one-share-one-vote rule deviated into pyramidal and cross-ownership structures that negatively influence shareholders' wealth, lowering dividends and payout ratios (Gugler and Yurtoglu, 2003).

Public and quasi public-sector ownership varies, but ranges from 13% in Kuwait to 30% in Oman to 35% in Saudi Arabia to 52% in the UAE (as of 2015). Omani and Saudi Arabia's relatively high public-sector ownership is mostly attributed to quasi-government ownership; in the UAE, the government directly owns a large portion (42%) of domestic banking assets. The GCC private sector is also heavily concentrated, with a few banks dominating the market; each GCC country's three largest banks (all of them domestic banks) account for 50%–90% of their respective countries' total banking sector assets. To sum up, distinguishing public ownership from private ownership is immaterial, as the complexity of ownership structures blurs these differences (Farazi et al., 2011).

1.1.4. Legal systems of GCC countries

The GCC has a unique institutional setup, as a result of the multi-national environment of the GCC region that foster connection of local to global laws, the Gulf-law has evolved rapidly (Mednicoff, 2016). Although the countries of the Middle East and North Africa (MENA) follow French civil law in arbitration (Sourial, 2004), the Gulf region's law has characterized by mixed legalisms. The GCC countries' legal systems, in general, rely on the Civil law as well, but each of Gulf countries has a specific architecture of the legal system. According to the (CIA, 2017), for example, Qatar and Dubai follow the French and Islamic law, while Dubai's International Financial Centre applies British

law. However, the legal system in Kuwait is a mix of Civil law, British common law, Egyptian civil law and Islamic law (PWC, 2015). Saudi Arabia legal system centred on many regimes, of which Islamic (Sharia and Sunnah), Egyptian, English, French and traditional law. Oman legal system is unparalleled, derived from both Anglo-Saxon and Islamic laws (CIA, 2017). Being said, Oman's legal system is stemmed from Civil law and Islamic Shari'a (Basic law of state), which is based on the Holy Quran (Stephens, 2015). GCC countries are homogeneous regardless of their legal systems; as such classification is not useful metric to distinguish the six-countries subject to the study. Bahrain legal system in derives from a blend of Egyptian civil and Islamic (Shari'ah) Law, criminal, commercial law, and English common law (PWC, 2016).

1.2. THE PURPOSE OF THE THESIS

Normally, managers are faced with three fundamental types of operational decisions: financing, capital budgeting (investment), and profit distribution. The literature on dividends showcases two classes of thought that rarely meet. The first revolves around the conjecture that elected managers (agents) are ideal representatives of shareholders' (principals') interests, and thus, the question this class of thought seeks to empirically determine is why these firms are paying out dividends. The second class of thought adopts the antagonistic position that managers are not exemplary, and so the question is how managers' and shareholders' interests can be aligned. Therefore, managers should make decisions that sync with shareholders' interests (and maximize their wealth) while improving the firm's performance. However, this approach does not necessarily apply if the markets where firms operate lack proper regulations and strong corporate governance, and where major shareholders hold the steering wheel on those firms' strategic decisions. Most recent research in the field attempts to find links between corporate dividends policy and corporate governance and their co-effects on firms' strategies. Especially after the recent financial crisis, these effects were ascribed to weak governance in firms. However, this type of conflict also exists in advanced markets where dispersed ownership is common. In contrast, concentrated ownership, a trait in emerging markets, has manifested a certain magical power to improve firms' performance, and to reduce the internal costs associated with agent-principal conflicts. That said, controlling shareholders might use the power of their positions to coerce strategic decisions from managers that create personal benefit at the expense of minority shareholders. GCC markets suffer from weakness in corporate governance, as well as tenuous legal protection for minority shareholders, and this has made it difficult for emerging markets to smoothly adopt new dividends policy and

sound corporate governance standards. In summation, emerging markets differ from developed markets, and this is mainly due to country-level and firm-level structural differences. Consequently, it is not just firms' characteristics that vary across markets, but also managerial behaviour, board structures, and ownership structures in these firms. These differences ultimately affect firms' strategic decisions and performance within the market.

The purpose of this thesis is to examine the interrelation between the three facets of agency-cost theory as it relates to an emerging market, namely that of the GCC countries, examining different time spans and assorted samples using different statistical techniques (explained in detail in the following chapters). The first chapter will empirically evaluate the factors driving the propensity of firms to pay out dividends and assess the characteristics of these firms. The second chapter will study the dynamic relationship between ownership structures—as a corporate governance and agency-costs reduction tool—and firm performance. The last chapter will examine the effect of gender-diversified boards of directors on the firms' decisions; i.e., on the probability that a firm will pay dividends.

1.3. HYPOTHESES OF THE THESIS

This thesis will address three primary hypotheses. The first, considered in the first chapter, is that dividend-paying firms are older and more lucrative, with fewer opportunities to expand than those firms that do not pay dividends. The second, considered in the second chapter, is that concentrated ownership has a substantial impact on the performance of listed companies in GCC countries. The third and last hypothesis is that gender-diversified board of directors significantly impact the likelihood of firms to payout dividends.

1.4. THESIS STRUCTURE

The structure of thesis is as following. Chapter one discusses the key features that distinguish GCC-bloc, in terms of economic, financial, political, and institutional prospects, from other major blocs. In addition, this chapter outlines the purpose and the main hypotheses of the thesis. Chapter two presents the first empirical paper of the thesis, while Chapter three considers the second empirical paper. Chapter four examines the third empirical paper, while Chapter five concludes the thesis with suggestions and limitations of this thesis for future research in ways beyond the current scope of the work.

CHAPTER TWO

CORPORATE DIVIDEND POLICY: EVIDENCE FROM GCC

2.1. INTRODUCTION

The most frequently looked at question in the field is pertaining to the characteristics of the firm that explain dividends policy (Bhattacharya et al., 2019). Looking at the importance of firm characteristics is an indirect approach to the life cycle (Booth and Zhou, 2017). This paper aims to examine the determinants of dividend payout policies in the Gulf Co-operation Council (GCC) Countries, and aims to scrutinise firm characteristics, distinguishing nonfinancial nonutility dividend-paying firms from non-dividend-paying firms in the GCC. More specifically, this paper seeks to test whether the life cycle theory explains the dissimilarity between GCC firms' payout policies, considering endogeneity concerns.

Generally, non-dividend-paying corporations are smaller in size and are less lucrative businesses, but have more scope for prosperity and expansion than dividend-paying firms, which relatively have less opportunity for growth but are financially independent, thus are capable of giving. The life cycle theory endorses that the company's optimal dividend policy depends on its financial life cycle. The basic supposition is that companies generally follow a life cycle, through which the barter between the costs and benefits of raising external to internal capital for new investments leads to the optimal dividend policy. This barter evolves as the life-cycle stages move from birth to maturity where there is no investments opportunities, growth rates decline, and the cost of external capital decreases (DeAngelo et al., 2006; and Bulan and Subramanian, 2016).

Previously, firm age was neglected, while firm size has received almost all of the credit in examining firm dynamics (Coad et al., 2014). However, recent literature point out that maturity can be captured by assets growth (Grullon et al., 2002), size and cash flows (Porter, 2004), and firm age (DeAngelo et al., 2010). While these indicators deliver some indications about firm maturity, they are implausible to capture a firm's life cycle on their own due to their inherent limitations (Faff et al., 2016; and Habib and Hasan, 2019). For instance, size and age of the firms suppose a linear growth over the life cycle, while modern studies predict a dynamic movement over the life cycle of a firm (Helfat &

Peteraf, 2003). Moreover, the univariate measures of firm life cycle cannot truly classify firms into different life cycle stages and, from the life cycle theory perspective, the decision of paying earnings is not only affected by a firm's size and age, but also by the fraction of retained earnings relative to total assets and total earnings (RE/TA, RE/TE), i.e. earned to contributed capital ratio, which is an indicator of maturity as suggested by (DeAngelo & DeAngelo, 2006). RE/TA (or RE/TE) "overcomes the linear progression assumption inherent in the firm age-based life cycle" (Habib and Hasan, 2019).

A recent study by Denis and Osobov (2008) revealed that, in six developed financial markets (the UK, the U.S., Canada, Germany, France and Japan), the retained earnings to total common equity is a key factor of dividend payouts. Fama and French (2001) also found that firms with high profit/low growth tend to pay more dividends, while low-profit/high-growth firms tend to keep their earnings. Similarly, Brockman and Unlu's (2011) study, which incorporates the life cycle theory of dividends to scrutinize the 'agency cost inclusive life cycle' of dividends, points out that life cycle theory justifies dividend decision around the world (Habib and Hasan, 2019).

Since the existing research on dividend policy based on life cycle philosophy is replete with evidence from mature markets, recent researchers have recognised this dearth in corporate dividend literature. Although some scholars have considered the behaviour of dividends in emerging economies, no studies have examined dividend payout policies from a life cycle theory standpoint in the GCC context. To the best of the author's knowledge, no research exists on the probability that a firm pays dividends as a function of its maturity stage, i.e. the firm's financial life cycle, using GCC data.

However, there are a limited number of similar studies from GCC. Of these, Al-Kuwari (2006: 2009), Jabbouri (2016), and Kumar and Waheed (2015), which examined the main factors influencing dividend policy in the GCC and MENA markets, yet their scope was different than the scope of the current work. The current study differs in terms of the time frame and methodology used. Al-Kuwari's study covered 191 non-financial firms from 1999-2003, using the random Tobit model, while Kumar and Waheed's study considered UAE listed firms but excluded the other GCC countries from 2011-2013. Jabbouri's (2016) study included GCC firms from 2004 until 2013 but used a fixed-effect model to analyse the determinants, rather than the propensity to pay dividends.

Al-Kuwari's study covers a period of time (1999-2003), which does not reflect the recent economic and financial reforms that were undertaking in the region following the recent financial catastrophes. Of these, for instance, the issuance of corporate governance codes that came into force, for most of GCC countries, after 2009. Similarly, the study of

Kumar and Waheed revolves around UAE listed firms for only two-year of time, which makes it ungeneralisable since it does not reflect the changes and variations in dividends policy among GCC firms across years. Despite the newness of Jabbour's study, it uses Fixed-effect that does not account for endogeneity concerns, thus, yields unreliable biased results (Roodman, 2009). In sum, none of theses studies has treated life cycle theory as a main determinant of dividends policy (Easterbrook, 1984). According to Coad et al. (2014), most of the recent firm-level growth-based studies have included the firm's age (maturity stage) in the estimation.

The GCC stock markets have certain characteristics that distinguish them from many developed and emerging markets. Dividends and capital gains are tax-exempt. Recently, Gulf governments have introduced several taxation regimes through which public expenditures are financed. These features play a major role in hindering the ability of newly listed firms to internally accumulate cash, or have access to the external cost-effective capital; at the same time, dividends payout and/or capital gains, whichever is taxed at a higher tax rate, became less favorable for investors. However, the period of the sample covered in this study is free from taxes. In addition, in GCC, maintaining dividends in years of loss is difficult, owing to the fact that GCC firms are not allowed, by commercial companies' law, to pay dividends if they have losses for the current year or have otherwise accumulated losses from previous years. Firms, however, are obligated to pay the Zakat from the net profits of the year.

The dividend decision should be contingent on financing, investment and growth potential. Many studies show that investment opportunities deplete the cash resources that could be used to pay dividends (Jabbouri, 2016). Consistent with the life cycle theory, firms at maturity stage tend to have low-investment opportunities but high excess cash, which make them a good candidate to pay dividends. In contrast, small fast-growing firms tend to retain most of their earnings to reduce their dependence on costly external financing. Banyi and Kahle (2014) point out that mature firms tend to issue more debt and hold excess cash. However, in GCC the managers of small/big firms would pay dividends to broadcast the good faith of their agents that "they care for and do not expropriate shareholders" (Athari et al., 2016) not only to minority shareholders but also to suppliers of capital (Jabbouri, 2016).

GCC firms are well-known for having very high dividends but adopt a cautious and balanced method concerning dividends payment and future potential growth, by law they are required to retain 10 % net profits annually to form the statutory reserve (CMA, 2019), and by having large liquidity and profits (Kumar & Sujit, 2016). A study by Hanifa et al.

(2018) asserts that from 2010 to 2015 dividend payments exceed those of the G-7 countries. In the same vein, Brockman & Unlu (2011) found a U-shape relation between disclosure quality and dividend payment; in low disclosure regimes, insiders tend to pay dividends in order to establish a good reputation in front of capital suppliers; but in strong-disclosure regimes, insiders has no option rather than distribute reserved cash. Shehata (2016) points out a low level of corporate governance disclosure (CGD) in GCC. In fact, if shareholders are in doubt they will hesitate to share the firm's future gains, consequently they will force the firm to distribute dividends from the current earnings by putting pressure on it, regardless of the firm's growth opportunities (La Porta et al., 2000). This argument supports the notation that small firms in GCC are very inclined to pay dividends, and follow building-reputation approach.

However, it is argued that the negative relationship between dividend payments and growth opportunities is valid only in countries with strong legal protection for shareholders (Mitton, 2004). In contrast, La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000) argue that this negative association between dividend and growth opportunities can exist in low-shareholders protection regimes but with a relatively relaxed slope (i.e., see Fig. 1 in LLSV, 2000, p. 7). Consequently, the positive relationship claimed by LLSV is not necessarily true in the case of GCC, such "predictions are weak as companies presenting growth opportunities may also be able to pay higher dividends owing to their higher levels of profitability." (Athari et al., 2016, p.101). GCC firms are very profitable (Kumar & Sujit, 2016). This argument indicates that growth opportunities of a firm have no correlation with the level of legal shareholders protection. Consequently, GCC firms are very likely to pay dividends over their life cycle from birth to maturity stage.

Since GCC markets are relatively small in terms of the number of listed firms, they have set a goal of 270 firms to be listed in the markets by 2020. Therefore, GCC governments have opened the market for new local and foreigner entrants (Hertog, 2014). This has two implications, first, it sent a wave of apprehension all across the GCC "of losing ownership of the local private sector to foreigners" who run most of the SMEs (Hertog, 2014, p.7). Second, the GCC officials will pump into financial markets newly listed firms, which usually do not payout dividends. This is not necessarily the case, because these firms have a special invitation for listing, coupled with underpinning from the Capital Market Authorities, which would upsurge their propensity to payout dividends. Banyi and Khale (2014) have used Life-cycle theory to examine the influence of RE/TE on firm's propensity to payout dividends in markets where many new firms have gone listed.

However, firm's transition from a stage to another depends on the available resources, which contribute in increasing competitiveness of the firm. Many studies propose that the existence of valuable and inimitable tangible and intangible resources deliver sustainable competitive advantage (Barney, 1991), which determines the stage of a firm over its life cycle (Habib and Hasan, 2019). From 'the dynamic resource-based theory', resources that foster the competitive advantage of the firm develops and shifts over a period of time, which are firm-specific characteristics that construct different life cycle stages (Habib and Hasan, 2019). Modern life cycle theory upholds this trajectory and shows that firms' transition over the life cycle is nonlinear and can go backward or forward (Habib and Hasan, 2019).

Over and above, despite the fact that private sectors have a cumulated a huge sum of returns during oil boom years, banks remain the most preferred sources of capital (Hertog, 2014), which may ensure a good relationship between creditors and firms, and affect asymmetric information and agency cost problems. According to Hertog (2014), GCC firms have scant growth opportunities, but huge amount of easy access capital. More recently, Hasan and Cheung (2018, p. 564) suggest, "large firms enjoy better access to capital and labour markets and this advantage, in turn, improves the possibility of firms' survival and growth. On the contrary, small firms suffer from the liability of newness and liability of smallness, which increase their exit probability." Thus, from the Life cycle theory standpoint, such firms are not better candidate to payout dividends because they are in capital-retentions stage (as opposite to capital-infusions stage) (DeAngelo et al., 2006).

However, that is not necessarily the case in GCC, in which government supports newly listed firms and private sector as a whole, which constitutes a key component of the six countries' economic visions, in order to diversify their economies away from oil sector[8] (Ubaydli, 2016). As a result, if the retained earnings have accumulated, managers will reinvest them in unpleasant projects, either due to their lack of experience or to achieve their personal goals, which might increase the agency-related costs. However, accumulation of retained earnings indicates that a company is in the growth phase of the life cycle stages, no matter what is the age of the firm (Tariq et al., 2014). Many studies have explained that fact that GCC firms suffer from agency costs problem (Abdallah and Ismail, 2017). Unambiguously, agency cost is likely to be less severe in initial stage but higher in maturity stage of life cycle (Bulan et al., 2007). Since in GCC firms the level of agency costs and information asymmetry is intensifies (Kumar and Sujit, 2016), ownership

[8] See Chapter one for further information about GCC countries' dependency on the oil industry, and their economic diversification vision.

concentration and dividends, as complementary mechanisms that mitigate life cycle agency cost, are expected to be higher at maturity stage, life cycle theory supports this view (Abdallah and Ismail, 2017).

In fact, these firms are largely in the hands of local-family empires whose control rights are vastly superior to cash-flow rights, and have ample of cost-effective capitals. Such firms tend to pay higher remunerations to managers than dividends to shareholders no matter what the firm's age is. Therefore, family-firms will retain the profits for their private benefit, and distribute them when no chance for innovation at the expense of minority shareholders. These scenarios underpin the underlying concept of agency costs theory of dividends.

Using financial indicators for categorizing life cycle stages, like retained earnings over total assets, recent studies infer that corporate life cycle stages are strongly related to "real" firm outcomes and decisions; such as, corporate cash holding, financial disclosures, board and ownership structure and dividends payment (Faff et al., 2016). Findings from these studies point out that managerial efficiencies and resources of the firm drive the transitions of a firm over its life cycles. In addition, life cycle affects corporate investment, financing and dividend policies, and "research on the implications of firm life cycle for corporate governance practice explores how internal and external corporate governance varies with the firm life cycle stages" (Habib and Hasan, 2019). It is noteworthy that the ownership structure of GCC firms is highly concentrated (internal), and shareholders' protection is relatively low (external), and the legal system is primarily based on civil law and Islamic law, which are known by their propensity to pay fewer dividends (La Porta et al, 2000). Therefore, since CG practices vary with the stages of the firm's life cycle, it is plausible to assume that the propensity to pay dividends would vary accordingly. It has been argued that as a firm becomes more mature the effect of ownership concentration on its performance becomes more positive (Firdus and Kusumastui, 2012), which, in turn, will enhance the likelihood of paying dividends. It is well documented that controlling shareholders have a significant impact on the firm performance because of the influence that the major shareholder exercises over the firm's management (Abdallah and Ismail, 2017). Indeed, the impact of concentrated ownership on dividends policy has a pattern that evolves in line with time. Consequently, the higher the ownership concentration the higher the firm financial performance, thus the faster is the firm's transitioning from a stage to another on the life cycle. As a result, the proportion of retained earnings will increase and the propensity of the firm to pay dividends will increase accordingly. This discussion justifies the usage and the linkages between the CG practices and the life cycle of the firm.

In sum, these distinct institutional features of the GCC markets make them useful settings and are a major reason corporate payout policy in GCC is of interest for examination in the context of the life cycle theory, together with agency costs of free cash flows. Yousef and Tanna's (2016) study has endorsed that dividends policy of emerging markets tend to support the life cycle theory rather than signalling hypothesis. Indeed, these two modern theories, in addition to being very intuitive, seem to be the best lines of research and the most promising avenues for further research to build a complete payout policy theory.

Therefore, the present study attempts to fill this gap, considering different measures for the firm's financial life cycle – firm size, growth opportunities, profitability, cash holding along with retained earnings levels – and their impact on the probability of a firm to payout more dividends, considering endogeneity concerns. To capture the firm's changes in propensity to pay dividends across years and countries, Fama and Macbeth's (1973) methodology is applied using a multivariate logit model to annual unbalanced panel data of firms listed in GCC markets over the period of 1996-2011. In addition, different specifications and measures of maturity are used, but the findings did not alert even after controlling for potential sources of biases, i.e., unobserved heterogeneity and heteroskedasticity.

This paper makes several contributions. First, this paper examines the dividend policy of GCC listed companies between 1996 and 2011, a more generalised context, considering more firm-year observations (2423) and endogeneity concerns. Second, previous literature offers a rough idea of the characteristics of dividend-paying firms from non-paying firms. In particular, this study is the first to provide evidence on the effect of 'earned/contributed capital mix' of DeAngelo et al. (2006) on dividend policy from an emerging market like GCC, and one of the first studies to examine the characteristics of dividend-disbursing firms.

The remainder of the chapter is arranged as follows. Sections 1, 2, and 3 briefly review the relevant theories, literature review, and hypothesis development, respectively. Section 4 identifies the main determinants of dividend policy, while the data sampling and methodology represents an empirical framework in Section 5. Results are discussed in Section 6, which documents descriptive statistics (univariate analysis) and reports logistic regression results. Section 7 concludes the paper.

2.2. MAIN DIVIDEND THEORIES

Research on dividend policy and whether it affects the valuation of a firm developed significantly after the Modigliani-Miller (M&M) theorem (1961) established the irrelevance theory in a market without taxes and imperfections. There has been increased interest in the following topics: the residual theory, tax clientele, signalling theory, the agency cost problem, transaction cost, and the pecking order theory. The relevance-oriented models are established around the notion that firms design their dividend policies to achieve institutional or industry-based goals.

AL-Yahyaee et al. (2011) identified dividend smoothing, constant dividends, and the absence of dividends as part of the relevance theories, whereas Cohen and Yagil (2009) provided evidence those variations in dividend policies in a manner that contradicts the prevailing market conditions or organisational norms can also indicate the application of relevance theorems. Such firms adopt a divergent approach to signalling their performance, and it is possible to find differences between their dividend policies and other performance indicators, such as profitability, risk, leverage and future prospects.

Dividend irrelevance theorems are formed under the pretext that firms pay dividends as and when they can, since the dividends are not influential on the value of firms and the ability of management to achieve corporate goals (Elmi & Muturi, 2016). Such firms have limited motivation for variations in dividend policy and tend to adjust their dividend policies to achieve a direct relationship with current performance standards.

As a result, the signalling theory, regardless of whether the signals are engineered by management or logically deducible from the performance of the company, provides the foundation for the hypotheses that are developed hereunder. Therefore, dividend policy literature in imperfect markets may be categorised into two groups: against and for. ‘Against’ refers to dividend theories that include the transaction cost theory of dividend and the tax hypothesis, while ‘for’ refers to dividend theories that include the signalling theory, the bird in the hand, life-cycle theory, and the agency theory. This perspective suggests that dividend payments enhance shareholder wealth.

The next section considers some of the relevance dividend theories, and the theoretical framework that pinpoints the main determinants of dividend policy.

2.2.1. Signalling Hypothesis

Signalling theory highlights the conflicts that might arise between shareholders (outsiders) and managers (insiders) due to information asymmetry. This model also

indicates the role of dividends in transmitting hints regarding future gains (Gerber, 1988). If the insiders know more about a firm's prospects than outsiders, any unexpected change in dividends or lack of change when expected may signal information to investors (Besanko & Breautigam, 2002). An increase in dividend payments signals good news to outsiders, while a cut or decrease is an indicator of poor performance. As a result, signalling theory operates contrary to the life cycle theory, whereby a higher proportion of earnings are paid out as dividends to create the perception that the firm is performing well.

A great deal of financial literature has addressed dividends with the profitability of firms to capture dividend policy. Signals to the market and markets can react positively or negatively to an increase or decrease in dividends, respectively (Koch & Shenoy, 1999). The signalling hypothesis, developed by John Lintner in 1956, considers that dividend payout is perceived as a hint for positive prospects in the performance of the company (Post & Bryon, 2014). Signalling plays a role in inefficient markets where information asymmetry makes it challenging for investors to rely on other variables. Investors can base their decisions about the company on the dividend policy (Bernheim & Wantz, 1995). Changes to the dividend policy can be viewed as signals for positive or negative outcomes in the company (Zare et al., 2013).

However, the reliability of the signalling effect is contested by Zhou et al. (2012), who argue that risk-averse investors may not rely on future prospects when making current decisions. Similarly, since dividend payment entails disbursement of finances that would otherwise be reinvested to generate similar effects on the stock prices as 'signals', retention becomes a better option than payment of dividends (Yarram, 2015). The signalling mechanism operates on the fact that, since managers have more information about the company and corporate governance (CG) than the investors, they can employ dividend policies to present specific scenarios (Cohen & Yagil, 2009; Tariq et al., 2014). For instance, Cohen and Yagil (2009) used the signalling hypothesis to explain why firms that are in financial distress still pay dividends. As a result, managers can increase the dividend payout based on favourable current performance or positive future prospects.

A different perspective of the signalling theory is provided by Miller and Modigliani (1956), who introduced the 'clientele theory'. Based on this theory, management can design a dividend policy aimed at attracting and retaining certain types of investors. Manneh and Naser (2015) described dividend smoothing, one of the signalling mechanisms, as the process through which the effects of leverage in earning on the dividend payout are harmonised through the maintenance of a constant dividend payout policy.

2.2.2. Agency Cost Theory

Agency relationship occurs when the principal (investors) in a transaction delegates the authority of decision making to the agent (manager). The underlying assumption is that the interests of investors (outsiders) and corporate managers (insiders) diverge. First, the conceptualisation of the venture, performance, and other determinants of dividend policies by the principals differ from that of the agents due to the difference in professional backgrounds (Marios, 2003). Similarly, the interest of investors in mundane management decisions varies, since some prefer capital returns to revenue returns and vice versa. As a result, Alli et al. (1993) argue that if the retained earnings have accumulated, managers will reinvest them in unprofitable projects, either due to their lack of experience or to achieve their personal goals. Managers (agents) may prefer the form of returns (payment of dividends or retention) that optimises their own benefits, rather than selecting the option that optimises the returns to investors. The divergence implies the emergence of agency-related conflicts, and associated costs, which include the measures by the principal to reduce the divergence in the interests (Jensen & Meckling 1976). Baker and Powell (1999) note that one way to reduce agency costs is to increase dividends. However, agency cost models predicts that dividend payments may have a positive influence on a firm's stock price (Easterbrook, 1984; Rozeff, 1982).

While high dividend payments reduce agency costs, they make it more likely that the firm will need external financing, resulting in higher transaction costs. Mohd et al. (1996) argue that the optimal dividend policy will be at an intersection between the transaction and agency costs. Salas (2008) found that the agency cost of managers not paying dividends amounted to 13.8 cents for every dollar, based on stock price reactions. As a result, Rozeff (1982) proposes that managers compromise between two known costs, transaction and agency. He hypothesised that normal shareholders will demand a higher payout if they purchase a large share of equity; in contrast, company-resident shareholders will demand more power to cut off the distribution of money.

The agency costs were also attributed to the information asymmetry arising from the separation of control and ownership (Pucheta-Martínez & Bel-Oms, 2016). The resultant agency costs incurred in the process of correcting the disparity influences most management decisions, specifically the dividend policy. As the agents of the investors, the directors are viewed as parties who implement the wishes of the diverse stakeholders. Furthermore, it mirrors the dividend relevance hypothesis, since payment of dividends has a direct and verifiable impact on firms' performance and market value.

Chen et al. (2017) indicated that if the interests of the agents and the principal are aligned, the lower agency costs imply that dividend payouts are not a necessary indicator of the performance of the institution. As a result, boards that are considered diversified, independent, trustworthy and efficient in the management of investor interests tend to have a lower dividend payout policy (Terjesen et al., 2015), and greater flexibility in their dividend payout decisions (Lanis & Richardson, 2011).

To mitigate agency problems, a number of propositions are provided. First, an increase in management shareholding as proposed by Jensen and Meckling (1976) enhances the participation of the board as investors. Vo and Nguyen (2014) indicated that this would place management in the same pool as investors, exposing them to similar wealth consequences and serving as a mechanism for governance. Second, the firm can employ debt financing, as advised by Rozeff (1982), premised on the fact that the increased risk profile drives management towards the effective handling of business operations and management of cash flows. Finally, payment of higher dividends from existing cash flows forces management to use external finance to fund investments (Vo & Nguyen, 2014). This approach exposes management to the regulatory mechanisms of stock exchanges, thereby deterring the possibility of adverse outcomes from conflicts of interest.

2.2.3. Life cycle Theory

Mueller (1972) presented an essential theory that emphasises the fact that each firm has its own life cycle[9] (i.e., corporate life cycle theory), which is the cornerstone of firm's dividend life cycle theory (Bulan et al., 2007). The conventional model of corporate life cycle illustrates that firms transmit monotonically from introduction stage to decline, thus the policies and strategies of the firm will change consequently (Habib & Hasan, 2019).

The dividend life cycle theory is based on the hypothesis that firms vary their dividend policies based on their stage in the life cycle model (Thanatawee, 2011). The theory reflects the conclusions of Miller and Modigliani (1961) and Fama and French (2001) regarding the ability of the firm's current earnings and dividends to influence future earnings capacity. According to DeAngelo et al. (2006), the life cycle model suggests that well-established firms are in an advanced stage of a firm's financial life cycle, whereby firms have the ability to internally accumulate cash and have access to the external cost-effective capital. Similarly, Bulan et al. (2007) elucidate that the decision to initiate dividend payment after reaching the maturity stage of the life cycle is propagated by the

[9] Lifecycle stages are Introduction, Growth, Maturity, Shake-out, and Decline. "Firms go through a form of life cycle: they start, if successful grow rapidly, mature, and then face increased competition and sometimes die." (Booth and Zhou, 2017, p.10).

fact that the firm has huge cash reserves, backed by stable and high earnings and few opportunities for growth.

Due to economic and behavioural factors, as the firm transitions from introduction to maturity, it invests in most of the opportunities that would have otherwise limited its willingness to pay dividends. However, the determination of maturity in the existing literature contributes to the divergent views on this theory; it can be dependent on time, profitability, age or size of the firm or a combination of both (Habib & Hasan, 2019), and cash flow pattern (Dickinson, 2011). However, theses indicators are unlikely to capture the lifecycle of the firm (Habib & Hasan, 2019). First proposed by DeAngelo et al. (2006), Retained earnings/Shareholders' equity (RE/TE) is a prominent lifecycle proxy in the dividend literature, which exhibits a monotonic relation with firms' propensity to pay dividends, implying that, ceteris paribus, firms that have similar RE/TE ratios should have similar payout propensity. This is called the lifecycle effect.

These assertions are based on data from US firms between 1926 and 1978, whereby dividend payouts peaked in 1978 at 66.5%, then dropped to 20.8% in 1999, thereby resembling the introduction-to-decline trajectory that represents the life cycle model. Similarly, as it matures, a firm's profitability stabilises, making it possible for the implementation of a stable dividend payout strategy. Over time, the firm also identifies the optimal dividend payout ratio and outgrows most of the adverse impacts of speculative pressure that comes with failure to pay dividends. As a result, such firms can pay higher or more constant dividends to their shareholders over time compared to newcomers (Kouser et al., 2015). Grullon et al. (2003) attribute this increase or stability in dividend payout to the tendency to maintain constant or declining capital investment strategies.

The theory further highlights the effects of the age of the firm, albeit from a one-dimensional perspective. According to Bodie, Kane and Marcus (2005), new entrants to a market, most of whom overcome the barriers to entry through innovation, face huge capital needs, and are thus less inclined to prefer cash outflows through dividend payouts, despite the potential for signalling effects and the growth in the market share. However, over time, as the innovation impetus wanes or market forces impact the market value of the firm, the propensity to pay higher or constant dividends arises. This is also, in part, due to the firm's life cycle theory (De Angelo et al., 2006).

In addition to the stability of earnings and diminishing investment opportunities, the validity of the signalling effects from changes in dividends become less potent

determinants of dividend policy[10]. As indicated by Thanatawee (2011), based on evidence from Thailand, these firms have long-term and stable investors who have found ways to handle the information asymmetry, and who rely on a variety of signals on the status of their investments, other than dividends. As a result, even when older firms may not necessarily pay higher dividends than newer firms may, they are more predisposed to paying stable dividends in comparison (Grullon et al., 2002). At the same time, the reduction in systematic risks over time implies that firms that have not experienced a change in their performance can afford to pay dividends or increase their payout (Grullon et al., 2002). However, Bulan et al. (2007) found that there was no difference in the pre-initiation and post-initiation risk profiles among firms, thereby attributing the decision to initiate dividend payout at or near maturing to factors related to opportunities. The theory further posits the hypothesis of dividend irrelevance, since payment of dividends is not motivated by the need to influence the value of the firm.

2.3. LITERATURE REVIEW

There exists widespread research regarding the factors determining the dividend policies. Fama and French (2001) found the firm characteristics in dividends-possibility estimation to be a main influencing factor. In the same study, they found that firm size and growth influence dividends positively and negatively, respectively. Jozwiak (2015) and Jiang and Jiranyakul (2013) hypothesised that the highly developed Corporate Governance systems and investment climate minimised the agency costs linked to investment, thereby providing companies with greater control over the decision on when to use dividends.

Developed markets are characterised by highly sophisticated firms based on size, age, quality, and transparency in investments (Mahdzan et al., 2016). The highly advanced information efficiency norms in these markets are highlighted by Jiang and Jiranyakul (2013) as the reason for minimal leverage in operations and extensive access to financial resources. Developed markets face limited adverse effects from agency costs due to the robustness of regulatory frameworks (Reddy & Rath, 2005). As a result, most of the dividend decisions are based on logical rationales rather than the need to solve corporate challenges, such as those identified in the signalling theory and agency cost theory. Jiang and Jiranyakul (2013), who performed a comparative analysis on the dividend payout policies and activities between firms listed in New York and Shanghai Stock Exchanges

[10] Given the fact that signalling theory suggests that firms pay dividends in order to signal to the market positive prospects about its future gains and performance, life cycle theory suggests that firms pay dividends when investment opportunities and profitability are likely to diminish in the future (Bulan & Subramanian, 2009).

between 1992 and 2008 using regression estimates, found a stark difference between the variables that influence dividend payout in the two markets. The outcome was attributed to the differences between the advanced and emerging markets, respectively.

Corporations in developing countries are faced with a variety of challenges that influence dividend policies. Nnadi et al. (2013) and Naser et al. (2013) concur on the analogy that firms from developing countries have convergent dividend policies and face similar agency costs. According to Nnadi (2013), developing countries are characterised by a high concentration of privately family owned entities and high trading volumes. Regarding the study by Naser et al. (2013), set in Abu Dhabi, the findings indicate that dividend policies are based on the bird-in-hand theory, which highlights the preference for short-term outcomes and revenue returns due to leverage and unpredictability of long-term market conditions. Similarly, firms in developing countries have low market capitalisation compared to their counterparts in developed countries (Adediran & Alade, 2013), which was hypothesised by La Porta et al. (2000) to act as a reliable predictor of the profitability, growth and age of firms.

Adediran and Alade (2013), who studied 25 listed firms from Nigeria, found that investment policies have a statistically significant relationship with profitability, earnings per share and dividend policy. These findings echo the comparative study by Aivaizian et al. (2003), which sought to determine whether there is a similarity between the dividend policies in developing and advanced countries. Aivaizian et al. (2003) concluded, 'We find that emerging market firms exhibit dividend behaviour similar to U.S. firms, in the sense that dividends are explained by profitability, debt, and the market-to-book ratio'.

The findings contradict the conclusion of Al-Kuwari (2009) that country-specific characteristics influence dividend policy and concur with Cohen and Yagil (2009) that the outcomes of Corporate Governance and institutional frameworks act as proxies for determining dividend policies. Studies by Varouj et al. (2003), Nnadi and Akomi (2008), and Asamoah (2010), which focused on firms from across Africa, highlight the abnormalities in dividend policy design that are characteristic of firms in developing countries. Asamoah (2010) attributes the design to policies by the management teams that adopt a transient approach to management, primarily due to the lack of stability in the corporate frameworks. Nnadi and Akomi (2008), and Varouj et al. (2003) attribute the 'disappearing dividend hypothesis', whereby payment of dividends is staggered haphazardly, to a variety of reasons, including weaknesses in Corporate Governance, instability in the economic outlook, and regulatory frameworks. Main determinants of dividend policy will be discussed in the following subsequent sections.

2.4. THE MAIN DETERMINANTS OF DIVIDEND POLICY

2.4.1. Dividend Policy and Profitability

Profitability is one of the main determinants of dividends in most previous studies. The greater the firm's profitability, the more cash available and the more likely to pay dividends to reduce the agency costs of free cash flow, (see Easterbrook 1984; Jensen 1986). It also signals the location of a firm in its life-cycle stage (Hasan and Cheung, 2018). Consequently, firms with high profitability show a greater likelihood to pay dividends and have a higher payout ratio (see Fama and French 2001; Aivazian et al., 2003a; Denis and Osobov 2008; Brockman and Unlu 2009).

The typical measure for firm profitability is the return on total assets (ROA), measured as the contemporary return on assets and equals earnings before interest & tax (EBIT)[11] divided by overall assets. Although a number of studies have used return on equity (ROE) as a determinant of profitability in the analysis targeting dividend policies, this variable was not used in this study. According to Booth et al. (2001), only 36% of the companies studied did not use any long-term debt, whereas overall, long-term debt comprised 20% of the overall total assets. El-Khatib (2017) cites the use of *Sukuk* as a financing vehicle, which involves the use of interest-bearing bonds as a source of debt finance operations.

However, as indicated by Booth et al. (2001), most companies in the GCC rely on short-term debt financing from banking institutions. Zeitun and Saleh (2014) further indicate that, since the financial crisis of 2008/09, most firms in the GCC have increasingly shunned the use of debt in their financing structure due to the risks associated with financial leverage. A similar conclusion was drawn by Chowdhury and Maung (2013), which stated that most GCC firms prefer equity to long-term debt in financing their operations. Based on this discourse, the present research tests the following hypothesis:

H2.1: The profitability of a firm will increase the propensity of the firm to pay dividends.

[11] The earnings before tax is used to avoid the differences in taxation between GCC countries.

2.4.2. Dividend Policy and Growth Opportunities

Firms with high growth opportunities would have lower dividend payments since new investment will consume large amounts of internally generated cash, which has a lower cost compared with external funds (see Rozeff 1982; Mayers and Majluf 1984; Fama and French, 2001; DeAngelo et al., 2006; Brockman and Unlu, 2009; Ferris et al., 2009; Chay and Suh, 2009; Fuller and Blau, 2010). Moreover, Barclay *et al.*, (1995) argue that firms with low investment opportunities will pay high dividends to reduce any overinvestment problem. On the other hand, firms with high investment opportunities will have lower dividends payment to protect themselves from the underinvestment problem since the cost of external sources of finance may prevent the company from investing in projects with positive net present value. In the study by Tahir and Mushtag (2016), growth opportunities as proxied by investment opportunities were found to be inversely related to the dividend payout, since companies focus on expansion and long-term profits rather than short-term outcomes. Similarly, Rozeff (1982) argues that firms have a greater tendency to reinvest profits rather than distribute dividends when growth opportunities exist.

Nnadi et al. (2013), who studied 25 firms from Africa, found that long-term firms that have generated profits in the market are more inclined to distribute dividends than others. Consistent with the agency-cost theory, the findings are linked to the presence of growth opportunities in the market (Manneh & Naser, 2015), which determines the ability of the management teams to fulfil the objectives of various investors. However, although the study references age, it does so in recognition of the fact that most firms attain growth over time. Noordin and Mohtar (2014) said, ‘most scholars agreed that firm age determines firm growth’. The age of the firm, as a determinant of the dividend policy whose relevance to growth is also highlighted, was studied by Nickoaos et al. (2001). They found a strong relationship between them, which disambiguates the dividend policies of large-scale corporations that are young in the market. As a result, these findings highlight the role of time in growth, rather than indicating the size of the firm, which is discussed in the next section. Their analysis uses the market-to-book ratio (MB) and hypothesises that, as firms mature in the market and expand in terms of scale and scope, the opportunities for investment and growth diminish as specialisation takes its course (Nickoaos et al., 2001). As a result, the decline in investments results in the increased availability of cash flows, which, in turn, affects the dividend payout.

In addition, life-cycle stages of the firms can be determined by the availability of growth (investment) options, and progress of the firm. In the introduction (growth stage) of the firm's life-cycle opportunities of firms to grow are higher than in the maturity (decline stage) since the opportunities start to shrink (Dickinson, 2011). Following DeAngelo et al., (2006), and Hasan and Cheung (2018), AGR, SGR, and MB are used as proxies for growth opportunities. Growth (investment) prospects are the growth rate in assets (AGR), as measured by the change in overall assets over the value of the prior year, while the growth rate in sales (SGR) is defined as (sales $_{t}$ / sales$_{-1}$) in logarithmic form (Attig et al., 2015). The ratio of market to whole book value (M/B) equals the market value of equity plus book assets minus book equity, all scaled by overall assets. Therefore, a negative relationship will exist between growth opportunities and dividends. Based on the discussion, the present study tests the following hypothesis:

H2.2: The effect of growth opportunities on the propensity of the firm to pay dividends is negative.

2.4.3. Dividend Policy and Firm Size

The above research shows that large firms pay more dividends than small firms, due to their better access to the capital market (see Fama and French, 2001; and Hasan and Cheung 2018). Thus, the cost of external finance will be lower for large firms. Typically small firms are less profitable, affecting the firms' growth and survival (Hasan and Cheung, 2018). Therefore, firm size (Fsize), as a proxy for firm size, measured by the logarithmic form of overall assets (LnTA) is included in the model as a control variable. Following Barclay *et al.,* (2009), Jensen *et al.,* (1992), Gugler and Yurtoglu (2003), DeAngelo et al. (2006) the natural logarithm of the book value of total assets will be used. Based on this discourse, the present study tests the following hypothesis:

H2.3: The impact of firm size on the propensity of the firm to pay dividends is positive.

2.4.4. Dividend Policy and leverage

Firms with high leverage will have a low propensity to pay dividends, since failure to payoff this debt may lead the firm into liquidation (Al-Malkawi et al., 2013). Consequently, the risk associated with leverage may therefore decrease the dividend payments because firms need to keep their internally generated cash to pay another commitments rather than paying it out to shareholders. In the same vein, Rozeff (1982) argues that, highly leveraged firms are more inclined to have low dividend payments to

moderate the transaction costs coupled with external financing. Therefore, financial leverage has a negative impact on the propensity of the firm to payout dividends (Fama and French, 2002); Al-Malkawi et al., 2013). Consequently, total debt to overall assets is used to measure firm's leverage. Based on the discourse, the present study tests the following hypotheses:

H2.4: The impact of leverage on the propensity of the firm to pay dividends is negative.

2.4.5. Dividend and Ownership Structure

Ownership concentration reduces the agency costs of equity since large shareholders have the ability and incentive to monitor managers' decisions (see Shleifer and Vishny, 1986; Jensen and Meckling 1976; and Easterbrook 1984). Thus, the firm's ownership structure has an important impact on the firm's dividend decisions. Nonetheless, different types of major shareholders may have different effects on the propensity of the firm to pay dividends (AlMalkawi et al., 2013).

Denis and Serrano (1996) show that blockholders actively monitor the manager's performance and provide useful control efforts. In countries with low protection of shareholders rights, minority shareholders will prefer to receive dividends in order to get a return on their investment and accordingly reduce the possibility of insider expropriation by reducing the resources under the insider control (see La Porta et al., 2000). Therefore, it is expected that a negative relationship will be established between dividend and the percentage of shares owned by blockholders. Following Nugyen et al. (2014), the proxy for blockholders ownership is the ratio of the sum of ordinary shares owned by shareholders, with 5% or more holding, divided by the total number of shares outstanding of a firm (Block). This also holds for institutional investors, because institutional investors have the ability to reduce agency costs since they have the required skills to monitor the firm's management (Jensen and Meckling, 1976).

On the other hand, the tax preference hypothesis and the tax clientele effect predict a positive relationship between dividend payout and institutional investors because institutional investors have a tax advantage concerning dividends. However, this is unlikely to be the case in GCC since shareholders do not pay tax on dividends. Nevertheless, Grinstein and Michaely (2005) and Allen et al., (2000) argue that tax preferences are not the only reason for institutional investors to prefer dividend-paying firms. The prudent man rule encourages institutional investors to invest in firms that pay dividends (see, also, Renneboog and Trojanowski (2010)). Overall, it is expected there will be a negative relationship between dividend payment and institutional investors. Following

Nugyen et al. (2014), the ratio of common shares owned by institutions shareholders to overall shares outstanding is used as a proxy for institutional investor holdings (INST). Based on this discourse, the present study tests the following hypotheses:

H2.5.1: The affect of blockholders' ownership on the propensity of the firm to pay dividends is negative.

H2.5.2: The affect of institutional investors' ownership on the propensity of the firm to pay dividends is negative.

2.4.6. Dividend and Retained Earnings

De Angelo *et al.*, (2006) state that mature, established firms will have a large ratio of retained earnings to total equity (and total assets), and further emphasise that the ratio of retained earnings will be a good proxy for the life stage of the firm. In the early stage of the firm's life, the firm will have a small cumulative profit, and will accumulate cash flow to finance growth opportunities since the costs (e.g. agency costs) of retained cash flow will be lower than the costs of the external sources of finance (e.g. flotation costs and asymmetric information). On the other hand, mature firms will have a large cumulative profit and therefore tend to pay dividends because they have the ability to generate cash flow that is sufficient for paying dividends and financing the growth opportunities of the firm.

As shown by De Angelo *et al.*, (2006), Denis and Osobov (2008), Ferris *et al.*, (2008), it is expected that a positive relationship will be found between earned/contribute capital and dividends. Notably, the proportion of retained earnings to overall book value of common equity capital (RE/TE) will be used as a proxy to measure the Life-cycle Effect. As this study is closely influenced by the study of DeAngelo et al. (2006), the retained equity to overall assets (RE/TA) also will be used as a proxy for the firm's life cycle. Hence, the present study tests the following hypothesis:

H2.6: The impact of RE/TE on the propensity of the firm to pay dividends is positive.

2.4.7. Dividend Policy and Free Cash Flows

It is well known that cash holding can be an important determinant of dividend payout. High cash flow enables the firm to pay high dividend, while low-cash flow may result in low dividend payout. Many researchers documented this relationship between free cash flows and dividends. However, the results from literature are mixed, some of the researchers have found a positive relationship while others found a negative relationship or

insignificant relationship. Cash flow is a proxy for current short-term profits. However, Lintner (1956) explained that profitability, as measured by ROA, is better than cash balances because the source of cash can impact the dividend decision as it could be from a recent equity offering. Thus, firms with low RE/TE can be seen mistakenly in distribution stage instead of infusion stage (DeAngelo et al., 2009). This assertion is consistent with Life-cycle theory. Similarly, Manneh and Naser (2015) studied the determinants of dividends for non-financial companies listed on Abu Dhabi Securities Exchange (ADX), using panel data over the period from 2010 to 2012. They found that availability of free cash flows can determined the level of dividend payout, hence, availability of cash is more important that availability of earnings, which do not reflect the ability of the firm to distribute cash dividends.

From agency theory points of view, if the cash flows have accumulated, managers will reinvest them in unpleasant projects, either due to their lack of experience or to achieve their personal goals (Alli et al., 1993). In the same vein, as defined in Jensen and Meckling (1976), managers sometimes ignore shareholders' desire to grow their invested wealth and may behave according to their own self-interest, which may lead to agency-related conflicts. So, firms' tendency to pay more dividends regardless of future investment opportunities is due to a weak market for corporate control, as explained by Al-Kuwari (2009). Therefore, shareholders allow the company to supply dividends to avoid the potential costs of keeping cash in the hands of managers. According to Attig et al. (2015), firms with higher cash flow but a lower growth rate have higher agency costs. Similarly, La Porta et al. (2000) illustrated that in the presence of free cash flows, owners tend to pay more dividends, although this may not necessarily be in the best interest of the firm. Iturriaga and Crisostomo (2014) also argue that the presence of excess cash flows implies poor resource management techniques due to direct and opportunity costs. However, from Life-cycle theory standpoint, this is qualified by the stage the company is in on the life cycle model, since companies in their maturity may not have diversified investment opportunities.

Similarly, Chen et al. (2017) theorised that dividend payout can be used as a tool for corporate governance (CG) and monitoring. Holding all other factors constant, higher dividend payouts minimise the cash flows available for reinvestment, thereby pushing institutions towards the external equity or debt market for finances. Such an act was described by Denis and Osobov (2008) as an antecedent to scrutiny by multiple independent parties as they seek to determine the viability of the investment. Consequently, this satisfies the need for information symmetry (Abad et al., 2017), and

promotes the transparency of CG in the firm, the firm's performance, and prospects of future value in the company.

Kouser et al. (2015) found that most dividend policies are developed around ensuring sufficiency of cash flows, which implicates a diversity of behavioural and economic factors in the dividend payout norms. In the study, based on 285 firms from Karachi Stock Exchange and analysed based on the model of Fama and French (2001), the researchers found that firms tend to reduce payout ratios during crises to maintain the necessary levels of liquidity. Badu (2013), and Manneh and Naser (2015) perceive it as being based on the logical decision to distribute profits as and when they are available. However, firms can either choose to pay dividends commensurate to the available cash flows and employ the dividend irrelevance principles or gradually smooth out dividends to send structured signals to the investors over time. Khan and Shamin (2017) found that the characteristics of free cash flows influenced the dividend policy among firms across 15 of the 30 sectors studied. However, Tahir and Mushtag (2016) found an inverse relationship between the availability of free cash flows and dividend payout in their study based on firms listed in the Karachi Stock Exchange between 2008 and 2014.

Contrastingly, Marfo-Yiadom and Agyei (2011) found a statistically insignificant inverse relationship between cash flow and dividend payout. The results are attributed to the fact that the presence of these cash flows provides sufficient resources for investment in opportunities that were not viable when the company had lower cash flows. As a result, instead of directing the cash flows to dividend payouts, firms elect to invest the cash flows in revenue-generating opportunities. This explanation is reiterated by Naceur et al. (2006), who likens the situation facing companies with large cash flows to large-sized firms. However, a challenge arises when these large cash flows are available on an intermittent basis. This is why such a company would prefer to smooth out its dividend payouts to finance payouts when the cash flows fall below average. Consequently, firms with sufficient free cash flows have the capability to pay cash dividends without compromising the management of operations or needing to source funds through short-term financing for dividend payments. However, the availability of free cash flows is an integral determinant of the ability of the firm to pay dividends, since it determines the availability of cash to be transferred to shareholders as dividends (Sindhu, 2014). Due to the complexities of accrual-based accounting, profitable firms may face challenges in the payment of dividends, a scenario that results in a dividend distribution delay, through actions such as accrued or suspended dividends.

As a result, as indicated by Fairchild (2010), firms may base their propensity to pay dividends on free cash flow levels, rather than profits that can be distributed to the shareholders. Tijani and Sani (2016) similarly argue that the propensity to pay dividends is dependent on profitability and free cash flows. However, Fairchild (2010) indicates that profitable firms have the option of financing dividends through short-term borrowing if the cost of such financing is lower than the agency costs of delayed, suspended or no dividends. The findings are inconclusive; hence, the present research tests the following hypothesis:

H7: There is a relation between cash holdings and the inclination of the firm to pay dividends.

2.5. DATA AND DESCRIPTIVE STATISTICS

2.5.1. Data and Sample Selection

The data were primarily drawn from the Bloomberg[12] database. The sample consists of 199 firms listed in the GCC Stock Exchange between January 1996 and December 2011. As with prior research, the test of the determinants of corporate payouts restricts the analysis to nonfinancial and nonutility firms (excluding banks, utilities, insurance companies and real estate companies). Given the unique rules governing their revenue and expenses, in essence, their accounting regulations are different (Gustavo et al., 2002; Fama and French, 2001). To be listed in the sample of the study for a given year, a firm must have paid dividends for at least two sequential years (Fairchild, 2014) and reported non-missing annual data values for dividends (DeAnglo et al., 2006). Firms with missing observations have been excluded. Following DeAngelo et al. (2006), criterion firms with non-positive total equity observations are omitted. Additionally, a small number of companies were excluded from the sample because most of their financial data are unavailable. Thus, the sample size is smaller than the actual companies listed in the GCC stock exchanges. Therefore, the sample used to document the corporate payout policy in GCC consists of unbalanced panel data that covers 1990 to 2011, totalling 199 firms (2423 firm-year observations).

[12] The data is drawn via, *http://www.bloomberg.com*

2.5.2. Variables

The main variable of interest in this study is the propensity of the firm to pay dividends, which equals unity if the firm gives dividends in a fiscal year $_t$ and equals none if the firm did not give any dividends in a fiscal year $_t$ (see Byoun et al., 2016; and Saeed and Sameer, 2017). [13] The coding of dividends is based on the positive/negative realisations of dividends per share. If firm-year observation of dividends per share is positive, then the binary value will equal 1, and vice versa. The definitions of variables are provided in Table (2.1).

The explanatory variables of interest are profitability (ROA), the size of the firm (Fsize), and investment prospects (growth). The typical measure for firm profitability is the return on total assets (ROA). It is measured as the contemporary return on assets and equals earnings before interest & tax (EBIT)[14] divided by overall assets. Although a number of studies have used return on equity (ROE) as a determinant of profitability in the analysis targeting dividend policies, this variable was not used in this study. ROE is the ratio of net income divided by shareholders equity[15] (Danoshana and Ravivathani, 2013). When a firm pays dividends, it reduces its book value of equity by the amount of the dividends paid in prior periods, which in turn affects its net income. Consequently, dividends can affect the ROE of the firms that pay a large dividend, because after the transaction ROE will increase but the book value of equity will decrease disproportionately relative to the net income, especially when the market value is significantly higher than the book value of equity of the firm (Damodaran, 2007).

Although ROE has some attractiveness as it connects the income statement to the balance sheet, but has some serious shortcomings. One of these is that increasing financial leverage or improving profitability can manipulate ROE. Secondly, it is measured before taking into account the cost of capital and after the cost of debt, ignoring the timing of cash flows (De Wet and Du Toit, 2007). In the same vein, Khaddafi and Heikal stated that ROE ignores the cost of capital, and thus it is hard to know if a company has created value or not (Khaddafi and Heikal, 2014), as the higher is the value of the firm the higher is its growth rate, including mature firms that reached stable growth levels, because they continue to earn excess returns for long periods after stability (Damodaran, 2007). 'Copeland, Koller and Murrin (1996:105) argue that ROE is a short-term performance measure and that too much focus on it can lead a company to overlook long-term growth

[13] Firm-year observations for firms that did not pay dividends will set to zero for all sample years.
[14] The earnings before tax is used to avoid the differences in taxation between GCC countries.
[15] The calculation of ROE can be broken up into three separate ratios, as follows: ROE = (Earnings / Sales) x (Sales / Assets) x (Assets/ Equity). The three components are profitability, asset turnover and financial leverage, respectively.

opportunities that might increase shareholder value.' (De Wet and Du Toit, 2007, p.2). Furthermore, Reimann (1989) found that ROE does it give reliable results, because 66% of the variation in share prices was not explained when it is used in the estimation.

Damodaran (2007) termed that ROE incorporates interest income from cash, as a part of the numerator, and cash holdings of the firm, as a part of the denominator. Therefore, ROE is a composite return on all assets (cash or operating assets). However, when there is a disparity between cash and operating assets in terms of risk and return, ROE will be destroyed by the riskless-low returns earned by cash for firms with huge cash balances[16]. In the same note, he described that the complexity of ROE arises from the use of book value of shareholders equity (the denominator), as there are a significant number of firms with negative book values for shareholders equity, which makes ROE a meaningless number (Damodaran, 2007). In practice, the effects that dividends have on ROE can be viewed as an argument for using ROA to judge firms that frequently pay dividends (Damodaran, 2007). In other words, the numerator of ROA does not include the interest income from cash, but cash is a part of the denominator (Total assets). Damodaran's study revealed that ROA "will be lower than the return on capital. By itself, this would not be an issue if all we did was compare returns on assets across firms." (Damodaran, 2007, p. 13). Importantly, any changes in accounting or tax rules, the case of GCC, will leave their imprint on the computation of returns, thus, the use of ROE, i.e. the book value of equity, 'will leave the return exposed to accounting choices made not only in the current period but to choices made over time.' (Damodaran, 2007, p. 14).

As this study is closely influenced by the study of DeAngelo et al. (2006), the retained earnings scaled by the overall book value of common equity capital (RE/TE) and retained equity to overall assets (RE/TA) are used as proxies for the firm's life cycle, as well as firm size (Fsize), as measured by the logarithmic form of overall assets (LnTA). RE/TE, or RE/TA, do not capture future prospects or current growth scopes for each firm. In contrast, assets growth rates are alternative measures for maturity, which reflect contemporary growth scopes more efficiently (DeAngelo and DeAngelo, 2006). Growth measures are the growth rate in assets (AGR), as measured by the change in overall assets over the value of the prior year, while the growth rate in sales (SGR) is defined as (sales t / sales-1) in logarithmic form (Attig et al., 2015). The ratio of market to whole book value

[16] Consider, for instance, a firm that reports net income of $ 10 million on book value of equity of $ 100 million. The reported return on equity can be computed as follows: Return on equity = Net Income / Book value of Equity = 10/100 = 10%. Assume that the firm has a $ 20 million cash balance on which it earns after-tax interest income of $ 1 million. Using this cash to pay a dividend will reduce net income by $ 1 million and book value of equity by $ 20 million, resulting in a return on equity of 11.25%: Return on equity = (10-1)/ (100 – 20) = 9/ 80 = 11.25%.

(M/B) equals the market value of equity plus book assets minus book equity, all scaled by overall assets. Blockholders' ownership is measured by dividing the total number of shares owned by blockholders by overall shares outstanding. Institutional investor holdings (INST) are calculated as the ratio of shares owned by an institution's shareholders to overall shares outstanding, while cash to overall assets (Cash/TA) and dividends in the prior year (LDVD) are control variables. The definitions of variables are provided in Table 2.1.

It is noteworthy to mention that the reliability of total assets as a variable raises the question of whether the adoption of fair value accounting can affect its utility for the analysis. According to Masood and Bellalah (2014), fair value accounting entails the determination of the value of an asset based on the prevailing market conditions. Despite the potential for this fair value to differ from the cost less depreciation value, Choudhury et al. (2016) and Wahlen et al. (2016) indicate that such differences are trivial among companies that have reliable accounting and reporting practices in place. Evidence from Amico (2014), Dalwai et al. (2015), Ghosh (2017), Hassan et al. (2014) and Shehata (2015) reveals that the companies in the GCC and most of the Middle East adopted CG mechanisms that facilitate reduction between the fair value and cost-less-depreciation value in their reporting mechanisms. As a result, the lack of evidence that fair value accounting has a significant impact on the reliability of total assets as a variable is viewed as a tenable rationale for use of the variable in the analysis.

2.5.3. Descriptive Statistics for Determinants of Dividend Policy in GCC

The central prediction of this paper is that dividend-paying firms are older, more lucrative with lesser opportunity to expand, and are more inclined to pay their earnings as dividends to their shareholders than those firms that do not pay out dividends. Before moving on to the basic results of interest, this section answers the first question of this study, examining the characteristics of dividend-paying firms. The descriptive statistical analysis[17] of these firms' characteristics is employed.

[17] Without taking into account the endogeneity concerns.

Table 2.1. VARIABLES DEFINITION

VARIABLE	ACRONYM	DEFINITION
Dependent Variable		
Dividends	Dvd	Dummy variable that equals to one (1) if a firm paid dividends in a fiscal year (t), and zero (0) otherwise. The coding of dividends is based on the positive/negative realizations of dividends per share. If firm-year observation of dividends per share is positive/ negative then the binary value will equal to 1/0.
Independent Variables		
Return on Assets	ROA	The contemporary return on assets and equals to before interest & tax earnings (EBIT) divided by total assets.
Growth rate in assets	AGR	The changes in total assets over the value of prior year.
Growth rate in sales	SGR	The (sales $_t$ / salest_{-1}) in logarithmic form.
The ratio of market to the whole book value	M/B	The market value of equity added to book assets take away book equity, all scaled by total assets.
Retained earnings/Total Equity	RE/TE	The retained earnings scaled by the total book value of common equity capital.
Retained earnings/Total Assets	RE/TA	The retained earnings to total assets.
Firm size	FSIZE	The logarithmic form of the book value of total assets (lnTA).
Block-holder ownership (%)	Bloc	The ratio of ordinary shares owned by shareholders, with 5% or more holding, divided by the total number of shares outstanding of a firm.
Institutional ownership (%)	INST	The ratio of ordinary shares owned by institutional shareholders divided by the total number of shares outstanding of a firm.
Leverage	LEV	Total debt to overall assets
Control Variables		
Cash to total assets	Cash/TA	Cash to total assets.
Lagged Dividends	Ldvd	The one-year lagged dividends.

2.5.3.1. Univariate results

Table 2.2.a shows the descriptive statistics (the median value) of the firm characteristics (explanatory variables) used in the analysis, from 1996-2011. The table illustrates that there was an increase in the percentage of dividend-paying firms over the period of 2006 to 2016 from 3% to 18%, suggesting an upward trend from 1996-2007 but a downward trend between 2008 and 2011, as the percentage declined from about 18% to 13% in 2011. The percentage of paying dividends reached its highest in 2007. In general, despite the drop in 2007, there was a stable increase in dividend payments over the sample period across firms in the GCC.

These findings are consistent with those of Fama and French (2001), who found that, in contrast to 1978 when 66.5% of companies had paid dividends; in 1999, the number of dividend-disbursing firms had shrunk to 21% among US firms. Studying Canadian, Germanic, Japanese, British, and American firms from 1989–2001.

Denis and Osobov (2008) found that there was a decline in proportion as well. Possible reasons include the 2007-2008 shock of the decline in oil prices and production, credit, global financial markets liquidity, and inflation, as well as the indirect impact of financial crisis on corporate funding costs, liquidity, and asset prices that deteriorated sheets of financial systems and weakened investors' confidence in GCC markets (International Monetary funds [IMF], 2010).

Table 2.2.b. presents the correlation matrix for all explanatory variables used in the analysis. The low inter-correlations among the explanatory variables used in the regressions indicate no reason to suspect serious multicollinearity. Notably, the correlation coefficients between all variables, as can be seen in the table, are below (0.48), which is under the (.80) cut-off suggested by Damodar (2004).

Table 2.2.a Number and percentage of dividends-paying firms, over the period 1996-2011

Table (2.2.a) shows the number and percentage of dividends paying firms by year from 1996-2011 Dividends, which is the dependent variable and equals to unity (1) if a firm paid dividends in a fiscal year t and equals to none (0) if the firm did not give any dividends in a fiscal year t. The coding of dividends is based on the positive/negative realizations of dividends per share. If firm-year observation of dividends per share is positive then the binary value will equal to 1, and vice versa. For each year, the total number of firms that paid dividends was counted (column 2), and then divided by the total number of firms in that year to get the percentage of dividends paying firms (column 3).

Year	**N**on-dividends Paying firms	**D**ividends-Paying firms	**P**ercentage (%) of non-dividends Paying firms	**P**ercentage (%) of Dividends-Paying firms
1996	45	22	0.019	0.009
1997	51	30	0.021	0.012
1998	61	30	0.025	0.012
1999	72	34	0.030	0.014
2000	78	39	0.032	0.016
2001	82	52	0.034	0.021
2002	78	68	0.032	0.028
2003	72	84	0.030	0.035
2004	86	84	0.035	0.034
2005	84	95	0.035	0.039
2006	103	84	0.043	0.034
2007	69	130	0.028	0.054
2008	109	91	0.045	0.037
2009	109	89	0.045	0.037
2010	108	91	0.045	0.038
2011	106	93	0.044	0.038

Table 2.2.b Correlation matrix of the explanatory variables

Table 2.2.b presents the Pearson correlation coefficients between variables used in the regression estimation. The data from 199 non-financial non-utilities firms listed on the GCC markets with complete observations for the period 1996-2011. For variables definition see (section 2.6.2), which are summarized in table (2.1).

	DPR	INST	BLOC	FSIZE	ROA	LEV	RE/TE	SGR	AGR	M/B
DPR	1									
INST	-0.0692	1								
BLOC	-0.0439	-0.0871	1							
FSIZE	0.3406	0.4153	0.0662	1						
ROA	-0.0357	0.1763	0.107	0.135	1					
LEV	-0.0996	-0.2403	-0.1003	-0.2027	-0.3202	1				
RE/TE	0.2295	-0.0603	0.2663	0.3284	0.1907	-0.1053	1			
SGR	-0.0705	0.0172	-0.0566	0.0647	-0.0949	0.0233	-0.1517	1		
AGR	-0.16	0.2135	-0.1682	0.0353	0.1339	-0.0128	-0.0837	0.1589	1	
M/B	-0.0457	-0.0186	0.0473	-0.1231	0.4858	0.0437	0.3343	-0.0522	0.0454	1

In Table 2.3, for each variable, consistent with previous studies based on Fama and Macbeth's (1973) statistical technique, the median value within each year was calculated for the payers and their peers. Then, the yearly calculated medians rolled over all medians from 1996 to 2011 was calculated to form a series of annual medians for each variable presented in Table 2.3. This shows that dividend-paying firms have a greater ratio of earned equity to overall equity. About 14% of dividend-paying firms' median (internally funded) equity is preserved, as compared to 31% of median (externally funded) equity in median non-dividend-paying firms. Moreover, the external (versus internal) equity median of non-payers is around 70%. In addition, from the same table, consistent with DeAngelo et al.'s (2006) findings, it is clear that the differences between the two groups of firms are not influenced by the variations in equity, as the median overall equity to overall assets is 7.14% and 7.18% for payers and non-payers, respectively. Dividend-paying firms are more lucrative, as the profitability medians are 48% and 80% for non-paying firms and paying firms, respectively. However, median growth rates are higher for dividend-paying firms in the GCC context, which is unexpected. More interestingly, the growth rates and assets growth are semi-symmetrical (moderate) for both dividend- and non-dividend-paying firms. Contrary to expectations, the median SGR and AGR of dividend payers are higher by 92% and 48%, which reflects that these firms are more mature than expected in the long-run financial life cycle.

DeAngelo et al. (2006) declared that SGR and AGR are not ideal measures for current growth, but are for future opportunities, and they outperform other measures of growth and maturity. On the other hand, the medians of M/B and FSIZE are higher for non-paying companies by a trivial amount. 'Non-payers also tend to have higher market-to-book ratios', as explained by DeAngelo et al. (2006). In general, GCC dividends' paymasters and non-payers are not close in size, but both accumulate a similar amount of cash where the median of size/cash of dividend-favouring firms equals 5.90% / 21%, compared to 5.14% / 22% for non-dividend-sponsoring firms. However, the difference in size (76%), and cash balances (1%) between dividend payers and non-payers GCC firms is consistent with the life cycle theory. This explanation is reiterated by Naceur et al. (2006), who likens, using the dividend policy of Tunisia, the situation facing companies with large cash flows to large-sized firms and to the number of dividends the firm pays. The results are inconsistent with the findings of Naceur et al. (2006), as well as others.

There are two possible explanations for the similarities in size between the two groups of firms. First, consistent with free cash flow theory, non-dividend paying firms tend to have an ample amount of cash, which amplifies the agency-related costs of excess

Table 2.3. Median measures of variable for dividends Payers and non-payers

The median measures for industrial 199 non-financial non-utilities firms listed in GCC, over the period 1996–2011. For each year, median is calculated, for all firms with non-missing dividends and before extraordinary items earnings, then across all years to obtain the figures reported below. This statistical method calls Fama and Macbeth (1973) methodology. Dividends, which is the dependent variable and equals to unity (1) if the firm give dividends in a fiscal year t and equals to none (0) if the firm did not give any dividends in a fiscal year t. The coding of dividends is based on the positive/negative realizations of dividends per share. If firm-year observation of dividends per share is positive then the binary value will equal to 1, and vice versa. (ROA) is measured as the contemporary return on assets and equals to before Interest & tax earnings (EBIT) divided by overall assets. Growth (Investment) prospects are the growth rate in assets (AGR), as measured by the change in overall assets over the value of prior year, whiles the growth rate in sales (SGR) is defined as (sales t / salest-1) in logarithmic form. The ratio of market to the whole book value (M/B) equals the market value of equity add book assets take away book equity, all scaled by overall assets. The (RE/TE) that equals to retained earnings scaled by the overall book value of common equity capital, and reserved equity to overall assets (RE/TA) are used as proxies for the firm's life-cycle. In addition, firm size (FSIZE), as measured by the logarithmic form of overall assets. Blockholders ownership is measured by dividing the total number of shares owned by blockholders to overall shares outstanding. While institutional investors holdings (INST), calculated as the ratio of shares that owned by institutions shareholders to overall shares outstanding. While cash to overall assets (Cash/TA), dividends in one-prior year (LDVD) are control variables.

	Median value	
	Dividend payers	**N**on-payers
1. Retained earnings to total common equity (RE/TE)	0.446	0.307
2. Retained earnings to total assets (RE/TA)	0.286	0.176
3. Total common equity to total assets (TE/TA)	0.714	0.718
4. Profitability (ROA)	0.080	0.048
5. Sales growth rate (SGR)	0.092	0.039
6. Asset growth rate (AGR)	0.048	0.016
7. Market-to-book ratio (M/B)	0.003	0.007
8. Firm size (FSIZE)	5.902	5.140
9. Cash to total assets (Cash/TA)	0.205	0.219
10. Institutional Ownership %	0.185	0.182
11. Blockholders Ownership %	0.236	0.240
12. Number of firm-year observations	1110	1313

cash under the hand of managers. According to Attig et al. (2015), firms with higher cash flow but a lower growth rate have higher agency costs, which is the case for small non-dividend-favouring firms in the GCC. Second, GCC firms' tendency to pay more dividends regardless of future investment opportunities is due to a weak market for corporate control, as explained by Al-Kuwari (2009). Therefore, shareholders allow the company to supply dividends to avoid the potential costs of keeping cash in the hands of managers. However, a challenge arises when these huge cash flows are available on an intermittent basis. This is why such a company would prefer to smooth out the dividend payouts to finance payouts when the cash flows fall below average. According to

DeAngelo et al. (2006), cash balances of a firm do not increase its tendency towards paying dividends. In contrast, Marfo-Yiadom and Agyei (2011) found a statistically insignificant inverse relationship between cash flows and dividend payouts. The results are attributed to the fact that the presence of the cash flows provides sufficient resources for investment in opportunities that were not viable when the company had lower cash flows. As a result, instead of directing the cash flows to dividend payouts, firms elect to invest the cash flows in revenue-generating opportunities.

2.5.3.2. Payout as a function of RE/TE, RE/TA, or TE/TA

To allow for comparison between the current study and prior literature, following DeAngelo et al. (2006), the retained earnings were categorised into different weights: <0, 0-0.25, 0.25-0.50, 0.50-0.75, and 0.75+. First, the sample was classified into dividends payers and non-payers, based on cash dividends paid, to create two subsamples. If the firm paid dividends in year t, it takes a value of 1, and 0 otherwise. Then, the yearly (1996-2011) proportions of non-dividend-paying firms were calculated for each category (<0, 0-0.25, 0.25-0.50, 0.50-0.75 and 0.75+) of retained earnings to overall equity, overall assets, and overall equity to assets, respectively.

Moreover, Table 2.4 examines the proportion of firms that distribute cash in the form of dividends, based on the ratio of retained earnings to total equity, to total assets, and total equity to total assets. In each year from 1996 to 2011, the proportion of payers for firms grouped by ratio level is calculated, starting with firms that have negative ratios and moving up in increments of 0.25. The numbers reported are the medians of the annual proportions over 1996–2011 and the median number of firms in each category over the 16-year period. Panel A show a strong monotonic and positive relation between the proportion of firms that pay dividends and their retained earnings to total equity.

Only 11.50 % of firms with negative RE/TE pay dividends. The percent of firms paying dividends rises to 35.45% for RE/TE between 0.00 and 0.25, and then rises steadily for each subsequent 0.25 ratio group through RE/TE between 0.25 and 0.50. As in DeAngelo et al. (2006), and Banyi and Kahle (2014), the percent of dividend payers declines slightly when RE/TE is 0.75 or greater. Panel B and C, examine the proportion of firms that

Table 2.4. The proportion of dividends paying firms as a function of retained earnings to total equity capital (RE/TE), to total assets (RE/TA), and total equity over total assets (TE/TA) for 199 firms, over the period 1996-2011.

The table presents the proportion of firms making payouts based on the ratio of retained earnings to equity RE/TE, to total assets RE/TA, and total equity to total assets TE/TA. The sample includes firm-year observations from 1996 to 2011 for GCC incorporated, industrial non-financial non-utilities firms, and non-missing data for dividends (Dvd), total assets (TA), retained earnings (RE), total common equity (TE), and earnings before interests and taxes (EBIT). Firms are allocated annually to categories; based upon the level of retained earnings divided by total equity, total assets, and total equity over total assets, are; less than zero, 0.00-0.25, 0.25-0.50, 0.50-0.75 and 0.75+. Dividend payers are firms with non-zero common dividends; and non-payers firms are firms with zero common dividends. For each year 1996-2011, the number of firms that paying dividends is calculated and divided by the total number of firms. The median values for the resulting 16 observations for each RE/TE, RE/TA and TE/TA category in each payout sample are reported.

	Relative weight (RE/TE, RE/TA, or TE/TA)				
	<0	0-0.25	0.25-0.50	0.50-0.75	0.75+
Panel A.					
Earned equity as a fraction of total common equity (RE/TE)					
Proportion of payers	11.50	35.45	47.02	58.06	45.56
Total number of Firms-year observations	273	525	741	621	255
Panel B.					
Earned equity as a fraction of total assets (RE/TA)					
Proportion of payers	11.50	42.39	55.31	50	33.33
Total number of Firms-year observations	273	979	795	317	59
Panel C.					
Total equity capital as a fraction of total assets (TE/TA)					
Proportion of payers	0	23.08	95.74	99.35	82.35
Total number of Firms-year observations	0	113	480	770	1060

distribute cash in the form of dividends, based on the ratio of retained earnings to total assets RE/TA, and total equity to total assets, respectively. The Panels also show a strong monotonic and positive (curvilinear) relation between the proportion of firms that pay dividends and their retained earnings to total assets, and total equity over total assets, respectively. Only 11.50 % of firms with negative RE/TA pay dividends. However, no firms with negative TE/TA paid dividends. The percent of firms paying dividends rises to 42.39% for RE/TA between 0.00 and 0.25, and then rises progressively for each subsequent 0.25 ratio group through RE/TA between 0.25 and 0.50. Then, the present of dividends payers drops to 50 and 33.33 when RE/TA is between 0.50 and 0.75 or grater. Likewise, in Panel C the percent of dividends paying upsurges to 99.35 % but then

decreases to 83.35 % when TE/TA is 0.75+. In sum, Panel A, B, and C of Table 2.4 report the median number of dividend-paying firms and the median of the proportions of dividend-paying firms, rolled over 16 years (1996-2011) for each category (<0, 0-0.25, 0.25-0.50, and 0.50-0.7) of retained earnings.

Table 2.4 illustrates that, consistent with DeAngelo et al. (2006) and others, as the relative weights, from less than zero to 75+, of retained earnings go up, the number of firms go up until 0.50 percent of weight, before the number of firms starts declining. Therefore, RE/TE (RE/TA) is an important indicator in explaining the tendency to pay dividends of GCC firms, and the decline in the number of firms-year observations can be justified by the decreases in the number of dividends-paying firms, or the increases in the number of newly listed firms. In addition, since the drop happened after 2007, one explanation could be the 2008 fallout of the financial crisis that hit nearly all of the GCC markets. Similarly, looking at RE/TA's categories, the fraction of firms that paid dividends has gradually declined, but that does not mean dividends are disappearing, as mentioned by Fama and French (2001). Rather, what gradually declined in the GCC was the number of firms that returned cash as a dividend, not the propensity. Essentially, total equity to overall assets explains the differences between the two groups (RE/TE and RE/TA) more efficiently; the low TE/TA means the firm has financial liabilities greater than its equity, thus pays no dividends (DeAngelo et al., 2006; and Banyi and Kahle, 2014). Accordingly, dividends are not disappearing nor the propensity of the firms, but rather their capability to pay dividends since, as can be seen in table 2.3 the number of firm-year observations of non-payers is higher 1313 than payers 1110.

Table 2.5 presents the characteristics of firms for two subsamples, coded by dividend metric into dividend-paying firms and non-dividend-paying firms. The sample consists of 199 firms listed in the GCC from 1996 to 2011. The firm-year observation is coded as dividend payers if the firm paid dividends in a given year, so the subsamples segregated into 1,313 (firm-year) non-dividend-paying firms and 1,110 (firm-year) dividend-paying firms. In addition, the table displays the mean of the firm's characteristic for payer and non-payer firms, a difference (Diff) in the mean between the payer and non-payer firms, and t-test (t-statistics) for equality in means. Tests for equality in mean reveal significant results at the 1% significance level for most regressors, except for leverage and institutional shareholders. The results show dissimilar characteristics between the two subsamples. The results of t-tests for equality in mean show that the ROA among dividend-paying firms is higher than those of non-dividend paying firms, suggesting that more profitable firms return more money to their investors, as the difference is about (7.9)

percentile points. This result is consistent with what was predicted. The results show that the mean growth rate (AGR) of dividend-paying firms is higher by (.02) percentile points than that of non-payers, incompatible with the life cycles theory's prediction, which implies that dividend-paying firms have no more potential for growth than non-dividend-paying firms. However, on closer inspection, the difference in the median is only (.03) percentile points, indicating that dividend-paying firms either are in the growing stage or are small, fast -growing firms. In terms of size, the results indicate that dividend payers are larger than non-payers, as the difference in mean is about (.24) percentile points and (.75) median percentile points (see Table 2.5). This result is in line with the life cycle theory. The difference in mean earnings leverage (the absolute difference in net profits) between non-payers and payers is (3.25) percentile points, indicating that non-dividend-paying firms are not inclined to prefer dividends when their earnings are not stable. Furthermore, the results display that non-dividend-paying firms have substantially more blockholders than dividend-paying firms do, suggesting that dividends can be replaced with concentrated ownership in firms with pronounced agency problems. This result does not support the idea that the dividend policies are based on the interests of the blockholders, as in Crane et al. (2016) and Gonzalez et al. (2017), who found a monotonic relationship between the intensity of ownership and dividend payout. A similar result is obtained regarding the difference in institutional holdings' mean between the payers and non-payers. The mean difference is (1.78) percentile points, in favour of non-payers. Cash balances and retained equity capital are substantially higher for dividend-favouring firms than non-dividend-sponsoring firms, which is compatible with the notion that the firm's decision to distribute profits depends on as and when cash or retained earnings are available. This is the logic behind the life cycle theory, which suggests that firms pay dividends if retained earnings increased while investment options very limited. However, GCC firms can choose to either pay dividends commensurate to the available cash flows and employ the dividend irrelevance principles or smooth out dividends gradually to send structured signals to investors over time. The results are consistent with Khan and Shamin (2017), who found that the characteristics of free cash flows influenced the dividend policy among firms across 15 out of 30 sectors studied. After analysing the mean and median differences of firms' characteristics between the two subsamples, the results emphasise that larger, more lucrative companies with faster asset growth rates are more inclined to pay dividends. In contrast, the small companies with more fluctuating earnings, blockholders, and institutional investors are inclined to prefer low dividend payout.

Table 2.5. Test of Differences between Dividend Payer and Non-payer Firms

This table shows firm characteristics, included in the main estimation, for two subsamples of 199 firms differentiated by dividend payment over the period of 1996-2011. A firm is identified as a dividend payer if the firm paid dividends in year t. Each variable's mean (median), the difference in the mean, and t-statistics (t-tests) for the equality of means are reported. Dividends, the dependent variable, equal unity (1) if the firm gave dividends in fiscal year t and equal none (0) if the firm did not give dividends in fiscal year t. The coding of dividends is based on the positive/negative realisations of dividends per share. If firm-year observation of dividends per share is positive, then the binary value equals 1, and vice versa. (ROA) is measured as the contemporary return on assets and equals earnings before interest & tax (EBIT) divided by overall assets. Growth (investment) prospects are the growth rate in assets (AGR), as measured by the change in overall assets over the value of the prior year, while the growth rate in sales (SGR) is defined as (sales t / sales t-1) in logarithmic form. The ratio of market to whole book value (M/B) equals the market value of equity plus book assets minus book equity, all scaled by overall assets. Retained earnings scaled by the overall book value of common equity capital (RE/TE) and reserved equity to overall assets (RE/TA) are used as proxies for the firm's life cycle, as well as firm size (FSIZE), as measured by the logarithmic form of the book value of total assets (lnTA). Blockholder ownership is measured by dividing the total number of shares owned by blockholders to overall shares outstanding. Institutional investors holdings (INST) are calculated as the ratio of shares owned by an institution's shareholders to overall shares outstanding. Cash to overall assets (Cash/TA) and dividends of the last year (LDVD) are control variables.

VARIABLES	PAYERS	NON-PAYERS	DIFF.	T-STATISTICS
ROA	0.082	.029	-0.053	-35.14***
AGR	-.0273	-.009	-.0219	2.56 ***
FSIZE	5.573	5.337	-.236	-3.88 ***
VOL	-1.172	2.074	3.246	0.52
BLOC	-.136	.181	5.116	5.83 ***
INST	.375	.358	-1.778	1.43
RE/TE	.214	-.0675	-.281	-32.80 ***
CSH/TA	.162	.113	-.0496	-2.44***

(**) and (***) indicate statistical significance at 0.05 and 0.01, respectively.

2.6. RESEARCH METHODOLOGY

In this section, the logit model is used to estimate the relationship between dividends propensity and firm characteristics. The use of the logit model is attributed to the nature of the dependent variable, which is a dichotomous variable that sets to one (1) for dividend-paying firms, and to zero (0) for non-dividend paying firms (Mood, 2010).

The logit approach is preferred for many reasons. First, linear model cannot be used when the dependent variable is binary variable. Second, The aim is to predict the probabilities not the estimated coefficients, which are the marginal effects from Logit

model. Third, the output of logit model is more informative, it gives the direction of the relation and what is the probability for this relationship to happen if the independent variables have changed in the future. Also, Logistic regression is not a linear model, so it is hard to follow normality assumptions; it is a generalised linear model because it has a random component (y) that follows binominal distribution. Finally, dividends are a firm-specific choice that is influenced by its characteristics and not captured by earnings, past dividends or any independent variables. So, OLS leads to inconsistent and biased estimate. To control for unobserved influences panel data is used.

In addition, the logit approach is preferred over the Probit approach, since the Probit models focus on regressing variables that can only take two variables. This limitation implies that Probit models, based on probability, are best suited for binary classifications (Nagler & Freeman, 1993). As a result, since it forces the analysis to be truncated to the two possible outcomes, it offers a limited scope in the estimation in the current analysis. Another alternative, referred to as the Scobit (skewed-logit), is preferred when there is a possibility that probit and logit will tend to exaggerate the effects of the variability in the independent variables (Nagler & Freeman, 1993). However, when a small number of observations are used, mostly lower than 1000, the estimation of skewness loses its precision, and the larger standard errors among the coefficients imply that Scobit is not a perfect alternative to logit, since the current analysis is based on 199 observations[18].

Similarly, since the main question of this chapter is what are the determinants of dividend policy in GCC, using fixed-effect Logit estimation would reduce the sample size. Fixed-effect estimator uses only within- individual differences, so any explanatory variable that has little variation over time for each firm, such as ownership structure which vary between firms but not within the firm itself, would make the estimator to be very inefficient with large standard errors (Cameron and Trivedi, 2009). Moreover, including the firm's fixed effects will drop out all firms that have been paying dividends continuously and those do not pay dividends for all periods, because these firms will not contribute to the conditional likelihood. This would mean deleting a large amount of data, limiting the sample of firms to those have changed their dividend policy, and would produce a biased sample.

[18] Likewise, in Tobit model, the model would be censored at the lower limit and upper limit (i.e., uses the lowest and highest values as the censoring points). The censoring point can be selected and it can be from only one side. According to STATA forum where an extensive discussion regarding the use of Tobit can be found, and respective codes of checking. Thus, after running a Tobit model, the code "quadchk" is applied. The results differed greatly from the Tobit results, which is mean that probably Tobit results should not be used.

Likewise, excluding firms that pay dividends all the time, will create a biased results because those firms may find that their optimal dividend policy is to pay dividends all the time. Therefore, to answer the above question, the analysis should include firms that pay dividends and do not pay dividends all the time, as well as those firms that change their dividend policy. In addition, one of the main objectives in this study is to test the Life Cycle Theory, so excluding these firms will result in removing the firms with consistently positive or negative retained earnings that life cycle theory has been developed to explain their dividend behaviour. In the same way, excluding these firms would not help in examining other dividend policy theories such as the agency cost theory, since firms with high profitability are more likely to pay dividends all the time to reduce the agency cost of free cash flow. Consequently, fixed-effect Logit model cannot be efficient and may not be relevant for this study. In sum, the logit model will be employed to determine the main firm characteristics (factors) that affect the likelihood to pay dividends of GCC listed firms.

Thus, the binary model is defined as:

$$y_i = \begin{cases} y = 1 & \text{If the } ith \text{ firms is paying dividends} \\ y = 0 & \text{Otherwise} \end{cases} \qquad (2.1)$$

Where, the likelihood of paying sets to (y=1), and the possibility of y's incidence equals (p_i), whereas the likelihood of not paying sets to (y=0), and the possibility of not y 's incidence equals (1- p_i). Thus, the conditional probability is defined as follow:

$$P_i = E(paying = 1|x_i) = \mathrm{F}(x_i\beta') \qquad (2.2)$$

Where,
(x_i), is observed independent variables for each *ith*.
(β'), is a set of parameters to estimate.

2.6.1. Logit model

The multivariate Logit model is applied to find the cumulative logistic distribution function F ($x_i\beta'$), which has the form of;

$$P_i = E(y_{it} = 1|x_{it}) = \mathrm{F}(x'_{it}\beta) \qquad (2.3)$$

$$\mathrm{F}(X'_{it}\beta) = \frac{1}{1 + e^{-(X'_{it}\beta)}}$$

Which can be written as;

$$P_i = \frac{1}{1 + \ e^{-X_{it}^{'}\beta}} = \frac{e^{X_{it}^{'}\beta}}{1 + \ e^{X_{it}^{'}\beta}} \tag{2.4}$$

Where, P_i = the chance that (y =1), and (1- P_i)= the chance that (y = 0), So,

$$1 - \ P_i = \frac{1}{1 + \ e^{X_{it}^{'}\beta}} \tag{2.5}$$

$$\frac{P_i}{1 - \ P_i} = \frac{1 + e^{X_{it}^{'}\beta}}{1 + \ e^{-X_{it}^{'}\beta}} = e^{X_{it}^{'}\beta} \tag{2.6}$$

Where, $(\frac{P_i}{1- P_i})$ is the odds ratio (OR) that favours y=1 to y=0, taking the natural logarithmic of this form, LOG (OR);

$$\text{LOG (OR)} = \ln(\text{OR}) = X_{it}^{'}\beta \tag{2.7}$$

When, P_i varies between 0 and 1, (OR) will vary between '- ∞ and + ∞'. (OR) 'Tells how many times higher the odds of y = 1 is if x_1 increases by one unit' and 'LnOR tells us how much the logit increases if x_1 increases by one unit' (Mood, 2010, p.68). The estimated coefficients of regressing the explanatory variables on the left hand side binary dependent variable, is the percentile point change in the LOG (OR) ratio of dividends' propensity for each point increase/decrease in the explanatory.

2.6.2. Model Design with application of Fama and Macbeth (1973) methodology

The simple baseline model of the relation between the propensity to pay dividends and firm characteristics is;

$$y_{it}^{*} = \ \beta' \ X_{it} + u_{it} \tag{2.8}$$

Where, (y_{it}) is an observed variable, while (y*) is not; (y = 0) if (y* = 0), in case the firm did not give dividends during the year, but (y = 1) if (y* > 0), in case the firm did give dividends during the year; (X_{it}) is a vector of random regressors and u_{it} is the disturbances

and expected to be independent from X_i (Goergen *et al.*, 2005 and Mood, 2010). The following logit model is estimated, with the aim of knowing whether the likelihood of paying dividends depends on the previously proposed determinants (i.e., firms characteristics);

$$DIV_{it} = F\begin{Bmatrix} \text{ROA, AGR, FSIZE, VOL, BLOC,} \\ \text{INST,} \frac{\text{RE}}{\text{TE}}, \frac{\text{CASH}}{\text{TA}}, \text{LDIV} \end{Bmatrix} \quad (2.9)$$

DIV_{it} = the probability of paying dividends, which sets to unity (1) for dividends-paying firms, and to none (0) for non-dividends paying firms. Then, the logit model will be estimated is;

$$\boldsymbol{DIV}_{i,t} = \alpha_0 + \beta_1 RE/TE_{i,t} + \beta_2 INST_{i,t} + \beta_3 ROA_{i,t} + \beta_4 FSIZE_{i,t} + \beta_5 AGR_{i,t} + \beta_6 VOL_{i,t} + \beta_7 BLOC_{i,t} + \beta_8 CASH/TA_{i,t} + \beta_9 LDIV_{i,t-1} \quad (2.10)$$

Consistent with Bhattacharya (2016), Coulton (2009), Coulton and Ruddock (2011) and DeAngelo et al. (2006), Fama and MacBeth's (1973) technique is used, using multivariate logit models, as follows: first, one cross-sectional logit model (199 firms) is estimated for each year (1996-2011) over 16 years to form a column of the estimated coefficients for each independent variable. Second, the estimated coefficients (fitted values from step one) are averaged across the 16 years to form one average coefficient. After that, the time-averaged coefficient is used to calculate the t-statistic, using the following formula (t-statistic = the time-averaged coefficient over the standard error of the obtained column of coefficients):

$$R^2 = \mu * (\sqrt{16}/STDEV(X_t))$$

Where, (μ) is the time-averaged coefficient; ($\sqrt{16}/STDEV(X_t)$) the standard error, i.e. standard deviation of the obtained column of coefficients ($STDEV(X_t)$) over, ($\sqrt{16}$) the square root of 16-year.

2.7. RESULTS AND DISCUSSION

2.7.1. The Determinants of the propensity of the firm to Pay Dividends

This section examines the determinants of the propensity of the firm to pay dividends excluding leverage and blockholders and institutional ownership, using the logit model and Fama and Macbeth's estimates. The main determinants, as presented in the preceding sections, are growth, profitability, and size. Table 2.5 illustrates the time series of average coefficients and t-statistics for AGR, SGR, M/B, RE/TE, RE/TA and TE/TA over 16 years using logit estimates with Fama and Macbeth's style. Table 2.6 replicates the tables of prior studies that applied Fama and Macbeth's (2002) estimation technique[19]. In line with DeAngelo et al. (2006) and Fama and French (2001), reported t-statistics are unadjusted for serial correlations and based on the null hypothesis that the expected coefficient is not significantly different from zero. The table has 12 models with different numbers (1-3) and letter symbols (a-d). The suffix 1-2-3 denotes the use of AGR, SGR and M/B, respectively. Models with letters add a. (profitability + size + growth), b. (TE/TA), c. (RE/TE) and d. (RE/TE and TE/TA).

The findings are robust to different specifications added in the logit models, indicating that the propensity to pay dividends depends on profitability, growth (unless M/B is used as a proxy for growth), and size and on the capital structure (internal versus external capital). The findings are similar to Fama and French's and DeAngelo et al.'s findings in that the decision to pay or not pay dividends is positively and significantly related to ROA and insignificantly to AGR, but insignificantly negatively associated with SGR. The results of SGR are mixed and indicate a positive correlation when TE/TA is included, but a negative correlation when only RE/TE is added. In addition, the relation between RE/TE is 'systematic' for all logit models. However, it is significantly negatively correlated with M/B. This result is conflicting. M/B appears to be negative but significant in favour of large firms. The sign of growth is expected, but not with M/B, as small firms should have a higher ratio. One exception is that TE/TA became statically insignificant after including M/B in the generalised regression. M/B as a measure of maturity based on growth prospects and TE/TA as a measure of maturity based on the capital structure (equity- or debt-financed firms) of the firm emphasise the fact that capital structure of the firm is more important than the level of equity of the firm. In addition, all of the robust results are driven by the capital structure, rather than retained equity ratios in the GCC context (DeAngelo et al., 2006).

[19] Tables (2.4) reports t-statistics that is unadjusted for serial correlation.

2.7.2. The propensity of the Firm to Pay Dividends

With the aim of knowing whether a firm's characteristics have an influence on the propensity to pay dividends among GCC firms, the logit model is estimated with Fama and Macbeth's methodology, adding more determinants in the regression estimate. Prior values of the firm-specific variables are applied to mitigate the impact of endogeneity problems and unobserved time-invariant variables. Table 2.7 shows that, after controlling for the endogeneity issue, the profitability (L.ROA), size (L.Fsize), growth (L.AGR), retained earnings (L.RE/TE), ownership structure (L.BLOCK & L.INS) and leverage (L.VOL) are now statically significant at the 1% level. However, cash to total assets and lagged level of dividends are insignificant.

2.7.2.1. Results of Dividend and Profitability

Table 2.7 shows that the relationship between ROA and the decision to pay dividends is significant and positive, suggesting that the propensity of the GCC firms to pay dividends, as coded by 1 for dividend-favouring and 0 for non-dividend-sponsoring firms, depends on the financial health of the firm. The result is on the side of the life cycle theory and free cash hypothesis, implying that profitable companies are more inclined to pay out dividends to address agency costs of free cash flow in the wallet of the firm's insiders. The results ($t = 9.817$, $p < 0.01$) emphasise that the decision of whether to pay, however, depends on the financial life cycle of the firm. The results support HI, which states that 'In line with the free cash flow and agency cost hypotheses, profitability increases the propensity of the firm to pay dividends'. Kumar and Waheed (2015) also revealed a positive statistically significant relationship between dividend payout and profitability, as a way of warding off the adverse effects of agency costs linked to the reputation of the firms. Similar results were found by Al-Kuwari (2009) and DeAngelo et al. (2006).

2.7.2.2. Results of Dividend and growth

As shown in Table 2.7, after taking into account endogeneity concerns (by the one period lagged regressors), the growth is statistically significant and negatively related to the propensity of the GCC firm to pay dividends. In Table (2.7), growth was positively correlated with dividend policy in the GCC. One practical explanation for the positivity is that asset growth can be used as an indicator for performance, before controlling for other factors, which confirms that larger firms performed well through their life cycle. Another

rationale is that retained earnings drove the direction of the relationship, rather than the growth level of the firm. Provided that asset growth reflects future rather than current prospects, larger firms have lower future growth rate, which is in line with the main prediction of this study. The inverse direction of the relationship is compatible with the philosophy of life cycle theory as well.

As shown in prior tables, asset growth is insignificantly positively associated with dividend decisions; however, after controlling for historical dividends and cash/TA, there is a strong negative impact on the propensity to pay dividends among GCC firms. The results ($t=-0.214$, $p<0.01$) are consistent with both life cycle and free cash flow theories, which assume that smaller firms with higher expansion options are less inclined to pay out dividends than bigger and more profitable firms with lesser growth options. The results also support H2.2, which states that In line with life cycle theory, the effect of growth opportunities on the propensity of the firm to pay dividends is negative'. Furthermore, the results are consistent with Fama and French (2001), Tahir and Mushtag (2016), who found growth opportunities, as proxied by investment opportunities, to be inversely related to dividend payout, since companies focus on expansion and long-term profits rather than short-term outcomes.

2.7.2.3. Results of Dividend and size

As illustrated in Table 2.7, a possible increase in the size of the firm would imply a positive increase in the possibility of dividend payment. Size significantly differs from zero at the 1% level, suggesting that the size of the GCC firm is a determinant of its dividend policy model. This result is compatible with the life cycle theory, and confirms H3, which states that '*In line with the agency cost and life cycle theories, the impact of firm size on the propensity of the firm to pay dividends is positive'.* Evidence from the GCC by Mehta (2012) concurs that firm size has a statistically significant positive relationship with dividend payout. Thus, based on the hypotheses under the agency cost theory, small firms are inclined to prefer low dividend payouts. A similar conclusion was drawn by Manneh and Naser (2015), who inspected firms from different industries listed in the Abu Dhabi Securities Exchange.

Table 2.6. Logit analysis of the decision to pay dividends, using Fama and Macbeth approach, as a function of the ratio of RE/TE, RE/TA, TE/TA and control variables.

Table 2.6 shows time series of average values of the yearly, over 16 years from 1996 to 2011 (one logit model for each year), cross-sectional (199 non-financial non-utilities listed firms in GCC) logit models fitted coefficients in the left hand side. Also, presents t-statistic of each average value of fitted coefficients, calculated using the Fama and French's (2002) formula in the right hand side. The reported t-statistics are unadjusted for serial correlations and based on the null hypothesis that the expected coefficient is not significantly different than zero. M1-M3= AGR, SGR and M/B, respectively. Growth (Investment) prospects are the growth rate in assets (AGR), as measured by the change in overall assets over the value of prior year, whiles the growth rate in sales (SGR) is defined as (sales t / salest-1) in logarithmic form. The ratio of market to the whole book value (M/B) equals the market value of equity add book assets take away book equity, all scaled by overall assets. The (RE/TE) that equals to retained earnings scaled by the overall book value of common equity capital, and reserved equity to overall assets (RE/TA) are used as proxies for the firm's life-cycle. M1, M2 & M3 denotes three different measures of growth (AGR, SGR and M/B), respectively. Whereas, (a-b-c-d) suffix denote adding additional indicators; a. (profitability + size + growth), b. (TE/TA), c. (RE/TE) and d. (RE/TE and TE/TA), respectively. (*) Denotes statistical significance at the 1% level.

Model	**A**verage **c**oefficient						**t**-statistic						
ID	**R**E/**T**E	**T**E/**T**A	**R**OA	**G**rowth	**S**ize	**I**ntercept	**R**E/**T**E	**T**E/**T**A	**R**OA	**G**rowth	**S**ize	**I**ntercept	R^2
M1a			9.707	0.156	0.302	-2.427			7.202*	0.555	7.559*	-7.354	0.257
M2a			9.832	-0.029	0.303	-2.408			7.356*	-0.221	7.158*	-7.157	0.285
M3a			10.030	-0.290	0.275	-1.892			7.338*	-4.962*	6.717*	-5.454	0.343
M1b		0.954	10.249	0.177	0.325	-3.234		2.667*	6.404*	0.619	7.423*	-5.825	0.256
M2b		1.002	10.412	0.000	0.333	-3.290		2.728*	6.441*	-0.003	6.933*	-5.630	0.265
M3b		0.821	10.546	-0.224	0.306	-2.724		2.278*	6.619*	-4.231*	6.386*	-4.449	0.455
M1c	0.834		8.201	0.114	0.299	-2.626	7.987*		6.578*	0.417	7.251*	-7.601	0.266
M2c	0.896		8.157	-0.024	0.299	-2.616	7.448*		6.915*	-0.191	6.918*	-7.343	0.292
M3c	0.810		8.533	-0.212	0.280	-2.228	6.870*		6.835*	-3.254*	6.524*	-5.921	0.431
M1d	0.816	0.795	8.798	0.140	0.318	-3.302	7.436*	2.073*	5.739*	0.497	7.057*	-5.556	0.267
M2d	0.900	0.880	8.842	0.002	0.325	-3.403	6.602*	2.118*	5.824*	0.012	6.593*	-5.212	0.284
M3d	0.809	0.726	9.051	-0.153	0.307	-2.972	6.666*	1.876	6.067*	-2.586*	6.166*	-4.503	0.399

2.7.2.4. Results of Dividend and leverage

Table 2.7 shows that the leverage of the firm is significantly inversely related to the propensity to pay dividends at the 1% level. The results ($t = -0.134$, $p < 0.01$) are consistent with the signalling hypothesis, which suggests that changes in dividend policy can be viewed as signals for positive or negative outcomes in the company (Zare et al., 2013). This result, which contradicts H2.4 indicates that GCC firms are reluctant to pay dividends in cases when losses in net profits are accumulated and earnings fluctuate, which in turn renders their ability to maintain the same level of payments in the future.

2.7.2.5. Results of Dividend and Ownership

Table 2.7 shows that the propensity of the firm to pay dividends is significantly negatively related to blockholders' ownership at the 1% level of significance, but significantly positively related to institutional investors at the 1% level, which contradicts expectations. The results ($t = 1.973$, $p < 0.01$) partially support the agency theory that implies the appearance of blockholders in the firm owner's statement magnifies their observing role and their disagreements with minority shareholders (Nguyen et al., 2014); thus, the greater the monitoring by controlling shareholders, the less the use of internally generated sources to pay out dividends. The findings contradict both H5.1 and H5.2. Moreover, the results suggest that, among GCC firms, the higher the number of shares owned by blockholders, the lower the propensity to pay out dividends. As proposed in the literature, dividends propensity is negatively related to the presence of blockholders, who are against agency costs and in favour of dividend payments.

However, blockholders in the GCC are more likely to be family or the state itself, who tend to own stocks through the pyramidal web (Fan et al., 2011), which gives them the ability to control (Claessens et al., 2000) and to dissolve minority owners' wealth (Fan et al., 2011). It has also been argued that this situation makes dominant shareholders powerful, strictly speaking, and makes the minority weak (Maher and Anderson, 1999). Bethel, Liebeskind and Opler (1998) found that the presence of blockholders resulted in the reduced possibility of takeovers and mergers and increased stock repurchase. However, of importance is the monitoring effect, whereby the dividend policies are based on the interests of the blockholders. These results are inconsistent with Gonzalez et al. (2017), who found that ownership concentration increases dividends paid.

Table 2.7. Logit Regression estimates of the propensity of the Firm to Pay Dividends, with Fama and Macbeth (1973) statistical methodology

The table provides the results of running yearly Logit models with Fama and Macbeth (1973) statistical technique to annual unbalanced panel data for 199 non-financial non-utilities firms over 1996-2011. **The dependent variable is dividends**, coded to (unity=1) if a firm paid dividends in a given year and to (null=0), otherwise. Following Chen et al. (2017), all variables are lagged by one year to control for endogeneity concerns. The average estimate of coefficients is presented in the table with the sign of significance attached to and t-test statistics results are in parenthesis. For variables definition see (section 2.6.2), which are summarized in table (2.1). R^2 is the average pseudo-R^2 for the 16 annual Logit regressions.

Dependent **V**ariable: Dividends

Independent variables	**A**verage coefficient b/(t)
L.ROA	9.817*** (5.67)
L.AGR	-0.214*** (-2.75)
L.FSIZE	0.337*** (6.00)
L.LEV	-0.134*** (-3.46)
L.BLOC	-1.910*** (-4.98)
L.INST	1.973*** (3.84)
L.RE/TE	0.780*** (5.76)
L.*CASH*	0.021 (0.68)
LDIV	0.341 (1.95)
Intercept	-1.350 (-0.74)
R^2	0.27
No. of Firms	199
No. of Observations	2423

Table 2.7.b. **R**esults of marginal effects

Dependent variable: Dividend payout ratio	
Independent Variables	
L.ROA	0.030*** (5.73)
L.AGR	-0.008** (-2.52)
L.FSIZE	0.002 (0.87)
L.VOL	-0.005** (-2.25)
L.BLOC	- 0.003*** (-3.07)
L.INST	0.010*** (3.34)
L.RE/TE	0.022*** (3.18)
L.*CASH*	0.011 (0.87)
LDIV	0.21 (1.36)
No. of Firms	199
No. of Observations	2423

The asterisk ***, **, and * denotes that the coefficients are statistically significant at 1%, 5%, and 10% level, respectively.

In contrast, the higher the shares owned by institutional investors, the higher the propensity of a firm to pay out dividends. The outcome is consistent with Crane et al. (2016), who found that the dominance of institutions over the boards of firms, in which they own a large stake of shares, has a strong impact on increasing the dividend payout ratio, especially in firms that are expected to suffer from agency problems. Furthermore, they are also a function in the governance model that reduces agency costs (Jensen & Meckling, 1976). This result is compatible with the idea that institutional shareholders like to invest in profitable firms since they are more likely to pay dividends. Han et al. (1999) explained that the 'tax preference hypothesis' and the 'tax clientele effect' are two facets of a positive coin that appreciate the institutional investors; however, the GCC region was tax exempt during the period of study. The outcome indicates that institutional investors have more influence on corporate decision-making processes in the GCC than expected, since they have more financial resources at their disposal, and they tend to hold larger individual stakes in the companies. Khan (2005) concurs, with the findings that institutional ownership results in a higher payout. As bank-centred countries (Sourial, 2004), institutional shareholders have a close relationship with managers of the firms they are investing in. Thus, they are able to steer the wheel of the firm's strategies, given the

fact that they are short-term investors and prefer dividends to future capital gains, causing a positive relationship, which ultimately increases dividends.

2.7.2.6. Results of Dividend and Retained Earnings

The result displayed in Table (2.7) are compatible with the life cycle theory, as proposed by DeAngelo et al. (2006) and Fama and French (2002), who found that firms' tendency toward paying dividends is uniquely based on the fraction of overall equity that is 'earned versus contributed'. The result ($t = 0.780$, $P < 0.01$) strongly indicates that retained earnings explain the variation in the dividend policies of GCC firms. These findings support H6. So, firms that retain more equity are more inclined to pay dividends, as postulated by life cycle theory. The result supports the findings of Tariq et al. (2014), which revealed that the presence of retained earnings is an indicator that a company is in the growth phase of the life cycle stages. From previous results, it can be confirmed that GCC firms that pay dividends are in the growth stage with an ample amount of retained earnings, and they have fewer investment opportunities, thus are the best nominees to pay out dividends.

2.7.2.7. Results of Dividend, Cash holdings and historical dividends

From Tables 2.6 and 2.7, it can be seen that, although GCC firms tend to hold cash regardless of their stage of development in the life cycle chart, a significant relationship was not discovered between cash balances and willingness to pay out dividends. This result supports DeAngelo et al. (2006) that the tendency of remunerating dividends is not related to cash level, and supports Al-Kuwari (2009) in that dividends from prior years are irrelevant to GCC dividend policy. The results ($t = 0.021$, $p > 0.1$) are inconsistent with cash flow theory, which states that firms with higher cash flow tend to distribute dividends to reduce potential sources of agency-principle conflicts. The findings contradict H7. The findings contradict the conclusions of Kouser et al. (2015), who found that most dividend policies are developed around ensuring sufficiency of cash flows, which implicates a variety of behavioural and economic factors in dividend payout norms. According to Baum et al. (2009), cash balances of a firm increase or decrease as the risk (governance) of the firm rises or declines, respectively.

2.7.2.8. Results of Marginal effects of the choice to pay dividends

Table 2.7.b reports the marginal effects results obtained from the firm's choice to pay dividends, evaluated at the mean values of each explanatory variable. From the table

(2.7.b) it can be seen that, the ROA, as a measure of profitability, has a significantly positive effect on dividend payouts. A 1% increase in the firm ROA is associated with, about 0.03 percentage points, increases in the probability of paying dividends. Second, the (Fsize), size of the firm is insignificant. Third, Growth opportunities as measured by AGR, institutional ownership, and RE/TE has a positive and significant impact on dividend payouts. Finally, LEV and Blockholders ownership (BLOC) have a negative and significant impact on the probability of the firm to pay dividends.

The positive impact of profitability and firms with growth opportunities supports the findings from the previous chapter that healthy firms enjoy better access to relatively low-cost credit. The results also support the life cycle theory, where retained earnings positively impact the payment of dividends. The impact of ownership structure on dividend policy shows that blockholders prefer firms that do not pay dividends, this supports the agency cost theory. In contrast, institutional investors prefer to receive dividends, which is consistent with the view that they regard dividends as indicators of firms' financial strength. Institutional investors act as short-term investors rather than owners of the company, and consequently look for current income rather than future earnings.

2.8. CONCLUSION

This paper has re-examined the determinants and the probability of dividend payments in Gulf Co-operation Countries and scrutinised the firm characteristics of nonfinancial nonutility dividend-paying firms versus non-dividend-paying firms. More specifically, it has tested whether life cycle theory explains the dissimilarity between GCC firms' payout policies. In this chapter, the determinants of dividend policy for GCC listed nonfinancial nonutility firms have been examined over the period of 1996-2011, using the logit estimator with Fama and Macbeth's (1973) statistical techniques. The results confirm that the determinants of dividend policy are similar to the recommended factors found in previous studies that examined firms in different countries and in different time spans. Thus, there is generalisation among the dividend policy literature, meaning that the results drawn from advanced markets can be extended to emerging markets. Exceptions include the type of owner of the firm, historical dividends, and the cash balances of the firm, as these results were not as expected.

The main finding of this chapter, as expected, is that mature firms that are larger in size, more lucrative, and have fewer growth opportunities are more inclined to pay dividends than small firms that are in the early ambit of their life cycle. Size of the firm is

a determinant that increases the tendency of GCC firms to pay out dividends. Compatible with the hypotheses beneath the agency cost and life cycle theories, less developed firms are inclined to prefer lower dividend payouts. More importantly, concentration of ownership can be replaced with dividends to reduce agency costs. Dividend-paying firms that are owned by institutional investors are more likely to pay out dividends than those firms owned by blockholders, who possess power (control rights) over the management team and may lower the proportion of dividends paid out for their benefit. The results indicate that the institutional features of GCC have a large bearing on the likelihood to distribute dividends.

Although the general competitiveness of the GCC country has dropped at the beginning of this year, according to The Global Competitiveness Report (GCI) issued by the World Economic Forum in 2017, the firm-level competitiveness in such markets is high, since well-established and less-established firms are both striving for new profitable investments. The significant negative relationship between growth in net assets and the propensity to pay dividends is attributable to the fact that the small firms' cash balances provides adequate funds for investment in opportunities that were not possible when the company had lesser cash flows. Interestingly, cash balances and historical dividend patterns have no impact on the tendency to pay dividends in GCC markets, owing to the fact that high cash and growth with low retained earnings indicate firms with apparent agency issues. Hence, it is more likely that GCC firms pay dividends from their savings rather than from their cash accounts. Ultimately, neither the availability of cash nor agency concerns affects the dividends propensity of firms. As proposed in the literature, the dividend's probability is negatively related to the presence of blockholders, who are normally against agency costs and in favour of dividend payments. Being said, blockholders or major shareholders are more likely to be family or state, which incline to possess stocks through the pyramidal holdings structure. This attributes to the properties attached to this type of ownership, which allow them to extract minority shareholders wealth (Fan et al., 2011).

However, firms with higher cash flow but lower growth rate have higher agency costs, which is the case for the dividend-paying firms in the GCC. It seems that GCC firms tend to return more dividends to moderate such agency problems, regardless of future investment opportunities, due to a weak market for corporate control (Al-Kuwari, 2009). However, a challenge arises when these huge cash flows are available on an intermittent basis. The results indicate that the propensity to payout dividends is inversely related to

fluctuations in earnings. This is why such a company would prefer to smooth out its dividend payouts to finance payouts when cash flows fall below average.

On the other hand, the findings reveal that retained earnings, operationalised as the ratio of retained earnings over shareholders' equity capital, are a predictor of dividend policies in the GCC. The relationship is attributed to the availability of such retained earnings to finance dividend payouts, which reduces the possibility that the firm has to use other costly sources of finance. To conclude, the outcome is linked to the need to reduce agency costs among small firms that have huge balances of cash and low growth options, but do not pay out dividends, such as the need for increased government regulations influence (i.e. to protect minority shareholders), as well as maintaining the reputation of the firm. Finally, GCC firms are no different in terms of preferences of capital structure and dividend policy when selecting sources to finance dividend payouts. In the future, more firm-year observations, different segregations (sectors and industry), and country-specific factors should be considered. In addition, different estimation techniques, and specifications using different measures of dividend policy (such as earnings-based) should be examined.

CHAPTER THREE

CORPORATE GOVERNANCE STRUCTURE AND FIRM PERFORMANCE: EVIDENCE FROM GCC FIRMS

3.1. INTRODUCTION

It is believed that the Asian financial ripples of 1997-98, followed by 2008 global financial woes, are largely attributable to the weaknesses of the corporate sector and its legal system (Al-Malkawi & Pillai, 2016 and Mitton 2001), which depleted national and overseas investors' confidence in emerging markets (Johnson et al., 1999; and Sutthirak & Gonjanar 2012) and kept the issue in the headlines in Anglo-Saxon countries (Claessens & Yurtoglu, 2013; and Thao & Daly, 2012). In addition, these collapses have exceedingly exacerbated the importance of CG, especially in countries with poor internal and external CG settings (Joh, 2003) and those with weak legal foundations for property rights, where the vulnerability of minority shareholders to expropriation by dominant insiders (managers and controlling shareholders) and outsiders is great (La Porta et al., 2000).

There is widespread concurrence on the idea that quality CG results in positive shareholder's value and improvement in performance. This positive relationship is reported across a variety of governance standards around the globe and is not influenced by the metric or performance indicators that are used as a proxy for stakeholder value and CG.

According to Jensen and Meckling (1976), the agency theory is a predominant model for explaining CG, but it lacks some aspects of the practices from a cross-national perspective. The cross-national factors, as discussed by Alimehmeti and Paletta (2005), Bedo and Acs (2007) and Schultz et al. (2010), indicate that in locations where the role of shareholders is secondary, such as situations in which the most prominent corporate structure is comprised of government and family ownership, the existence of conflict of interest is limited, thus eliminating the agency problem, as well as the need for CG (Thrikawala et al., 2006 and Wintoki et al., 2012). Based on the theory, CG is influenced by the manner in which the management teams design strategies to ensure that they overcome and avoid conflict of interest with the investors (Mizuno and Shimizu, 2015).

However, the extent to which this conflict of interest is viewed as a fundamental concern depends on the characteristics of the legal frameworks in place. Normally, the strictness with which the legal frameworks relating to the conflicts of interest and their effects are enforced differs based on the availability of resources. As a result, the role of the government institutions and the efficiency with which they influence CG and conflict of interest introduces a third variable to the agency problem, in addition to original variables: the interests of the shareholders in relation to wealth maximisation (Khamis et al., 2015) and the choices of the management boards (Hutchinson et al., 2015). Consequently, when combined with the agency theory, the resource dependency hypothesis validates common practices in that large institutions have a greater tendency to focus on the agency problem than small institutions.

The body of literature on firm performance is enormous, although most of the research focuses on specific variables, periods or methodology. One important challenge in studying the firm performance-CG relationship is how to deal with the causality problem, which can simultaneously run from one variable to another, called 'simultaneous causality' (Brown et al. 2011). Simultaneity and heterogeneity (unobserved firm-specific characteristics) are two potential sources of endogeneity problems (Roodman, 2009; Wintoki et al., 2012). Harris and Raviv (2008), as well as others, theoretically argue that the ownership-performance relationship is 'dynamic by nature'. That is a new pitfall, namely, the 'dynamic endogeneity' (Nguyen et al., 2014; Nguyen et al., 2015; Wintoki et al., 2012).

A range of papers have contributed to the literature of CG and explored linkages between CG and many disciplines, scrutinising all traditional questions addressed by scholars. Frequently examined questions by scholars include: does CG impact firm performance? If so, how? Through which channels does CG matter? This study aims to re-examine the nexus of CG and firm performance in the context of oil-rich countries, namely Gulf Cooperation Council (GCC) countries.

There are several reasons to study the ownership-performance connection in the Gulf region, as it has not yet been studied. First, theories in developed countries are different from those of developing countries (Ahunwan, 2003; Heinrich, 2002).

Second, although 'dual class shares' or 'cumulative-voting shares' are signals to the strength of the legal protection of minority investors (Puig & AL-haddab, 2013), 1 (vote): 1 (share) can help to compute the direct real ownership intensity (Maher and Anderson, 1999). In the GCC, all shares are contingent on 'buy one share, get one right to vote' (Puig & AL-haddab, 2013), which would make the GCC a perfect platform for such research.

Third, GCC countries are consistently improving their regulations pertaining to shareholders' rights; however, the shareholder's environment remains unhealthy (Hertog, 2013). They are still less-developed markets (Allen, 2005 and Claessens & Yurtoglu, 2013), with weak private markets (Hertog, 2013). More importantly, GCC markets are tagged by highly intensified ownership (Jara-Bertin et al., 2015), dominated by the control of family and state (GCC Board Director Institute, 2011; AL-Yahyaee et al., 2017), and most of the listed companies' board seats are occupied by family members and their social ties (Hertog, 2013), besides, a low institutional ownership, and mergers and acquisitions (Hertog, 2013; Jara-Bertin et al., 2015).

Fourth, most of the studies from the GCC have concentrated on within-firm differences in investigating firm performance and underestimated the importance of country factors. Therefore, not only has the institutional uniqueness of the GCC motivated this study, due to the inefficiency of institutions in emerging markets (Ngobo & Fouda, 2012), but also their respective mixed legal systems, political stability and governance quality, which could impact the firm behaviour of these countries. Last, and more importantly, is that the shortage of historical data pertaining to CG practices in the GCC leads to manual data collection. Doing so is difficult and time-consuming. Black et al. (2014) suggest compounding data from several markets with at least one market with full information, which is what this paper aims to do. Collecting the unavailable data manually helps uncover these markets that were neglected for many years.

The limitations of prior studies that are voided in this study are that: (i) most of the research from the GCC has focused on one country or one sector; (ii) few years were covered due to a lack in historical data availability (Al-Malkawi et al., 2017), resulted in excluding one of the six Gulf countries from the study; (iii) the fact that the relation is 'dynamically endogenous by nature' was ignored in constructing the economic estimations using traditional approaches such as OLS, FE or interview/survey, which produced unreliable, biased results and inappropriate causal inferences (Nguyen et al., 2015, Roodman, 2009); (iv) they investigated firm-level governance, neglecting the effect of country's governance quality; and (v) constructed an index to study the quality of CG in the GCC region. These limitations are perceived as influencing the nature of the conclusions and results, which is why this study is expected to provide a deeper and clearer appreciation of the factors that influence CG.

To the best of the author's knowledge, there are three recently completed studies, which took into account these limitations, but they differ from the scope of the current study in several ways. They used different estimation approach and proxies for ownership structure, which deviate from the assumptions and conclusion of the current study. For

instance, Zeitun and Al-Mudehki (2014) investigated the ownership-performance nexus on non-financial publicly listed firms on the Doha Exchange over the period of 2006-2011, using four different classifications for ownership concentration. The generalised least squares (GLS) random model was applied to obtain their empirical results, which did not eliminate potential sources of endogeneity.

Similarly, Al-Malkawi and Pillai (2016) and Ismail and Abdallah (2017) also used conventional methods by constructing an index and using 'behavioural assessment score for investors and corporations' (BASIC), respectively. BASIC scores were obtained from 'The 2008 and 2009 National Investor-Hawkamah' report. These pre-designed indices are outdated, which makes the assumptions and results questionable. Dalwai et al. (2015), who critically reviewed the studies that have been conducted in the GCC, concluded that most of the studies are one-dimensional, including one sector or industry, covering few years, and not measuring the impact of other governance practices on firm performance. He suggests covering at least five years along with business environment factors to be considered in future research.

To this aim, the current study consists of CG firm-level data that were hand-collected for more recent information and extracted from the annual reports of all GCC listed firms over a period of six years. Furthermore, country-specific governance data were included to control for cross-country institutional variations and to allow for comparison with prior studies that controlled for country-level factors, such as those applied by Nguyen et al. (2015), Omran et al. (2008) and Wintoki et al. (2012). In line with above-mentioned studies, governance, economic and financial development, and legal environments have been controlled for, namely economic freedom, government effectiveness, political stability, and rule of law. As a result, this study provides a comprehensive analytic up-down approach, i.e., country-level to firm-level, for six GCC markets, where the economic, political and sociocultural norms differ from what is experienced in developed and other less-developed economies.

Therefore, this study uncovers the impact of internal (ownership concentration) and external (national-governance quality) governance frameworks on firm performance. According to Wang and Shailer (2013), the to-date findings from emerging markets are not valid. This study consists of all industrial non-financial large to small companies that are listed on the GCC exchange from 2008 to 2013. In particular, this paper re-examines the impact of CG mechanisms adopted by listed firms in the GCC, with a special preference for the effect of concentrated ownership structure of the firms on their performance, as measured by Tobin's Q. More precisely, the dynamic model that takes all challenges previously discussed into account is employed.

The remainder of the paper is structured as follows. Section 2 provides a review of the GCC CG framework. Section 3 represents GCC Corporate Governance framework, while section 4 reviews prior research from developed and developing economies in the purport of agency theory, with a special focus on the relationship between internal governance structures and firm performance to develop the research hypotheses. The empirical framework, economic methodology and model, data selection and data sources are described next, while Section 6 presents the results and discussion. Finally, Section 7 contains a brief statement of the main conclusions and limitation of this study.

3.2. CORPORATE GOVERNANCE

A Theoretical Review

Corporate governance is the collection of rules, processes and practices that firms adopt to enhance direction and control (Bhasa, 2004; Heath & Norman, 2004). These processes enhance the balance of stakeholder interests within a company, including the management, customers, suppliers, investors, shareholders, regulatory institutions, and the community in general. There is extensive evidence that CG influences performance. Marchini et al. (2018) found that, in line with the contingency perspective, CG influences related-party activities that positively mediate the performance of the firm. Elloumi and Gueyie (2001) compared the effect of CG on financial distress through a comparative study between 46 directors from financially healthy firms and a similar number from firms in financial distress. The results indicate that the composition of directors is an indicator of the propensity of firms to face financial distress. Afrifa and Tauringana (2015) found that the fundamental determinants of CG, such as the size of the board, age and tenure of CEOs and the remuneration of directors influence the performance of firms. Despite the overwhelming evidence that CG improves performance, Peris et al. (2017) and Rubach and Picou (2005) indicated that the positive effects of CG on performance can be attributed to the 'bandwagon effect', whereby firms follow a similar set of practices, rather than CG practices influencing firm performance.

Dalwai et al. (2015) identified the pillars of CG as accountability, transparency, leadership, management of stakeholders, fairness, and assurance. In contrast, Wintoki et al. (2012) argue that CG is comprised of eight elements, including accountability, inclusiveness and equity, transparency, efficiency and effectiveness, responsiveness, rule of law, orientation towards consensus, and equitable participation. Although the existing literature has not categorically classified the pillars based on importance, there is a generalised concurrence that the application of the four core principles is an integral

foundation for CG, including fairness, responsibility, transparency, and accountability. Bhasa (2004) attributes the differences in the core principles across time and space to the socio-cultural and technological dynamics that facilitate achievement of targeted objectives. For instance, technology, which has enabled improvement and reliability in communication, has elevated the imperativeness of transparency and accountability among corporations.

Carney et al. (2010), who studied CG from the stakeholder and agency theory perspective, argue that the intra-stakeholder conflicts and the functional characteristics of the agency problem manifest differently under the various forms of governance. As a result, to limit deviation from the norm and to create system-wide solutions, it is imperative for institutions within a specific industry or country to adopt a specific CG system that limits the deviations from the established norms. In support, Vaudev (2012) highlights the emerging prominence of the stakeholder perspective in CG, whereby firms become increasingly aware of the interests of the various stakeholders. Heath and Norman (2004) argue that the expanded and more-inclusive view of the current stakeholder perspective, whereby non-shareholder groups are included, creates novel challenges in CG.

Although the study by Heath and Norman (2004) relates to state-run entities, it provides key insights into the conceptualisation of CG. Based on the conclusions, firms that adopt a narrow concept of CG run the risk of failure to maximise shareholder value and related obligations. On the other hand, over-commitment through a broad approach makes it more challenging to impose the necessary discipline among management teams, thereby amplifying agency costs. As a result, moderation on CG, and specifically corporate social responsibility, is an integral constituent of institutional feasibility.

The discourse on CG is closely linked to the interventions introduced following the collapse of key corporations in the US, including Enron and WorldCom. According to Vinten (2002), the failures at Enron led to increased public interest in the activities of managers by a variety of stakeholders and interested parties, as well as regulation of the auditing and reporting mechanisms. Zandstra (2002) further argues that the case of Enron revealed the dimensions of weaknesses and the potential loopholes that management teams tend to exploit. By so doing, the role of CG mechanisms such as accountability, independence, and transparency were contextualised into the institutional frameworks.

Similar perceptions are shared by Dibra (2016), who indicates that CG practices are designed to ensure that external control guarantees accountability among the managers, beyond what stakeholders can achieve. This is based on the assumption that agency problems persist within corporations. However, this is not necessarily the case, as explained under the stewardship theory.

According to Subramanian (2018), based on the stewardship theory, managers do not display opportunistic tendencies when making decisions on behalf of the shareholders. Managers show high levels of intrinsic motivation to achieve corporate performance goals, even when left on their own. As a result, when presented with the choice between pro-organisational conduct and self-serving actions, the managers will place higher emphasis on pro-organisational cooperation that is modelled around optimising the welfare of the shareholders (Fox & Hamilton, 1994).

Martin and Buttler (2017), who investigated the difference between agency and stewardship theories, indicated that managers' actions can be perceived as existing in an 'agent-steward' continuum, which further influences the performance of the company. Budiarso et al. (2018), who performed empirical tests to determine financial accountability in Indonesia, reveals that internal monitoring mechanisms and financial reporting led the managers to display 'stewardship behaviour'. Schillemans (2013) indicates that, under the theory, when there is low power distance between the managers and shareholders, a self-regulation management approach is utilised. According to the study's findings, stewardship theory can be determined by the nature of monitoring mechanisms, types of incentives utilised, procedures within the company, preference by the management and the selection and relationships within the human resources in the company.

According to Donaldson and Davis (1991), whereas the agency theory advocates for protections of shareholders' interests due to the incumbent nature of the roles of the CEO and board chair, the stewardship theory states that the incumbency of the roles actually maximises profits for the shareholders.

3.3. THE GCC CORPORATE GOVERNANCE FRAMEWORK

Countries differ based on the economic and financial characteristics that influence the quality of CG. Of these aspects, financial development, economic growth, legal system and the degree of law enforcement have been studied in the past (Bhagat & Bolton, 2008). Broadly speaking, the institutional environment can influence the effectiveness of the CG system and the way its reform is performed (Omran, 2009). GCC's CG regulations, in general, include 12-14 parts, namely rights of shareholders, board of directors composition, company committees, internal control, the company's external auditor, shareholders' professional and ethical standards, disclosure and transparency, implementation of CG, retention of documents, and closing provisions. The aim of the regulations is to draw a sound legal framework to enhance the role of the shareholders, board, and committees, the

decision-making technique of the company, and transparency and disclosure in the exchange (CMA, 2016) 20.

However, even the CG systems differ from one GCC country to another. Saidi and Kumar (2009) clarify that GCC countries greatly vary in terms of the date of CG code adoption and the quality of the governance structure. Corporate governance is very challenging by nature, wherein countries differ relevantly to their development merits. Each Gulf country has issued its code of CG on different dates (see Table 3.1 in Appendix A3). Oman, among its GCC peers, was the first to address the shortcomings of its CG culture and promote its weak market for corporate control. Its code of CG was issued in 2002, but it was under revision until 2003. Following Oman, Saudi Arabia recognised the importance of developing sound CG codes of best practices, following international standards like OECD principles. In 2006, the Saudi Capital Market Authority (SCMA) issued CG guidelines based on the Capital Market Law, amended in 2009, 2010 and 2017 (CMA, 2017). These provisions remain partially mandatory to present. Bahrain issued its CG code in 2010, while Qatar and the United Arab Emirates issued their codes in 2009. The last country to issue its codes was Kuwait, in 2010, and it was not enforced until mid-2017. Recently, the Oman Capital Market Authority issued new governance codes in 2015, which came into force in 2016, upgrading the previous 2002 Code of Corporate Governance for Muscat Securities, Market Listed Companies. They consist of 14 codes, improving reporting and investor's protection principles. One of the main changes embodied in the new codes is limiting corporate boards to non-executive directors, imposing new rules for appointing independent directors. However, the government has placed a limit on directors' remuneration, which in turn has made the directorship position less attractive for talented, experienced directors (Patel, 2016).

The OECD (2005) performed a survey of the CG frameworks of firms in the Middle East and Africa and found that CG principles were in development but required further research. The survey addressed the emergence of the 'comply or explain' codes in several MENA nations such as Saudi Arabia, Jordan, Omar and Qatar .The survey was presented in 2005, and again in 2010, in the Arab countries to thoroughly research the progress of CG frameworks in these regions. The report concluded that MENA nations had advanced their governance approaches between the first and the second versions of the surveys.

[20] Capital Market Authority (CMA) Corporate Governance Regulations of Kingdom of Saudi Arabia https://cma.org.sa/en/RulesRegulations/Regulations/Documents/CGRegulations_en.pdf

Sound CG attracts foreigner investors and boosts foreign direct investment (Das, 2014; Dombin, 2013). In general, there are two approaches by which the CG framework of a country is determined. First, in the case of Anglo-Saxon countries, the determination of CG is based on regulations related to the stakeholders and markets. In contrast to Anglo-Saxon countries, financial institutions in developing economies, such as banks or insiders, determine the CG framework (Claessens & Yurtoglu, 2013). Adelopo et al. (2009) attribute the use of financial institutions to the fact that they are the most highly regulated types of institutions in the markets, thus making them a benchmark for CG. However, Claessens and Yurtoglu (2013) describe these classical approaches as being ineffective, since financial institutions such as banks are also susceptible to CG challenges.

Similarly, La Porta et al. (2000) argue the difficulty of classifying financial and governance systems using these conventional comparison methods, which focus on the main source of firms' financing, either from banks or markets. However, Sourial (2004) clarifies that the MENA's stock markets remain emerging and bank-centred, wherein main banks provide financing, and governance to all firms. In addition, La Porta et al. (2000) emphasise the importance of the role that legal protection of investors (shareholders and creditors) plays in distinguishing and explaining different jurisdictions. In sum, neither legal nor institutional structures should be dealt with separately when cross-country CG frameworks are subject to study because such classification is misrepresentative (Claessens & Yurtoglu, 2013) and is not useful (La Porta et al., 2000).

However, the GCC region has failed to draw a sound market for corporate control and an efficacious CG environment for many structural reasons, including the absence of private institutional, foreign investors, and regulations (Mako et al., 2011; Rocha & Farazi, 2011). The ownership structure of a listed company can be categorised in various means; however, it still considers a key element for forming the standards of GCC CG framework, regardless of country-level classification (OECD, 2015).

Most MENA firms (Hawkamah, 2014), Arab firms (Omran, 2008) and Gulf firms are controlled either by families or by the state, most of which are not listed (BDI, 2011)[21], as revealed by a report issued by the Pearl Initiative and PwC[22] (Pearl initiative and PwC, 2012). According to Saidi and Kumar (2009), family firms constitute 85% of the GCC-unlisted companies. Unlisted firms are not subject to 'comply or explain' legislation

[21] GCC Board Directors Institute's (GCC BDI) is a Gulf non-commercial organisation, founded by collaboration between four well-recognized corporations in GCC. Supported internationally and locally by consultative firms and regional regulators, namely the Emirates Security and Commodities Authority, Saudi Arabia and Oman Capital Market Authorities, the Qatar Financial Centre Regulatory Authority and the Central Bank of Bahrain. See the BDI's second report (2011) for further discussion.

[22] The Pearl Initiative, Gulf-based non-profitable organisation, established on June 2011 in participation with 'the United Nations Office for Partnerships'. It aims to prompt a quality corporate governance practices in Arab region including GCC, such as liability, disclosure, transparency, control of corruption, morals and probity.

pursuant to the provisions stipulated by Gulf CG regulations, issued by local Capital Market Authorities. As a result, they are not prone to the market forces that their counterparts (listed firms) are exposed to (BDI, 2011). On the other hand, the Gulf's market for corporate control does not operate well in monitoring managerial behaviour. Moreover, these countries are characterised by highly concentrated ownership that can moderate well-known costs of the agency resulting from the separation of the board of directors from the company's owners. All of these institutional features – the CG environment, including family and state ownership, and the absence of private institutional investors, foreign investors, and regulations – make GCC markets a particularly unique context.

In terms of ownership declaration, for all GCC countries, the regional definition of major (i.e. substantial) shareholders is shareholders owning 5% or more of the company's outstanding shares or voting rights, while controlling shareholders are those who have the ability to directly or indirectly influence the decisions of the company by owning 10% or more (for Bahrain), or 30% (for Saudi Arabia), of the voting rights or rights of appointing a managerial team. Of disclosure necessities, initiated by the GCC companies law and the capital markets law, any shareholders holding the abovementioned must declare their holdings to their respective capital market authority, and their names must be highlighted in the CG annual report of the firm. Likewise, controlling shareholders who own 30% or more of the firm's shares must be declared in the same way, along with any 1% changes to their holdings.

Most of GCC countries have a similar board of director's composition regulation. Saudi board structures' regulations were established in 2009, mandating firms to construct the majority of the BOD from non-executive directors and either two or one-third of the board's directors (Dalwai et al., 2015). Likewise, Kuwait has identical regulations in terms of board composition. With respect to non-executive directors, similar requirements can be found in all of the GCC, one exception being Bahrain, which recommends a minimum 50% of the board to be non-executive and a minimum of three independent directors. Another exception is Oman, after publishing its new code in 2015, which says the majority of the board should be non-executive directors. In contrast to Bahraini and Oman regulations of independent directors, the pronounced rule in GCC is to construct one-third of the board from independent directors. According to Saudi (CMA, 2017), board of director's regulation 'shall not be less than three and not more than eleven…and not be a member of more than five listed joint stock companies at the same time'. In addition, Bahrain chairmen and non-executive members should be entirely independent. In Qatar, only those above 21 years old who are very qualified and who own shares in the company

can be directors, in no more than 3 boards. In addition, one or more seats should be for minority and employee representatives.

The duality of CEO was introduced in Saudi CG codes in 2013; however, it was not barred. The code was revised in 2010 and recently in 2017, while merging and acquisition legislations started in 2007 and were revised in 2012. In the same vein, the duality of the board's membership is forbidden, when the CEO and the chairman are the same person, in Bahrain, Oman, Saudi Arabia, and Qatar, but not in Kuwait or the UAE. Generally, the GCC countries of Oman, Qatar, Kuwait, and Saudi Arabia have exhibited the greatest adherence to the corporate governance index (CGI) with a special emphasis on the effectiveness of the board of directors and the structural frameworks of the organisation (Al-Malkawi, 2013). More importantly, the UAE, Oman and Saudi Arabia, respectively, became the top 3 countries in terms of the quality of adopted internal governance practices, as indicated in the CGI constructed by Al-Malkawi et al. (2016) for both financial and nonfinancial listed companies. Kuwait scored the lowest among GCC countries in the same index. In the same study, Al-Malkawi et al. (2016) impute the high score of the UAE to the 2005 establishment, in Abu Dhabi, of the *Hawkamah Institute of CG*. In another study, Al-Saidi and Al-Shammari (2014) clarify that the governance practices in Kuwait are not well identified and suffer from weaknesses in accountability, defining the ownership structures, appointing of qualified independent directors, and protecting shareholders. The UAE is now a prominent leader and stands in front among its GCC counterparts, based on the statistical figures carried out by the World Bank (Ease of Doing Business and World Governance Indicators), Transparency International (Corruption Perception Index), Competitiveness Index in 2017, and the Hawakamah BASIC score. The UAE is still racing, and year after year, it rises to higher places.

According to Shehata (2015), the GCC is still in its primacy in terms of the development of a CG environment. Furthermore, as indicated by Dalwai et al. (2015), the region still lags behind in the adoption and customisation of CG mechanisms from the developed world, since most of the domestic codes in the region are adapted from the international codes. However, the unique characteristics of the business environment in the GCC, including the concentration of firm ownership by the state or families, ownership and control of firms by families, overreliance on debt financing under Islamic finance, limited development in the financial markets, legal frameworks under Islamic finance, intensive privatisation, and opacity in communication (Dalwai et al., 2015; Ghosh, 2017; Shehata, 2015), inform much of the CG mechanisms in the region. Despite the potential for adoption, customisation and expansion of the application of CG in the Middle East, Dalwai et al. (2015) and Hassan et al. (2014) are of the opinion that as long as it is perceived as a

foreign concept, the ability of CG to achieve investor protections and to influence the performance of firms shall be sub-optimal.

3.4. LITERATURE REVIEW

3.4.1. From Agency Theory and Resource Dependence Theory Standpoint

Agency theory emerged towards the end of the 20th century, as researchers and economists began to expand on existing theories of organisational behaviour and the impact of factors that affect the performance of the firm. Eisenhardt (1989) asserts that the agency problem occurs when principle and agent interests' conflict and all of the actions of the agent are unclear to the principle. The principle and the agent perceive the concept of risk differently; therefore, the profit motive is also projected differently in the firm's operations. The risk-sharing problem results from conflicting perceptions of risk between the principle and the agent. Many researchers have attempted to provide comparative analyses of agency models based upon growth to determine the impact of differing mentalities on corporate performance.

Schleifer and Vishny (1997) assert that the straightforward perspective of agency relations is based on distinguishing parties with power from parties that run the firm's activities. However, the separation of control typically dilutes the efficiency of the power structures and opens the door for more conflict, as opposed to a unification of control and power for the good of the shareholders. Corporate governance efforts can be strained through efforts to maximise firm performance, particularly in firms in which the activities are not relayed to the shareholders in the same manner as in an organisation with concentrated ownership. Daily and Dalton (1992) assert that the linkage between CEOs and the board of directors and performance of the firm is stronger in modest-sized firms than in larger firms. Masulis and Reza (2014) observed, pertaining to agency theory and corporate philanthropy, that as the amount that the firm gives increases, the amount of shareholder value decreases in terms of cash holdings. The results of the study imply that the firm's giving to charities that are director-affiliated is often construed as a form of mishandling of the organisation's resources.

Eisenhardt (1989) addressed the question of whether agency theory exists for reasons such as the challenges that researchers have with empirical evaluations of it and the opinion that does not address actual events within the organisation. However, others have presented study results based upon the financial performance and longevity of a variety of organisational structures from different economic markets to determine how plausible the assumptions of the agency theory may be. Perrow (1986) heavily criticised

the validity of agency theory and the lack of focus that the theory gives to the workers within the organisation.

The existing CG literature points towards the validity of internal and external governance systems in influencing the nature of returns on investment, which is applicable to a variety of proxies for performance. The internal mechanisms, mostly represented by ownership concentration, can also influence the choices of strategies for management, control and monitoring within an institution (Al-Saidi & Al-Shammari, 2015). According to Lacoste et al. (2010), shareholders can exercise their power in ownership structures and concentration in alleviating the challenges arising from the separation of control and ownership, thereby eliminating the adverse effects of conflict of interest. Normally, shareholders with a high stake in the company have strong incentives to monitor and control the activities of the management, since these shareholders stand to lose more in the case of corporate collapse (Alimehmeti & Paletta, 2005). The combined motivation from the power and incentives provides such shareholders with the ability to internalise the advantages of the monitoring and oversight activities, which in turn influences the performance of the company (Boussaada & Karmani, 2015; Lskavyan & Spatareanu, 2014). Similarly, based on the 'one share one vote' approach to decision making, these shareholders have more power to influence decisions of the management teams (Javid & Iqbal, 2008). The external mechanisms, including the legal frameworks and merger and acquisition activities, influence the motivation for management teams to establish robust management, control and monitoring systems to avoid the agency problems that can generate a change in ownership.

However, this traditionalist perspective of the agency theory is challenged by Wang and Shailer (2013), who argue that the ownership structure should be influenced by the attractiveness of the company's stock to investors, rather than by the need of the existing shareholders to optimise the performance of the company. According to Lo et al. (2016), Mandaci and Gumus (2011), and Yasser and Al-Mamum (2017) both the performance of the company and the ownership structure are a product of a structure that operates best when neither of the two is influenced endogenously. As a result, in a situation in which the ownership structure influences performance and vice versa, a number of inefficiencies arise within the institutions, most of which influence what CG is established to control and eliminate. These conclusions are based on Bedo and Acs (2007), who found that in the absence of an intentionally controlled causal relationship between performance and ownership structure, it is possible to achieve the CG goals that culminate in the optimisation of shareholder wealth. Similarly, it is possible to establish a culture within

institutions in which investors and shareholders trust that companies operate in a free and fair environment (Adewuyi & Olowookere, 2013; Dombin, 2013).

For a long time, researchers have broadcasted today's concerns about the fact that ownership and firms' behaviour have causal relationships due to the unobservable factors surrounding this relation (Demsetz, 1983). This causal relationship is called endogeneity. However, although direct and deliberate endogenous control of ownership and performance is not a favourable aspect of CG, Al-Saidi and Al-Shammari (2015), Hu and Izumida (2008), and Mandaci and Gumus (2011) found that there is a direct relation and causality between governance and ownership structure and the performance of a firm. The relationship arises from the influence of past performance on the two variables. Al-Saidi and Al-Shammari (2015) differentiate between the influence of current and past performance on ownership structure, whereby the relationship between the two variables can be positive or negative. In explaining the reason for the existence of a positive, negative, and neutral correlation between governance and performance, Wintoki et al. (2012) introduced the concept of dynamic endogeneity.

According to Thrikawala et al. (2006), dynamic endogeneity refers to the sort of endogeneity that originates from the likelihood that the current activities in an institution in relation to the future performance and control environment will have an effect on its future control environment. Schultz et al. (2010) also defined dynamic endogeneity as the fundamental determinant of most variables that influence CG and performance, as long as the investors and stakeholders perceive it as a free process without exogenous control. Findings conflict among the existing studies that recognise the contribution of dynamic endogeneity from a cross-country perspective, whereby studies from the Australian market by Schultz et al. (2010) found an insignificant relationship, while studies from the Japanese market by Hu and Izumida (2008) found a significant relationship. In addition, studies from MENA found a dynamic-endogenous relationship (Omran, 2008; Al-Saidi and Al-Shammari, 2015), while studies in the Asian market by Heugens et al. (2009) found conflicting results.

Normally, large shareholders can avoid conflict of interest and achieve the objectives even when the legal systems and CG structures are weak. Hutchinson et al. (2015) attribute these effects to the fact that they can influence management teams, as well as monitor and control the management of the company. However, concentrated ownership is risky and costly, due to the possibility that large shareholders will overlook the interest of other shareholders and may dispossess the other shareholders through buyouts or by making decisions that contradict the objectives of other investors. On the other hand, the risks from a high level of concentration include the low level of diversification, which

further limits the ability of the large shareholders to optimise their wealth. These two risks have adverse effects on the managerial initiative in making decisions.

The resource dependence theory (RDT) proposes that the behaviour of an organisation is dependent on the nature of external resources at its disposal (Casciaro & Piskorski, 2005; Peterson & Philpot, 2013). As a result, rather than focus on the individuals involved in the decision making and influence on the decisions of the management, Rivas (2012) indicates that the RDT takes the perspective of the tools and implementations that are used by the individuals who influence management decisions and choices. The type of tactical and strategic decisions made by the institution is determined by the nature of the procured resources. The theory was formalised in 1978 by Pfeiffer and Salancik, following the publication of the seminal paper titled 'The External Control of Organisations: A Resource Dependence Perspective'. The influence of RDT extends to decisions such as the recruitment of employees and board members, the structure of contracts, links with other organisations, production strategies and optimal divisional structure, among others.

Although most of the literature on the subject relates the RDT to the decision-making process, Nienhuser (2008) argues that the effects of the model are present in non-decision-making dimensions. A meta-analysis by Drees and Heugens (2013), premised on the fact that firms respond to resource dependencies through the formation of inter-organisational alliances, mergers and acquisitions, joint ventures and interlocks, concluded that management teams use these arrangements to create autonomy and legitimacy. Drees and Heugens (2013, p 2) argue that 'RDT can also explain organisational actions that have societal acceptance rather than economic performance as an ulterior motive'.

Although the two theories (agency and RDT theories) explain two perspectives in the management decision-making and non-decision processes, Nienhuser (2008) argues that the fundamental ideas are similar. Drees and Heugens (2013) indicate that the RDT is a key framework in explaining the relationship between a firm and its environment. The agency costs originated from the organisational autonomy, while recognising the fact that some decisions are determined by the stakeholders, who provide the resources necessary for the organisation to remain competitive. Second, RDT is linked to organisational performance in that the type of resources possessed and used, as well as the interests of the suppliers of those resources, mediate the outcome of operation from a financial and non-financial perspective (Bryant & Davis, 2011).

3.4.2. From Institutional Theory Standpoint and national institutional quality

From the perspective of social, political and, economics science, 'institution' is defined as "the humanly devised constraints that structure political, economic and social interaction. They consist of informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights)" (North, 1991, p. 97). In short, institutions are the rules and regulations that are established for regulating organisations and human behaviours (North, 1995). Institutions, being formal (rules) or informal (culture), are "the rules of the game" (North, 1990, p.3). The role of national governance mechanisms in CG and performance nexus has become the subject of interest in the CG literature. Recent studies have shed the light on how difference in the quality of national governance is responsible for the disparities in CG–performance relationship across countries (Kumar & Zattoni, 2013).

Al-Saidi and Al-Shammari (2015), and Kalezic (2012) focused on the role of the national level institutional frameworks on CG, and subsequently the performance of firms. The studies were premised on the fact that the national government is an integral player in the legal frameworks established under corporation and company laws, as well as other frameworks that regulate the actions of natural and legal persons. Recently, Al-Rashed (2010), Fung and Tsai (2012), and Nashier and Gupta (2016) found that there is a direct interconnection between governance and performance and the nature of national institutions. Al-Rashed (2010) found that strong CG systems can act as substitutes for the effectiveness of national governance. This explains why some institutions in the developing markets perform better than their counterparts, and why some firms in the developed world face challenges in performance.

Krivogorsky and Grudnitski (2010) examined the effect of concentrated ownership on corporate performance, including a national-respective institutional framework for firms incorporated in eight Continental European countries. Aralica and Budak (2004), and Marino et al. (2016) identified six aspects of the quality of governance at the national level, which influence CG and performance. These include political stability and absence of violence/terrorism; voice and accountability; effectiveness in the government; the quality and reliability of governance frameworks; the strictness with which the rule of law is applied; and the absence of corruption. The six aspects were operationalised by Kaufmann et al. (2011) and Knudsen (2011) into indices, such as the 'aggregate national governance index' (NGindex), which is comprised of 'Government Effectiveness, Regulatory Quality, and the Rule of Law'. In this study, the index used was based on Globerman and Shapiro (2002), who constructed an overall factor-by-factor analysis technique for the national

governance practices (denoted as NGindex [a]). The first principal component was used as the index for national governance quality.

There is a transmission of the antecedents of performance from the national to firm-level institutional frameworks, as well as a substitution of national-level governance standards with firm- and industry-level standards (Shleifer & Vishny, 1997). Further evidence is provided from a cross-national study by Heugens et al. (2009), who concluded, "in regions with less than perfect legal protection of shareholders, ownership concentration is an efficient corporate governance strategy" (p.481). Similarly, there is evidence that the effects of space (national) can also be identified at the time, which implicates international-level governance standards. Based on the improvement in management theory and practise, it is possible to attribute the change in the findings in Berle and Means's (1932) study to what Demsetz (1983) and a number of recent studies found.

Evidence from GCC countries showed that there is a high level of secrecy in corporate information, whereby management teams provide limited information about the operations within companies (Arouri et al., 2011). Although the strategy can be attributed to the need to maintain corporate secrets and a competitive advantage, Al-Rashed (2010) and Rami (2014) indicate that these companies exploit the strategies by failing to disclose information that is crucial to the survival of the company. Essentially, if this strategy were applied homogeneously, the effects would be normalised across the industry. However, because these institutions are competing and facing competition on a global scale (Adelopo et al., 2009; and Marino et al., 2016), attracting investments from other countries where the agency problems are lesser and different (Das, 2014;and Dombin, 2013), it is imperative that change is implemented in the CG processes, especially in terms of reporting and corporate structure. However, the tendency does not adversely affect the reliability of the estimation procedures and variables used in this study. However, most recent study by AL-Yahyaee et al., (2017) states that the GCC markets are a perfect platform to undertake in this study for many reasons. The GCC has improved its transparency in terms of disclosure and became less information asymmetric (AL-Yahyaee et al., 2017).

Second, the rationale that some of these concerns are acceptable under Sharia Law needs to be debunked through extensive research, particularly the notion that Islamic finance entails less risky operations than operations in institutions that use conventional finance (Hafeez, 2013; Muneeza & Hassan, 2011). The notion must be supported by evidence to appreciate the nature of risk in Islamic finance and Sharia law as proposed by Daryaei et al. (2013) and Muneeza and Hassan (2011) to determine how the CG is to be universally customised in institutions that apply Sharia law. By so doing, it will eliminate the philosophical antecedents of the decisions of companies in these two different systems

(Amao, 2012) and establish tangible and verifiable benchmarks for assessment of performance (Hafeez, 2013).

As indicated by IMF (1998), poor governance quality and political instabilities have worsened confidence in the market after the crisis. Although this statement refers to the Asian crisis, it depicts a number of scenarios that face most countries where CG standards are low. OECD (1999) specified the CG principles as agent-based, rather than market-based, which makes it an international benchmark that homogeneously adapts with the country-economic structure. 'Studies commissioned by world organisations such as the OECD (1999), International Monetary Fund (1999) and World Bank (1999), among others, have all reiterated that governance models should be developed on a contextual basis, keeping in mind the diversity in the political, legal, social and structural framework of every nation' (OECD, 1999). The absence of practical frameworks, such as effective internal control mechanisms, reliable voting procedures during general and special meetings, and effective audit processes, limits the ability of investors to perceive the institutions within the industry as being reliable. This intrinsically influences performance (Iannotta et al., 2007).

Consequently, the recent financial stagnancy has made robust Corporate Governance an imperative needs to prevent potential financial collapse. Similarly, owing to the multiplicity of adverse effects that are commonly transmitted from the institutional level to the industry, national and international levels, Amao (2012), Claessens, (2013) and Hafeez (2013) opine that it is important for CG standards to be implemented at all levels. In response, a number of domestic and multinational entities have designed customised sets of codes and principles that are perceived as robust enough to prevent adverse outcomes.[23] At the international level, the Organisation for Economic Co-operation and Development (OECD) adopted the principles of CG in May 1999 (revised in 2004). The principles are designed to facilitate the establishment of a legal, institutional, and regulatory framework for CG in OECD and non-OECD countries.

Given this set of high-quality CG standards, countries may feel compelled to update their codes frequently. There is recent empirical evidence of an association between adoption of internationally accepted CG practices and firm valuation[24]. Consequently, most

[23] Like the Institute of International Finance (IIF), Standard and Poor's, Governance Metrics International (GMI), Hawkamah Institute for Corporate Governance (Institution of Corporate Governance for GCC Countries), the Organization for Economic Co-operation and Development (OECD) and International Corporate Governance Network (ICGN), the Global Corporate Governance Forum (GCGF) and the European Corporate Governance Institute (ECGI), which established their own codes based on criteria that are considered important to international investors. Also, Investors Responsibility Research Center (IRRC) and Institutional Shareholder Service (ISS), both provide a large CG database, which offers a composite measure (combine a large number of individual governance items into a single measure) to calculate the overall quality of a firm's CG ((GMI), 2003; (OECD), 2004; Bradley, 2004; Sherman, 2004; Klein, 2005; Brown, 2011; Connelly, 2012).

[24] See, for example Cheung et al. (2010) who examine large Chinese firms, Black et al. (2006a, 2009) for Korean firms, Cheung et al. (2007, 2011) for Hong Kong firms and Connelly et al. (2012) for Thailand firms.

of the countries have adopted these codes to undertake structural reforms for their CG framework as a means to strengthen investor protection, especially in developing economies with a weak property rights environment (La Porta et al., 1998) like the GCC. Some of these countries have reformed parts of their CG systems based on internationally accepted codes of best practice, to many of which changes have occurred as a response to the well-known global financial crises (Black et al., 2001; Claessens, 2013) and oil price reduction, to increase diversification (Baydoun et al., 2012) by attracting foreign investments to the region. It is commonly accepted in the ex-ante literature that there is increasing interest in the diffusion of CG codes across countries, as listed firms compete for funds (Nestor & Thompson, 2000; Khanna & Palepu, 2004; Yoshikawa & Rasheed, 2009). In addition, only well-governed companies can get capital from the market with trivial costs (Claessens & Yurtoglu, 2013), which ultimately enhance their performance (Baydoun et al., 2012).

3.4.3. Ownership Concentration and Performance in Developed Markets

Existing literature, including studies that sample institutions from the US (Bedo & ACS, 2007), does not provide conclusive evidence on how ownership concentration influences performance. The consequences of fractionating the holdings of a firm among investors increase the freedom of the inside controllers to utilise the company's possessions (Berle and Means, 1932). Thus, famous disagreements between the controllers and claimants occur (Jensen & Meckling, 1976). So, the firm's behaviour will be influenced by the structure of the holdings of the company, and vice versa, depending on the extent of the disagreement (Brown et al., 2011). In the same study, Brown et al. (2011) explained the reverse causation, as shareholders of deteriorating companies prefer to sell their shares in case of a 'hostile takeover', making the relation endogenous and unclear.

Agrawal and Knoeber (1996), Demsetz and Villalonga (2001), Iannotta et al. (2007), McConnell and Servaes (1990), Minguez-Vera and Martin-Ugedo (2007), and Prowse (1992) have found no relationship between concentrated shareholdings and firm performance. These studies converge towards the recognition that their performance changes in a non-linear manner in spite of the ownership structure. However, a significant number of studies from across the globe have found a positive relationship between the two. Such studies are based on the premise that concentrated ownerships exist due to the increased prominence of institutional investors as opposed to individual investors or households.

Mandaci and Gumus (2011) found a positive relationship based on an analysis of Turkish firms, with similar results reported by Yasse and Al-Mamum (2017), who studied Pakistani firms, Lo et al. (2016), who studied Taiwanese firms with international operations, and Santana et al. (2015), who sampled Brazilian firms from the utilities sector. The relationship is attributed to higher incentives to monitor the activities of the management by the dominant or majority shareholder (Chen et al., 2005). However, the propensity to monitor the management is dependent on the viability of the costs compared to alternative ownership structures, such as a diversified portfolio in other institutions.

Beiner (2006) concluded that concentrated ownership could be used to ensure management boards remain committed to value maximisation objectives. This is why some institutions experience a change in the nature of the relationship between the two variables. Berle and Means (1932) reported a negative relationship between ownership concentration and the performance of a company. Harris and Raviv (2008), Hermalin and Weisbach (1998), Raheja (2005), Wintko (2012) and Wintko (2014) discovered a dynamic relationship between performance and CG, meaning that changes exist but are not constant. A related conclusion was found in Hu and Izumida's (2008) study, which found a u-shaped relationship that was explained by expropriation due to the nature of the market conditions, including illiquidity in securities and stability in the shareholder arrangements in the country. The change in the nature of the relationship is attributed to the responsiveness of ownership structure on the performance of the company.

Similarly, Nguyen (2014) found a positive and significant relationship between blockholders and the performance of a firm, as a measure of ownership concentration, using dynamic setting to control for the dynamic-endogeneity, simultaneity and unobserved heterogeneity of the relationship. This is due to the ability of blockholders to minimise or afford the costs of monitoring management, thereby leading to improvement in performance and productivity and creating a positive relationship between corporate performance and ownership concentration. Other researchers who came to this conclusion include Claessens and Djankov (1999); Garcı´a-Meca and Sa´nchez-Ballesta (2011), Gedajlovic and Shapiro (2002); Ma et al. (2010); Perrini et al. (2008); Shleifer and Vishny (1986), and Silva and Majluf (2008). The relationship is attributed to the characteristics of CG at the time, especially a lack of protection of minority investors and the fact that corporations at the time were not professionally managed. The findings were challenged by Demsetz (1983), as cited by Joher (2005), who argued that there is no evidence of a linear relationship between corporate performance and changes in ownership.

Classical models predict that blockholders directly influence operations within a firm through their voice (Konijn, Kräussl & Lucas, 2011). Essentially, the process includes

voting on issues and having the power to influence the decisions of the management through the selection of the board members. However, the effectiveness of the 'voice'-oriented approaches under classical models is limited by the fact that blockholders do not have the ability to oversee every management decision (Wang, 2016). Neo-classical models offer an alternative mechanism, commonly referred to as 'exit', in which dissatisfied blockholders dispose of their shares in case the management team underperforms (Facci, Marchica and Mura 2011). The 'exit' option draws its effectiveness from the fact that the disposal of a large volume of shares is bound to adversely affect the value of the firm. Both the 'exit' and 'voice' draw their relevance from the empirical relationship between the financial markets and blockholders, in which asset pricing is linked with corporate finance.

Blockholders may also worsen CG if they seek to extract personal benefits from control by pursuing objectives that do not culminate in the maximisation of value (Faccio, Marchica and Mura 2011). Furthermore, Edmans (2009) argues that, although blockholders may mediate the interests of the investors and managers, they may also create a conflict of interest with other smallholders.

Consequently, there is overwhelming evidence that although it is unclear whether ownership concentration influences the performance of the company, it is incorrect to assume that there is no relationship between the two. This is due to the fact that blockholders influence the decisions and decision-making processes of the management.

3.4.4. The relationship between institutional ownership and performance

There is evidence that institutional investors play an essential role in CG (Al-Najjar, 2010, Ahmad & Hamdan, 2015 and Javaid & Saboor, 2015). The effects differ based on the circumstance and include the following. First, institutional investors are companies and organisations that choose investments with more returns and profitability or companies that establish subsidiaries in which they hold dominant or majority shareholder status (Fung & Tsai, 2012). Essentially, these subsidiaries are acquired or established to achieve specific goals of the institutional investor, which may or may not be the maximisation of return on investment, as these investors like to increase their wealth by investing in promising projects. Institutional owners play a major role in reducing conflicts of interest and agency problems through greater monitoring of the performance of the managers or by taking control of the companies (Maug, 1998; Huddart, 1993). Institutional shareholders play a significant role in the transfer of information to other shareholders of the company, and these investors reduce the need for external monitoring. Moreover, institutional investors have significant influence on the decisions of the companies they have invested in, for they have bought a major portion of the shares of those companies (Brickley et al., 1988). Pound (1988) presented three hypotheses regarding the relationship between institutional ownership and performance: efficient monitoring hypothesis (EMH), conflict of interest hypothesis, and strategic alignment hypothesis.

Given the expertise of institutional investors in managing equity capital, the concentration of these equities in the hands of institutional investors (pension and mutual funds, and insurance) has increased in advanced economies. Haslam et al. (2013) reported the steadily increased of corporate equities that managed by the main institutional sectors, amounted to approximately $25 trillion, corresponding to two-thirds of the main economy stock market capitalizations in 2009. In the same note, equities of US corporate that held in the hands of households had dropped to 40% (Haslam et al., 2013). According to Haslam et al. (2013), these institutional investors have a different and better conceptualisation of shareholder value, and are more willing and capable to pressure managers to extract higher returns to scale. This explains why CEO and senior management remuneration packages are pegged to specific targets, including earnings per share, cash, and returns on assets, or capital employed, and earning value added (Haslam et al., 2013).

Lloyd et al. (1986) concluded that there is no relationship between efficiency and ownership structure. The EMH hypothesises that companies with higher ownership structures enjoy a unique aspect of efficiency due to the presence of large corporate shareholders who create specific opportunities, especially the opportunity for a reduction

of the costs of monitoring the activities of the management. Similarly, based on EMH, institutional shareholders, as opposed to the individual shareholders, have the necessary tools for efficient monitoring of management and reducing costs; thus, there is a positive relationship between institutional ownership and performance. First, institutional investors, who are deemed to be more informed about wealth optimisation and corporate management, have a higher propensity to influence the performance of the company in a positive manner.

Arouri et al. (2011) argues that, although it may neither prevent the expropriation of minority investors nor eliminate the existence of agency problems, institutional ownership establishes the foundation for improved performance from the resource-based view, as well as the fact that these institutions have an information advantage, as discussed under the information advantage theory by Merton in 1987 (Scott, 2014), when selecting these investments. Essentially, institutions have more resources for monitoring the company (Alimehmeti & Paletta, 2005; Lskavyan, & Spatareanu, 2014) and influencing the decisions of the management (Kalezic, 2012). Although this assertion contradicts the traditional portfolio theory, there is evidence that 'home bias' can also be used to explain why a company may allocate its portfolio in a concentrated manner within the country (Hutchinson et al., 2015).

According to Filatotchev et al. (2005), McConnell and Servaes (1990), Shleifer and Vishny (1997), and Smith (1996), there is a significant positive relationship between institutional ownership and performance. Hutchinson et al. (2015), who sampled Australian firms, found that the positive relationship can be attributed to the improved company-specific risk and risk-management capabilities in the presence of institutional investors. The effects were also found to increase in situations in which the investee has direct dealings with the institutional investor, implying that the objectives of the investment go beyond basic wealth maximisation objectives.

Fung and Tsai (2012) found a positive relationship between institutional investors and corporate performance, especially when there are weaknesses in CG in the firm. Although this condition contradicts what Hutchinson et al. (2015) found in terms of preference for high-potential companies by institutional investors, it is aligned with the resource-based view that institutional investors introduce new capabilities that set the company on a path of improved performance. As a result, as indicated by Hutchinson et al. (2015), Mizuno and Shimizu (2015), and Nashier and Gupta (2016), even improvement in performance cannot be directly attributed to the presence of institutional investors.

However, based on the conflict of interest and strategic alignment hypotheses, there is a negative relationship between institutional ownership and performance (Barnhart &

Rosenstein, 1998). The negative relationship under these two hypotheses is explained by the fact that institutional investors may have interests that are divergent from those of the minority shareholders. Mizuno (2014) found that there is no statistically significant impact on corporate performance from the presence of institutional investors, even with recognition of the fact that they influence the decisions of the investee company. However, the study found that any possible relationship could be attributed to the fact that institutional investors selected investees with high returns (or a high potential for returns).

3.4.5. Ownership Structure and Firm Performance from GCC

The ownership structure of a firm is influenced by the concentration of ownership, and, specifically, the characteristics of the majority shareholder. Arouri et al. (2014) argue that the corporate ownership structure is an efficacious factor for governance in the GCC context. According to Nashier and Gupta (2016) and Meero (2015), the ownership structure relates to the constituent sources of capital that are invested in the acquisition of the assets of operations. Abdallah and Ismail (2016) and Fung and Tsai (2012) provided a more specific definition of ownership structure, stating that it is comprised of the proportion of capital provided by third parties, including ordinary and preferential shares that are designed to optimise the share price of the company. Abdallah and Ismail (2016), who focused on the effects of ownership concentration on performance, indicate that dispersed ownerships present a more direct relationship with performance than concentrated ownership. The findings are attributed to the improvement in the protection of investors and heterogeneity in the quality of governance across various countries. However, this performance is not directly attributable to CG, since the standards for CG in the region are comparatively low. However, the relationship between ownership concentration and performance is amplified when the dominant and majority shareholder is a government corporation.

The sources of capital influence the risk profiles within the company due to disparate interests based on the nature of the investors. According to Kapopoulos and Lazaretou (2007), debt capital, which represents a constant charge on the profits of the company due to the statutory obligations under debt capital, is interested in ensuring that the profits are sufficient to fulfil the finance costs. The assertion by Demsetz (1983) that the ownership structure is intrinsically influenced by the strategies for profit optimisation among the shareholders is implicated in the nature of capital, which a firm uses in its operations. Normally, a higher proportion of debt has adverse effects on the profit

maximisation objectives of shareholders, since the leveraging represents a constant charge on the profits from operations.

Although the argument that debt capital is more affordable than debt during boom periods may provide conflicting conclusions, generally, high levels of leverage increase the risk, which reduces the performance of the firm (Hutchinson et al. (2015). In support, Lskavyan and Spatareanu (2014, p. 7) stated that 'concentration is likely to be lower the larger the firm – if owners are risk-averse, then a greater wealth is required to maintain a given percentage in the firm'. Similarly, Hutchinson et al. (2015) and Malik (2015) argued that higher leveraging reduces some agency problems since the debt providers enhance the monitoring and control functions to ensure that the management optimises profits. These types of endogeneity are observed in studies as variables, which influence the identification of a clear relationship between ownership structure and performance.

Rami (2014) investigated the effects of the capital structure by focusing on 203 firms from five countries who are members of the GCC, through an analysis of panel data between 2000 and 2010. The study also considered the effects of risk and leverage due to ownership structure. The findings revealed that ownership structure did not affect the performance of the firms, whereas the presence of government shareholder had a positive effect on performance. The study also controlled for the age and size of the firm, which are two factors that influence ownership structure, and the two were found to have a positive effect on corporate performance.

Kobeissi (2005) studied the impact of ownership structure on banks in the Middle East and North Africa (MENA). The study discovered three pervasive forms of ownership of banks in the region, which had various impacts on the performance of the institutions. The study observed that most of the banks in the region were state-owned due to the desire of the government to increase access to credit and to have a greater impact on the allocation of resources in the economy. Nonetheless, the study found that state ownership led to inefficiency in the banks, lower productivity, lesser uptake of credit, and slower bank growth. Citing Barth et al. (2000) and La Porta et al. (2002), the study concluded that state corporations have, over time, shown to be inefficient, and banks within the GCC are no exception. This is mostly due to weak oversight mechanisms by the state.

The other form of bank ownership in the region is foreign ownership. This comprises banks from Europe and America setting up base in the region. This segment represents a small portion of banks, especially due to social factors such as the Islamic religion, which advocates for Sharia-based banking. To survive in the market, these banks must localise their products to be in tandem with local needs. Due to the vastly different

cultural context, foreign-owned banks are at a disadvantage and were found to be less efficient.

Another prevalent form of ownership is local private ownership, executed through traded banks and group banks. Kobeissi (2013) cites Hoshi et al. (1991) in arguing that group ownership helps banks mitigate some of the imperfections in developing countries. In addition, private local banks demonstrated a greater understanding of the market that gave them a competitive advantage. The study also cites Valnek (1999) in explaining that local ownership, especially through stocks, created a greater oversight and stricter governance practices that aided the banks in boosting performance. Fallatah and Dickins (2012) conducted a study on the relationship between governance and performance in Saudi Arabia, utilising an index that helped to capture the overall impact of the firm's CG practices. The research found that, when using return on assets as the parameter, governance-performance and value were unrelated. However, when using Tobin's Q, there was a positive association with value.

Based on these findings, it is clear that the ownership structure has an influence on performance, which is dependent on the nature of the institution and the ability to create wealth for the shareholders. As a result, although it might not be possible for the institution to use the ownership structure to influence performance, there is evidence that some ownership structures are directly linked to the performance of the company. As a result, the following hypotheses are proposed:

3.4.6. Research Hypotheses

H3.1: The relationship between the ownership structure and performance of the companies in the GCC is statically significant.

H3.2: The relationship between ownership concentration and the financial performance of the firms in the GCC is significantly influenced by national governance quality.

3.5. EMPIRICAL FRAMEWORK

This section focuses on the dynamic nature of the link between the ownership structure of a firm and its performance as measured by Tobin's Q ratio. The main prediction of the study is that the concentrated ownership has a substantial impact on the firm performance of GCC companies. Studying this topic presents a challenging task, as it is difficult to deal with short panel data with missing values for a dynamic relationship that has diagnosed with endogeneity problem, due to the pitfalls and the perils involved. These perils include simultaneity and heterogeneity (i.e. unobserved firm characteristics that are

time-invariant). The causality problem, which goes from one side of the equation to another simultaneously, is called 'simultaneous causality' (Brown et al. 2011). Harris and Raviv (2008) argue theoretically that the ownership-performance relationship is 'dynamic by nature'. That is another source of bias, namely 'dynamic endogeneity' (Wintoki et al., 2012). This study uses a dynamic approach that is the system dynamic generalised method of moments [SDGMM] estimator in order to address the 'dynamic endogeneity' issue considered by prior studies, e.g. Wintoki et al. (2012) and Nugyen et al. (2014), as well as others. The dynamic approach is applied to annual-balanced panel data for 290 non-financial non-utilities firms locally traded in GCC markets from 2008 to 2013.

3.5.1. Data Description

Sample Selection

All domestic firms located in the GCC that are listed on the (TASI), (DFM) or (ADX), (KSE), (BHB), (MSM) and (QE) are eligible for inclusion in the list of firms in the sample, except shares of firms that perform in banks, financial services and utilities sectors. In line with previous research, the latter firms are excluded from the final sample because they are subject to different (i) 'listing requirements', (ii) accounting measurements and (iii) governance regulations (Levin, 2004). Thus, the initial dataset of this study consisted of 379 firms (2274 firm-year observations). However, the final sample comprises annual balanced panel data of 290 (1740 firm-year observations) exchange-listed firms in GCC markets over the period of 2008-2013. These periods were chosen specifically because of (i) the lack of historical CG data in GCC, and (ii) the recommendations of Dalwai et al. (2015) and Shehata (2016) that suggest the inclusion of at least five years of data for any future research. Finally, (iii) the end date (2013) was the most recent point at which data was available when this study took place.

The lack of CG data was mentioned by previous researchers, e.g. Brown et al. (2011), who argued that some of CG databases consist of either daily or annual data; however, most of them remain unchanged for a long time, which calls the dimensionality of these records under question. Likewise, Arouri et al. (2014) mentioned the GCC-CG data unavailability issue. More recently, Abdallah and Ismail's (2017) study starts from 2008 for the same reason. In effort to control for internal and external dimensions of CG, scholars used to construct an index instead (e.g. Almalkawi & Pillai, 2016). Consequently, the data were collected manually from several possible sources over the period of 2008 to 2013. The same procedure of data collection was employed by Nguyen et al. (2014) and Munisi et al. (2014).

Data sources

The dataset comprises a combination of country-level and firm-level variables obtained from several possible sources for data analysis due to the data limitation mentioned above. The sample list of the firms was obtained from the respective countries' stock exchange websites. The list has been verified and compared to the list of companies obtained from Bloomberg. To check the validity and reliability of the data, the data were matched with online records from a newspaper or financial forum over the Internet.

3.5.2. Variables

Dependent variable

In line with prior studies, the natural logarithmic form of the Tobin's Q ratio, as a dependent variable, is employed to represent the firm's financial performance. A variety of studies have indicated that Tobin's Q is not a reliable determinant of the financial performance of a firm. This is because the variable is not insulated against stock market inefficiencies, whereby the divergence between the fundamentals and the market value of the firm makes it an unviable proxy for financial performance. According to Dybvig and Warachka (2015), underinvestment tends to increase Tobin's Q rather than decrease it, thus making the overall effect of governance on Tobin's Q ambiguous. However, in the GCC, a significant portion of the firms perceives profit maximisation as a secondary goal, from an ethical perspective. According to Ali et al. (2013, p.2), 'Islamic business ethics treat profits as reward for engaging in vital activities necessary for serving societal interests; profit maximisation is not sanction and therefore should not be the goal of ethically guided business ventures'. Supporting views are provided by Chen and Lee (1995), Hasan (1992), and Hasan (2008).

The practices stem from the tenets of Islamic finance, which are structured across operations that seek to ensure efficiency, since profit maximisation fails to consider the interests of the Ummah (Adelabu et al., 2011). Similar views are provided by Samad (2018), who indicates that the maximisation of welfare supersedes profit maximisation in the production and consumption of goods and services, and Widana et al. (2015), who indicates that ethical roots influence a wide variety of the competitive choices of institutions in the GCC. Further support for the secondary nature of profit maximisation originates from the assertions of Amin and Yusof (2003), who concluded that the economic framework in the GCC is designed to ensure allocative efficiency, according to the Islamic ethical values. Peters and Taylor (2017) highlight the role of Tobin's Q in accounting for the role of intangible assets. In the Islamic countries where close ties and relationships are robust and key determinants of success in business, Tobin's Q can be

used as a proxy for the firm's performance. Accordingly, Naughton and Naughton (2000) posit that the fact that speculative practices are not permitted in the Islamic stock markets implies the cautions introduced by Dybvig and Warachka (2015).

Similarly, Liang et al., (2011), explain that Tobins' Q and ROA have weaknesses in the developing countries. This is because accounting standard is not applied correctly and the profit rate may not be absolutely accurate to measure firm performance (Wiwattanakantang, 2001). However, ROA can be used as the measurement for the current performance, while, Tobins' Q reflects growth opportunities or expectations of the firms' prospects in the future years. That is, Tobins' Q is a market-based, while ROA is an accounting-based performance measure. Dalwai et al. (2015), who critically reviewed almost all of CG studies on GCC before 2016, which have used Tobin Q ratio more than ROA, attributing that to the use of emerging countries as a data sample. Generally, positive relationship is reported across a variety of CG topics, and is not influenced by the metric or performance indicators that are used as a proxy for performance. However, Tobins' Q regression would be more vulnerable to endogeneity problems (Cornett et al., 2007; and Firdaus and Kusumastuti, 2012). The ratio equals the market value of shareholder's equity added to the overall debt in book value divided by the book value of the firm's overall assets (Abdallah and Ismail, 2017; Ammann et al., 2011; and Nguyen et al., 2015; as well as others).

Tobin's q (TQ) has been used extensively in the finance literature to explain the trend in capital investment and to measure firm value and performance, which was first introduced by American economist James Tobin (Cho et al., 2019). The extensive usage of Tobin's q in empirical finance has made it an important variable, becoming even more important as the analyses continue to evolve (Fu et al., 2016). TQ is the most frequently used variable for analysis in finance literature (Cho et al., 2019, p. 21). For example, Morck, Shleifer and Vishny (1988) used it as a proxy for the value of the firm and the measurement of management's impact on the performance of the firm, Lang and Stulz (1994) used it to investigate the impact on firm performance of diversification, while Kaplan and Zingales (1997) used it to examine investment-cash flow sensitivities. More recently, Hwang and Kim (2017) use the measure to identify a relationship between the ease with which documents can be read by investors and the value of a firm.

As a result, Peters and Taylor (2017) note that TQ has become 'a central construct in finance and economics' while Erickson and Whited (2012) report that it may be 'the most common regressor in corporate finance'.

In addition, it can be used to examine the effect of ownership structure on firm performance. For instance, TQ used as a proxy for firm performance in Cho's (1998) study

on ownership-performance relationship, concluding that firm performance determines ownership structure. Furthermore, many studies that scrutinized the determinants of investment have used TQ in order to control for firms' investment opportunities (Gugler, Mueller and Yurtoglu, 2004). Fu et al. (2016) took a further step by investigating the validity of TQ ratio as a proxy for growth performance, using a sample from publicly traded US firms. They hypothesized that a positive relationship between the TQ ratio and firm's future performance indicates that TQ ratio is a valid indicator. They contended that TQ ratio is significantly positively correlated with future operating performance of the firms, signifying that TQ ratio is a valid indicator for growth performance, which implies positive association between TQ ratio of the firm and its future cash flows (Fu et al., 2016).

A firm's competitive advantage is the extent to which it out-performs its competitors in the market. Therefore, to compare a firm with its counterparts, market- or accounting-based measures should be employed. TQ is a market-based measure, accounting for the overall market valuation of the firm. According to Cho et al. (2019) TQ is a "representative indicator of market value, is used as a proxy variable for firm value…" (p.12). TQ almost measures the firm's average return on capital that is expected by the market (Gugler, Mueller and Yurtoglu, 2004). However, accounting-based measures of performance such as return on assets (ROA)[25] have been criticized in the existing literature of CG and firm performance (Singh et al., 2018) [26]. Wernerfelt and Montgomery (1988) who used TQ as a measure of performance justified their choice between ROA and TQ to the trade-off between "more detailed data" and "better measure of returns." Precisely, accounting-based measures have been criticized for many reasons; first, Cho et al. (2019) point out that ROA only captures the firm's previous performance, while TQ is more advantageous in that it captures the firm value to shareholders, i.e., it captures future gains through the evaluations of investors. In other words, accounting measures neglect the firm's future stream of profits as well as the risk incorporated to obtain that stream (Acquaah, 2011). Second, in the same note Cho et al. point out the difficulty of using ROA to compare a firm with its counterparts because of accounting and managerial manipulation, such as depreciation. In contrast to that, using TQ is simple and precludes the probability of such manipulations (Cho et al., 2019), where managers are easily able to influence profit figures thus investment decisions (Barney, 2007). Third, accounting measures do not take into consideration disparities in systematic risk, capital structures,

[25] Other common indicators were total sales revenue, earnings-per-share and return on equity.
[26] (See, Benston, 1985; Wernerfelt and Montgomery, 1988; Gugler, Mueller and Yurtoglu, 2004; Bhattacharyya, Mawani and Morrill, 2008; Ganguli and Agrawal, 2009; Wahla, Shah and Hussain, 2012; Singh et al., 2018; and Cho et al., 2019, among others).

temporary disequilibrium effects, tax laws, and accounting conventions (Wernerfelt and Montgomery, 1988; Amit and Livnat, 1989; Acquaah, 2011; and Singh et al., 2018). Fourth, these measures are likely to differ across industries more than across firms, (fifth) creating estimation bias in favour of industry effects (Wernerfelt and Montgomery, 1988; and Singh et al., 2018).

In summary, TQ is 'appealing' capital market measure in comparison to accounting-based measures of a firm's (Wolfe and Sauaia, 2014; and Wernerfelt and Montgomery, 1988) "ability to create value relative to its competitors from leveraging resources and capabilities for current and future growth." (Acquaah, 2011). TQ implicitly uses the correct risk-adjusted discount rate, imputes equilibrium returns and minimizes distortions due to tax laws and accounting conventions (Singh et al., 2018). TQ is not just a market-based but also future-oriented measure, which captures the present value of future cash flows based on current and future information (Ganguli and Agrawal, 2009; Wahla, Shah and Hussain, 2012; as cited in Singh et al., 2018). It is noteworthy that the ratio allows us to see how the valuation of the assets by the market stocks against what record in the book or replacement cost. This may be a good approach where in some countries asset valuation may follow different standards, if so the use of market value is a back up against that possible arbitrariness in asset valuation. Because such an interpretation is central to the empirical test in this paper, a generalized method of moments (GMM) estimator is used to correct asymptotically for the bias that led earlier researchers to adopt accounting-based measure despite its interpretive caveats.

Firm level data

Since the governance practices of the GCC firms are homogenous, the empirical results are generalisable under the ceiling of the firms. Nevertheless, the obligatory disclosure requirements, board composition regulations and non-compliance-related costs, along with the quality of national governance framework, might not be similar (see Shehata [2015] for further discussion). Despite the fact that GCC countries are not identical and each market has its own contextualisation, inferences of this study will remain credible and generalisable. From an agency standpoint, the agency model is global and accounts for differences between institutional settings (Mallin et al., 2015).

Firm-specific financial data were extracted from *Bloomberg* database. Firm-level governance data were gathered from multiple sources, including annual reports, websites of the companies, and their respective stock exchange websites. The annual reports were extracted from two main sources: the official stock market websites and 4-traders

website[27]. In instances where annual reports were not obtainable, the data were either collected from the respective websites of the companies or a Gulf-based website[28]. All of the firm governance data were hand-collected from these mentioned sources. These include board size, the percentage of female, non-executive and independent directors, and blockholders' ownership (concentrated ownership).

The Western model of ownership (principal-agent) differs from emerging-countries' model (principal-principal) in the source of conflicts. In the former, it is between the (insider and outsider) parties, while in the latter, it is between the (majority and minority) shareholders (Morck et al., 1988; Ngobo & Fouda, 2012; and Nguyen et al., 2015); thus, the results of the ownership and performance nexus are not rigorous (Abdallah & Ismail, 2017). In a study by Morck (2005), the developed economies tended to have dispersive shareholding, whereas in developing economies such as Brazil and Africa, ownership was concentrated. Thus, the challenge to wipe off such problems of expropriation of, or prioritisation of, the small shareholder's interests is also dissimilar. As a result, Wang and Shailer (2013) suggested widening the scope of the research related to the impact of concentrated ownership on firms' value in less-developed economies.

Al-Saidi and Al-Shammari (2015) defined the structure of ownership as dispersive, whereby the majority shareholder has less than 20% of the distributed shares. The shareholding can also be dominant, whereby the largest shareholder has more than 20% but less than 50% control of the company. In instances in which the shareholder has more than 50% of the shares, such a concentration is defined as a majority situation (Al-Saidi & Al-Shammari, 2015).

Thus, the explanatory variable of interest is the ownership concentration, as a proxy for internal governance mechanisms, which is endogenously determined by firm performance, in line with the findings by Nguyen et al. (2015) and Wintoki et al. (2012), among others. Essentially, this implies that ownership concentration is a determinant of internal government mechanisms when testing for the variables that influence the performance of the firm. The relationship originates from the fact that institutional ownership and blockholders mediate CG, as was predicted under the agency theory. Ownership concentration (OWN) is measured as the fraction of total ordinary stocks of a firm owned by shareholders who bought at least five percent of these shares (Nguyen, 2015). In line with previous studies (Abdallah & Ismail, 2017; Morck et al., 1988; Ngobo & Fouda, 2012; Nguyen, 2015), this study employs a different level of intensity of

[27] 4-traders website can be accessed via (*http://www.4-traders.com*).
[28] (http://www.gulfbase.com)

ownership (10%-30%, 30%-50% and 50% or more) for each firm over the period of 2008-2013. Motivated by Chen et al. (2005), the selection of ownership cut-offs relies on GCC governance regulations in respect to the percentages of ownership that must be disclosed. This is also motivated by the work of Morck et al. (1988). For instance, in the GCC, the identity of substantial shareholders (who hold 5% or more of the equity in a firm), majority shareholders (who own 10% or more of the share capital/voting rights or 20%-50% of shares, as in Bahrain), and the percentage that triggers a buyout offer for at least 35% of the equity, must be disclosed[29]. However, Oman only declares the identity of shareholders who hold 10% or more shares; thus, the cut-off in this study is 10%. For the same purpose and due to data availability, Omran (2008) chose 10% as a start point.

To empirically measure the intensity of ownership, this study follows Chen et al.'s (2005) scale and Morck et al.'s (1988) categorisation, which operationalises as follows, which will yield three different thresholds: 10%-30%, 30%-50% and 50%-100% of ownership structure. For example, when ownership is 45%, under 10%-30% category it sets at 10%; under 30%-50% category it sets at 30%; and under 50%-100% category it sets at 5%. Assuming the concentrated level is (C) if the aggregate ownership C is between 5%-9.99%, it sets at C under all thresholds. However, once the data classification under these three thresholds is completed, all three columns are aggregated into one column, forming a measure for the concentrated ownership structure variable. By doing so, only percentages of ownership of the largest shareholders who have a higher voting right, which must be declared by law in the annual reports of the firms, are considered.

In other words, ownership percentages that are below 10% and/or above 100% are not trimmed or winsorised; rather, they are equally amounted under each of the mentioned thresholds[30]. Adding all percentages of ownership of shareholders of a firm in year t who own more than 5% of total outstanding shares in the firm yields a percentage of holding that stretches to more than 100%. Interestingly, GCC countries feature a highly concentrated ownership structure, whereby 17% of the sample of 290 firms has more than 100% ownership concentration. To avoid such interferences and to capture the real ownership structure of GCC firms, the previous technique was executed.

Ownership	Method of Classification							
[0.10-0.30]	=	C	(if	C	<	C – 0.10 (if 0.10 ≤ C < 0.20);	0.10 (if C ≥ 0.10)
[0.30-0.50]	=	0	(if	C	<	C – 0.35 (if 0.35 ≤ C < 0.50);	0.30 (if C ≥ 0.30)
[0.50-1.00]	=	0	(if	C	<	C – 0.50 (if C ≥ 0.50)	0.50 (if C ≥ 0.50)

[29] Capital Market Authorities: Corporate Governance codes of Saudi Arabia, Kuwait, UAE, Bahrain, Qatar and Oman.
[30] The common practice in such case is winsorising the variable below 1 and above 99 percentiles (see, Nguyen et al., 2014; and 2015 a few to mention).

National level data

A strand of non-Western research on the governance-performance relationship has ignored the impact of national governance quality that explains cross-country governance variations (Kumar & Zattoni, 2013; Nguyen et al., 2015). Such differences among various contexts can be explained by national governance mechanisms (Ngobo & Fouda, 2012). Maher and Anderson's (1999) study, which provided inferences on the link between the firms and economic behaviour under CG, found a causality relationship between the legal background of the country and its ownership configurations. Similarly, Shleifer and Vishny (1997) discovered that the statutory framework and ownership configurations are vital factors for comparing various governance systems. Institutional manifestations are controversially important for any study from emerging markets (Fan et al., 2011). Fan et al. (2011, p.208) simplified the importance of institutional factors in several words: 'it would be a mistake not to consider institutional effects' in social science and economic studies. They, in the same study, classified these factors into three pillars: the structure of ownership, quality of government, and the development of the financial market.

This research reconsidered the national governance quality of 'good public governance' invented by the World Bank (Kaufmann et al., 2006) in the governance-performance estimation. With respect to the GCC region, as an emerging market, the inclusion of national governance factors in the statistical analysis of firm performance is inevitable for the following reasons. First, the legal foundations of GCC countries are centred on the civil law that proved to be immaterial in minority shareholders' protection (La Porta et al., 1998; Claessens et al., 2010).

Second, the ownership is highly clustered around families and state, who tend to own stocks through the pyramidal web (Fan et al., 2011), which might be reflected in the firm's behaviour, triggering the ease of expropriation for minorities' rights. This is especially true when the market for corporate control and governance regulations is weak (Maher and Anderson, 1999). Thus, institutional, social, political and governmental indicators should not be neglected in the investigated governance-performance relationship. Maher and Anderson (1999, p.11) concluded, 'It is important, therefore, that the governance of companies be considered in the context of the overall properties and structure of economies'. However, Chan et al. (2008) found no evidence that 'good governance' tools of a country are indicators for prosperity. In contrast, Ngobo and Fouda (2012) found a positive relationship between regional governance and firm prosperity, which can lessen the above-mentioned agency conflicts.

Several recognised bodies (associations) around the globe have sought to measure the national and international governance quality and its improvement, such as 'Corruption

Perceptions Index' (CPI) enacted by Transparency International, 'Governance Indicators' by the World Bank, 'Democratic Audit' by the Human Rights Centre at the University of Essex and the Centre for Democratisation Studies at Leeds University (Bovaird and Löffler, 2003). Ngobo and Fouda (2012) mentioned a dearth of research that encompasses 'good public governance' measures with firms' behaviour and how they became increasingly relevant for economic behaviour.

They also cited the usefulness of the Worldwide Governance Indicators (WGI) in the multi-counties study, since it ranks over 200 countries based on the quality of their institutional environment. Nguyen et al. (2015) employed two different sets comprising three of 2011 Kaufmann's national governance indicators issued by the World Bank (i.e. WGI): Government Effectiveness, Regulatory Quality, and Rule of Law, with the second set being the investor protection index (World Bank, 2013). Omran (2008) controlled for the same indicators in his estimation but used the index of economic freedom instead of the investor protection index.

Therefore, following Ngobo and Fouda (2012) and Nguyen et al. (2015), national-specific governance indicators that extorted from Heritage, World Bank, and the World Development Indicator (WDI) database, are; Government Effectiveness, Rule of Law and Regulatory Quality. The national-specific indicators are denoted by (Gindex) for the overall national governance values, while (Index) is a reference for investor protection index (See Appendix A3.2). Kaufmann et al. (2011) argue that these factors are normally scaled from –2.5 (weaker national governance) to +2.5 (better national governance) and are strongly associated with each other (Nguyen et al., 2015).

Control Variables

In addition to firm-level and national-level governance practices, this study controls for other firm-specific features, which are determinants for the firm's functioning. With respect to the firm level, board structure, leverage, firm size, firm age, and lagged dependent variables are included. Leverage (LVG), treated as an endogenous variable, is the ratio of the firm's total debt over its total assets, and firm size (lnFS) is the logarithmic form of total assets, while firm age (lnFG) equals the natural logarithm of years of listing in the exchange. Importantly, lagged dependent variable by year (lnTQt-1) is included on the right side of the model with the set of explanatory variables to avoid biases of panel data and to capture its dynamic effects on the contemporary firm performance (Nguyen, 2015; Omran, 2008; Wintoki et al., 2012).

Compatible with scholars who examined the governance-performance nexus, board structure is treated as endogenous because of the reverse causality inherent in the board structure and firm performance (see Wintoki et al., 2012; Nguyen et al., 2014; Nguyen, 2015; Nguyen et al., 2015; Low et al., 2015). Adam and Ferreira (2009) criticised the inferences of the studies that scrutinised the diversity of the boards and performance, which ignored the reverse causality or endogeneity of the relation. Likewise, Campbell and Minguez-Vera (2008) attributed the divergences in results to not controlling for leverage, firm size, and endogeneity of the diversity-performance association. In effect, the preceding findings are inconclusive, so, to avoid the effect of the omitted variables, the current study took into account these conventional determinants of firms' performance. Therefore, duality (DUAL), board size (lnBS), diversity (GNDY), board independence, and non-executive members (INDP-NON) are structures of corporate boards that are controlled for. In addition, industry (INDS) and year (YEAR) effects are included in the model, since previous studies found that performance of firms varies across countries and industries and over years (Aggarwal and Knoeber, 1996; Maher and Anderson, 1999; Munisi et al., 2014).

Publicly listed firms in the GCC are classified into 11 sectors, based on the Global Industry Classification Standard (GICS). However, the two-industry benchmark is applied due to the imbalanced and limited number of firms included under some sectors subject to study. Therefore, the industry type in which firms operate is classified into two categories, manufacturing and services. The same method of classification, based on two types of industry, was employed by Shehata et al. (2017), due to the relatively small number of firms from GCC countries. To account for industry effects, similar to Shehata et al., (2017), two dummies are used that are set to 1 or 0 for manufacturing and services,

Table 3. 1. VARIABLES DEFINITION

VARIABLE	ACRONYM	DEFINITION
Dependent Variable		
Tobin's Q ratio	lntq	The natural logarithmic form of the ratio of the market value of shareholders equity added to overall debt all split by the book value of the firm's overall assets
Independent Variables		
Ownership concentration (%)	Own%	Measured by aggregating the fraction of total ordinary stocks of a firm owned by shareholders who own at least five percent of these shares. See
Board structure variables		
Gender dummy variable	Gndy	A binary variable that equals to one if there is at least one female director in the firm's board and zero otherwise.
Board independence and non-executive directors (%)	Indp-non	Ratio of independent and non-executive directors to board size.
Duality	Dual	A dichotomous variable that sets to1 if the chairman also acts as a CEO, and zero otherwise.
Board size	lnbs	The number of all directors. The natural logarithmic form (Inbs) is used in the model.
National governance quality variables		
Aggregate national governance index	Gindex	Gindex = Regulatory Quality + Rule of Law + Government Effectiveness. All components of this index are developed by Kaufmann et al. (2011).
Investor protection index	Index	Doing Business Project (World Bank).
Other control variables		
Firm size	FSIZE	The natural logarithmic form of the firm's book value of total assets (lnTA).
Leverage (%)	Lvg	The ratio of the firm's total debt over its total assets.
One-year lagged TQ	$lntq_{t-1}$	The one-year lagged ln(TQ).
Firm age	lnfg	The natural logarithm of the number of years since a company was incorporated.
Year dummy variables year	Year	Six dummy variables for years from 2008 to 2013.
Industry dummy variables	Inds	Two dummy variables that take a value of 1 if a firm operates in manufacturing and 0 if in services sector.

respectively. However, Fallatah and Dickins (2012) found no evidence for the connection between belonging of the firm to a certain industry and its performance in Saudi Arabia. In the same vein, Nguyen et al. (2015) excluded the industry-specific dummies from the OLS, fixed effect and the generalised method of moments (GMM) specifications, which were found to insignificantly differ from zero. Munisi et al. (2014), nevertheless, argue that the inclusion of the industry binary variable eases down the endogeneity spectrum. The definitions and acronyms of the variables are provided in Table (3.1).

3.5.3. Endogeneity in the Ownership Concentration–Performance Nexus

The potential endogeneity in the corporate governance–performance nexus has been discussed widely in the CG literature. The governance–performance relation can be modeled using a comprehensive set of governance variables identified in the literature, including ownership and a range of performance measures. A simple approach to analyzing the effects of CG measures on corporate performance is to estimate a pooled OLS regression. Many authors have implemented such a regression approach. However, the OLS approach "is appealing in its tractability, strict assumptions are required for the consistency of the coefficient estimates" (Schultz et al., 2012). The OLS requires variables that are strictly orthogonal to the errors. The errors also must be independently and identically normally distributed (zero mean and variance equal to $\sigma 2$) (Schultz et al., 2012). Therefore, the estimation will be inefficient and biased. There are three sources of potential endogeneity if at least one of them exist in the model the results will be spurious (Roodman, 2009; Wintoki et al., 2010; and Schultz et al., 2012).

According to Wintoki et al. (2010) these sources of endogeneity are dynamic endogeneity, simultaneity and unobserved heterogeneity**.** Dynamic endogeneity means that the current realizations of a variable are correlated with its value in later time. This kind of endogeniety can be found in the current study since control variables and performance measures (TQ) are determined by the firm's past performance (i.e. dynamic relationship). The second source of endogeniety is simultaneity, which means that two explanatory variables "are co-determined" simultaneously (Schultz et al., 2012). This kind of endogeniety also discovered by researchers in the governance–performance relationship. The third source is unobserved heterogeneity, which means unobservable firm-specific variables (called firm fixed-effects) can affect the relation of two or more other variables (Wintoki et al., 2010). Firm fixed-effects are unobservable, and thus are difficult to compute (Schultz et al., 2012).

3.5.4. The Econometric Model

3.5.4.1. Why dynamic system GMM model

Arellano and Bover (1995) and Blundell and Bond (1998) develop a system of simultaneous difference and level equations in the GMM framework that, under certain conditions, yield more efficient estimators than that of the difference GMM. In addition to the difference equation, a *level* equation is added to form a system of equations:

$$P = L.P\alpha + G\beta + X\eta\_ + \mathrm{E}$$

$$\Delta P = L.\,\Delta P\alpha + \Delta G\beta + \Delta X\mathrm{h} + \Delta\mathrm{E}$$

Where: $L.$ is a one period lag operator; Δ is the time-differencing operator; P is an $N \times 1$ vector of the firm performance measure across N observations; a is a 1×1 scalar of the coefficient for the lag of the firm performance measure, $L.$Y, across N observations; G is an $N \times H$ matrix of the H corporate governance variables across N observations; b is a $H \times 1$ vector of coefficients, βk, for the H corporate governance variables; X is an $N \times Q$ matrix of the Q firm control variables across N observations; h is a Q × 1 vector of coefficients, η_q, for the Q firm control variables and, E is an $N \times 1$ vector of differenced error terms across N observations.

The system GMM model increases the efficiency of the difference GMM specification in two regards. First, if the true relation between corporate governance and performance is in levels, Equation (1) will provide a more accurate specification of the relation's underlying dynamics. Second, if there is little persistence in the levels of the variables, then the lagged levels of the variables may be weak instruments in the differenced equation. That is, the levels may be almost uncorrelated with the differences. The system GMM augments the moment conditions by instrumenting the levels of the governance–performance relation with the lagged differences of the firm performance, corporate governance and control variables. These additional moments are valid if the endogenous variables exhibit characteristics of a unit root, where past changes are better predictors of levels than past levels are of changes (See, Roodman, 2009; Wintoki et al., 2010; and Schultz et al., 2012).

Though the errors in the levels equation will contain the potential unobservable heterogeneity evident in the data the instruments, or the differences in the variables, have been purged of unobservable firm effects and are orthogonal to the errors. An additional assumption must be imposed on the dynamic systems GMM model, namely that the correlations between the regressors and the firm fixed-effects are constant throughout the sample period. For endogenous variables, the lagged differences are available as a valid instrument. Additionally, the current and lag changes in the predetermined variables are employed as instruments. The estimation of the system GMM parameters follows the same two-step GMM procedure applied to the difference GMM specification. The process produces consistent and efficient estimates of the model parameters for the dynamic system GMM, robust to the biases introduced by simultaneity, dynamic endogeneity, and unobservable heterogeneity.

3.5.4.2. The Model

One of the advantages of panel data is that it controls for unobserved time-invariant heterogeneity (fixed effects) and allows for use of dynamic models. In this study, a dynamic panel data approach is adopted to investigate the impact of intensified ownership structure, as one of the internal governance practices (X_{it}), on firm-financial performance (Y_{it}). The internal governance-financial performance relationship is 'dynamic in nature', as suggested by previous studies (Harris & Raviv, 2008; Hermalin & Weisbach, 1998; Nguyen et al., 2015; Wintoki et al., 2012). This dynamic process implies that past realisations of firm performance have an impact on its current outcomes, as well as ownership structure and some firm characteristics (Nguyen et al., 2014). In other words, (X_{it}) is a function of historical performance (Y_{it-1}) controlling for other time invariant governance practices such as the firm-specific variables (Z_{it}) and unobserved firm-specific effects (η_i). The dynamic process that model the current internal governance practices can be expressed as follows:

$$X_{it} = f(Y_{it-1}, Y_{it-2}, \dots, Y_{it-k}, Z_{it}, \eta_i, \varepsilon_{it}) \quad (3.1)$$

If the link between ownership structure and financial performance holds, the equation can be rewritten as follows to reflect the relationships when the current performance is used as the independent variable:

$$Y_{it} = f(Y_{it-1}, Y_{it-2}, \dots, Y_{it-k}, X_{it}, Z_{it}, \eta_i, \varepsilon_{it}) \quad (3.2)$$

The internal governance structures of a firm are endogenously determined and dynamically correlated with performance (Bhagat, 2008; Demsetz, 1983; Nguyen, 2015; Wintoki et al., 2012). In effect, the dynamic specification is essential to model this association to capture the effect of omitted variables, and time persistence of the dynamic left-hand side outcome. Chen et al. (2005) argued the effect of omitting unobserved firm-level variables on the ownership-performance relationship limits the effectiveness of the model. Demsetz (1983) and Wang and Shailer (2013) also argue that causality exists between performance and ownership that is strongly affected by unobserved factors. However, Nguyen et al. (2014; 2015) argue that 'ownership structure should be unrelated to performance in the presence of endogeneity sourced from simultaneity and unobserved heterogeneity'. Thus, taking this 'dynamic-endogenous nature' of the relationship into account, econometrically, the following first-order autoregressive panel model AR (1) is considered:

$$y_{it} = \alpha_i y_{it-1} + x'_{it}\beta + \mu_t + u_{it}\,, \qquad |\alpha| < 1; \tag{3.3}$$

Where, the subscript *i* (*i* =1,2,…,N) indexes the observational cross-sectional units and *t* (*t* =1,2,…,T) indexes the time; (y_{it-k}) denotes the lagged dependent variable; (*k)* denotes the number of lags, identified experimentally[31], for dependent variable; (α) is a scalar parameter to estimate, (x'_{it}) is 1× *k* vector of observed governance and control covariates, (β) is *k* ×1 vector of coefficients to be estimated; (μ_t) denotes time-variant variables; and (u_{it}) is the composite error term ($u_{it} = \eta_i + \varepsilon_{it}$). The time-invariant unobservable unit-specific effect is (η_i), and idiosyncratic non auto-correlated disturbance term is (ε_{it}), both are orthogonal components (Bond, 2002; and Roodman, 2009). Since α_i is correlated with y_{it-1},

$$(E(y_{it-1}\alpha_i) > 0)$$

Thus, pooled Ordinary Least Square or Random Effect will be biased and the estimate of β_1 will be upward biased. In addition, since ε_{it-1} determines y_{it-1}, strict exogeneity assumption of valid OLS does not hold. Estimating (3.3) in first difference generates:

$$y_{it} - y_{it-1} = (y_{it-1} - y_{it-2}) + (\varepsilon_{it} - \varepsilon_{it-1}) \tag{3.4}$$

[31] Following Nguyen et al., (2015) the number of lags are obtained by regressing the performance at year $_{t-1}$ and year $_{t-2}$ on performance at year $_t$. The results are not reported because of the demand for space, but available upon request.

According to Bond (2002), FD and fixed effect (FE) are biased downward. To ensure that our results are reliable estimates and not affected by any sources of endogeneity, and to examine the relationship between ownership structure and firm performance, the AR (1) panel model (3.1) can be rewritten in the following form:

$$lnTQ_{it} = \alpha lnTQ_{i,t-1} + x'_{it}\beta + \mu_t + \eta_i + u_{it} \quad (3.5)$$

To test the hypothesis of the study, in line with Nguyen et al., (2015), the estimation of the model (3.5) will go through three-stages. First stage, the firms performance will be regressed on the governance variables and control variables to valuate the strength of the relationship between corporate governance practices and firm-performance, away from country-level governance factors. In the next stage, the national governance factors will be included in the model that will isolate the respective effect of countries' institutional factors from firm-specific factors. Finally, the interaction between the internal and external governance practices, which are statistically significantly linked with $lnTQ_t$ in stage one and stage two, will be investigated.

3.5.5. Econometric methodology

3.5.5.1. Why should a dynamic modelling approach be used?

From CG literature, it is well documented that shareholders adopt two strategies to ensure their returns on the investment will be returned. These are the external and internal governance mechanisms. The external mechanisms are legal system or takeover markets, while the internal one is played by shareholders themselves through the concentration of ownership (Nguyen et al., 2014; and Nguyen, 2015). Both mechanisms play a major role in monitoring managerial behavioural practices to alleviate agency problems of (Jensen & Meckling, 1976), raised by the separation of ownership and control, and ultimately increase firm's performance (Ngobo & Fouda, 2012; and Nguyen, 2015). In addition, from the perspective of traditional agency theory the causality run from ownership concentration to performance (Yabei & Izumida, 2008). However, Demsetz (1983) has challenged this view, arguing that ownership structure is endogenous variable can be determined by the profit-maximisation process because of unobservable and observable characteristics of the firm. More recently, Wintoki, Linck, & Netter, (2012) argue that current governance measures along with performance measures can be affected by the past performance of the firm, indicating that the relation run in the opposite direction. Thus, past performance can affect the current ownership structure (Wintoki, Linck, & Netter, 2012; Yabei & Izumida,

2008; and Nguyen, 2015). In sum, ownership concentration is dynamically endogenously determined by firm performance.

As mentioned in the previous sections, the new challenge in the incumbent literature is to address the conventional and unconventional causes of endogeneity. The failure to include the endogenous independent variables in Eq. (3.5), such as the ownership, the autoregressive component (dynamic), and board structure, along with cross-country variables that influence the selection process of the method of estimation (Ngobo & Fouda, 2012), can lead to more problematic inferences (Nguyen et al., 2014; 2015; Wintoki et al., 2012). Bond (2002) and Roodman (2009), among others, argue that the standard OLS estimator assumptions of the un-biasedness property (exogeneity of regressors) are violated in this case, since the disturbance term (ε_{it}) is correlated with the lagged right-hand side (lnTQ_{t-1}) dependent variable (case of endogeneity), due to the unobservable firm-particular effects (η_i) in the errors component that are omitted from the model (Model 3.5). If the omitted variables are time-invariant, the 'biases and inconsistency' of the OLS inferences will increase (Bond, 2002; Schultz et al., 2010; Nguyen et al., 2015). Ordinary Least Squares, as shown in the previous section, does not account for dynamic endogeneity of the independent variable ($TQ_{i,t-k}$) or for unobserved (η_i) firm-specific effects (Nguyen et al., 2015).

To address the unobservable heterogeneity (the FE), the FE panel data model can be used (Roodman, 2009; Schultz et al., 2010). However, the estimate of the parameters using the FE approach, in the occurrence of simultaneity and/or endogeneity, can be biased too (Nguyen et al., 2014, Roodman, 2009; Schultz et al., 2010). According to Schultz et al. (2010), the two conventional approaches (OLS and FE) are untrustworthy and 'biased'.[32] Blundell, Bond and Windmeijer (2001) elaborate that OLS estimation is inconsistent and biased upward due to the association between the one-year lagged dependent variable and errors. Nickell (1981) also explained the same point.In addition, the OLS-FE approach can also address the latter problem (unobservable heterogeneity) but not the former problem (dynamic endogeneity) (Schultz et al., 2010). Arellano and Bond (1991), Arellano and Bover (1995) and Blundell and Bond (1998) claim that the dynamic GMM is a more powerful method than other estimators in this case, such as 2SLS, 3SLS, IV or any 'system of simultaneous equations techniques' (Ismail and Abdallah, 2017), due to its 'consistency' (Schultz et al., 2010).

[32] This discussion is found in most of recent published journals. See for example, Roodman (2009), Schultz et al., 2010, Wintoki et al., (2012); Nguyen et al., (2014), Nguyen et al., (2015), Nguyen (2015) and Ismail and Abdallah (2017).

Given the fact that (i) the governance-ownership association is 'dynamic by nature', and that the (ii) panel dataset under study consists of large N (290 firms) over moderate T (six years from 2008 to 2013), (iii) the within variations of governance explanatory variables are noticeably low, and (iv) the outcome measure (TQ) is expected to change due to the changes in unobserved time-invariant factors that are related to the firm, then GMM is essential. GMM can cope with the mentioned problems, namely dynamic endogeneity, and unobserved FE of firms.

Generally, there are two types of dynamic GMM estimators, namely DFGMM (difference), and DSGMM (system) that can be applied to solve the inconsistency of the FE estimator as well as OLS. According to Roodman (2009), difference DFGMM and system SGMM estimators are suitable for micro panel data that has short T (i.e. short-time dimension), but large N (i.e. large-panel dimension), and can 'fit linear models with one dynamic dependent variable, additional controls, and fixed effects' (2009, p. 137). Although Arellano and Bond (1991) argue DFGMM can eliminate the unobserved time-persistent variables from estimation, it is not as efficient, as argued by (Roodman, 2009). The SGMM was introduced by Arellano and Bover (1995) and developed by Blundell and Bond (1998) to improve the weak efficiency of DFGMM of Arellano and Bond (1991). The DFGMM is also biased in small-sample cases when there are no good exogenous instrumental variables (Nguyen et al., 2015; Roodman, 2009).

Thus, to avoid the aforementioned concerns, the link between the ownership structures and the firm's performance in GCC is estimated using the SGMM estimation method, controlling all observed firms characteristics. Blundell and Bond's (1998) DSGMM estimator, as suggested by prior scholars (e.g. Bond, 2002; Nguyen et al., 2015; and Roodman, 2009), is applied to the baseline-dynamic model (3.5) and can be expressed as follows:

$$\begin{aligned} lnTQ_{it} = {} & \alpha_0 + \alpha_1 lnTQ_{i,t-1} + \beta_1 \mathrm{OWN}_{it} + \beta_2 \mathrm{NON}_{it} + \beta_3 \mathrm{INDP}_{it} \\ & + \beta_4 \mathrm{lnBS}_{it} + \beta_5 \mathrm{lnFS}_{it} + \beta_6 \mathrm{lnFG}_{it} + \beta_7 \mathrm{LVG}_{it} + \beta_8 \mathrm{GNDY}_{it} \\ & + \beta_9 \mathrm{DUAL}_{it} + \mathrm{INDS} + \mathrm{YEAR} + \mu_t + \eta_i + u_{it} \end{aligned} \quad (3.6)$$

DSGMM is a system of two models, 'in levels' and 'in differences' (the transformed equation) (Bond, 2002; Roodman, 2009), that allow the inclusion of the dependent endogenous variable (L.lnTQ) and/or preretirement independent variables and use their prior observations as instruments (Nguyen et al., 2015; Roodman, 2009). Inconsistent with Wintoki et al. (2012), two control variables are treated as exogenous variables: year dummies and firm age. In line with the suggestions of Bond (2002) and Schultz et al. (2010), the estimation results of DSGMM are matched with other models

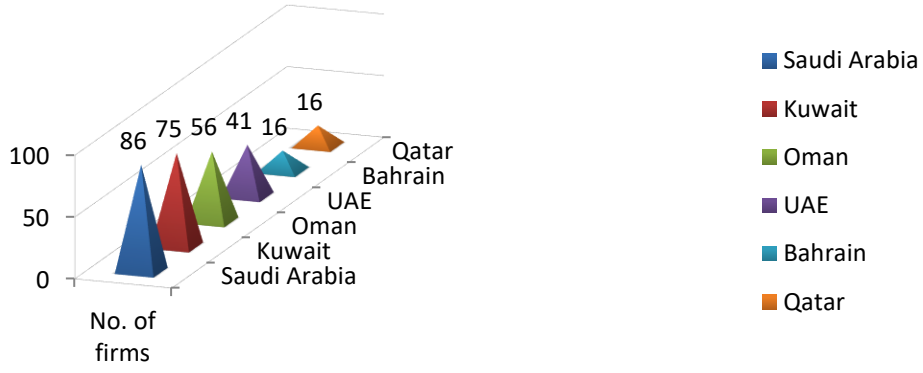
such as OLS and FE. Schultz et al. (2010) suggests to 'select a baseline approach against which to compare alternative methodologies' (p. 155). Since the sample is relatively small, Windmeijer's (2005) finite-sample option is used to correct the small sample for the downward biased errors term (Roodman, 2009). The downward biases of the standard errors are also claimed by Bond (2002) and Nguyen et al. (2015).

To determine the right minimum number of lags of firm performance (TQ) that must be included in the model, to produce a valid dynamic specification that is free from serial correlation in error term (Hansen, 1982), Wintoki et al. (2012), Nguyen et al. (2014) and Nguyen et al. (2015) have regressed the current performance measure on its last two realisations by using an OLS estimation. Following a process similar to theirs, the TQ_t was regressed on its three-year lagged values; the number of lags was reduced to two lags. At the same time, while reducing the number of lags, the serial correlation in AR (1) was checked continually. As a result, the contemporary firm performance statically and significantly related with its first lag (TQ_{t-1}), but not with its second lag (TQ_{t-2}).[33] Accordingly, the last year's performance is enough to proceed with the dynamic GMM specification to solve the first-order autoregressive issue, as argued by Nguyen et al. (2015), and to overcome the problem of over-fitting the model with countless instruments, as mentioned by (Roodman, 2009).

3.6. EMPIRICAL RESULTS AND DISCUSSION

3.6.1. Univariate Analysis

Figure 3.1. The distribution of GCC-sample firms by country



[33] The result is not reported because of space limitations, but available from the authors upon request. (Coef.=.605***, *p= 0.00, t= 40.89*)

Table 3. 2. Descriptive analysis for all variables used in the model, over 2008-2013 (1740 firm-year observations).

The descriptive analysis is calculated by using the untransformed form of explanatory variables. Following Nguyen et al., (2015), board size, Tobin's Q and firm age that are reported in the table are in levels form not in natural logarithmic form. The variables definition is as defined in Table (3.1).

VARIABLES	MEAN	MEDIAN	MIN	MAX
Tobin's Q ratio	0.75	0.62	0.20	4.43
% of female directors %	6.65	0.00	0.00	50.00
% of independent directors %	42.33	40.12	0.00	100.00
% of non-executive directors %	13.48	12.98	0.00	100.00
Duality	0.22	0.00	0.00	1.00
Board size	7.80	6.00	4.00	13.00
Ownership concentration %	44.54	49.42	0.05	95.91
Firm age	10.30	9.00	0.00	45.00
Firm size	12.39	11.38	7.00	18.32
Leverage %	22.03	19.74	0.00	155.60

The distribution of GCC firms included in the study by country, over sampling period 2008-2013, is provided in Figure 1. As can be seen in Figure 1, the majority of the firms are from Saudi Arabia, Kuwait (the two largest financial markets in the GCC region), Oman and the United Arab Emirates, respectively, while only 16 firms come from Bahrain and Qatar. The data were collected for the period of 2008-2013, in which most of the GCC markets had few firms listed, and some were delisted over the sample's period.

Table 3.2 illustrates the descriptive statistics for the variables included in the regression. The table shows that the mean (median) of Tobin's Q is .75 (.62)[34], indicating that there is a difference between the market and book value of the sample firms over the sample years, while the mean (median) percentage of shares of firms held by investors who own more than 5% is about 44.54% (49.42)[35], which displays a very high concentration in the ownership structure of these countries. This unique institutional feature has been mentioned by prior studies (e.g. AL-Yahyaee et al., 2017). The mean (median) value of the board members is approximately 7.80 (6.00), which is compatible with the recommendation of GCC CG regulations, which suggests a minimum of 3 and a maximum of 13 members. The percentage mean (median) of female directors is 6.65% (0.00%) of total directors, which is relatively low when compared to the mean of female directors

[34] Tobin's Q ratio that is equal one or more is an indication of better performance and better using for resources. While lower value (less than 1) is an indication that the firm did not increase its investor's wealth (Nguyen et al., 2015).

[35] The reported measure of concentrated ownership is the aggregate value before classifying the concentration into different thresholds that are mentioned earlier in this section; 5%, 10%, 20%, 35% and 50% and more.

(12%) reported by AL-Yahyaee et al. (2017), since he included only financial firms that are listed on their local stock markets and S&P from 2007 to 2011. Bank and financial firms are not included in this study, which are very mature firms and operate in the largest sector in the GCC region; this may result in appointing more female directors than those that operate in non-financial sectors.

Similar to the findings of Nguyen et al. (2015), the mean percentage of the duality of CEO accounts for approximately (22%), indicating that CEOs who act as chairpersons at the same time are an unusual practice in GCC firms. On average, there are about 42.33% (median 40.12%) and 13.48% (median 12.98%) independent and non-executive directors, respectively, in the boards of GCC firms. However, the minimum percentage is 0.00%, while the maximum percentage is 100%. The wide range between minimum and maximum mean percentage indicates that there are large differences across GCC firms in terms of board structure adopted by each firm in the sample. Overall, board diversity (e.g. the duality of chairman and appointment of non-executive female chairman and directors) is relatively low in the GCC as compared to well-developed markets.

Table 3.3 shows the pairwise correlation matrix for all variables used in the model, excluding the coefficient of year and industry dummies. Notably, the correlation coefficients between all variables, as can be seen in the table, are below (0.43), which is under the (.80) cutoff suggested by Damodar (2004). Since the variance inflation factors (VIFs), a multicollinearity test, values are below the (10) cut-off, the estimation of the model is not affected by the multicollinearity spectrum in this study, as suggested by Nguyen et al. (2014). Remarkably, the correlation coefficient between ln*TQ* and *L.lnTQ* is (.84), emphasising the strong dynamic relationship between today's TQ realisations and last years' realisations as suggested by many scholars (Wintoki et al., 2012, among others). The percentage of female directors, on the other hand, has a significant negative impact on the performance of GCC firms. Firm and board size are significantly correlated since the correlation coefficient is statistically significant at the 1% conventional level and equals (.39), indicating that the number of directors increases with the firm size.

3.6.2. Multivariate Regression Analysis

3.6.2.1.Empirical evidence from OLS, FE and DSGMM estimator

The data-analysis process of the data started with the descriptive analysis for all variables included in the baseline model of the study (discussed previously in detail). In this step, the data will be examined further against the statistical problems that could violate the OLS estimator assumptions property about biasedness (i.e., serial correlation) in the errors. Using Wooldridge's (2002, p. 2823) test for autocorrelation in panel data models, first, lnTQ was regressed on all independent variables and control variables in the first differences to store the residuals of the regression. Second, the residuals were regressed on its first lag to test the coefficient on those lagged residuals. The coefficient significantly differs from zero. The Wooldridge test for autocorrelation in panel data with a null hypothesis of (H0: no first-order autocorrelation) could not be accepted, as the p-value is significant at the 1% level, F (1,12) = 12.399, Prob > F = 0.0042. That is a first indication that the dataset suffers from auto-correlation in the residuals and that OLS is an inappropriate estimator for this study. In addition, this is a sign for the existence of the time-invariant unobserved firm FE component in the error term[36]. Since controlling for autocorrelation and heteroskedasticity is not a concern in this study, the next specification test (section 3.6.2.2) is for the endogeneity of the regressors of the study, including lagged (lnTQ). As mentioned previously in this section, the parameters estimated using the OLS or FE estimators are biased. There may be more concerns of its statistical validity. More precisely, the dynamic nature of the relation between governance and performance can worsen the biases of the results if the model was estimated through conventional approaches. These include the OLS estimator, which produces upward-biased coefficients, while the estimated coefficients by the FE estimator are biased downward (see Bond, 2002; Roodman, 2009; and Schultz et al., 2010 for further discussion). For this effect, the estimated parameters using the DSGMM estimator should be moderated (i.e. below OLS, but above FE). Moreover, pooled OLS is biased and the estimate of β_1 is biased upward (Bond, 2002). Since (ε_{it-1}) determines (y_{it-1}), strictly exogeneity assumption of valid OLS does not hold in this case (Roodman, 2009). As Roodman clearly said on short panel data, 'there is always some bias in the direction of OLS' and FE (2009b, p.139). This can be validated empirically from Table 3.4, Panel A. The results obtained from pooled OLS and FE estimations are respectively reported in columns 1 and 2 of Table 3.4, in which the

[36] Test for heteroskedasticity was not conducted as long as GMM estimator is robust to auto-correlation and heteroskedasticity, especially if Windmeijer (2005) small-sample correction considered in the estimation. The auto-correlation test applied though in order to ensure that the GMM is empirically and theoretically the best estimator for this study.

coefficient of past performance [lag ln(T*Q*)] is (.818), (0.753) and (-0.062) for pooled OLS, SDGMM and FE, respectively. The coefficient of (lag lnTQ) is found to be statistically positive at 1% level of significance (p-value=.000) for the pooled OLS. This is an indication that past performance has significant impact on current performance of the firm. It can be seen from columns 1 and 2 of Table 3.4 that the statistical significance of estimated coefficients on board structure variables (Female, independent, and non-executive) disappears when the unobserved firm fixed-effects have been taken into consideration, which is another evidence that the OLS results are likely to be driven by omitted firm-level characteristics. In addition, the significantly positive relationship between concentrated ownership and performance does not change after controlling for these characteristics, thus, OLS and FE support the first hypothesis of the thesis, that the relationship between the ownership structure and performance of the companies in the GCC is statically significant. According to Roodman, (2009) researchers normally refer to the p-value of Hansen test for the validity of the system GMM column. However, another statistic test for overall fit of DSGMM model that can be useful is Wald chi-squared statistic. As outlined in Panel B of table (the 3.4), the p-value of Wald chi-squared statistic for goodness of fit is equal to (0.00) that is statistically significant at 1% level. This result is consistent with prior studies; however, it is not valid because of the endogeniety that is not accounted by FE (Wintoki et al., 2012; and Nguyen et al., 2015). The following subsections will discuss the results of 2-step DSGMM that control for any potential sources of endogeneity.

3.6.2.2.Testing for weak exogeneity of the variables

One of the key properties of the GMM estimator is that the endogenous variables can be instrumented with its lagged and first-differenced lagged values, as well as its consistency (Roodman, 2009), as discussed earlier in this section. However, these features are valid unless the CG variables are endogenous. If the variables are exogenous (endogenous), the ordinary panel data approaches (the dynamic GMM) are more robust than the dynamic (static panel models) estimation approaches; thus, the efficiency of (consistency of) the estimated parameters will increase (Schultz et al., 2010). It is well documented in the literature review that all CG factors are endogenous (Nguyen et al., 2015).

Table 3.3. Pairwise correlation coefficients and variance inflation factors (VIFs)

Table 3.3 Displays all pairwise correlation coefficients between the variables, based on individual samples. This means that all available data of each key variable used in the equation, providing the best statistic of correlations. For each year over 2008-2013, the sample consists of (Saudi, Kuwait, Oman, Qatar, Dubai and Abu Dhabi, and Bahrain) listed non-financial non-utilities industrial firms and non-missing data for Tobin's Q ratio (TQ). As in Table 3.2, the same sample is used but the variables (lnTQ, BSIZE and FSIZE) are replaced with the natural logarithmic form of the variables. The lagged value of Tobin' Q ratio is included (LlnTQ). (OWN) is the ownership concentration variable in aggregate form (from 5%-100%). Other explanatory variables in the table are the same; see Table 3.1 for variables definitions. The last column of the table is the variance inflation factors (VIFs) coefficients, obtained after running the pooled OLS regression. The VIFs is a formal test of multi-collinearity. As indicated in the table under (VIFs) column, all the values are below the threshold of 10, which means that it is unlikely to have a serious problem of having multi_collinearity in the estimation. The partial and semi-partial correlations of (lnTQ**)** with each variable are used to compare the significance values for each entry. Asterisks indicate significance at 10% (*), 5% (**) and 1% (***)

	lnTQ	FEM	NONEX	INDEP	BSIZE	OWN	DUAL	FAGE	FSIZE	LEV	LlnTQ	VIFs
lnTQ	1.00											
FEM	-0.08***	1.00										1.04
NONEX	0.005	-0.06**	1.00									1.35
INPEP	0.07***	-0.13***	0.43***	1.00								1.52
BSIZE	0.10***	-0.04*	0.10***	0.11***	1.00							1.32
OWN	-0.11***	0.09***	-0.10***	-0.34***	-0.20***	1.00						1.86
DUAL	0.05**	0.10***	-0.25***	-0.18***	-0.11***	0.68***	1.00					1.04
FAGE	-0.10***	0.05**	-0.15***	-0.18***	-0.05	0.14***	0.021	1.00				1.09
FSIZE	0.02	-0.08***	0.27***	0.30***	0.39***	-0.23***	-0.08**	-0.13***	1.00			1.54
LEV	-0.10***	0.05*	-0.08***	-0.01	0.03	-0.04	-0.03	-0.09***	0.24***	1.00		1.14
LlnTQ	0.84***	-0.08***	-0.01	0.04	0.10***	-0.09***	0.06*	-0.09***	0.01	-0.08***	1.00	1.06

However, to validate the use of the DSGMM estimator, it is important to conduct a formal test to assess the regressors' endogeneity (Roodman, 2009; Schultz et al., 2010). In line with extant studies, to test for the endogeneity of the CG and firm-specific variables (Durbin, 1954; Hausman, 1978; Wu, 1973) before proceeding with DSGMM, the Durbin-Wu-Hausman (DWH) test for endogeneity, which follows a *Chi-squared distribution* (*Chi-sq)* with a degree of freedom that is equivalent to the number of regressors included in the test, is conducted. The DWH's null hypothesis is that the governance-performance covariates are not endogenous and can be treated as exogenous regressors (Schultz et al., 2010; Nguyen et al., 2014). In line with Schultz et al. (2010) and Nguyen et al. (2014), untransformed in-levels equation, along with the first differences of one-year lagged instrumental variables, including exogenous variables (i.e. ln (Firm-age), YEAR and INDS), are used to perform the test (Schultz et al., 2010; Nguyen et al., 2014; Nguyen et al., 2015).

The test reveals (*Chi-sq* (10), *p-value* = 0.00); so, the null hypothesis of the exogeneity of the governance and firm-specific variables is rejected at the 1% level of significance. Finally, based on the results of the DWH endogeneity test, the governance factors that are used in the estimation of the performance-governance model are endogenous; indicating the appropriateness of implementing DSGMM over the conventional biased and inconsistent approaches (e.g. pooled OLS or FE) in the GCC context. In sum, DSGMM is more consistent than OLS and FE (the discussion in this section closely follows (Nguyen et al., 2014; Nguyen et al., 2015; Roodman, 2009; and Schultz et al., 2010).

3.6.2.3.The impact of Ownership structure on performance

After examining the endogeneity of the regressors, the analysis of the inferences of the 2-step DSGMM estimator are analysed and justified. More precisely, the impact of ownership structure, as an internal governance practice, on GCC firms' performance is scrutinised in this section. However, the DSGMM estimates for the internal governance and performance nexus, using Windmeijer's (2005) small-sample correction, are presented in (Panel A, Column 3 of Table 3.4).

From Table 3.4, Panel A, it is clear that there is a positive statically significant relationship between current ($lnTQ_t$) and past performance ($L.lnTQ_{t-1}$) among the GCC firms over the sample period of 2008-2013 at the 1% significance level for all models presented in the table. Moreover, model 1 and 2 present the results of OLS and FE estimation, respectively. While model 3-5 present the results of DSGMM models. Nguyen

et al. (2014), Nguyen et al. (2015), Schultz et al. (2010), and Wintoki et al. (2012) claim similar findings.

Since the pooled OLS (upper bound) and FE estimates (lower bound) of coefficients tend to be biassed in opposite directions when the length of panel is short (Bond, 2002; Nickell, 1981), a reasonable estimate of coefficient should be moderated between the two estimations (Bond, 2002). It is clear from the table column 3 that DSGMM is likely to produce reasonable estimates (0.753), comparing with OLS (0.818) and FE (-0.062). According to Roodman (2009), researchers normally refer to the p-value of the Hansen test for the validity of the system GMM. However, another statistic test for overall fit of DSGMM model that can be useful is the Wald chi-squared statistic. As outlined in Table 3.4, the p-value of the Wald chi-squared statistic for goodness of fit is equal to (0.00), which is statistically significant at the 1% level and confirms the overall fit of the DSGMM model. Finally, since the results from Wald chi-squared test, Hansen-J test, and Difference-in-Hansen tests of overall model fit, together with the reasonable estimate of α_1, suggest that the system GMM model appears to be well specified (Wintoki et al., 2012). Ownership coefficient estimated by 2-step DSGMM with the Windmeijer (2005) finite-sample correction, reported in column 3 of table 3.4, is equal (0.20) and positively correlated with performance at the 1% level ($p = 0.00$) of significance. While statically significant at the 10% level, 5% in the following columns 4 and 5, respectively. The findings indicate that, no matter what the method is used to estimate the relation, the relationship between ownership concentration and performance remains strong and positive across the table.

This finding is in line with Arouri et al. (2014), Nguyen et al. (2014), and Nguyen et al. (2015), who argue that the corporate ownership structure is an efficacious factor for governance in the GC context. Similar results also by Al-Saidi and Al-Shammari (2015), Hu and Izumida (2008), and Mandaci and Gumus (2011) who found that there is a direct relation and causality between governance and ownership structure and the performance of a firm. The relationship arises from the influence of past performance on the two variables. Mandaci and Gumus (2011) found a positive relationship based on an analysis of Turkish firms, with similar results reported by Yasse and Al-Mamum (2017), who studied Pakistani firms, Lo et al. (2016), who studied Taiwanese firms with international operations, and Santana et al. (2015), who sampled Brazilian firms from the utilities sector. The relationship is attributed to higher incentives to monitor the activities of the management by the dominant or majority shareholder (Chen et al., 2005).

Table 3.4. The relationship between ownership concentration and performance: OLS, FE and 2-step DSGMM

Panel A. The empirical results reported in this table are from estimating equation (3.6). The dependent variable is lnTQ (the firm performance). In this table, all coefficients estimated using OLS, FE and DSGMM are represented. All variables are winsorized at the 1% level. For variables definition see table 3.1. In column (1), the coefficients estimated using Pooled OLS estimation, while in column (2) the FE (within group estimator), the main analysis is based on the DSGMM results that are represented in column (3, 4 and 5).

The dependent variable is lnTQ	**Pooled OLS**	**Fixed-effects**	**DSGMM**	**DSGMM**	**DSGMM**
EXPLANATORY VARIABLES	b/(t) 1	b/(t) 2	b/(z) 3	b/(z) 4	b/(z) 5
L.ln(t*q*)	0.818*** (29.45)	-0.062*** (-1.65)	0.753*** (7.45)	0.186* (1.842)	0.218** (2.215)
Female	0.043*** (1.462)	-0.042 (-0.326)	0.022 (0.450)	0.021 (0.891)	0.011 (1.406)
Independent	0.693** (2.16)	-0.183 (-1.24)	0.089** (2.56)	-0.010 (-1.350)	-0.009 (-1.018)
Non-executive	1.512** (2.18)	-0.001 (-0.217)	0.002 (0.028)	-0.030 (-1.323)	-0.034 (-1.474)
Board size (ln)	0.153* (2.03)	0.054*** (2.76)	-0.143*** (-2.15)	-1.382 (-1.484)	-1.501 (-1.461)
Duality	0.028* (1.76)	0.148** (2.268)	0.634 (1002)	-0.030 (-0.039)	0.020 (0.142)
Firm age (ln)	-0.055*** (-2.92)	-0.153** (-1.846)	-0.115*** (-3.38)	-0.070 (-0.452)	-0.076 (-1.036)
Firm size (ln)	-0.012* (-1.87)	-0.165*** (-3.60)	-0.116*** (-3.19)	0.154 (0.983)	0.165 (1.034)
Leverage	-0.0026*** (-4.00)	0.0176 (1.33)	-0.003 (-0.636)	0.015** (2.321)	0.011* (1.831)
Ownership	0.011*** (-2.82)	0.005*** (3.10)	0.020*** (3.571)	0.040*** (4.063)	0.048*** (3.714)
Gindex				0.399* (1.784)	
Ownership*Gindex				-0.002** (-2.335)	
Index					0.499* (1.780)
Ownership* index					-0.001** (-2.281)
Constant	0.115 (1.02)			-4.844 (-1.402)	-6.953* (-1.439)
Industry dummies	Yes	No	No	No	No
Firm fixed-effects	No	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes
Number-of observations	1740	1740	1740	1740	1740
R-squared	0.622	0.354			
F statistic. P-value	0.00***	0.00***			
Wald-Chi-squared statistic, p-value			0.00***	0.00***	0.00***
Number of instruments			29	35	33
Number of clusters		290	290	290	290
DWH test for endogeneity of regressors, p-value			0.00***		
Hansen-J test of over-identification, p-value			0.834	0.534	0.865

Continued,

Table 3.4. The validity of DSGMM model and the instruments

Panel B

Specification test	**P-value**
Arellano-Bond test for autocorrelation in first differences errors	
Arellano-Bond test for AR(1) in first differences (negative)	0.000
Arellano-Bond test for AR(2) in first differences	0.297
The validity of the instruments tests	
Sargan test of over-identifying restrictions:	0.508
Hansen-J test of over-identification	0.845

Similar results were also obtained by Fallatah and Dickins (2012), who studied the impact of CG and firm performance and value in Saudi Arabia utilising an index that helped to capture the overall impact of the firm's CG practices. The research found that, by using Tobin's Q, there was a positive relationship between CG and a firm's value. This is, however, inconsistent with Abdallah and Ismail (2016), who focused on the effects of ownership concentration on performance, indicating that dispersed ownerships present a more direct relationship with performance than concentrated ownership.

This relation between ownership and performance is as expected since the GCC region is labelled with highly concentrated family and state ownership. These results are in line with agency theory and Institutional Theory. However, it can be seen that board structure coefficients estimated by OLS are all statically significant at different levels of significance. Indeed, all board-structure variables, but not the board size and independent-non-executive directors, have no significant effects on firm performance after controlling for dynamic endogeneity, and unobserved heterogeneity.

It is worth noting that the coefficient estimates of female, non-executive, duality and leverage have become insignificant in the DSGMM estimate after taking endogeneity into account, indicating that there is a bias in the OLS and FE estimations, also, there are time-invariant unobserved factors that affect the relation between ownership-performance (Schultz et al., 2010). This attributes to the fact that ownership concentration is the main factor affecting the management board structure, strategic decisions, and the source of capital (debt finance versus equity finance). They tend to fund the firm's projects through equity financing to keep their control over the firm activities; this is in line with LaPorta et al. (1999).

In the main model presented in column 3, board size, firm age, and firm size are negatively statically significant at 1% level of significance, while ownership along with previous performance (L.Intq) are positively statically significant at 1% level. That means the relationship between performance and ownership is dynamic in GCC firms. In addition, the internal corporate governance mechanisms play a major role in determining the ownership structure of these firms. Thus, this evidence supports the agency perspective; that ownership concentration appears to be an effective internal corporate governance strategy that helps to enhance performance.

The higher is the board size the lower is the performance of the firm by 14%. While, the older is the firm the lower is it is performance. This result is not in contract with chapter one as many researchers have found similar results, indicating that well-established firms have lower growth opportunities, higher profits, and better access to financial markets, which is in line with life-cycle theory of the firms as well as agency theory discussed in previous chapter.

The results are also in line with chapter one and three, that internal governance tools have a massive role in monitoring the management team of the GCC firms, and thus lowering the costs of agency problems. Governance practices of the GCC firms are homogenous; so, the empirical results are generalisable under the ceiling of the firms.

This result is in contract with Nguyen (2014) who found a positive and significant relationship between blockholders and the performance of a firm, as a measure of ownership concentration, using dynamic setting to control for the dynamic-endogeneity, simultaneity, and unobserved heterogeneity of the relationship.

Other researchers who came to this conclusion include Claessens and Djankov (1999); Garcı´a-Meca and Sa´nchez-Ballesta (2011), Gedajlovic and Shapiro (2002); Ma et al. (2010); Perrini et al. (2008); Shleifer and Vishny (1986), and Silva and Majluf (2008). The relationship is attributed to the characteristics of CG at the time, especially a lack of protection of minority investors and the fact that corporations at the time were not professionally managed. In sum, concentrated ownership could be used to ensure management boards remain committed to value maximisation objectives.

For a robustness check, the dataset was separated into six subsets one for each country in the sample. The findings did not change, the significant positive impact of ownership, using different estimation approaches, remains robust and unaffected[37].

[37] The results are not reported due to space limitations.

Table 3.5: Difference-in-Hansen tests for exogeneity of instrument subsets

Instrument subset	Test statistic	Degree of freedom	P-value
Panel A: System GMM-type instruments All instruments			
All instruments for equation in levels	17.39	9	0.790
$lnqi_{t-2}$ and $lnqi_{t-3}$ (for equation in differences)	5.66	2	0.539
Δlnq_{it-1} (for equation in levels)	0.35	1	0.333
Instruments for board structure variables	14.31	9	0.512
Instruments for ownership structure and the other control variables			
Panel B: Standard instruments			
(2010,2011,2012,2013) Year dummies, and ln (firm age)	6.98	5	0.721

Note: Difference-in-Hansen tests for exogeneity of instrument subgroup. The test follows Chi-squared distribution, with degrees of freedom equivalents to the number of subgroups instrumental variables (Roodman, 2009). Following Roodman (2009) and Nguyen et al., (2015) the five subgroups of instruments that were checked are: for the equation in levels (1) The hole group of GMM-style instruments; for the equation in differences (2) and for the equation in levels (3) GMM-style lagged dependent variable's instrument; for board structure factors (4) GMM-style instruments; and for ownerships structure and control variables (5) GMM-style instruments. In addition, the validity of, for the equation in levels, the standard subgroup of instruments was checked too. For the equation in levels, GMM-style instruments subgroup used the lagged differences by a year of lnTQ; lagged differences by two years of board structure, ownership concentration, and other control variables. GMM-style instrument subgroup used for board structure variables include lagged differences by two years and third lags in levels of board structure factors. GMM-style instrument subgroup used for ownership structure and the other control variables include lagged differences by two years and third lags in levels of these variables. The subgroups of standard instruments for the equation in levels includes (year dummies, and ln (firm age)). 2008 and 2009 year dummies are dropped due to collinearity.

3.6.2.4.The impact of national governance quality on ownership-performance nexus

Following Nguyen et al. (2015), the model is re-estimated, using pooled OLS, FE, and DSGMM, with a country dummy variable, concentrated ownership, and an interactive element. The latter is used to investigate the influence of the country-specific factors of each country on the relationship between ownership and performance. The country dummy variable takes a value of one if a company operates in one of the six countries. So, six dummies were generated, i.e. six separate subsamples for each of GCC country. Given that only the concentrated ownership variable has a significant positive effect on performance across all estimation techniques, one interaction term between the concentrated ownership variable and country dummy, i.e., 6 separate interaction terms were generated to initially check whether the ownership concentration–performance relationship is influenced by country-specific characteristics. If the estimated coefficients on these dummy variables and interaction terms were statistically significant that would suggest that country-specific characteristics do matter. Interestingly, the coefficients of the dummies are significant at the 5% level (the results are not reported). This finding emphasises the fact that the impact of ownership concentration on performance would vary across countries and would show negligible biases across different econometric techniques. Consequently, it is plausible to

examine the role of national governance quality and investors protection in enhancing the relationship between ownership concentration and performance.

In order to test hypothesis H3.2, Eq. (3.6), including national governance quality variable (Gindex) and investors protection index (Index), along with two interaction terms between Gindex and Index, and the existing concentrated ownership variable, will be used. For simplicity the two interaction terms were added in one equation (3.7), however, presented in two different columns in table (3.4); column 4 and 5. The Eq. (3.6) can be rewritten as follow:

$$\begin{aligned} lnTQ_{it} = \alpha_0 + \alpha_1 lnTQ_{i,t-1} + \sum_{k=1} \beta_k \chi_{k,it} + \gamma \mathrm{OWN}_{it} + \delta\ \mathrm{Gindex}_{jt} \\ + \theta\ \mathrm{Index}_{jt} + \varphi(\mathrm{OWN}_{it}\ \mathrm{x}\ \delta\ \mathrm{Gindex}_{jt}) \\ + \omega(\mathrm{OWN}_{it}\ \mathrm{x}\ \theta\ \mathrm{Index}_{jt}) + \mu_t + \eta_i + u_{it} \end{aligned} \tag{3.7}$$

$$\begin{aligned} lnTQ_{it} = \alpha_0 + \alpha_1 lnTQ_{i,t-1} + \sum_{k=1} \beta_k \chi_{k,it} + \delta\ \mathrm{Gindex}_{jt} + \theta\ \mathrm{Index}_{jt} \\ + (\gamma + \varphi\ \mathrm{Gindex}_{jt})\mathrm{OWN}_{it} + (\gamma + \omega\ \mathrm{Index}_{jt})\mathrm{OWN}_{it} \\ + \mu_t + \eta_i + u_{it} \end{aligned}$$

If the coefficients on the Gindex (δ) and Index (θ) variables were statistically significant it would indicate that national-governance quality and investors protection matter. Positive values for the coefficients on the interaction terms (φ ω) would glimpse that the higher the Gindex or Index are, the stronger the effect of ownership on performance will be. Conversely, negative values for (φ ω) would glimpse that the higher the Gindex and Index are, the weaker the effect of ownership on performance will be. Following Omran et al. (2008), Nguyen et al. (2015), and (Ngobo & Fouda, 2012), national governance variables and investors protections are assumed exogenously related to the firm's choices. Noticeably, as evident in the last two columns of Table 3.4, after controlling for national governance factors and investors protection index, there is a significantly positive relationship between the concentrated ownership variable and performance (β = .040; β = .048 p-value = .000), which are as expected. This evidence shows that significantly positive effect of concentrated ownership on performance remains unchanged and robust, thus supporting Hypothesis H3.1. These findings indicate the positive role of national governance and investors' protection in enhancing the relationship between ownership concentration and firm financial performance, thus supporting Hypothesis H3.2.

The (Gindex and Index) aggregate measures are also correlated with firm performance (β =0.399, and β =0.499, respectively) at the 10% level of significance. This evidence is in line with Nguyen et al. (2015), and Ngobo and Fouda (2012). However, the

estimated coefficients on the interaction terms are negative and different from zero at the 5% level of significance ($\varphi = -0.002$; and $\omega = -0.001$). The results can be justified that the higher the national governance quality and investors protection are, the lower will be the impact of ownership concentration on performance. These inferences confirm the main proposition of this study that the performance effectiveness of corporate governance mechanisms, including concentrated ownership structure, can be contingent upon organisational, regional and legal characteristics of the country (Kumar & Zattoni, 2013).

The inferences are in line with those of Munisi et al. (2014) and Nguyen et al. (2015), which can be conclude with the fact that ownership concentration is an essential corporate governance tool that can be in exchanged with, in the absence of, effective national-governance mechanisms and strong investors protection for GCC firms in order to alleviate potential agency problems. Arguments under the agency theory culminate in the conclusion that concentrated ownership can alleviate agency-related costs (Pucheta-Martínez and Bel-Oms, 2016). Munisi et al. (2014) explained that external and internal governance mechanisms could align the managers' interests with those of shareholders, and between minority shareholders and controlling shareholders, in case the managers (or controlling shareholders) tried to misuse the company's wealth at the expense of the minority shareholders.

In addition, there is no statistical evidence for the relationship between board structure and firm performance by estimating Eq. (3.7) and after controlling for national governance quality and investors protection. The estimated coefficients on board structure variables are not statistically different from zero even at the 10% level of significance. This finding is in line with (Schultz et al., 2010; Wintoki et al., 2012; and Nguyen et al. 2015), but contrary to the predictions of both agency theory and (RDT) resource dependence theories. As can be seen in Table 3.4 panel A, the significantly positive coefficients on the last-year performance L.ln(tq) indicate that performance is quite persistent after using three different models and alternative proxies for country-level governance factors. This result is also consistent with previous studies (e.g., Wintoki et al., 2012). Notably, past performance L.ln(tq) is a key determinant in ownership-performance model.

It is also noticeable from table (3.4) under column 3, by estimating Eq. (3.6) only independent directors, board size, firm size and firm age are statistically significant at the 5% and 1%, respectively. However, no statistical significant relationship was found between the control variables and performance by estimating Eq. (3.7), represented in column 4 and 5.

However, the estimated coefficients on the firm age and size are negative and significantly different from zero at the 1% level of significance. Firm age is found to be negatively associated with performance and can be inferred as, the older the age of the firms, the lower the ability to compete over time. Similar conclusion was drawn by the study of Buallay et al. (2017), who examine the relationship between Corporate Governance on Firm performance for Saudi listed companies. They found negative and insignificant relationship between firm size and performance as measured by TQ ratio. They attributed the results to the lack of strong CG and concentrated ownership. In chapter one it has been found that as firms get older in age or bigger in size their ability to distribute dividends increases because they have accumulated abundant of money and their growth opportunities have vanished. Similarly, Saeed and Sameer (2017) argue that the higher the dividend payments to shareholders, the lower the excess free cash, thus the lower the agency costs. It is well documented that concentrated ownership has a significant positive impact on performance due to its ability to lower the agency costs associated with the separation of ownership from management but this might be not in the interest of the firm.

Also, it is well documented that the stronger the governance of the firm the lower the dividends payments since concentrated ownership works in exchange with dividends when it comes to agency cost problem. This finding is in line with Loderer and Waelchli (2009). In addition, looking at age distributions are not similar across all companies across countries under study, the mean of firm age is around 10 years wile the maximum age of firms included in the sample is 45 years. The variation in the distribution of firms' age is not the same as those of chapter one. The main proposition of chapter was the propensity of the firm to payout dividends, controlling for the current size of the firm and their future growth opportunities, not the age of the firm, however, age was referred to in section 2.7.2.1 as a part of the discussion of growth prospects since age can be considered as a proxy for the age not the size, thus, a negative relationship was found between growth and the propensity to pay dividends. This finding is consistent with agency cost theory and life-cycle theory. Dickinson, (2011) explained that life-cycle stages of the firms can be determined by the availability of growth (investment) options, and progress of the firm. In the introduction (growth stage) of the firm's life-cycle opportunities of firms to grow are higher than in the maturity (decline stage) since the opportunities start to shrink (Dickinson, 2011).

Moreover, in large firms, the resources under the firm's management are significant, which implies difficulties for shareholders to monitor managers' investment decisions, who might invest in unpleasant projects, shareholders will seek to reduce the agency costs of free cash flow by encouraging firms to pay dividends, which would decrees their fund for reinvestment or expansion, thereby decreasing the growth rates and

performance, since asset growth (size) can be used as an indicator for performance, and thus their ability to compete other firms in the markets. It is hard for old and big firms to change or cut their dividends policy since that would signal bad news, according to signalling theory, about the ability of the management of the firm to create earnings in the future. Another rationale is that RE drove the direction and the size of the relationship, not the growth level, age or size of the firm. Given that asset growth reflects future rather than current prospects, larger firms have lower future growth rate, which is in line with the main prediction of this study.

Another rational explanation provided by Dickinson, (2011) is that, corporate strategy literature shows that disruptive innovations[38] can nullify the sources of competitive advantages among small new entrants firms and large well-established firms. Such disruptions nullify the influence of age as a determinant of growth and dividend policies, and place the institutions in the same pool as new entrants to the market (Dickinson, 2011). GCC governments, as part of their new economic diversification vision, away from the oil sector, have supported the private sector and the new listed firms to reach the goal of 270 listed firms by 2020. This would put a big pressure on the old less innovative incumbent businesses.

Another recent study by Hamdan (2017), who investigates the moderating role of accounting conservatism in the relation between ownership concentration and firm performance of Gulf Cooperation Council (GCC) firms, found that GCC firms controlled by institutional ownership have achieved a high level of performance compared to other firms with low institutional ownership. Since the impact of institutional ownership on performance was not under the scope of the current study, it is hard to tell whether institutional ownership is the key driver for the low performance spotted in the estimation results. In the same note, Hamdan attributed the negative impact of firm size on performance to the fact that small firms can get better returns through utilising its assets and through having a good name in the market. Due to the trust GCC shareholders have in businessmen and families known in the market, they look positively at the control such people have on the company, which is not necessarily true but it is the truth.

[38] Disruptive innovation describes a process whereby a smaller company with fewer resources is able to successfully challenge established incumbent businesses. Entrants that prove disruptive begin by success- fully targeting those overlooked segments, gaining a foothold by delivering more-suitable functionality— frequently at a lower price. Incumbents, chasing higher profitability in more-demanding segments, tend not to respond vigorously. Entrants then move upmarket, delivering the performance that incum- bents' mainstream customers require, while pre- serving the advantages that drove their early success (Clayton, 2015).

3.6.2.5.The validity of DSGMM estimator (over-identifying restrictions)

The final step is to check the validity of the chosen estimator (DSGMM), which is reliant on the exogeneity of the 'lagged instrumental variables' (Roodman, 2009), by consulting the specification tests (i.e. goodness-of-fit or post-estimation tests), as shown in Table (3.4; and 3.5). These include, in principle, (i) comparing the estimated coefficients by DSGMM with those obtained from estimating the parameters by conventional methods, (ii) Sargan test, (iii) Hansen-J test, and (iv) the difference-in-Hansen test. The last two tests are mainly a test of over-identifying restrictions, and tests of exogeneity to the subsets of system-GMM-type instruments and standard instruments, respectively (Nguyen et al., 2015; and Roodman, 2009).

Notably, the Sargan and Hansen J statistic are tested to check the validity of the instruments used, under a null hypothesis that the instruments ('as a group') are exogenous (See, Bond, 2002; Roodman, 2009; Nguyen et al., 2015; and Wintoki, 2012). The p-value of the Hansen-J test of over-identification is (p-value= 0.845) presented in the last row of table (3.4) panel B, while the p-values of the difference-in-Hansen test of exogeneity test of subgroups instruments are presented in Table (3.5). The null hypothesis of the Hansen-J test of the validity of instrumental variables as a group cannot be rejected. Thus, the instruments (as a group) used in the DSGMM model are valid. Whereas the null hypothesis of the difference-in-Hansen tests that 5 different subgroups[39] of GMM-style instruments are jointly valid and exogenous (See, Nguyen et al., 2014; Nguyen et al., 2015; Roodman, 2009; and Schultz et al., 2010, for more details). The results reported in Table 3.5 endorse the validity and exogeneity of all subsets of instruments used in the DSGMM model are econometrically. The results of the two tests confirm the appropriateness of implementing DSGMM on the GCC dataset.

The instrument's exogeneity could influence the validity of the estimation, and the choice of the estimator (Roodman, 2009). In the STATA statistical programme, by default, three specification tests that are reported are the Sargan test, AR (1) and AR (2). The AR (1) is a test for autocorrelation with a null hypothesis of no autocorrelation in the residuals of the first-differences equation (Roodman, 2009a), while the AR (2) tests for the second-order autocorrelation in first differences, but it is more crucial than the AR (1) test. AR(2) uncovers any serial correlation in the errors of the in-levels equation (Roodman, 2009). It is evident from table (3.4) that AR (1) is statistically significant and negative, while AR(2)

[39] Following Roodman (2009) and Nguyen et al., (2015) the five subgroups of instruments that were checked are: for the equation in levels (1) The hole group of GMM-style instruments; for the equation in differences (2) and for the equation in levels (3) GMM-style lagged dependent variable's instrument; for board structure factors (4) GMM-style instruments; and for ownerships structure and control variables (5) GMM-style instruments. In addition, the validity of, for equation in levels, standard instruments was checked too.

is not statically significant and positive. The results are compatible with the assumptions of auto serial correlation in the error term.

3.7. CONCLUSIONS

This chapter, comprising the second empirical paper, regards the dynamic nature of the link between the ownership structure of a firm and its performance as measured through the Tobin's Q ratio. The main prediction of the study is that concentrated ownership intensity has a substantial impact on the firm performance of GCC companies. Studying this topic is a challenging task, as it is difficult to deal with short panel data with missing values for a dynamic relationship that has a diagnosed endogeneity problem due to the pitfalls and the perils involved. Of these perils are simultaneity and heterogeneity (i.e. unobserved firm characteristics that are time-invariant). The causality problem, which goes from one side of the equation to another simultaneously, is called 'simultaneous causality' (Brown et al. 2011). Theoretically, Harris and Raviv (2008), among others, argue that the ownership-performance relationship is 'dynamic by nature'. That is another source of bias, namely the 'dynamic endogeneity' (Wintoki et al., 2012). This study has used a dynamic approach (i.e. system dynamic generalised method of moments [SDGMM] estimator) to address this 'dynamic endogeneity' issue considered by prior studies, e.g. Nugyen et al. (2014) and Wintoki et al. (2012), among others. The findings emphasise the role of the 'dynamic nature' of the relationship in enhancing firms' performance. Specifically, the intensity of ownership can substitute the poor external corporate control by markets of GCC countries. A dynamic approach was employed to annual-balanced panel data for over 290 non-financial non-utilities firms locally traded in GCC markets from 2008 to 2013.

Most of the studies from GCC countries on the relationship between the intensity of ownership and performance have neglected the national factors that control for the variations between these countries. Normally, GCC markets are treated as one homogenous bloc; thus, only firm-level characteristics and internal governance measures have received attention in the main analysis of prior studies from the GCC. However, compounding these data will enhance the dimensionality and widen the scope of the study. This study takes into account this limitation and attempts to fill this gap by focusing on the role of national governance factors, measured by the World Bank, in the governance-performance relationship in GCC within a dynamic framework. The main finding of the study, which is as expected since the GCC region is characterised by a concentrated family- and state-ownership structure, is that the governance-performance relationship is

dynamic by nature and suffers from an endogeneity problem. In addition, concentrated ownership is a crucial internal governance element when it comes to the governance and performance dilemma. It is significantly and positively correlated with firms' performance. It can ease the conflicts between the minority and majority shareholders and between the principles and managers.

Notably, this study contributes to the CG literature since it has re-examined the impact of intensity of ownership, measured by constructing a factor of three different levels of concentration (10%-30%, 30%-50% and 50%-100%), based on GCC governance regulations, including national governance factors by using a dynamic approach, and more precisely the dynamic system GMM model. All previous studies that used a static model yielded unreliable and biased results. The dynamic approach helped this study to control for all sources of endogeneity bias mentioned in Western research from the UK or the USA. Thus, the results attained from the data analysis in this study are more accurate and more recent. Second, this study is the first of its kind as it is among the first to claim the role of national governance factors along with firm governance factors, measured by a leading institution (i.e. World Bank), in enhancing firm-governance practices and financial performance. Finally, the data were hand-collected due to a lack of historical data pertaining to CG practices in GCC, which led to collecting the data manually from several possible resources. Most of the studies published before 2013 focused on only the bank sector with a short time span; however, this study covers all sectors, aside from financial and utilities firms, over six years from 2008- 2013.

One of the main limitations of this study is that the data were hand-collected due to the data availability issue, regarding CG practices in the GCC. Furthermore, the study covers only six years from 2008-2013, a time period in which data were available. More recent years are recommended since they reflect the incumbent reforms of GCC capital markets and their corresponding codes of best practice, and ultimately render the inferences of the study. Furthermore, this study did not check for the possible non-linearity relationship between ownership concentration and performance. A non-linear relationship should be looked at, using a quadratic term of ownership concentration.

For future research, different measures of ownership concentration are suggested, namely the percentages of holdings of the controlling shareholders in the firm divided into direct or total, Domestic Ultimate Owner (DUO), or Global Ultimate Owner (GUO) and their identity.

CHAPTER FOUR

IMPACT OF BOARD GENDER DIVERSITY ON DIVIDEND PAYMENTS: EVIDENCE FROM GCC

4.1. INTRODUCTION

Most of the finance literature that studies gender diversity issues centres on the impact of female board directors on firm performance (Adams and Ferreira, 2009; and Terjesen et al., 2015), monitoring role (Adams and Ferreira, 2009), and risk taking (Faccio et al., 2016; and Sila et al., 2017). However, there is an evolving literature, which studies the impact of female directors on specific corporate decisions. Of these, the impact of female directors on corporate social responsibility (Shaukat et al., 2016), on acquisition bids (Leviet al., 2014), on research and development (Miller and Triana, 2009), on capital structure and investment decision (Chen et al., 2017), and on dividends payout (Byoun et al., 2016).

However, Despite the acknowledgement by United Nations (UN) in 2016 that gender-diversified board is a very important influence that contribute to good CG, 'they are silent about how this is so' (Byoun et al., 2016). United Nations (UN) in 2016, mentions the necessity to 'achieve gender equality and empower all women and girls' around the world (UN, 2017). As reviewed in the next section, despite the worldwide cognition about the positive outcomes related to the appointment of women in board, women remain under-represented (El Din, 2012; World Bank, 2017).

A separate but related issue concerns the appointment of women; regulators around the world stepped further ahead to solve the lower female representation issue (Chapple & Humphrey 2014), recommending disclosure of board composition or mandating firms to implement female quotas. Moreover, some countries have introduced gender diversification legislation in their CG regulations (Shehata, Salhin &El-Helaly, 2017) to impose woman appointment on corporate boards (Sila, Gonzalez and Hagendorff, 2016). Other countries put socio-cultural and political pressures on public firms (Cater, 2010; Adams, Gray & Nowland, 2011; Sila, Gonzalez & Hagendorff, 2016). For example, Spain introduced a law in 2006 to ensure gender-equal opportunities (Campbell & Minguez-

Vera, 2008); one year later, Spain enacted guidelines motivating companies to increase the proportion of women on the boards to 40% of board members by 2015 (Adams, Gray & Nowland, 2011). Similarly, France, Italy, Norway and Belgium, among other European countries, have mandated specific firms to increase the proportion of female directors on their board (Sila et al., 2016) by 40% gender quotas. In contrast, the UK, Australia, Germany, the US and Canada have encouraged companies to voluntarily commit to boardroom-gender quotas or disclose their gender-based policies (Deloitte, 2011 and Hawkamah, 2012).

The extant literature suggests that female directors tend to change the dynamics of boardroom (Chen et al., 2017), and gender diversification can bring "positive cognitive outcomes" in workplace (Byoun et al., 2016). From an agency theory perspective, Jensen and Meckling (1976) argue that diversity in the boardroom affects the performance of the firm and enhances the independence of the board. Similarly, Francoeur et al. (2008) propose that "women…often bring a fresh perspective on complex issues, and this can help correct informational biases in strategy formulation and problem solving." (p. 84). In the same vein Carter et al. (2010) argue that female directors provide unique information to the board and improve the process of decision-making. Byoun et al., (2016) argue that female managers bring creative, independent, and fresh ideas, which improve firm performance. Furthermore, female directors presence can improve the quality of debates regarding complex decisions, bring more conflict standpoints, and thereby enhance the quality of information available in the boardroom (Chen et al., 2017). In other word, female directors compared to their male counterparts, are less likely to suffer from integration problems (Byoun et al., 2016), or groupthink (Chen et al., 2017). They are more likely to engage in any competitive connections or decision-making (Nielsen & Huse, 2010), take active roles and ask more questions, display collaboration skills and participative leadership, deliver their organizations to higher standards (Terjesen et al., 2015), and more likely to engage in monitoring (Adams and Ferreira, 2009). In the same note, Adams and Ferreira (2009) suggest that boards with gender diversity are more effective monitors.

Nevertheless, these verdicts are not generalisable due to institutional and cultural differences between well- and less-developed countries (AL-Yahyaee et al., 2017). Where external governance practices (such as the market for corporate control, takeover and legal foundation) function well in monitoring managers' attitude (Nguyen, 2014), along with internal governance practices, both are complementary to each other in resolving possible causes of agency costs (Munisi et al., 2014). It has been acknowledged that the main role of directors is to manage the firms' activities. This managerial function performed by the

firm's directors is one of the internal CG substitute tool to weak markets for corporate control in countries with weak investors' rights and less-developed markets (Campbell & Minguez-Vera, 2008), like GCC. The GCC is a region with highly concentrated state and family ownership, in which the conflict of interest between minority shareholders and controlling shareholders has been well documented in the literature. Thus, well-governed boards' decisions are fundamental in GCC (Hawkamah, 2012). Shleifer and Vishny (1997) illustrated the role that external governance and internal governance play in softening such problems (Shleifer & Vishny, 1997). Munisi et al. (2014) added that these two governance mechanisms can align the managers' interests with those of shareholders, in case the former tries to misuse the company's wealth at the expense of the latter.

To this effect, women's appointment on corporate boards has become a topic of interest. Corporate governance literature, driven by practices among Anglo-Saxon countries, has elucidated that there are several channels through which gender-diversified boards can affect a firm's strategies (Triana et al., 2014), but few have discussed its impact on agency-related problems (Saeed & Sameer, 2017). Huang and Kisgen (2013) have debated the dearth of evidence in the classic corporate literature that focuses on organisation-specific characteristics, ignoring manager-specific impact on decision making. Moreover, a strand of research has seen executive women chairing the board of directors as an economic influencing factor (Deloitte, 2016), not just a board monitoring enhancer (Lara et al., 2017; Low et al., 2015; Yi, 2012).

GCC markets are a perfect platform to undertake this study for many reasons. According to Hofstede (2011), GCC-culture can be classified as a masculine culture. The values of masculine cultures differ from those values in feminine cultures. On of the values that masculinity culture promotes are power, materialism, competitiveness, ambition, and assertiveness. In such culture the differences between women and men's roles are very dramatic, and men tend to be driven and ambitious while women tend to be marginalised (Hofstede & Minkov, 2010). GCC-national culture concurs with inherent inequalities among individuals (female and male), respects bureaucracy and follows a hierarchical system in which subordinates take the commands from the boss without justification, assuming he is an exemplary and benevolent leader. In such cultures, there is the notion of relational contracting where enforcement is not because of contractual obligation, but rather on trust and the continuity of the relationship as a whole (Hofstede, 2001; and Hofstede et al., 2010). In addition, GCC cultures are aligned underneath the collective shelter (i.e. collectivist culture), encouraging group initiatives over individual ones in the

work place. Gulf people are born in an extended family, which protect each other in exchange for unquestioning loyalty.

Another yet more important features of GCC culture are patriarchy, institutional policies, individual motivators, concerns and perceptions from the private and public sector, tribal origins and religious background that associated with masculine culture, which were the indirect reason behind establishing 'wasta'. According to Sidani and Al Ariss (2013), and Abalkhail and Allan (2016), wasta is an informal institution tries to hire women based on interpersonal connections, kinship and family ties or social links. Although these links may improve the chances of success for women to overcome sociocultural barriers (Sikdar & Mitra, 2012), it can also be the reason women are limited in the workplace, since such social ties are not accessible to regular women (Abalkhail & Allan, 2016). Similarly, as indicated by Al-Alawi (2016), since men do not rely on wasta to get to the boardroom, this accounts for disparity between women and men in GCC society (Shammari and Al-Saidi, 2014); Elewa and Nasr, 2016); and Forster, 2017). Kemp et al. (2015), who surveyed 2805 private institutions from the UAE, Qatar, Oman, Saudi Arabia, Kuwait, and Bahrain, found that culture was an integral factor in the participation of women in the boardroom. Another important feature is that female representation in GCC does not outstrip 2% of total boards of GCC firms (ILO, 2016). An article published in 2016 by Gulf-base website stated that, in 2002, the UAE issued a recommendation encouraging large companies to appoint women in their boards. Despite the existence of an early intention, no efforts have embodied at senior levels until present.

In the case of the GCC, the Arabian oil-exporter Gulf countries are often described as facing multifaceted challenges. Diversification[40] of their economies is at the top of the reform's pyramid of the so-called 2030 visions of respective Gulf countries. Despite the fact that GCC countries were able to moderate the negative shocks of the 2008/2010 financial crises by using the accumulated reserves from the flourishing oil years, they are still undiversified, depending on oil export revenues to pay off public sector expenses (Khamis & Senhadji, 2010).

GCC countries are undeveloped markets (World Bank, 2013). As a result, there is significant room for growth and improvement, especially since corporate practices are modelled around what Western companies engage in. Based on this assumption, Abalkhail and Allan (2016) predict that gender diversity and parity in boardrooms in the GCC is within the realm of possibility. Hertog (2013) extensively reviewed the private and public

[40] A country is less diversified when most of the country's export-induced revenues are generated from one sector, which is the case in GCC-context, being oil-driven economies. See (Appendix A1, Table A.1) for more details about economic diversification measures, like ratio of real non-oil GDP to overall real GDP.

labour market of GCC countries. The report unfolded the reality of the labour market, confirming that, even after 2000's boom, job creation was high, but the demand for private markets remained low due to the poor wage rate of the private sector compared to the public one (Hertog, 2013). Indeed, this argument remains true to the present. Public sectors offer high-wage positions with fewer working hours, suiting the lifestyle of Gulf women who are mothers and workers. As a result, they are more inclined to work in government and public organisations. However, big changes are undergoing in the region, women became sales man working at the shops and supermarkets that normally close late in the day, women are appointed in the Perelman and boardrooms, they also vote, drive, and travel to work or study. These changes made women in GCC stronger, talented and innovative more than ever. These changes made women in GCC stronger, talented and creative more than ever, which enable them to open and run their own business. Thereby, their presence in the boardrooms is expected to be essential more than before. To this effect, GCC governments have facilitated the procedures and regulations related to establishing new business especially for female entrepreneurs.

Despite the fact that the population of the GCC accounts for less than 1% of the world's population, they have the highest rate of expatriates workforce in the world, consisting of 49% (as of April 2017) of total GCC countries' population, up from 48.1% in 2015 (National Institution Statistic [NIS], 2017). Thus, unemployment rates have risen as a result of high dependency on foreigner workers (Sidani & Ariss, 2013), meaning the risk of redundancy dismissal is higher for both women and men in the workplace. As a result, female appointment might increase the percentage of national workforce and decrease the dependency on the expatriates. By and large, challenges and opportunities for Gulf women's representation in the GCC pool of qualified directors became imponderable. The GCC has a very opaque environment as a result of its weak legal foundation in which the rights of women (World Bank, 2016), minority shareholders, and outsides investors are weak.

This trend has given new impetus to the discussion about the ability of women to make an influential decision within the corporate boardroom. In response to global and regional calls on the importance of female enablement, and due to the limited research about women in the GCC (Zeidan & Bahrami, 2011), this paper aims to examine the gender diversity (Corporate Governance practices) and dividend payments (Corporate Dividends Policy) nexus on the GCC publicly traded firms. This study focuses on the non-Western developing region, as it has not yet been studied; thus, it contributes to the CG and dividend literature from an emerging market. To the best of the author's knowledge,

no prior study has scrutinised the relationship between women's appointment in the corporate boardroom and decision making, such as dividend payment decisions, in the GCC. These is little research has been done in MENA countries (ILO, 2016) that investigate the role of women appointment and firm dynamics. According to Zeidan and Bahrami (2014) "there's still a lack of research on women entrepreneurs in developing countries" (p. 101).

This is with the exception of AL-Yahyaee et al. (2017), '*Market Risk Disclosures and Board Gender Diversity in Gulf Cooperation Council (GCC) Firms*', which was published recently. The paper found that, based on data from six GCC countries over the period from 2007 to 2011, 'the presence of female directors in the boards of financial institutions suppresses the positive association between corporate governance and market risk disclosures'. However, the study failed to account for the qualitative and quantitative differences in representation of women in the boardroom. Although it showed that the presence of at least one female director results in suppression of the positive link between the quality of market risk disclosures and CG, it does not indicate the role of the director and whether they enjoy independence and autonomy in decision making. This presents the possibility that inclusion of females in the boardroom is a window-dressing activity. Furthermore, since the study focused only on market risk disclosures and not all dimensions of CG, such as corporate social responsibility, the study is not conclusive with regard to the overall impact of gender diversity in boardrooms. Finally, there is an assumption that the impact of the inclusion of female directors in the boardrooms is instantaneous and broad-based.

Due to the presence of sociocultural practices, it is common for women to have a limited scope in competences regarding boardroom operations (Ghosh, 2017). In addition to the challenges of accessing training and development programmes where directors are mentored, due to the widely shared perception that female education is not a priority, it is apparent that AL-Yahyaee et al. (2017) overlooks the disenfranchisement of the female directors by placing them on par with male compatriots in the boardroom. This body of evidence on female boardroom under-representation has encouraged this paper to take the first step of its kind in trying to investigate the relationship between female (gender diversity) directors and dividend payouts on GCC firms over the period of 2006-2011.

The extant literature claims that female boardroom representation could be endogenous, i.e. a choice available to the firm based on its internal organisational factors. Sila et al. (2016, p. 29) state, 'they are endogenously chosen by firms to suit their own operating and information environments and the bargaining power of various stakeholders

in the firm'. Many authors have endorsed this prospect that the gender of directors and the proportion of female directors on the board are 'not exogenous random variables' (Sila et al., 2016, p. 29), and investigating the impact of gender diversity on firm strategies is likely to present an issue because of the reverse causality (Chen at al. 2017; Sila et al., 2016). Therefore, different specification techniques will be used to address endogeneity, the main concern of board studies. Specifically, Pooled OLS, logit model and propensity score-matching strategies have been applied and compared on 401 GCC listed firms, over the period 2006 to 2016.

The rest of the paper is organised as follows. Section 2 represents prior studies and briefly discusses women's historical challenges and barriers in the GCC, while Section 3 builds the research hypotheses based on the prior empirical studies. The data source and sampling procedure, including method and economic models, are then described in section 4. Section 5 examines the research hypotheses and reports the results, descriptive statistics and multivariate analyses of regressions that assess the relationship between dividend payouts and board gender diversity. Finally, Section 6 summarises the findings and discusses the limitations of the study.

4.2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The literature review focuses on the theories on gender diversity and dividend policies, followed by an assessment of the findings from past studies on gender inequality in GCC boardrooms and its effects on variables that influence the dividend policies within the institutions.

4.2.1. Theoretical Review

The present theoretical review focuses on the theories that model the variables that influence gender parity in the workplace and the dividend policies within institutions. The literature on human resources is cognisant of the fact that diversity is both a necessity and a choice in the workplace. Although Berger et al. (2014) and Chen and Gavious (2016) focused on multifaceted forms of diversity, in the boardroom and under CG, gender-based diversity still remains the primary focal point. The literature on gender-based diversity focuses on whether there is evidence of effects of balance across the genders on the performance of the institutions (Alvarez, 2010), and whether the representation, under the agency theory, varies as well (Pletzer et al., 2015).

As a result, in countries or institutions where there are specific measures to ensure gender parity in the boardrooms, there is a higher chance of more women in the boardrooms. This is because, in addition to the presence of direct enablers, there are structures in place to establish a foundation for women to enter the boardroom. Such frameworks include the promotion of women's education and skill acquisition processes, such as participation in institutions of higher learning (Forster, 2017), as well as inclusion of measures to increase the recruitment and promotion of women (Saeed et al., 2016). A deeper and more salient concern on gender diversity in the boardroom was raised by Galbreath (2011), who sought to determine whether variations in the gender have a direct effect on corporate decisions that influence performance and sustainability.

Corporate governance theory links the presence of diversified board members to improved outcomes since it increases representation and accommodation of the interests of all shareholders and stakeholders (Terjesen et al., 2015). Based on studies by Heidayan and Jalilian (2016), Pletzer et al. (2015), Triana et al. (2014) and Zhou et al. (2012), gender-diverse boards tend to have a better CG record, since they possess higher intellectual capital, broader control measures and the ability to incorporate the interests of the various stakeholder categories.

Essentially, board gender diversity influences dividend policy based on the extent to which investors perceive the presence of women as changing the characteristics of the organisation versus a case where a male-dominated boardroom was in place. According to Smith, Smith and Verner (2006), women are perceived as possessing a different set of competencies, as well as capable of introducing a new perspective to the decision making and strategy formulation process. Iren (2016) and Julizaerma and Sori (2012) concur on the assertion that, when they are perceived as activists for the investors, it is common for women to adopt a monitoring and control stance within boardrooms, thereby bringing in a new dimension of oversight in the boardroom. Women also have different interests from males in the boardrooms, especially in instances in which they seek to establish their position as independent and autonomous parties in the decision-making process (Smith et al., 2006).

As a result, they create the perception of increased oversight in the boardroom, capable of preventing male-led collusion in instances in which shareholder interests are not upheld. Through these actions, women influence the perceived agency costs or the need for signalling through dividends, thereby influencing the dividend policy. However, existing literature fails to disambiguate whether women influence dividend policies, as the decision to pay dividends is pegged to the intersection between growth and age. Al-Shammari and

Al-Saidi (2014) discuss literature that highlights the potential of women to have a positive, negative and neutral impact on the performance of the firm, though it is still not clear whether the presence of women can explain dividend policies.

4.2.2. Female Empowerment: History and Present

The question this section is trying to address is, why it is not uncommon among GCC firms to have zero women on a directorship level? Additionally, what historical obstacles have blocked Gulf women from being in director's talented pool, where firms looking for high-prestigious directors to be appointed in its managerial room can hunt skilled managers.

According to the World Bank Doing Business report of 2017, although females form about half of the world population and 45% of the population in the GCC region, the MENA region has restrictions pertaining to their involvement in business. Dunlop (2016) states that, 'The GCC remains one of the most challenging regions in the world for ambitious women, particularly for those hoping to make it to senior and board positions'. According to former Superintendent General Muhammed bid Adwah, 'It is essential that female students be steered toward feminine disciplines. There is no need for women to compete with men in disciplines that are not suited to their nature' (Mtango, 2004). According to Bryan et al. (2015), the challenges of gender inequalities are not limited to the education of women, which affects the ability of Gulf women to receive the proper training to ultimately reach director's rank. Challenges also exist in the fact that women have been banned from working in a male-dominated workplace and scenario. In contrast, women in developed countries like the U.S. and the UK have held rights and have diminished gender-based disparity in economic opportunities since the middle of the previous century (Zeidan & Bahrami, 2011). Gulf-Arabian women were living in conservative, and to some extent repressive, societies that did not believe in the importance of a woman's role in society. Thereby, they were deprived of their basic-rights, restrained from enjoying their freedom, and suffered from discrimination and inequality between men and women. Gender disparities are customs and traditions inherited from ancestors, built on self-mistaken religious beliefs. From an Islamic standpoint, women received priority over men in all aspects of life. However, women's oppression is an implementation of old-generation thoughts that shaped women's lives in the GCC until the last century, away from the Islamic-based approach.

However, the Gulf region has witnessed rooted changes in politics and economics during recent years. For instance, the power of Qatar and Saudi Arabia moved to a new

generation.[41] These changes are embodied in the future vision of 2030 of the region, coupled with noticeable improvement in sociocultural perspectives. During recent years, however, tremendous development in female education has overwhelmed most of the inequalities between women and men (Bahgat, 1999). According to the Global Gender Gap Index (GGI) Report[42] of 2013, published by the World Economic Forum, more women have been integrated into the workplace and elected to parliamentary and ministerial positions in the GCC region (see Table A4.1 in Appendix A4). However, The Global Gender Gap (GGI) Report, for example, has indicated that Saudi Arabia holds the fourth place before the last, scoring around 0.33 and 0.08 percentage point (less than the world average) in women's economic and political participation, respectively (WEF, 2016). Dunlop (2016) argues that legislative and political authorities in KSA and United Arab Emirates are hitting a so-called 'glass ceiling' by reinforcing women in the workforce. In 2012, the UAE issued a cabinet decree mandating entire government organisations to appoint at least one woman on their boards (Dunlop, 2016). Both Saudi Arabia and the UAE are the first among their peers to support female election and representation. Long ago, family laws has an influence on economic regulations as women are considered legally minors, having limitations to moving around, without male's relative permission, but women empowerment activities have killed this disparity and no longer women needs men's approval (Zeidan and Bahrami, 2011).

Gulf women, in parallel with these changes, rose from schoolteachers or housewives to executive directors or CEOs of well-recognised Gulf firms. Women today can beat men in the musical-chair game, sitting in C-suite corporate chairs. These parities are addressed by Zeidan and Bahrami (2011). The participation of women in boardrooms has been studied extensively, with research focusing on the inequality between the genders (Sikdar & Mitra, 2012), their impact on the performance of institutions (Byoun et al., 2016), and their contribution to corporate strategies (Al-Shammari and Al-Saidi, 2014; Byoun et al., 2016). A study by the Catalyst Organisation (2014) showed that, among the countries in the GCC, only 0.1% of the CEOs in Saudi Arabia were women, 0.3% in Qatar, 1.2% in the UAE, 1.7% in Kuwait, 1.7% in Bahrain, and 1.8% in Oman. A different study by Halawi and Davidson (2008) found that, out of 4254 board members, only 1.5% were women.

[41] In 2013, Sheikh Tamim bin Hamad Al Thani, the youngest emirs in Qatar's history, inherited power of Qatar from his father at the age of 33. In 2017, crown prince of Saudi Arabia Mohammed bin Salman, the youngest crown prince in Saudi's history, assumed power at age of 31-year-old.

[42] World Economic Forum had introduced the Global Gender Gap Index (GGI) in 2006 to track gender-base differences in health, education, politics and economic among 107 countries over time. The latest GGI provides overall rankings, based on the scores of abovementioned four indexes (comprised from 14 sub-indexes), for each of 143 tracked economies.

The study attributed such low participation to four factors, including low participation of women in companies, a significant discrepancy in the participation of women in GCC countries, socio-cultural and religious rationales, and nonlinearity in comparison with Western countries. The GCC region does poorly in comparison with the global average of 19.7% (Gero & Sonnabend, 2016), and pales in comparison to Finland, which is the global leader at 29.5% (Deloitte, 2012). This gender-based inequality seems to be the focus of research, based on the contemporary sociocultural norms in which women experienced a glass ceiling, limiting their ability to rise through the ranks. These studies point towards a variety of causes for the inequality discourse between genders, which can be explained by two types of barriers.

The supply barriers from the existing literature include lack of professional skills (Alzomaia & Al-Khadhiri, 2013; Hill et al., 2015), lack of the right educational background (Al-Alawi, 2016; Tlaiss, 2015), the perceived inability to balance and manage family and work life (Sikdar & Mitra, 2012) and adverse institutional policies (Kemp et al., 2015; Saeed et al., 2016). According to Kemp et al. (2015), the supply barrier arises from attainment and opportunity due to the absence of women in ranks and position where they can rise to the boardrooms. Dunlop et al. (2015) found that 55% of women surveyed (34% married) viewed family life as a key constraint and obstacle to their careers in management, which was the reason for their perceptions of inequality. Kemp et al. (2015) and Omair (2010) found that women in the GCC were less likely to attain professional qualifications that place them in viable positions for management roles. This was due to sociocultural limitations, such as discrimination and the perception that women are limited to household chores and family-oriented objectives that do not influence the ability of men to adopt boardroom roles. Al-Shammari and Al-Saidi (2014) assessed the gender disparity in Kuwaiti firms across 7 industries between 2009 and 2011, and found that the food industry had the highest proportion of female directors (33%), while the banking sector had the lowest (0%). The outcome was attributed to the fact that there was a higher propensity for women to establish companies in the food industry.

Second, the difference barrier, which can be attributed to bias, stereotypes and prejudice, is a more pervasive and abstract collection of rationales that influence the presence of women in boardrooms. Omair (2010) and Kemp and Zhao (2016) argue that the difference barrier transcends most sociocultural norms and accounts for the reason there are fewer women in boardrooms across the globe compared to men. This category of barriers highlights the fact that the disproportionate composition is not linked to the

incapability of female directors, but the perceptions that the boardroom should be composed of men.

Neither the supply nor difference barriers can be contextualised without appreciating the role of culture in the ability of women to scale the corporate ladder and join the boardrooms. Kemp et al. (2015), who surveyed 2805 private institutions from the UAE, Qatar, Oman, Saudi Arabia, Kuwait, and Bahrain, found that culture was an integral factor in the participation of women in the boardroom. The study also investigated the link between culture as an antecedent to other factors identified by researchers such as Al-Shammari and Al-Saidi (2014), Elewa and Nasr (2016) and Forster (2017), including patriarchy, institutional policies, individual motivators, concerns and perceptions from the private and public sector, tribal origins and religious background. These factors were attributed to '*wasta'*, which, according to Sidani and Al Ariss (2013) and Abalkhail and Allan (2016), defines the propensity for institutions to hire women based on interpersonal connections, kinship and family ties or social links. Although these links may improve the chances of success for women to overcome sociocultural barriers (Sikdar & Mitra, 2012), it can also be the reason women are limited in the workplace, since such social ties are not universally accessible to women (Abalkhail & Allan, 2016). Similarly, as indicated by Al-Alawi (2016), since men do not rely on '*wasta'* to get to the boardroom, this accounts for disparity.

However, there is a body of literature supported by government policy across the GCC that shows there are measures to eliminate these cultural impediments and empower women. Tlaiss (2015), who studied female entrepreneurs from four Middle Eastern countries, found that women seek wellbeing and success in business. As a result, they do not have a propensity to sacrifice their careers for family roles, as assumed by Abalkhail and Allan (2016) and Sikdar and Mitra (2012), but are more committed to finding workarounds to ensure a work-life balance for success in their entrepreneurial careers. The findings by Omair (2010) explain the disparity in conclusions of the studies, which characterise the reason for gender disparity, and those which nullify the existence of rationales for such disparity. Omair (2010) classified the career development paths as either idealistic, facilitated, moderate or progressive. Based on the findings, women engaged in the facilitated (CEOs in family-owned businesses), idealistic (such as the entrepreneurs described by Tlaiss 2015), or progressive (females who are not affected by the stereotypes linked to the difference barriers as described by Sikdar and Mitra [2012]) career path have a higher chance of joining the boardroom than those engaged in moderate career paths.

Although these studies have different conclusions on whether gender inequality is systemic or generalised, none of the studies have focused on the qualitative and quantitative impact of women in the boardrooms. Such concerns focus on whether the number of women in the boardroom influences the outcomes of gender parity in the GCC, and whether the measures to include women in the boardroom are designed for aesthetics or appearances.

4.3. EMPIRICAL REVIEW

Pucheta-Martínez and Bel-Oms (2016) adopted a three-pronged approach in their study on the effects of gender diversity among the board of directors on dividend policy. First, they sought to determine the effects of the proportion of female directors on the board. This is due to the fact that the number of women on the board influences their effectiveness in achieving the diverse roles that are discussed hereunder. Second, they investigated the effects based on the proportion of independent female directors from an institutional perspective. Liao et al. (2015) and Terjesen et al. (2015) discussed independence as an integral determinant of the role of female directors, from the perspective that male directors may not be able to adopt a similar approach due to the dominance of males in the boardroom. Finally, they based their analysis on the effects of the proportion of shares held by the female directors on the dividend policy. This section focuses on a review of literature linked to gender diversity and dividend payouts, information parity, corporate decision-making processes, directors' stake in the company, the performance of the company, and the existence of regulatory frameworks. Although Al-Yahyaee et al. (2017) performed a similar investigation focusing on board gender diversity and market risk disclosures, this study focuses on a specific dimension of the effect of gender diversity: dividend policy. Although market risk disclosures have a distant relationship with dividend policy, the current study takes a more direct and deliberate approach in the analysis.

4.3.1. Gender Diversity and Dividend Payouts

The first concern is whether female directors influence the nature of the payout policies within institutions. Chen et al. (2017) found that companies whose board of directors have a higher fraction of females have greater dividend payouts than firms that do not have gender diversity. The study relied on a propensity score matching to eliminate the possibility of endogeneity in the results, especially among the variables that influence the

dividend payout such as performance and economic outlook. Pucheta-Martínez and Bel-Oms (2016) found a statistically strong relationship between the inclusion of female directors for objectives of diversity and a favourable corporate dividend payout policy. A number of reasons can be linked to this outcome. First, the tendency to collude in a certain decision that influences cash flow availability is reduced. For instance, Al-Dhamari et al. (2017) indicated that gender-diverse boards tend to have favourable and modest compensation schemes for the directors. The existing literature on compensation for directors attributes reduction of cash flows to high compensation rates for the boards.

However, these outcomes, and specifically the existence of a high dividend payout in firms with a higher fraction of female directors, seem to also be linked to the presence of weak CG (Yarram, 2015). Gugler and Yoryoglu (2003) indicate that the use of the dividend policy to counter the weaknesses in governance is aligned with the shareholder theory, which states that directors base their decisions on the need to optimise the benefits of the shareholders, as well as on the best interest of the stockholders. In a study by Gugler and Yoryoglu (2003), which focused on data from 736 companies in Germany, there was a statistically significant negative relationship between the wealth effects and CG, measured through the possibility of expropriation of minority shareholders. The rent-extracting hypothesis by Al-Dhamari et al. (2017) best explains this rationale since, in most institutions, the dominant shareholders tend to focus on wealth, which represents their approach to rent extraction. In the absence of any objection, such investors tend to focus on plough backs of profits for future success to the detriment of the minority shareholders.

Although the signalling theory explains most of the objectives of a dividend policy with a firm, Chen et al. (2017) theorised that dividend payout can be used as a tool for CG and monitoring. Holding all other factors constant, higher dividend payouts have the effect of minimising the cash flows available for reinvestment, thereby pushing institutions towards the external equity or debt market for finances. Such an act was described by Denis and Osobov (2008) as an antecedent to scrutiny by multiple independent parties as they seek to determine the viability of the investment. Consequently, this satisfies the need for information symmetry (Abad et al, 2017) and promotes transparency of the CG in the firm, performance, and prospects of future value in the company. This is because firms with a higher proportion of female directors tend to prefer dividend payouts more than firms with purely male-dominated boardrooms.

Chen et al. (2017) found that the presence of female directors in the boardrooms contributed to the initiation and reinitiation of dividend payouts in companies. The reinitiation of dividends after omission due to the presence of female directors was

attributed to the fact that they reduce the agency costs of over-investment. This tendency converges towards the original assertion by Grantley and Lanis (2016) that female directors have a tougher stance towards management and are more willing to perceive and use dividends as a CG tool. In addition to the reduction of the agency costs through a favourable dividend policy, female directors may use the dividend payout as a way of controlling the propensity of organisations to amass financial resources that are eventually used for share repurchase and tilt the ownership to the advantage of institutional shareholders. However, in spite of the empirical evidence, Denis and Osobov (2008) indicate that the actual rationales for payment of dividends vary according to country-specific factors and institutional variables.

Denis and Osobov (2008) found that the decision to pay dividends varied from one country to the other in a nonlinear and unpredictable manner, and was only supported by the theories on mitigation of agency costs as discussed hereunder. As a result, the inclusion of female directors is not the only variable that influences dividend payout in the companies.

4.3.2. Gender Diversity and information parity

The second concern is whether the presence of female directors influences information symmetry within the company. As indicated by Heidayan and Jalilian (2016), companies implement dividend policies that bridge the gaps created by information asymmetry, thereby incurring higher agency costs in comparison with other institutions. The analogy is consistent with the suggestion by Chen et al. (2017) that the signalling theory entails the process of setting off these costs, as the company seeks to provide shareholders with information and indications of future prospects. The agency costs, whether direct or indirect, can be closely linked to the information asymmetry and whether directors can implement unique strategies to solve the challenge. To understand the effects of information asymmetry, it is important to understand why such a scenario arises. Gender-diverse boards tend to display an irrefutable propensity to provide more reliable information due to a high level of independence (Liu et al., 2014; Terjesen et al., 2015), thereby reducing the agency costs that investors incur in achieving their objectives of oversight. Information is utilised by institutions as a currency to achieve a disproportionate but positive outcome in the value of the company (Terjessen et al., 2009; Campbell & Minguez-Vera, 2007). As a way of warding off of the psychological outcomes of adverse prospects on the performance of a company, an institution may hedge on the existence of positive outcomes in the future, even when the present circumstances do not provide a

congruent indication. By withholding certain information from the public, whether due to incomplete data or based on expectations of better outcomes, management teams can avert the possibility of fluctuations in stock prices, thereby protecting the future of the company. Information asymmetry also arises due to the need to protect institutional secrets that engender competitive advantages (Abad et al., 2017). Regardless, the effectiveness of information asymmetry in achieving objectives is dependent on the level of trust that the principals have in the agents.

Shi et al. (2017) found that the presence of female board directors elevates the level of trust by investors due to higher levels of self-regulation, even when information asymmetry exists. This is in no way a validation of the idea that female directors act as perfect substitutes for information. However, Pucheta-Martínez and Bel-Oms (2016, p.2) explain that 'Gender diversity on corporate boards may influence the supervision and control of the board's activities'. Their influence on the supervision extends to the most important CG processes, such as financial reporting and improved disclosure processes (Nekhili et al., 2017), CG (Abad et al., 2017), corporate social responsibility (Liao et al., 2015), and corporate sustainability across the triple bottom line.

As a result, the presence of female directors improves the level of trust that the shareholders have in the board. The higher level of trust acts complementary and supplementary to information symmetry, thereby influencing the possibility that the dividend policy of the company is based on the reduction of agency costs.

4.3.3. Gender Diversity and Corporate Decision-Making Processes

The third question relates to whether the presence of women in the boardroom influences the effectiveness of corporate decision-making processes, which eventually influence the dividend payout policy. The effects of gender diversity on the availability of diverse skills, backgrounds, perspectives and resources can promote the objectives of corporate management. A number of corporate decisions influence the propensity for dividend payouts among firms, including the need to strengthen the CG and ethical standards within the firm and enhance shareholder wealth (Lara et al., 2017; Nguyen et al., 2015; Huang and Kisgen; 2013). The decision to engage in Corporate Social Responsibility CSR as part of the diversification of the value creation strategies in the company was found to be closely linked to gender-balanced boardrooms (Chen et al., 2017). The discourse on whether CSR has a positive effect on the value and performance of a company, and thus the dividend policy, is supported by Shaukat et al. (2016), Matsa and Miller (2013) and McGuinness et al. (2017). These studies found that top-performing

companies had a higher motivation to engage in CSR as a way of diversifying value from sustainability and reputation, whereas firms that sought to break the plateau in performance could also apply CSR as a launching pad for success.

Nekhili et al. (2017) concluded that voluntary CSR reporting, just like the selection of female directors, is endogenously determined in most institutions. In the study, which focused on listed firms in France, the testing processes controlled for firm characteristics. The results indicate that CSR reporting had a higher impact on the value of the company where female directors were present when compared to companies with only male directors. The results are constant whether the valuation approach focuses on the ROA, as used by Julizaerma and Sori (2012), or the ROE, as applied by Low et al. (2015). These findings are integral in decision making for two reasons. First, CSR reporting is an important activity for firms that seek to amplify the acceptability of the investment in the non-core operations, as indicated by Liao et al. (2015). Additionally, if the presence of female directors amplifies the effects of the market value of the firm based on CSR reporting, McGuinness et al. (2017) indicated that this further promotes the propensity of the firm to engage in CSR activities, which promotes sustainability of the firm, albeit socially. Second and more importantly, improvements in the market value of the firm through reporting, which helps to minimise the information asymmetry, entails 'killing two birds with one stone' (Alzomaia and Al-Khadhiri, 2013). Not only will the firm benefit from the favourable perceptions of value, but it will also reduce the agency costs of achieving information symmetry with shareholders.

Grantley and Lanis (2016) discovered that the presence of female directors reduced the possibility of tax aggressiveness, which involves tax reduction strategies employed to reduce the taxes that accrue from the company (Desai and Dharmapala, 2006). Although this, in effect, reduces the tax liability and enhances the cash flows available for the company, it goes against the CG principles that reflect on ethical standards. When applied in conjunction with disclosure standards in financial reporting and possibly corporate fraud, tax aggressiveness results in deviation from the ethical standards that can expose the company to the agency and transactional costs that influence the sustainability in the future (Lanis and Richardson, 2011). However, of more relevance are the findings by Grantley and Lanis (2016). This is because the presence of female directors reduces the possibility of these unethical tendencies through their tendency to monitor (Chen and Gavious, 2016) and oversee adherence to CG norms.

Faccio et al. (2016) concluded that the presence of female directors has a statistically significant positive relationship with risk aversion and lower leverage in

earnings. However, the study did not consider the propensity of firms to apply dividend smoothing in their dividend policies. Dividend smoothing was described by Manneh and Naser (2015) as the process through which the effects of leverage in earning on the dividend payout are harmonised through the maintenance of a constant dividend payout policy. AL-Yahyaee et al. (2011) found that dividend smoothing can be viewed as a tool for signalling favourable information to the investors, but can also be viewed as a strategy for masking a deeper problem. Either way, in the absence of sustainable profitability, dividend smoothing is unviable, since it causes attrition of the cash flows necessary for operations within the firm. The antecedent to this effect is the preference for lower leverage and efficiency in the allocation of capital and resources (Levi et al., 2014). Although Levi et al. (2014) focused on corporate decisions under merger and acquisition activity, the study findings concurred with Faccio et al. (2016) and Huang and Kisgen (2013), who asserted that female directors display higher levels of risk aversion compared to their male counterparts. However, in the same study, it was found that the risk-averse approach leads to distortion in the efficiency in capital allocation, mainly due to the contrarian influence of male directors. Essentially, this anomaly has the effect of normalising the effects in terms of improvement of performance, as discussed by Pletzer et al. (2015), even though other researchers found that female directors tend to propagate an improvement in performance. Consequently, the decision to adopt a low-risk approach to management may not necessarily be the sole reason for dividend payout (Al-Yahyaee et al., 2017; Nguyen et al., 2015; Sila et al., 2016), but it is a variable that links institutions with lower leverage in earnings, thus higher predictability in dividend policies. As discussed previously, since the presence of female directors tends to drive institutions towards a propensity for dividend payout, the intersection of the variables provides sufficient evidence for the conclusion that female directors place the companies on a trajectory for higher dividend payouts.

However, due to the male-dominated environment in boardrooms, team processes may still be a challenge for females, who face struggles in participating and maintaining their perspectives. The risk of experiencing ambiguities in their roles was discussed by Julizaerma and Sori (2012), who indicated that marginalisation of females who fail to conform is possible. Yet, a study by AL-Yahyaee et al. (2017) of 141 firms in the GCC from 2007-2011 found that female directors' engagement in the corporate board can weaken the firm's CG practices, thus decrease its level of risk disclosure. It was indicated that boards that are considered independent, trustworthy and efficient in the management of investor interests tend to have a lower dividend payout policy (Terjesen et al., 2015) and

greater flexibility in their dividend payout decisions (Lanis & Richardson, 2011). Regardless of this scenario, the effectiveness of CG and decision-making processes and the effects of those decisions on dividend payment decisions and capabilities are dependent on the board composition, from a gender-oriented perspective.

4.3.4. Gender Diversity and Directors' Stake in the Company

The fourth question relates to whether the stake of female directors influences the dividend policy of the institution these female directors service. On one hand, the corporate ownership structure influences the ability of female directors to participate in the boardroom. On the other hand, studies that investigate the effect of managerial ownership on dividend payouts when the board is diversified are scant. Soliman (2013) found that managers own 53% of Saudi firms' securities. He also discovered that blockholders can steer the wheel of the company's decision, bounding up to ultimately influence the dividend payment decision. Of particular interest is how directors, as owners or managers, make decisions related to their shareholdings and implement CG practices at a time. These decisions include reinvesting the excess cash flows of the firm or distributing them into dividend form.

Females whose families own business and run those firms by themselves are better candidates for hiring in top executive positions because they have societal ties with prestigious people. However, the fact that family control of business influences the participation of women in boardrooms, as referenced through '*wasta'* (Abalkhail, & Allan, 2016), in GCC countries where family-owned businesses exceed other institutions, is bound to deviate from the gender parity norm in the boardrooms. Still, the nature of family-owned businesses and the existence of social ties between the female and male directors may favour the presence of women, but may also reduce the impact of the contrition of these female directors in the running of the firm (Tong & Awad, 2014). Such influences extend to the possibility that the female directors may hold official positions but have limited chances to influence the corporate policies and strategies. Khan (2005) concurs with the findings that institutional ownership results in a higher payout compared to individual ownership structures. The study focused on 330 institutions from the UK, controlling for the effects of tax benefits to the investors and endogeneity between the institutions. The findings are consistent with agency theories, whereby dividends are perceived in part as tools for monitoring the activities of the board since they signal performance. Campbell and Minguez-Vera (2007) found that the effectiveness of monitoring roles of the directors, whether male or female, is dependent '*upon various*

factors, among them the qualifications and experience of board members, their possible involvement in multiple directorships, their level of share ownership and the type of remuneration scheme employed'. The propensity towards competence and professional commitments indicates that it is in the interest of directors (or male-dominated boardrooms) to implement policies and strategies that position the company at an advantage, even if it entails breaking the norms and including female directors in the boardroom.

There are two different classes of thought that distinguish the impact of managerial equity holdings on dividend payouts, namely the 'alignment effects' and the 'entrenchment effects' (Al-Gharaibeh et al., 2013). In support of entrenchment effects, Roz (1982) hypothesised in his study that Jensen and Meckling's (1976) agency cost theory is one of the dividends' causes. He concluded that the stocks owned by managers (insiders) are adversely connected with dividend payouts. Similarly, Al-Malkawi (2007) found that dividend distribution depends negatively on the level of insider ownership (i.e. managerial holdings), analysing 160 Jordanian firms from 1989 to 2000. Another study by Afzal & Sehrish (2013) also found a negative association, using probit and logit models, between institutional holdings and dividend payouts, while insider ownership was negatively associated with both dividend payment and decision, based on 42 non-financial Pakistan firms listed on the Karachi Stock Exchange (KSE) over five years from 2005 to 2009.

In this case, where directors are also controlling shareholders, Lasfer (2006) casts doubt upon the authenticity of the hypothesis that a corporation's board of directors is an effective interior-CG tool. He discovered that the higher the concentrated managerial holdings by directors, the higher the chairman-gained ability to compose a board from his acquaintance, thus the lower the advisory role of the board. Conversely, when the board's stake is low, changing board structure is more likely to occur to meet Cadbury's (1992) governance commendations. Overall, a board's diversity (e.g. the duality of chairman and appointment of non-executive male/female chairman and directors) and its effectiveness are likely to be negatively affected by the level of managers' holdings in the firm (Lasfer, 2006). His findings are not consistent with Sila et al. (2016), who argue that a gender-diverse board can be a substitute tool for other CG factors. Consequently, if the advisory role of the board were suppressed and shareholders' and managers' goals were not aligned as a result of high managerial ownership, women's representation can mitigate this gap in goals by increasing the effectiveness of the boards' monitoring, as discussed previously.

Fatemeh and Dariush (2016) found that leadership style also influences the extent to which a female director can rise through the ranks and join the boardrooms. The study

found that transformational leadership created the most favourable environment for growth among women by influencing denial resignation, acceptance and resilience of women in the institutions. Elewa and Nasr (2016) and Sikdar and Mitra (2012) share similar sentiments regarding transformational leadership as the style that is most open to the presence of women in the boardrooms.

Two implications arise from this analogy. First, women in companies where favourable leadership exists can rely on professional aspects to rise through the ranks without facing the limitations identified the differences and supply barriers. Similarly, transformational leaders can create favourable circumstances for women to overcome these barriers.

4.3.5. Gender Diversity and the Performance of the Company

The fifth concern focuses on whether the presence of female directors in the boardroom influences the performance of the company, which is known to influence the dividend policy of the company. Chen and Gavious (2016) and Shehata et al. (2017) hypothesised that the presence of female board members would positively influence boardroom dynamics. In the study, there was a statistically significant relationship discovered between the presence of female directors and a high attendance rate for board meetings. Chen et al. (2016) attributed the disparity in attendance to the propensity of female directors to attend the meetings, as well as motivate their male counterparts to follow suit, which encompasses the existence of stronger internal control systems in such companies.

Theories on competitive advantage from a management perspective indicate that companies that are non-conformist stand a better chance of achieving better performance by following the blue ocean strategies. The blue ocean is less competitive and capable of achieving higher levels of consumer loyalty (Gordini & Rancati, 2017), which translates to improved and sustainable performance (Chen et al., 2016; Srinidhi et al., 2011). There is a link between non-conformance and female directors in the literature by Liu et al. (2014) and Adams and Ferreira (2009), and in comparative studies by Sila et al. (2016) and Shi et al. (2017). When considering that female directors tend to adopt an activist-oriented approach – that is, they are inclined to more vocal tendencies against processes that compromise CG – it is correct to conclude that companies that have a higher proportion of female directors tend to perform better in the market.

Chen and Gavious (2016) attributed the propensity of females to monitor the boards and ensure observance of the evolving CG norms to the notion that female board

directors have unique capabilities. On the same note, Lara et al. (2017) found a close link between accounting quality and the dividend payout due to the monitoring role of female directors in the boardroom and the performance of the institutions. However, the outcome was not linked to the capabilities of the directors, since there was no evidence of disparity in the accounting abilities of male and female directors during the study. Since men dominate corporate boardrooms, the females who are able to overcome the barriers are viewed as iconic figures (Hafsi & Turgut, 2013). In most instances, women experience a broader range of challenges in rising to the top. Adams and Ferreira (2009) indicated that, in addition to being over-achievers and capable managers, such females hold their positions with high regard. As a result, they tend to dedicate extensive efforts towards achieving the success of the companies that they lead.

Liu et al. (2014) and Shafique et al. (2014) found that female directors have a positive and marked influence on quality improvement in discourse and discussions in the boardrooms, specifically on the decision-making processes for core functions within an institution. Hafsi and Turgut (2013) provided further evidence on this, indicating that the presence of female directors contributes to improvements in corporate social performance (CSP). The influence originates from the fact that female directors can introduce new perspectives on management, thereby diversifying the focus of the company.

Pletzer et al. (2015) found that female directors are better placed to perform the monitoring function in the boardroom, which further extends the effects of cognitive resource models. In support, Gordini and Rancati (2017) argue that when they perceive themselves as outsiders or the voice of reason, female directors tend to drive deliberations in a more regulated and favourable direction, thereby limiting the tendency towards groupthink and the narrow-mindedness that plagues tunnel vision due to homogeneity. As a result, their contribution to functions such as nominations, CG decisions, audits and review processes can set the trajectory for improvement in performance within the company.

This unique perspective is, however, validated by the presence of female board members who perceive themselves as the minority, the voice of reason and ‘the odd-one-out’ (Grantley, & Lanis, 2016). In essence, a board that is dominated by females may not necessarily display such propensitys, since they exhibit similar weaknesses to their male counterparts. Triana et al. (2014) provided evidence for this analogy by indicating that there are no conclusive statistically significant relationships between the performance of an institution and the dominance of female board members. However, the outcomes may differ if the disparity in dividend payouts is based on a comparative or absolute

assessment. None of the studies seemed to adopt a comparative approach focusing on one company by comparing the dividend payouts between periods when female directors were present and when they were not.

Low et al. (2015) found that the presence of female directors among companies from East Asia (Singapore, Hong Kong, South Korea and Malaysia) results in improvement in performance, based on the ROE. The statistical significance is, however, limited to these countries specifically, due to the perception that women receive less cultural support for participation in the workplace and in CG. The female cultural perception described above is similar to the one received by Gulf women (Zeidan & Bahrami, 2011). This situation was described by Triana et al. (2014) as tokenism, whereby the presence of the female director is not normality, but rather a unique outcome.

However, in the meta-analytical study of Pletzer et al. (2015), there was no evidence that the presence of female directors influenced the performance of the institution. The meta-analysis, comprised of 20 studies (10 from developing countries), focused on a total of 3097 institutions. The analysis controlled for endogeneity factors, such as the size of the institution and the size of the board, in which the average composition was eight directors with 14% being female. The findings indicate that the mere presence of female directors is not related to the performance of the institution based on the financial dimension. Similarly, Shehata et al. (2017), who studied 34,798 SMEs in the UK, found that there was an inverse relationship between age diversity, gender diversity and firm performance. The disparity in these findings is attributable to the fact that most of the other studies reviewed herein relied on data from large companies, and from a resource-based view, such companies have greater capabilities to perform better. However, it can also be linked to the fact that most of the SMEs are owner operated, which deviates from the concerns on competitive ascention of female CEOs to the boardroom, which is the case in large institutions.

The equivocal evidence on the effects of female representation on the performance of the institution can be attributed to the disparity in what is considered the indicator of 'performance' within the institution. For instance, Adams and Ferreira (2009) used the ROE in their study, Liu et al. (2014) used cash flow projections, Nekhili et al. (2017) used both ROA and ROE, Terjesen et al. (2015) based their study on ROA and the Tobin's Q ratio, Haslam et al. (2010) used operating (ROE & ROA) and market-based (Tobin's Q) measures of performance, and Al-Dhamari et al. (2017) relied on the dividend yield ratio. The subjective nature of these measures, coupled with the environmental factors that contributed to the selection of these performance indicators, cannot be ruled out as a reason

for the equivocality. Regardless, it is clear that, since the presence of female directors influences the performance of companies, it is necessary to determine whether these effects can translate to dividend payouts that can be linked to the presence of female directors.

4.3.6. Gender Diversity and regulatory frameworks

The last concern in the review relates to whether the existence of regulatory frameworks to extrinsically influence the number of female directors influences the dividend payout policies. The existence of a regulatory framework on the composition and activities of boards of governors within a country influences the role of the governors and their activities. These frameworks, mostly comprised of voluntary and statutory constituents, influence most of the decisions made by the directors. Terjesen et al. (2015) also argue that these frameworks influence the overall performance of the institution, as well as the responsibilities and necessity of oversight and independent parties within the board. This is supported by the analogy that robust regulatory frameworks minimise the need and impact of the monitoring function adopted by female directors (Liu et al., 2014) by ensuring that the activities of the boards are within the stipulated boundaries. The emergent trends of inclusion of female directors in the boardroom can be attributed to a variety of reasons that specify quota-based guidelines (Grantley and Lanis, 2016) or voluntarily determined proportions for both publicly traded and privately owned firms. However, the effectiveness and impact of female directors on the firms are closely linked to the nature of the firm (Liu et al., 2014), as well as the number of female directors (see e.g. Fondas & Sassalos, 2000; Konrad & Kramer, 2006; Terjesen et al., 2015).

Abad et al (2017) argue that the inclusion of female directors introduces a high level of independence and activism, thereby reducing the possibility that they will act as 'rubber stamps' for management but more as 'watchdogs' for the stakeholders and shareholders. Grantley and Lanis (2016) termed it as the tendency to '*display more independent thinking than male directors, which is crucial for effective board oversight*'. Consequently, their presence in the boardroom can create a favourable operating climate, whereby other directors focus on achieving corporate objectives.

Most of the studies that rely on a comparative methodology due to the difference in the proportion, influence and presence of female directors in companies are necessitated by the fact that this form of diversity is not law regulated. According to Grantley and Lanis (2016), shareholders have the freedom to choose the members of the board from the pool of individuals who qualify. Essentially, there are no statutory guidelines that force the shareholders to select a uniform or a standard number of female directors, as all institutions

would be identical in this accord. However, these choices vary from one culture to the other, which contributes to the disparity in the presence and number of females on the board of directors.

Based on the above discourse, the present research tests the following hypothesis:

H4.1: There is a positive relationship between gender diversity governors and the dividend payout policy among GCC companies.

H4.2: There is a close relationship between presence of women in the boardrooms leading to effectiveness of corporate decision-making processes and a high dividend payout policy.

*H4.3: There interaction between female presence and firm performance will have an effect on the amount of dividends paid (Female*Performance).*

4.4. ECONOMETRIC METHODOLOGY

4.4.1. Data and Variables

Sample and data sources

A list of non-financial non-utility securities was allocated from the Osiris database (Bureau van Dijk) from 2006 to 2016 to test the aforementioned hypotheses. For a firm to be included in the sample list under analysis, it must be a publicly traded company on the main stock exchanges of GCC countries with obtainable information pertaining to board members' characteristics and respective financial data (such as the stock price, dividend per share and net income) to calculate dividend-related variables. The start date of the data under study was determined based on data availability in the Osiris database[43]. In 2016 there were 667 active firms listed on the countries' respective stock exchanges. The initial dataset consisted of 665 firms[44] (7315 firm-year observations). In line with prior studies, the analysis is restricted to industrial non-financial and non-utility firms[45]. However, only a small portion of firms listed historical gender-based information, i.e. the number of previous female directors, over the study period (more details explained below). The final sample consists of 401 firms (4411 firm-year observations).

[43] Due to many missing observations prior to 2006 for several variables. According to United Nations (2017), there is a big gab in historical data available pertaining the gender of directors, 'even where the data exists, comparability across and within countries remains a considerable challenge'.

[44] Osiris excludes two firms from the initial sample, (Bishah Agriculture Development Company from Saudi Stock Exchange and National Slaughter House CO. (K.S.C.C.) from Kuwait Stock Exchange), for being inactive at the time when delisted from their respective exchange in 2016.

[45] These firms have strict regulations for operating and accounting measures requirements that might influence, unlike other industrial firms, their corporate governance guidelines (See, for example, Byoun et al., 2016; DeAngelo et al., 2006; and Nguyen, 2015)

The selection of this sample is attributed to several reasons, which were discussed in the motivation and outline in Section 4.1 of this study. First, their rapid economic growth rate is among the highest GDP per capita rates of countries around the world. Second, their unique institutional environment (AL-Yahyaee et al., 2017), e.g. high concentrated state ownership, allows for testing the effect of government (Byoun et al., 2016), and high concentrated family ownership allows for testing the effect of internally chosen directors by controlling for family (Nam and Nam, 2004) on dividend propensity. Third, they had recent political changes, e.g. electing women in Saudi parliament and allowing Saudi women to drive a car, which would change international investors' and local society's perceptions of Gulf women (World Bank, 2017). These facts make them a perfect platform to undertake in this study. Additionally, the fact that GCC countries are key players in the global economy (being the richest countries or biggest oil exporters with large oil reserves), having the largest 45 out of 50 Arab companies, and accounting for less than one percent of the world's population with the highest rate of expat in the world (consisting of 49%, as of April 2017, of total GCC countries' population) make them a prime representative sample of the emerging markets. Finally, GCC countries are conservative culture (AL-Yahyaee et al., 2017), bank-based market (Sourial, 2004), civil law jurisdictions with weak investor protections, and the market for corporate control is in its early stage, which usually pays fewer dividends (Laporat et al., 1998; 2000). The CG practices are relatively new and not mandatory, especially in Kuwait, which differs from one country to other. However, the codes neither specify gender-related regulations nor implement female quotas, except for the UAE, which allows for testing of cross-country variations in terms of CG and its impact on dividend policy.

Dependent variable

This study uses two different proxies for dividend payment, as guided by prior studies. First, the dividend payout ratio (DIVP) is defined as the ratio of dividends per share to after-tax net income and before extraordinary items (Saeed and Sameer, 2017). The second measure is the dividends dummy (DID) variable for dividend payout (DIVP). Some prior studies used dividends yield (DIVY), calculated as the ratio of dividends per share to year-end closing price of the stock (Chen et al., 2017). However, Byoun et al. (2016) noted that (i) using earnings (net income) to calculate DIVP can be explained as the number of earnings paid back as dividends to shareholders. However, if earnings amount to zero or less, it is difficult to interpret this ratio. Likewise, (ii) DIVY (as a proxy of dividend policy from the standpoint of shareholders) reflects changes in the price of stock, not actual variations in a firm's dividend policy. Consequently, following Byoun et al.

(2016) and Chen et al. (2017), DID is used as the main dependent variable in this study. Moreover, alternative measures of dividend payout have been widely used in prior studies, such as dividends per share and dividends over sale, to distinguish dividend-paying firms from non-dividend-paying firms[46].

Independent and control variables

Gender diversity variables

The main explanatory variable of interest in this study is the gender of the board of directors in GCC firms – in other words, the inclusion of females in the corporation's highest echelons[47]. Based on extant studies, gender diversity is defined three different ways: first, as the percentage of female (independent or executive) directors (FEM%), computed by dividing the number of appointed directors who are female by the total number of directors (male and female) on a firm's board.[48]

Second, to determine whether (guarantee that) the impact of board gender diversity on dividend policy is (not) related to and (not) changing with the proxy used (Saeed & Sameer, 2017; Shehata et al., 2017), an alternative binary variable (FEMD), which sets to 1 if there is at least one female director on the firm's board and 0 otherwise, is used for a robustness check.

Finally, a binary variable (GNDY) is set to 1 if there is more than one female director on the firm's board and 0 otherwise (e.g. AL-Yahyaee et al., 2017; Byoun et al., 2016; Saeed & Sameer, 2017; Saeed et al., 2016; Shehata et al., 2017; Martín-Ugedo & Minguez-Vera, 2014, among others).

[46] See for example, Al-Malkawi, (2007), Byoun et al., (2016), Chen et al., (2017) and Daradkah and Ajlouni, (2013).
[47] Be chairperson, CEO/CFO or one of the committees' members who may have various influences on firm's strategies.
[48] (See, for example, Byoun, 2016; Pucheta-Martinez & Bel-Oms, 2016; Saeed and Sameer, 2016; and Sila et al., 2016).

Control variables

The choice of firm-level control variables (board structure and firm characteristics) is influenced by the empirical literature on dividend payouts to build a complete list of control variables that may have various direct or indirect effects on dividend payment decisions. According to Lara et al. (2017), the main predictors of the impact of female directors on dividend payouts are the size of the board, firm characteristics and sector type. Consequently, the first list consists of the board structure variables, including: (i) the percentage of independent directors, calculated as the ratio of independent[49] directors to board size, where (ii) the board size is defined as the number of all directors,[50] and (iii) duality, a dichotomous variable that takes a value of 1 if the chairman also acts as a CEO and 0 otherwise. According to Benjamin and Biswas (2017), despite the positive effect a gender-diversified board has on the probability to pay dividends, this relationship vanishes in the presence of the duality of CEO. Following Lara et al. (2017) and Sila et al. (2016) (iv) the 'connectedness' of directors indicates whether a director of a firm occupies numerous directorial seats either on its subsidiaries' board or any other company's board, measured by the average number of the directorship seats held by the firm's directors in other firms' boards. As discussed previously, being a director on multiple boards is an indication of one's capability, and incurring more socio-directorial ties that may increase woman directorship opportunities adversely burdens the directors' ability to make a decision. As a result, the benefits originating from occupying multiple directorships are nullified by the burden that arises from the multiplicity of responsibilities. Sila et al. (2016) revealed that firms with too many female directors are most likely to refrain from appointing additional female directors unless another woman leaves her position in the company. This is due to the propensity of firms to focus on gender diversity through the inclusion of women, rather than the dominance of women in the boardroom. However, there is no evidence that female-dominated boards or female-only boards outperform male-only or male-dominated directors.

In line with Byoun et al. (2017), Nguyen (2015), Rozeff (1982) and Saeed et al. (2016), corporate financial risk, which is computed by a firm's total debt to its total assets as a proxy for leverage (LVG), is included as a control variable due to its negative impact on dividends (Byoun et al., 2016; Pucheta-Martinez & Bel-Oms, 2016; Saeed & Sameer, 2017). Return on assets is included as a proxy for the firm's profitability because well-

[49] The independency definition, identified by Sila et al. (2016), is a current or previous director who neither executive nor affiliated member in the company's board.

[50] Following previous studies (like, Nguyen et al., 2014; 2015 among others), the natural logarithmic form of board size is used in the regression analysis of the dividends-gender models while the integer (in level) numbers are used for the descriptive analysis purpose.

performing firms tend to hire more female directors and pay more dividends, as measured by before-tax operating profit over total assets (Byoun et al., 2016; Saeed & Sameer, 2017). In line with Byoun et al. (2016), the proxy for information asymmetry (TQ) is calculated as market capitalisation to total assets, and (ROA) is used to inspect whether firms raise dividend payouts and implement a diverse board to signal their anticipated extraordinary performance. Additionally, (VOL) indicates return leverage as measured by the standard deviation of ROA over the last 5 years (Byoun et al., 2016, Chen et al., 2017; Sila et al., 2016). Dividend-paying decisions are linked with less stock return leverage (Byoun et al., 2016). (Cash/net assets) equals cash and marketable securities over net assets (Chen et al., 2017). Net assets are computed as total assets minus cash and marketable securities. Total assets growth rate (AGR) as a proxy for growth opportunities is measured by the yearly percentage changes in total assets, as the higher the growth opportunities of a firm, the lower the dividend payments (DeAngelo et al., 2006). So, firm age (FAGE) and size of the firm (FSIZ), as measured by the number of years since a company was incorporated and by total assets (in natural logarithmic form), respectively, are main factors determining dividends since well-established large firms are better candidates to make a good decision in terms of appointing of women and distributing dividends (e.g. DeAngelo et al., 2006; Pucheta-Martinez & Bel-Oms, 2016; Saeed & Sameer, 2017; among others). Conjointly, the aforementioned variables are included to build the second list of control variables pertaining to firm characteristics. Finally, since manufacturing is a capital-based industry and services is a labour-based industry, which requires more funds to finance its projects, services firms are more likely to pay dividends than those in the manufacturing sector (Manneh & Naser, 2015). Therefore, due to the relatively small number of firms from GCC countries[51], the industry type in which firms operate is classified into two categories: manufacturing and services. The same method of classification (i.e., two industry classifications) was employed by Shehata et al. (2017), and four-types of industry by Saeed and Sameer (2017). To account for industry effects, similar to Shehata et al. (2017), two dummies are used that have been set to 1 or 0 for manufacturing and services, respectively. In addition, dummy variables for year and country are included to capture the differences between firms from different countries over time (Munisi et al., 2014). Following extant literature, the extreme values (i.e. outliers) of explanatory variables were winsorised at below 1 and beyond the 99th percentile (see Bhattacharya et al., 2017; Byoun et al., 2016; Chen et al., 2017; and Sila et al., 2016) and

[51] For instance, under different classification, like Global Industry Classification benchmark (GICS), there is only one high tech firm in Bahrain.

one-year lag forms of all control variables are used in the regression, following Chen et al. (2017), to alleviate the endogeneity issue previously discussed. The definitions and acronyms of the board gender diversity, board structure and firm characteristics proxies are provided in Table (4.1).

4.4.2. Method

The main methodological challenges in this study are how to deal with the endogeneity of board structure variables (Sila et al., 2017) and unobserved variables' (both fixed and variable across time) effects (Chen et al., 2017). The extant literature claims that female boardroom representation could be endogenous, i.e. a choice available to the firm based on its internal organisational factors. Sila et al. (2016, p. 29) state, 'they are endogenously chosen by firms to suit their own operating and information environments and the bargaining power of various stakeholders in the firm'. Many authors have endorsed this prospect that the gender of directors and the proportion of female directors on the board are 'not exogenous random variables' (Sila et al., 2016, p. 29), and investigating the impact of gender diversity on firm strategies is likely to present an issue because of the reverse causality (Chen at al. 2017; Sila et al., 2016).

In addition, neglecting the fact that omitted variables can drive the impact of the gender-diverse board on dividend payout decisions will bias the outcomes. For instance, if the managers of the firm are susceptible to shareholders' calls for higher dividend payouts or for the gender-diversified board, the results will be spurious (Chen et al., 2017). To accurately assess whether female representation in the boardroom affects dividend payout decisions of the board, at least two alternative explanations must be considered: that the gender–dividend association is driven by the omitted unobserved variables or by the reverse causality (Chen at al. 2017; Sila et al., 2016). According to Chen et al. (2017), the causality between gender diversity (board composition) and dividends, along with unobserved heterogeneity concerns, could bias the inferences of the coefficients estimated using conventional methods like the OLS estimator.

Following Byoun et al. (2016) and Chen et al. (2017), three different empirical specifications that consider these two sources of endogeneity, which are of concern in prior studies, are employed. Due to the small differences between dividend-paying firms and non-dividend-paying firms, and diversified firms and non-diversified firms, as presented in the univariate analysis section, it might be asked whether the relation between gender and dividends is driven by female boardroom representation or other firm characteristics. To address this question, the analysis starts by first regressing the dividends on gender and

other explanatory and control variables that, using panel OLS regression with standard errors clustered at the firm level, if excluded, could induce spurious correlations. The results are reported in Table 4.6. Second, the propensity score matching (PSM) method is employed to test whether there is a significant difference in dividend payout policy between companies with and without diverse boards.

It is noteworthy that the 1/0 dummy variable identifying the treated/controls firms is the diverse board dummy variable that sets to (1) if the firm has at least one female director and (0) otherwise. Propensity score matching can address the selection biases by distinguishing the control firms (without female directors) from those treated firms (with female directors) which exhibit no noticeable differences in their characteristics (Rosenbaum and Rubin, 1983). Propensity score matching reduces multiple dimensions into a single outcome, which is an important step.

Propensity score matching also reduces the bias in the estimation of the role of gender diversity on dividend payments by controlling for the presence of confounding factors. Furthermore, since PSM reduces the bias due to unobservable factors, it enables the researcher to integrate earlier concerns, such as whether the presence of women in the boardroom occurs purely due to *wasta (*which can, in turn, limit their contribution to decisions on dividend payments), or whether the women are fully qualified as directors but their role in the decision making process is limited.

Thus, each pair of matched firms is virtually indistinguishable from one another except for one key characteristic: gender. The two groups can thus be compared in terms of gender effects on dividends. First, to obtain the propensity score (the probability) that a firm with given characteristics is likely to have female directors, based on the characteristics included in the previous regression analyses, a logit model of dividends on firm characteristics, as well as fixed effects (industry and year), is estimated, to ensure that the non-diversified firms in the control sample are sufficiently similar to the diversified firms.

Then, each firm with the diverse board is matched to the non-diverse firm with the closest score obtained via the logit model (i.e. the maximum difference between the propensity score of the two groups should not exceed 0.1% in absolute value) (Faccio et al., 2016). By doing so, the effect of board diversity on the propensity to pay dividends can be isolated and empirically examined, since the diversified and non-diversified firms are similar with respect to firm characteristics included in the logit model. The results for pre-matched and post-matched sample are reported in Table (4.7).

4.4.3. Empirical specification

To examine the impact of gender diversity on the decision to pay dividends, i.e. to investigate the relationship between dividend payouts and board composition on GCC firms from 2006-2016, the logit model is applied (with the PSM method), similar to prior studies (see, e.g., Al-Najjar & Kilincarslan, 2016; Attig et al., 2015; and Saeed & Sameer, 2017). Inferences are based on standard errors clustered by firm. The use of the logit model is attributed to the nature of the dependent variable, which is a dichotomous variable that sets to unity (1) for dividend-paying firms, and to none (0) for non-dividend-paying firms (Mood, 2010). The logit model can determine the main firm characteristics (factors) that impact the likelihood of GCC listed firms to pay dividends. Thus, the baseline model is defined as:

$$\begin{aligned} \mathrm{DIVIDEND}_{it} = {} & \alpha + \beta_1\,\mathrm{FEM\%}_{it} + \beta_2\,\mathrm{INDP}_{it} + \beta_3\,\mathrm{DUAL}_{it} \\ & + \beta_4\,\mathrm{CONECT}_{it} + \beta_5\,\mathrm{BSIZE}_{it} + \beta_6\,\mathrm{FSIZE}_{it} + \beta_7\,\mathrm{LVG}_{it} \\ & + \beta_8\,\mathrm{AG}_{it} + \beta_9\,\mathrm{FAGE}_{it} + \beta_{10}\,\mathrm{Cash/TA}_{it} + \beta_{11}\,\mathrm{ROA}_{it} \\ & + \beta_{12}\,\mathrm{TQ}_{it} + yeardummy + industrydummy + \upsilon_i \\ & + \varepsilon_{it} \end{aligned} \qquad (4.1)$$

Where: (i) denotes observational units dimension; (t) indexes time-dimension; β, is vectors of coefficients of dependent variables (Yit), independent variables (Xit) and vector of control variables (Zit), respectively; (υ_i) represents unobserved time-invariant firm effects; (εit) is a random error. For the definition of the variables refer to table (4.1).

Table 4.1. VARIABLES DEFINITION

VARIABLE	ACRONYM	DEFINITION
Dependent Variables		
Dividends Dummy	DivD	A dichotomous variable that equals to 1 if a firm pays dividends in a given year and 0 otherwise. The code is based on dividends payout ratio.
Dividend payout ratio	DIVP	Ratio of dividend per share to after-tax net income and before extraordinary items.
Gender diversity (variable of interest)		
Percentage of female directors %	FEM%	The fraction of number of appointed directors who are female (independent or executive) over total number of directors (male and female) in a firm's board.
Dummy variable for gender diversity (1)	GNDY	A binary variable that sets to one if there is more than one female director in the firm's board and zero otherwise.
Dummy variable for gender diversity (2)	FEMD	A binary variable that sets to one if there is at least one female director in the firm's board and zero otherwise
Board Structure Variables		
Board independence	INDP	Ratio of independent directors to board size.
Duality	DUAL	A dichotomous variable that takes value of 1 if the chairman also acts as CEO, and zero otherwise.
Connectedness	CON	Dummy variable equals 1 if a director of a firm has more than one directorship seat on the board of its subsidiaries or any other company.
Board size	BSIZE	The number of all directors. The natural logarithmic form (Inbs) is used in the dividends-gender models.
Control Variables		
Firm size	FSIZE	A firm's total assets in natural logarithmic form (lnTA).
Leverage (%)	LVG	Ratio of total debts over total assets.
Growth opportunities	AG	Yearly percentage changes in total assets (natural logarithmic form).
Firm age	FAGE	The natural logarithm of the number of years since a company was incorporated.
Return leverage	VOL	Time-series standard deviation of ROA over the past five years.
Return on assets	ROA	Before-tax operating profit over total assets.
Cash/net assets	Cash/net	Cash and marketable securities divided by net assets. Net assets are computed as total assets minus cash and marketable securities.
Tobin's Q	TQ	Market capitalization to total assets.
Year dummy variables year	YEAR	A dummy variable for years from 2006 to 2016. One year is treated as the benchmark category to avoid dummy variable trap.
Industry dummy variables	INDS	A dummy variable takes value of 1 if a firm operates in manufacturing and 0 if operates in services sector.

4.5. EMPIRICAL RESULTS

4.5.1. Descriptive Analysis

As illustrated in Table 4.1, the correlation matrix, the relationship between dividends and gender, as measured by the proportion of female directors on the board, is significant at the 1% level, but positive and insignificant when the gender dummy variable is used. TQ, board size and return on assets are statically significantly related with dividends, as expected. Assets growth is, as expected, negative, and significant at the 1% level of significance. To allow for comparison with previous findings, the sample was divided into four different groups based on the characteristics of the firms: (i) dividend-paying firms versus non-dividend-paying firms and (ii) gender-diversified versus non-diversified firms. A similar procedure was employed by Byoun (2017) and Saeed and Sameer (2017).

Table 4. 3. Summary Statistics: the % of Firms With Diverse Boards (% Female directors) that Pay Dividends (% Payout ratio) in GCC Firms by Year

YEARS	% OF FIRMS WITH DIVERSE BOARDS	PAYOUT RATIO %
2006	0.352	0.400
2007	0.355	0.479
2008	0.360	0.478
2009	0.362	0.603
2010	0.365	0.436
2011	0.357	0.443
2012	0.360	0.375
2013	0.360	0.500
2014	0.367	1.265
2015	0.367	0.806
2016	0.352	0.546
TOTAL	0.360	

As illustrated in Table 4.3, the percentage of female appointment has not increased dramatically over the years. The proportion of female directors remains unchanged, which indicates that female directors do not receive as positive of a perception from Gulf society as their male director counterparts. Another possible explanation is that there is no pool of talented female executives in GCC countries at all. As can be seen, the mean value of female directors' appointment is 35% in 2006, the same as the percentage attained in 2016 (35%). There is no specific indication of whether the stability in the proportion of female directors is due to '*wasta*'. However, the stability is also indicative of the existence of a system for selection and retention of the female directors, especially considering that there are no quotas in place to regulate such numbers. In addition, the percentage declined in

2016 to 35%, down from 37% in 2015. However, the higher percentage of female appointment (37%, on average) is associated with a higher percentage (1.27%, on average) of dividend payouts.

Table 4. 4. Number of GCC Firms With Diverse and Non-diverse Board, over 2006-2016.

The table represents the number of diversified (in column 2) versus non-diversified firms (in column 3) in GCC that appointed female directors versus firms with only male directors, respectively, over 2006-2016. In column (4) the total number of firms is reported.

YEAR	NO. OF FIRMS WITH NON-DIVERSE BOARD	NO. OF FIRMS WITH DIVERSE BOARD	TOTAL NO. OF FIRMS
2006	261	142	403
2007	260	143	403
2008	258	145	403
2009	257	146	403
2010	256	147	403
2011	259	144	403
2012	258	145	403
2013	258	145	403
2014	255	148	403
2015	255	148	403
2016	261	142	403
TOTAL NUMBER OF FIRM-YEAR OBSERVATIONS (NO. OF FIRMS)	2,838(258)	1,595(145)	4,433

Likewise, Table 4.4 shows that the number of non-diversified firms increased in 2016. The question arises, what is the reason behind the reluctant increases in the percentage of female directors' appointment in GCC firms. However, it is shown in Table 4.3 that as female inclusion increases (e.g. in 2013, the female inclusion, on average, equals 36%, up from 35% in 2006), the dividends payout increases (in 2006, the average of dividends paid was 40%, while in 2013 it reached 50%), indicating a positive relationship between gender diversity and payout decision in the GCC. As discussed previously, there are many reasons for the lack of female empowerment in less-developed countries in general, and Middle Eastern countries in particular. It is surprising that, after all of the economic reforms and financial improvement this region has witnessed in the last three years, female empowerment in GCC countries is still weak and unsatisfactory.

On the other hand, it can be seen from the Table 4.4 below that the number of firms that had women on their boards increased between 2006 and 2010, then dropped in 2011 by 3 seats, and rose again to 1 additional seat in 2012 and 2013. In 2016, there were only 142 companies in the GCC that had women on their boards, which is less than half of the total number of sample firms (403 firms). Overall, there is some fluctuation in the number

of firms that appoint female directors, but a greater number of non-diverse-board firms (258) have no women relative to that of all firms in the sample (403).

As illustrated in Table 4.5, the payout ratio of non-diversified firms is 0.425%, while diversified firms have a payout ratio, on average, of about 58%. The primary analysis of the data shows that diversified firms paid out more dividends that non-diversified firms over the sample period of 2006-2016. Moreover, the average percentage of female appointment is higher (.088%) for diversified firms that have one or more women on their board of directors. However, the ROA and leverage (on average, amounted to .057 and .0032, respectively) are higher for diversified firms. This indicates that the more profitable the GCC firm, the higher the average proportion of dividend payouts for non-diversified firms. Furthermore, the effect of board diversity on dividend payout policy is significantly greater for firms with greater cash (1.23%). Both firms have similar features (i.e. AG, leverage and age).

Table 4.5. Descriptive statistics, Firm Characteristics By Board Diversity (Non-diversified versus diversified firms).

This table Shows the mean values for all variables included in the model, classified by the gender (male vs. female) of the firms' directors, for all GCC non-financial non-utilities firms, over 2006-2016. For variables definition see table 4.1.

VARIABLES	NON-DIVERSIFIED	DIVERSIFIED
Dividends payout ratio (DIVP)	.425	.582
Female proportion (FEM%)	0.024	0.88
Assets Growth (AG)	2.13	2.02
Cash/net assets (Cash/net)	0.87	1.23
Leverage (VOL)	-3.35	-3.43
Firm size (FSIZE)	0.64	0.71
Return On Assets (ROA)	.055	.057
Leverage (LVG)	.0028	.0032
Firm age (FAGE)	3.205	3.178
Tobin's Q (TQ)	-.28	1.04

For further analysis on dividends payout ratio, Table 4.6 is reported, using a binary variable that sets to 1 if there is more than one female on the firm's board in a particular year, and 0 otherwise. The overall mean of firms that pay dividends during the sample period is (58%). It can be seen that the dividend payout ratio for firms with only male directors on their board is (.49, on average), while the mean dividend payout for firms with more than one female executive is (.74, on average). The mean comparison between the two groups of firms indicates that GCC firms with more than one female director are more

Table 4.6. Summary of dividends payout ratio for diversified firms vs. non-diversified firms.

All sample firms (non-financial non-utilities firms) in GCC over 2006-2016 are coded into diversified and non-diversified firms, based on the gender diversity of the firm's board (A dummy variable that sets to one if there is more than one female director in the firm's board in a given year and zero otherwise). For variables definition refer to table (4.1).

Gender	Observations	Missing	Mean	Std.Dev.	Min	Max
Male =0	2838	0	0.487373	2.08103	4.00	13.00
Female=1	1471	124	0.744072	7.95932	2.00	6.00
Total	4309	124	0.580037	5.06367	6.00	19.00

inclined to pay out dividends and tend to pay a higher proportion of dividends. Thus, appointing females in higher positions in the firm would increase the dividend proportion. This finding is in line with Chen et al. (2017) and Byoun et al. (2016), who found a positive and strong relation between female inclusion and dividend payout, and with Adams and Ferreira (2009), who reported that female inclusion enhances the monitoring quality of the board. From the tables, it can overall be concluded that, although there is some fluctuation in the proportion of firms that pay dividends over the sample period, a

4.5.2. Multivariate Regression Analysis

Gender and dividend payout

This section investigates the relationship between the propensity of the firm to pay dividends and gender diversity (female directors) on a GCC firm's board, using different specification strategies. Table 4.7 contains the results of the pooled OLS regressions explaining the dividend payout-gender link. The dependent variable is the dividend payout ratio, measured by overall dividends to net income (Chen et al., 2017). However, the causality between gender and dividends, along with unobserved heterogeneity concerns, could bias the inferences of the coefficients estimated using conventional methods like the OLS estimator. In such a case, the results will be 'spurious' (Chen et al., 2017; Faccio et al., 2016).

Table 4. 2. Correlation matrix

	FEM	GNDY	ROA	AG	INDP	LEV	BSIZE	TQ	CASH/NET	DVDP	FSIZE	VOL	FAGE	DUAL	CONT
FEM	1														
GNDY	0.603	1													
ROA	0.0049	0.1435*	1												
AG	-0.1044*	0.7686*	0.1260*	1											
INDP	0.0004	-0.0243	0.0121	0.0174	1										
LEV	0.0772*	-0.0057	-0.2087*	0.0172	0.0117	1									
BSIZE	-0.1735*	0.0084	-0.0549*	0.0217	0.0528*	0.0223	1								
TQ	-0.0065	0.1066*	0.4718*	0.1002*	0.0024	-0.2536*	-0.0576*	1							
CASH/NET	0.0076	-0.0388	0.0543*	0.0009	-0.0072	-0.0192	-0.0117	0.0222	1						
DVDP	0.0741*	0.0542	0.1662*	-0.0570*	-0.0089	-0.0451	-0.0587*	0.1006*	0.0404	1					
FSIZE	0.0079	0.1032*	0.1208*	0.1367*	-0.0086	-0.0366	-0.0308	-0.0946*	0.0177	-0.0067	1				
VOL	-0.0378	-0.0214	-0.2221*	-0.0083	-0.0654*	-0.0769*	-0.0174	-0.0965*	0.0177	-0.1003*	-0.1839*	1			
FAGE	-0.0194	-0.0411	0.029	-0.0073	-0.0227	-0.0438*	-0.0089	0.0309	0.0175	0.0254	-0.0422*	0.041	1		
DUAL	-0.0142	0.0449	0.0595*	0.0827*	0.0067	-0.0715*	0.0145	0.0796*	0.0072	0.0028	0.0587*	.	0.0007	1	
CONT	-0.0021	0.0279	0.0676*	0.0181	0.0243	0.0845*	-0.0392*	-0.0051	-0.0116	0.0425	0.0585*	-0.0228	0.0604*	0.0017	1

⁎ **Denotes statistical significance at the 1% level.**

For this effect, the firm fixed effects are controlled for in all specifications to remove any cross-sectional correlation between gender and dividends, as well as the risk of spurious correlation (Faccio et al., 2016). In the table 4.7, the panel OLS regressions with standard errors clustered at the firm level are reported. Column (1) reports the results of regressing the dividend payout on the proportion of female directors, as well as industry and year dummies, while (2) includes the firm characteristics as control variables in addition to the variables in regression (1). In addition to these former regressions, Column (3) includes the board structure variables. Column (4) is the same as Column (3) but uses a different measure for female representation (GNDY). In all of the above specifications, the coefficients of female directors are positive and statistically significant at the 1% level and at the 5% level of significance when a different measure of female representation (GNDY) is used.

The constant effects reveal a statistically significant positive relationship at 1% under Column 1 (.470) and Column 2 (32.944), but this changes to a statistically significant negative relationship at 1% under Column 3 (17.551) and 4 (-24.779). As a result, the sole presence of female directors on the boards has a positive influence on dividend payment. However, when the board structure is included in the analysis, the relationship changes to a negative relationship. In terms of statistical results, the coefficient in regression (3) suggests that an increase of 10 percentage points in the proportion of female directors is associated with a 21.7% increase in the firm's dividend payout. More importantly, as can be seen in the table, when board structure variables are included, the coefficient of leverage became positive but not significant (1.272), while in regression (2) the coefficient is (-.054) negatively statically significant at the 1% level. The negativity of leverage is preferable since both debt and high dividend payouts can mitigate Jensen's (1986) free cash flow problem. In addition, return on assets and firm size remain significant in all specifications at the 1% level, indicating that bigger firms with greater returns on assets (as a measure of profitability) tend to pay more dividends in the presence of female directors on their board. The positive sign on ROA is in line with the existing literature (Chen et al., 2017), but the positive sign on return leverage is not.

The effects of the control variables on dividend payment vary depending on the measure of female representation used, except for the ROA (Column 2 = 1.612, $p < 0.01$; Column 3 = 1.458 $p < 0.01$; and Column 4 = 1.352 $p < 0.01$) and firm size (Column 2 = 2.074, $p < 0.01$; Column 3 = 3.036, $p < 0.01$; and Column 4 = 3.635, $p < 0.01$), which have a positive statistically significant relationship at the 1% level. Although the two show statistically significant relationships, the effects of the ROA reduce as the effects of the

Table 4. 7. Board Gender Composition and Dividend Payouts Using OLS Estimator

This table reports the results of the OLS regressions for the relationship between board gender diversified board and dividend payouts. The dependent variable is dividends payout ratio. All explanatory variables are lagged by one year to mitigate endogeneity (Chen et al., 2017). Industry- and year-fixed effects are included in all the regressions. For independent variables definition refer to table 4.1. The sample of firms includes all GCC non-financial non-utilities firms that are exchange listed over the period 2006–2016. Statistical significance is based on heteroskedasticity robust firm-clustered standard errors reported in parentheses. P-values are in the brackets. (*), (**), (***) Donates statistical significance at the 10%, 5% and 1% level, respectively.

VARIABLES	(1)	(2)	(3)	(4)
Intercept	.470 (.014) [0.000] ***	32.944 (7.693) [0.000]***	-17.551 (15.558) [0.002]***	-24.779 (14.859) [0.096]*
Proportion of female dirs. $_{t-1}$	.382 (.090) [0.002] ***	7.579 (3.668) [0.039]**	21.735 (5.979) [0.000]***	-
Gender (dummy variable)	-	-	-	7.046 (3.0554) [0.021]**
Leverage $_{t-1}$	-	-.054 (.016) [0.001]***	-.038 (.025) [.138]	1.272 (.820) [0.121]
Tobin's q $_{t-1}$	-	1.380 (1.383) [0.319]	8.926 (2.535) [0.000]***	8.335 (2.507) [0.001]***
ROA $_{t-1}$	-	1.612 (.130) [0.000]***	1.458 (.233) [0.000]***	1.352 (.225) [0.000]***
Assets growth $_{t-1}$	-	-.135 (.063) [.033]**	-.053 (.104) [.612]	-.008 (.104) [0.940]
Leverage $_{t-1}$	-	.809 (.461) [.079]*	1.884 (.815) [0.021]**	1.272 (.820) [0.121]
Firm size $_{t-1}$	-	2.074 (.676) [.002]***	3.306 (1.176) [0.005]***	3.635 (1.170) [0.002]***
Firm age $_{t-1}$	-	-1.462 (1.392) [.294]	7.999 (2.685) [0.003]***	8.780 (2.607) [0.001]***
Cash/Net assets $_{t-1}$	-	.178 (.093) [0.057]*	.156 (.155) [0.314]	.183 (.154) [0.236]
Connectedness $_{t-1}$	-	-	.986 (1.094) [0.368]	1.031 (1.099) [0.348]
Duality $_{t-1}$	-	-	30.158 (13.757) [0.029]**	24.295 (13.437) [0.071]*
Fraction of independent directors $_{t-1}$	-	-	-15.687 (7.336) [0.033]**	-15.380 (7.407) [0.038]**
Board size $_{t-1}$	-	-	-1.292 (.446) [0.004]***	-.562 (.406) [167]
Industry effects	Yes	Yes	Yes	Yes
Year effects	Yes	Yes	Yes	Yes
N	4,433	4,433	4,433	4,433
Adjusted R2	0.011	0.05	0.119	0.072

size of the firm increase. The linearity in change is seen with reference to the effects of other variables, such as firm age (Column 2 = -1.462, $p > 0.1$; Column 3 = 7.999, $p < 0.01$ and Column 4 = 8.780, $p < 0.01$), which reflects a favourable change in the effect of the variable on dividend payment within the analysis. However, when the control variables are included, the effect of the age of the firm is negative, which contradicts the tenets of the life cycle theory.

This is explained by the fact that the firm's age does not necessarily translate to the maturity that propagates dividend payment, according to Ofori-Sasu et al. (2017). However, most of the empirical evidence reveals that firm size has a positive or neutral effect on dividend payment, thus this outcome is unique. A converse change is reported with reference to asset growth, the effect of which changes from (Column 2 = -.135, $p < 0.05$; Column 3 = -0.053, $p > 0.1$ and Column 4 = -.008, $p > 0.1$). According to Byoun et al. (2016) dividend-paying firms are linked with less leverage. The results also show that the leverage of a firm's ROA is positive and significant at the 10% level, indicating that risk is lower when a female runs the firm. Generally, from all regressions stated in the table, there is robust and consistent evidence that the dividend payout increases with the proportion of female directors, regardless of the measure used, and the magnitude of the effect of gender does not change after controlling for firm fixed effects. These results support the main hypothesis of the study that the presence of female directors is associated with high dividend payouts, which can be used as a monitoring tool, moreso than their male counterparts.

These findings are in line with Chen et al. (2017) and Adams and Ferreira (2009). In immature economies like the GCC, however, internal governance, such as board diversity and dividends (Chen et al., 2017; Sila et al., 2017), compensates for the weak external governance by the market to settle managers' and shareholders' conflicts (Chen et al., 2017). Roz (1982) showed that dividend payments are a useful tool to lower the costs of the agency. Similarly, Saeed and Sameer (2017) argue that the higher the dividend payments to shareholders, the lower the excess free cash, thus the lower the agency costs. However, cash over net assets has a positive but insignificant effect on the dividend payout in the last two regressions, but is significant at the 10% level in the first regression that included cash/net with the control variables set.

Finally, among the firm structure variables, firm connectedness has a positive but statistically insignificant relationship with dividend payment (Column 3 = 0.986, $p < 0.1$ and Column 4 = 1.031 $p > 0.1$). Only a fraction of independent directors have a constant, statistically significant negative relationship with dividend payment (Column 3 = -15.687,

p < 0.05 and Column 4 = -15.380. p < 0.05). Thus, independence of directors is inversely related to dividend payment among the firms. Finally, duality of CEOs has a statistically significant positive relationship with dividend payment (Column 3 = 30.158, p < 0.05 and Column 4 = 24.295. p < 0.1), but the size of the effect and statistical significance drops when the measure of female representation changes to GNDY. These results are reminiscent of the findings of Byoun et al. (2016), Saeed and Sameer (2017) and Saeed et al. (2016) which revealed that the diversity of the board influences dividend payments. However, the findings contradict Al-Yahyaee et al. (2017), in which board diversity was found to suppress CG and market risk disclosures that are associated with dividend payments. Next, we adopt the nearest neighbour approach to ensure that firms with female directors (i.e. the treatment group) are sufficiently similar to the matched firms without female directors (i.e. the control group). Specifically, each firm with female directors on its board is matched to a firm without female directors and with the closest propensity score. If a firm in the control group is matched to more than one firm in the treatment group, only the pair for which the difference between the propensity scores of the two firms is the smallest is retained. Further, it is required that the maximum difference between the propensity score of each firm with female directors and that of its matched peer does not exceed 0.1% in absolute value. To verify that firms in the treatment and control groups are indistinguishable in terms of observable characteristics, the diagnostic test is conducted. The first test consists of re-estimating the logit model for the post-match sample. The results are displayed in Panel (B). None of the coefficient estimates is statistically significant, suggesting that there are no distinguishable trends in dividend payouts between the two groups.

As mentioned previously, the main challenge in this study is to address the two possible sources of endogeneity: causality and unobserved heterogeneity. The steps of calculating the propensity score (the probability that a firm hires female directors) are explained in the method section. Table 4.8 compares the dividends for firms with female directors with those for firms without female directors that have been matched, via propensity score matching, with the former. The propensity scores are the predicted value from a logit regression, controlling for the same set of control variables included in regression (4) of Table 4.6. See Table 4.1 for the definition of the explanatory variables.

4.5.3. Propensity score matching estimates (diagnostic regression)

Table 4.8 compares the dividend payout (using various measures) and the dividend for firms with female directors with those for firms without female directors that have been

matched via propensity score matching with the former. First, the probability that a firm hires female directors must be estimated. This probability (i.e., the propensity score) is the predicted value from a logit regression using the same controls as those included in regression (3) of Table 4.7. The logit regression results are reported in column (1) of Panel A of Table 4.8. Consistent with Adams and Ferreira (2009), it is found that firms with female directors are larger and have better performance as measured by ROA. The pseudo R-square for the regression is high with a value of 0.301.

Next, the nearest neighbour approach was adopted to ensure that firms with female directors (i.e., the treatment group) are sufficiently similar to the matched firms without female directors (i.e., the control group). Specifically, each firm with female directors on its board is matched to a firm without female directors and with the closest propensity score. If a firm in the control group is matched to more than one firm in the treatment group, only the pair for which the difference between the propensity scores of the two firms is the smallest will be retained. The maximum difference between the propensity score of each firm with female directors and that of its matched peer should not exceed 0.1% in absolute value (Chen et al., 2017).

To verify that firms in the treatment and control groups are indistinguishable in terms of observable characteristics, two diagnostic tests was conduct. The first test consists of re-estimating the logit model for the post-match sample. The results are shown in column (2) of Panel A of Table 4.8. None of the coefficient estimates is statistically significant, suggesting that there are no distinguishable trends in dividend payouts between the two groups. Furthermore, the coefficients in column (2) are much smaller in magnitude than those in column (1), suggesting that the results in column (2) are not simply an artefact of a decline in degrees of freedom in the restricted sample. Finally, the pseudo R-square drops substantially from 0.301 for the pre-match sample to 0.003 for the post-match sample. This suggests that the propensity score matching removes all observable differences other than the difference in the presence of female directors.

The second test consists of examining the difference for each observable characteristic between the treatment firms and the matched control firms. The results are reported in Panel B of Table 4.8. Again, none of the differences in observable characteristics between the treatment and control firms is statistically significant. Overall, the diagnostic test results suggest that the propensity score matching removes all observable differences other than the difference in the presence of female directors. Thus, this increases the likelihood that any difference in dividend payouts between the two groups is due to the presence of female directors on boards.

Table 4. 8. Pre-match propensity score regression and post-match diagnostic regression

Propensity score matching estimator. This table reports the propensity score matching estimation results. Panel A reports the parameter estimates from the logit model used to estimate the propensity scores. The dependent variable is an indicator variable set to one if there are female directors in the firm in a given year, and zero otherwise. Industry- and year-fixed effects are included in all the regressions. For independent variables definition refer to table 4.1. The sample of firms includes all GCC non-financial non-utilities firms that are exchange listed over the period 2006–2016. Statistical significance is based on heteroskedasticity robust firm-clustered standard errors reported in parentheses. P-values are in the brackets. (*), (**), (***) Donates statistical significance at the 10%, 5% and 1% level.

VARIABLES	Dependent variable: Equals 1 if female director is on the board, and 0 otherwise	
	A Pre-match	**B** Post-match
Intercept	−7.743*** (1.276)	0.341 (1.200)
Lev_{t-1}	−0.285 (0.351)	0.042 (0.361)
Tq_{t-1}	0.038 (0.038)	−0.008 (0.045)
ROA_{t-1}	1.237** (0.597)	−0.225 (0.619)
AG_{t-1}	−0.134 (0.285)	0.006 (0.330)
Vol_{t-1}	−2.379* (1.327)	0.010 (1.315)
$Fsize_{t-1}$	0.399*** (0.052)	−0.024 (0.058)
$Fage_{t-1}$	0.082* (0.044)	0.002 (0.048)
Cash/Net assets $_{t-1}$	0.104 (0.083)	−0.005 (0.085)
$Connect_{t-1}$	0.203 (0.393)	0.038 (0.429)
$Dual_{t-1}$	0.250** (0.099)	−0.058 (0.108)
$Indp_{t-1}$	2.314*** (0.340)	−0.115 (0.354)
$Bsize_{t-1}$	0.428*** (0.032)	0.012 (0.032)
Industry effects	Yes	Yes
Year effects	Yes	Yes
N	4,433	1530
Pseudo R^2	0.301	0.003

Continued …Panel B

	Firm-year obs. with female directors	Firm-year obs. without female directors	Difference	t-stat
Lev_{t-1}	0.195	0.196	0	−0.039
Tq_{t-1}	1.93	1.955	− 0.024	−0.672
ROA_{t-1}	0.142	0.144	− 0.002	−0.938
AG_{t-1}	0.055	0.054	0.001	0.275
Vol_{t-1}	0.043	0.043	0	−0.066
Cash/Net assets $_{t-1}$	0.287	0.286	0.001	0.063
$Connect_{t-1}$	0.282	0.286	−0.004	−0.655
$Fsize_{t-1}$	6.938	6.948	−0.010	−0.302
$Bsize_{t-1}$	8.388	8.343	0.045	0.869
$Indp_{t-1}$	0.688	0.69	−0.002	−0.391
$Dual_{t-1}$	0.551	0.564	−0.013	−0.926
Firm age_{t-1}	2.543	2.548	−0.005	−0.136
Dividends payout %	0.309	0.228	0.081***	6.390

Finally, Table 4.8 reports the propensity score matching estimates. The results indicate that there are significant differences (all at the 1% level) in dividend payouts – for all five measures – between firms with female directors and those without. In detail, firms with female directors have greater dividends payout than the otherwise indistinguishable firms without female directors. The results of the logit models for pre-matched and post-matched regressions are reported in Panel A of Table 4.8. Consistent with Adams and Ferreira (2009), Chen et al. (2017) and Faccio et al. (2016), even when holding observable firm characteristics almost indistinguishable between the two groups, firms with females tended to pay higher dividends. The pseudo (R^2) for the regression is high with a value of (0.301). In addition, diversified firms are larger and have better performance as measured by ROA, firm size, age, CEO duality, size of board and independence of directors, but show lower leverage.

4.6. CONCLUSION AND LIMITATIONS

Emerging literature endorses that female representation in the board increases its monitoring effectiveness and intensifies the quality of internal governance, which is then reflected in the outcomes of the firm. The disparity in perceptions on whether the presence of female directors in the boardroom influences the dividend policy can be attributed to circumstances that influence the achievement of the objectives of the institution in relation to dividend payouts. As a result, whether companies use dividends for signalling or to achieve unique institutional goals, the board enacts most of these decisions. It thus follows that the composition of the directors influences the dividend policy by influencing the ability of the institution to pay dividends. A number of the studies concur on the fact that, as a dimension of diversity, gender influences the characteristics of the board, as well as the decisions that the firm makes. The presence of women in the boardroom, coupled with the fact that they have a unique approach to the range of corporate decision-making processes that influence all aspects of the institution, has direct and indirect effects on dividend policies. However, gender inequality or equality from a quantitative perspective does not imply parity or disparity in influence and contribution to the dividend policy from a qualitative perspective. From all specification tests conducted using different estimation techniques, it can be seen that female directors have a large and statically significant impact on dividend payouts in the GCC. It can be used along with dividends to mitigate the agency problem in dividend-paying firms that have higher cash flows and returns and lower leverage. All regressions show that the fraction of female directors has a positive and significant effect on the dividend payout only for bigger firms in which the CEO is also a chairman and the majority of the boards are independent directors. Also, the bigger the firm's size, age and board size, the higher the probability that the firm will pay out higher dividends and appoint more female directors.

The findings reveal that the presence of female directors has a statistically significant positive influence on dividend policy and dividend payment. Similarly, the propensity score matching tests reveal that the difference between the two groups is due to the presence of female directors in the boardroom. As a result, despite the theoretical and empirical evidence that programmes such as '*wasta*' result in increased proportion and presence of females in the boardroom, their impact is explicit and identifiable in regard to dividend policy and dividend payment. Consequently, even though the increase in the number of women can be attributed to '*wasta*', the influence of the women on dividend payment does not follow the widely shared perception that boardroom diversity is not

analogous to the influence of women on boardroom decisions. Furthermore, it shows that women are not marginalised in the boardrooms, and their impact is both positive and influential.

The big limitations of this paper are that the sample is very small, the lack of different types of female directorship is also a scope to be expanded in the future research. Different statistical technique also is recommended that can explain the nature of the relationship between female appointment in GCC and firm strategic decisions, and country-level factors. The bearing of female directors, e.g., on merging and acquisition activities is another dimension that can also looked at.

CHAPTER FIVE

CONCLUDING REMARKS

This thesis is built on three empirical chapters in corporate finance, mainly, corporate dividend policy and corporate governance. First empirical chapter considers dividends policy in GCC countries, second empirical chapter considers ownership structure and firm performance while third empirical chapter considers the impact of gender diversity on dividends payout. Most of recent researches in the field are trying to find linkages between these two literatures, especially after the recent financial crisis of 2008 and 2010, which ascribed to weak governance of firms. One of the main theories through which the two models can be interconnected is the agency theory. From the agency standpoint, dividends, ownership concentration and board gender diversity are three key components that substitute each other in solving agency problem, resulting from the disengagement between control (managers) and ownership (owners). In the way of finding a solution for the conflicting interests between the two parties, the rights of minority shareholders have been violated. However, this type of conflict exists in advanced markets, in which dispersed ownership is common. In contrast to this, concentrated ownership is a trait in emerging markets. Such markets also suffer from weak market for corporate control and tenuous legal protection for minority shareholders. These are the core difference between the two mentioned markets, which attribute to the institutional features of each market. The legal system and government regulations along with these features made the emerging markets step backward. Thus, the board and ownership structure of these firms also vary from those of advanced markets. Not just the firms characteristics that vary across markets, but also the managerial behaviour within these firms due to the structural differences discussed above, which ultimately affect the firms' strategies and its performance within the market. Of these strategies, dividend policy and female appointment-decision on boards that are susceptible to the ownership structure of the firm. Normally, mangers are faced with three fundamental operational decisions, which revolve around financing, capital budgeting (investment) and profit distribution decisions. This thesis examines three facets of agency models on an emerging market, namely, Gulf Cooperation Council, for different time span and assorted samples, using different statistical techniques, as guided below.

The first paper, studied in the second chapter, empirically examines the determinants of the dividend policy of nonfinancial nonutility widely traded firms in Gulf Cooperation Countries (GCC) markets. Applying a multivariate logit model, with Fama and Macbeth statistical methodology (1973), to yearly unbalanced panel data for a sample of 199 GCC-listed firms over the period 1996-2011. The findings indicate that dividends-paying firms are older, more lucrative and internally generate funds with various opportunities to expand than those firms that do not payout dividends. In addition, the findings also emphasize that the main determinants that help explaining the variation in GCC firms' dividend policy are profitability, assets growth, firm size, leverage, ownership structure and retained earnings. The results show a significant positive relationship between the inclined to pay dividends and size of the firms, retained earnings and institutional investors, but a significant negative relationship with growth, block holding and leverage. However, cash and historical dividends are not correlated to dividends likelihood of GCC firms. The findings are consistent with life cycle theory and free cash flow hypothesis.

This paper re-examined the determinants and the probability of dividend payments in Gulf Co-operation Countries and scrutinized the firm characteristics of nonfinancial nonutility dividends-paying firms from non-dividends paying firms. More specifically, it tested whether life cycle theory explains the dissimilarity between GCC firms' payout policies. In this chapter, the determinants of dividend policy for GCC listed nonfinancial nonutility firms have been examined over 1996-2011, using logit estimator with Fama and Macbeth (1973) statistical techniques. The results of the study confirm that the determinants of dividends policy are somehow similar to the recommended factors found in pervious studies, applied on different countries and in different time span. Thus, there is a generalization in the dividends policy literature, meaning that the results drawn from advanced markets can be employed in emerging markets. One exception of that is the type of the owner of the firms, historical dividends and the cash balances of the firms as they are not as expected previously.

The main finding of this chapter, as expected, is that mature firms, larger in size, more lucrative, with less growth opportunities are more inclined to pay dividends than small firms that are in the early ambit of their life cycle. Size of the firm is a determinant that increases the tendency of the GCC firms to payout dividends. Compatible with the hypotheses beneath agency costs and life cycle theory, the little grown-up firms are inclined to prefer lower dividends payout. More importantly, concentration of ownership can be replaced with dividends to reduce the agency costs. Dividends-paying firms that owned by institutional investors are more likely to payout dividends than those firms

owned by blockholders, who possess the power (control rights) over the management team, thus lower the proportion of dividends payout, for their benefits. The results indicate that the institutional features of GCC have a big bearing on the likelihood to distribute dividends.

Although the general competitiveness of the GG country has dropped the beginning of this year according to The Global Competitiveness Report (GCI), issued by World Economic Forum in 2017, but the firm-level competitiveness in such markets is high, since well-established and less-established firms are both striving for new profitable investments. The significant negative relation between growth in net assets and the inclined to pay dividends is attributed to the fact that the presence of cash in the small firms' balances provides sufficient resources for investment into opportunities that were not viable when the company had lower cash flows. Interestingly, cash balances and historical dividends' pattern have no impact on the tendency to pay dividends in GCC markets, owing to the fact that high cash and growth with low retained earnings are signs of firms with apparent agency issue. Hence, it is more likely that GCC firms pay dividends from their savings rather than from the cash account. Ultimately, nor cash free nor agency concerns are the impulse for dividends propensity of the firms. Given the fact that the dividends' probability is negatively related to the presence of blockholders, who are against agency costs in favour of dividends payment, as proposed in literature. However, block holders in GCC are more likely to be family or state who tend to own stocks through pyramidal web (Fan et al., 2011), which give them the ability to control (Claessens et al., 2000) and to dissolve minority owners' wealth (Fan et al., 2011).

However, firms with higher cash flow, but lower growth rate have higher agency costs, which is the case of the dividends-paying firms in GCC. It seems that GCC firms tend to return more dividends to moderate such agency problems, regardless of future investment opportunities, due to weak market for corporate control (Al-Kuwari, 2009). However, the challenge arises when these huge cash flows are available on an intermittent basis. The result indicates that the inclined to payout dividends inversely related to the fluctuations in earnings. This is why such a company would prefer to smooth out the dividend payouts in order to finance the payouts when the cash flows fall below average.

On the other hand, the finding reveals that retained earnings, operationalized as the ratio of retained earnings over shareholders equity capital, are a predictor of dividend policies in GCC. The relationship is attributed to the availability of such retained earnings to finance dividend payouts, which reduces the possibility that the firm has to use other costly sources of finance. To conclude, the outcome linked to the need to reduce agency

costs in small firms that have huge balances of cash with low growth options, but do not payout dividends, such as the need for increased government-regulations influence (i.e. to protect minority shareholders), as well as maintaining the reputation of the firm. Finally, GCC firms are no different in terms of preferences of capital structures and dividends policy when selecting sources to finance dividends payouts. In conclusion, more firm-year observations, different segregation (sectors and industry) along with country-specific factors should be considered. Also, different estimation technique and specification, using different measures of dividends policy (such earnings-base) should be examined.

The second paper, examined in the third chapter, is on the dynamic nature of the linkage between the ownership structure of a firm and its performance as measured through Tobin's Q ratio. The study consists of 290 nonfinancial nonutility companies incorporated in GCC financial markets, over the period 2008-2013. It uses a dynamic approach (i.e. system dynamic generalized method of moments (SDGMM) estimator) to address the 'dynamic endogeneity' issue considered by Wintoki et al. (2012) and Nugyen et al. (2014). More over, the second empirical paper is on the dynamic nature of the linkage between the ownership structure of a firm and its performance as measured through Tobin's Q ratio. The main prediction of the study is that the level of ownership intensity has a substantial impact on the firm performance of GCC companies. Studying this topic is a challenging task, as it is hard to deal with short-panel for a dynamic relationship has diagnosed with endogeneity problem because of the pitfalls and the perils involved. Of these perils simultaneity and heterogeneity (i.e., unobserved firms' characteristics), which are two pitfalls of endogeneity problems. Causality problem, which goes from one side of the equation to another simultaneously, called 'simultaneous causality' (Brown et al. 2011). Theoretically, Harris and Raviv (2008), among others, argue that the ownership-performance relationship is 'dynamic by nature'. That is, another source of bias, namely, the 'dynamic endogeneity' (Wintoki et al., 2012). This study uses a dynamic approach (i.e. system dynamic generalized method of moments (SDGMM) estimator) to address this 'dynamic endogeneity' issue considered by Wintoki et al. (2012) and Nugyen et al. (2014). The dynamic approach is employed to annual-balanced panel data for over 375 firms locally traded in GCC markets from 2008 to 2013. The positive statically significant relationship between the concentrated-ownership structure and financial performance of GCC firms remained the same, using different empirical methodologies, i.e., pooled OLS, FE and DSGMM estimators. The findings emphasise the 'dynamic nature' of the relationship between the ownership structure and firm performance in GCC setting. In addition, the results highlight the role of national factors in enhancing

the impact of concentrated ownership on firms' performance in GCC countries. Specifically, the intensity of ownership can substitute the poor external corporate control by markets of GCC countries. The main finding of the study, which is as expected since GCC region is characterized by concentrated -family and state- ownership structure, is that governance-performance relationship is dynamic by nature and suffers from endogeneity problem. Also, that concentrated ownership is a crucial internal governance element when it is come to governance and performance dilemma also can be used as a tool to mitigate agency problem. It is significantly and positively correlated with firm's performance. It can ease the conflicts between the minority and majority shareholders and also between the principles and managers

Notably, this study contributes to the corporate governance literature since it reexamined the impact of intensity of ownership, measured by constructing a factor of three different levels of concentration, (10%-30%, 30%-50% and 50%-100%), based on GCC governance regulations, including national governance factors by using a dynamical approach, more precisely, dynamic system GMM model. All previous studies that used a static model yielded unreliable and biased results. The dynamic approach helped this study to control for all sources of endogeneity biasedness mentioned in western researches from UK or USA. Thus, the results attained from the data analysis in this study are more accurate and more recent.

Third empirical chapter considers gender diversity of the board and dividends decision. It builds a bridge between the first and the second papers by examining the linkage between the corporate dividend policy and corporate governance under agency theory. Specifically, this chapter investigated the impact of gender diversity on the likelihood of a firm to payout dividends. Logit model is estimated to bilateral (treated vs. control firms) data over the period 2006-2016, after employing two statistical methods, namely, (i) the propensity score matching method to address selection biases; and (ii) all independent variables are realizations from last year (one-year lagged) to mitigate the effect of endogeneity, i.e., unobserved omitted variables (Chen et al., 2017). The main inference of this chapter, consistent with agency theory, is that dividends can be substituted with gender-manifold boards in mitigating agency-related costs. The findings indicate that the variations in the gender of, i.e., inclusion of female, directors do influence the decision of the board of directors of GCC firms. The inclusion of the female in corporates' boards has a significant statically positive impact on dividends payout decision in GCC setting. Furthermore, using different specifications and identification did not change the main conclusion approached by applying Logit model. From all specification tests that

conducted using different estimation techniques, it can be seen that female directors has a big and statically significant impact on dividends payouts in GCC. It can be used along with dividends to mitigate the agency problem in the dividends paying firms that has higher cash flows and returns and lower leverage. All regressions show that the fraction of female directors has a positive and significant effect on the dividend payout only for bigger firms with CEO is also a chairman and the majority of the boards are independent directors. In addition, the bigger is the firm's size or age and its board size the higher is the probability that the firm will payout higher dividends and appoint more female directors. The Logit model is estimated to bilateral (treated vs. control firms) data over the period 2006-2016, after employing two statistical methods, namely, (i) the propensity score matching method to address selection biases; and (ii) all independent variables are realizations from last year (one-year lagged) to mitigate the effect of endogeneity, i.e., unobserved omitted variables (Chen et al., 2017). The findings indicate that female directors do influence the decision making of the corporate's board they work for. The inclusion of the female in corporates' boards has a significant positive impact on dividends' payout decision. Furthermore, using different specifications and identification did not change the main conclusion approached by applying Logit model. The positive statically significant relationship between the gender-dividends in GCC firms remained the same, even after using different empirical methodologies, i.e., pooled OLS, Logit, and Propensity Scores Matching method estimators.

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APPENDICES

APPENDIX A1

A.1.1. Selected economic indicators for the GCC countries, during 2009-2014

	2009	2010	2011	2012	2013	2014
Bahrain						
Inflation (% change)	2.8	2	-0.4	2.8	3.2	2.8
Exchange rate (per US$)	0.38	0.38	0.38	0.38	0.38	0.38
GDP (% real growth)	2.5	4.3	2.1	3.6	5.4	4.5
No. of households ('000)	200.6	208.2	202.2	203.9	206.3	209.2
GDP (US$ millions)	22938.2	25713.3	29044.1	30756.6	32900	33850
Total exports (US$ millions)	11873.7	15400	19650.2	20500	17500	17950.5
Total imports (US$ millions)	7300	9800	12730	14900	13000	13406.6
Male population (%)	62.1	62.2	62	62	61.8	61.5
Female population (%)	37.9	37.8	38	38	38.2	38.5
Kuwait						
Inflation (% change)	4	4	4.8	2.9	2.6	2.9
Exchange rate (per US$)	0.29	0.29	0.28	0.28	0.28	0.28
GDP (% real growth)	-7.1	-2.4	9.6	6.6	1.5	0.1
No. of households ('000)	105803.7	115421.7	154026.1	174025.1	175827.8	172571.3
GDP (US$ millions)	446.4	491.5	537.2	579.2	615.3	645.9
Total exports (US$ millions)	54000.2	66554.7	102093	118896.9	115124	104318.3
Total imports (US$ millions)	20337.1	22265.6	25087.9	27255.6	29298.2	31485
Male population (%)	59.8	59.7	59.6	59.6	59.6	59.5
Female population (%)	40.2	40.3	40.4	40.4	40.4	40.5
Oman						
Inflation (% change)	3.9	3.2	4.1	2.9	1.2	1
Exchange rate (per US$)	0.38	0.38	0.38	0.38	0.38	0.38
GDP (% real growth)	6.1	4.8	0.9	5.8	4.8	2.9
GDP (US$ millions)	48388.4	58641.3	69522	77497.4	79655.9	80460.4
No. of households ('000)	382.1	402.3	434.7	477.1	524.2	568.4
Total exports (US$ millions)	28053.3	36601.3	47091.8	53174	56428.9	52834.3
Total imports (US$ millions)	17865	19774.5	23619.8	29447.3	34332.9	29432
Male population (%)	57.4	58.7	60.3	62.1	63.6	64.7
Female population (%)	42.6	41.3	39.7	37.9	36.4	35.3

Qatar

Inflation (% change)	-4.9	-2.4	1.9	1.9	3.1	3
Exchange rate (per US$)	3.64	3.64	3.64	3.64	3.64	3.64
GDP (% real growth)	12	19.6	13.4	4.9	4.6	4
GDP (US$ millions)	97,798.40	125,122.30	169,804.70	190,289.70	201,885.40	210,109.10
No. of households ('000)	308.3	322.8	326.2	345	377.2	417.2
Total exports (US$ millions)	48,007.20	74,959.90	114,444.20	132,913.60	133,336.10	126,962.80
Total imports (US$ millions)	24,922.00	23,233.40	22,323.40	25,214.40	26,865.30	30,442.10
Male population (%)	77.2	75.6	74.4	73.9	73.7	74.5
Female population (%)	22.8	24.4	25.6	26.1	26.3	25.5

Saudi Arabia

Inflation (% change)	5.1	5.3	5.9	2.9	3.5	2.7
Exchange rate (per US$)	3.75	3.75	3.75	3.75	3.75	3.75
GDP (% real growth)	1.8	4.8	10	5.4	2.7	3.5
GDP (US$ millions)	429,097.90	526,811.40	669,506.80	733,955.60	744,335.70	746,248.40
No. of households ('000)	4,883.80	5,012.00	5,143.80	5,277.00	5,409.60	5,538.60
Total exports (US$ millions)	192,190.30	251,002.50	364,514.50	388,165.90	375,685.10	342,092.50
Total imports (US$ millions)	86,382.00	96,655.40	119,005.40	140,666.40	152,119.50	157,195.30
Male population (%)	56.2	56.3	56.4	56.5	56.5	56.6
Female population (%)	43.8	43.7	43.6	43.5	43.5	43.4

UAE

Inflation (% change)	1.6	0.9	0.9	0.7	1.1	2.3
Exchange rate (per US$)	3.67	3.67	3.67	3.67	3.67	3.67
GDP (% real growth)	-5.2	1.6	5.2	6.9	4.3	4.6
GDP (US$ millions)	253,547.30	286,049.30	348,525.90	373,429.60	387,192.10	399,451.30
No. of households ('000)	1,564.30	1,607.50	1,635.50	1,662.20	1,687.10	1,712.30
Total exports (US$ millions)	185,000.00	220,000.00	285,000.00	300,000.00	365,000.00	359,000.00
Total imports (US$ millions)	150,000.00	165,000.00	205,000.00	220,000.00	245,000.00	262,000.00
Male population (%)	74.8	74.6	74.6	74.5	74.3	73.9
Female population (%)	25.2	25.4	25.4	25.5	25.7	26.1

Source: International Monetary Finance Data base, Online: https://imf.org

A1.2. Hofstede's Cultural Dimensions of GCC Nations

The six dimensions (6-Ds) are; Power Distance Index (PDI), Individualism versus Collectivism (IDV), Uncertainty Avoidance (UAI), Masculinity versus Femininity (MAS), Long-term Orientation versus Short-term Normative Orientation (LTO), and Indulgence versus Restraint (IND). Hofstede's (1980) original model was built on the first four dimensions of culture. Subsequently, in 2007 and 2010 Hofstede together with Michael Bond, and Michael Minkov have added the fifth (LTO) and the sixth (IND) dimension of culture.

The 6-Ds metrics can be employed in order to systematically differentiate countries, and to determine the differences between the values that can be reflected on various segments of the society. The 6-Ds of culture embody separate preferences for one state of affairs over another, which distinguish one country (but not values of individuals) from another (Hofstede, 2011). The 6-D scores of Hofstede cross-culture model are presented in Table (1.1) that explores and compares the GCC-culture in relation to other world cultures. Each dimension or category has been reported on a scale of zero to 100 (Hofstede and Minkov, 2010), but include data since the original creation of the Hofstede' 1980 book. From Table (1.1) it can be seen that only four countries out of the six GCC countries are reported using the 6-D model. Hofstede national-level culture index scores, namely, Indulgence versus Restraint and long- versus short-term orientation, are available for selected countries, including Saudi Arabia, Kuwait, UAE, and Qatar. There are no reported scores on (https://www.hofstede-insights.com) website for Bahrain and Oman. Therefore, it is difficult to compare countries more comprehensively using Hofstede cultural dimensions scores.

Table.A.2.1. Hofstede culture indicators by country

	PDI	IDV	MAS	UAI	LTO	IND
Kuwait	90	25	40	80	-	-
Qatar	93	25	55	80	-	-
Saudi	95	25	60	80	36	52
UAE	90	25	50	80	-	-

The first metric in the cross-cultural dimensions model of Hofstede is **Power Distance Index (PDI),** which is defined as the extent to which individuals in organisations within GCC-region accept the fact that power can be dispersed among them unevenly. Saudi Arabia and Qatar, in comparison with their peer countries, reported the highest PDI scores that reached to 95 and 93, respectively. Likewise, Kuwait and UAE scored 90 on

this dimension as well. A high PDI score indicates that GCC-national culture concurs with inherent inequalities among individuals, respects bureaucracy and follows a hierarchical system in which subordinates take the commands from the boss without justification, assuming he is an exemplary and benevolent leader. In such “markets, there is the notion of relational contracting where enforcement is not on the basis of contractual obligation but rather on trust and the continuity of the relationship as a whole” (Fletcher and Fang, 2006, p.434). From educational side, quality of learning depends on the qualifications of the teacher, educational policy centres on post-graduate levels, e.g. university, and teachers take initiative in class (Hofstede, 2001; and Hofstede et al., 2010).

The second dimension is **Individualism versus Collectivism (IDV),** which is defined as "the degree to which individuals are integrated into groups"(Hofstede, 2011, p. 11). A low score in IDV, all countries in Table (1.1) have scored 25- point in IDV, reflects that GCC cultures are aligned underneath the collective shelter (i.e. collectivist culture), encouraging group initiatives over individual ones in the work place. Gulf people are born in an extended family, which protect each other in exchange for unquestioning loyalty. In such culture, the use of word “we” is common while the use of word “I” is eluded. From societal and life-style side, they walk very slowly, and show sadness more than happiness. From education side, this culture encourage learning to understand “how to do” not to learn (Hofstede, 2011).

However, all countries in Table (1.1) have scored 80-point in UAI, the third dimension in Hofstede’s cultural-dimensions model. **Uncertainty Avoidance (UAI),** refers to "a society’s tolerance for uncertainty and ambiguity. It indicates to what extent a culture programs its members to feel either uncomfortable or comfortable in unstructured situations" (Hofstede, 2011, p. 10). This dimension reflects the level of anxiety that can Gulf people cope with in unfortunate, mysterious and unexpected situations. A low level of UAI indicates a willingness of people to face risk, accept changeable environment, take every day as it comes, and compete each other toward authorities. In general, members of this culture are very curious and less emotional. In contrast, a high level of UAI, the case of GCC, suggests that the members of GCC-cultures might be less organised, intolerance of unexpected situations, very emotional, accept changes that are planed step-by-step and by implementing rules, need lots of clarity and instructions, work in jobs even if they are unsatisfied, feel everything unusual is dangerous, and tend to be very ‘pragmatic’ (Hofstede, 2011).

Masculinity versus Femininity (MAS) is the fourth dimension in Hofstede’s model that “refers to the distribution of values between the genders, which is another

fundamental issue for any society, to which a range of solutions can be found" (Hofstede, 2011). Specifically, it considers the differences in the decision-making between the genders within a society. The GCC-culture can be classified as a masculine culture. However, the scores of this dimension slightly differ from one culture to another. The most masculinity culture among them is Saudi Arabia (60), Qatar (55), UAE (50), and Kuwait (40), respectively. The values of masculine cultures differ from those values in feminine cultures. On of the values that masculinity culture promotes are power, materialism, competitiveness, ambition, and assertiveness. While the members of femininity culture, be women or man, receive the same values, appreciate relationships, care about weak people, have less disparity between men and women, and place 'more value on quality of life'. In contrast, in masculine cultures, the differences between women and men's roles are very dramatic, and men tend to be driven and ambitious (Hofstede & Minkov, 2010).

The last two metrics in the cultural dimensions of Hofstede's theory are LTO and IND. There are no scores reported for GCC countries in these two dimensions, except for Saudi Arabia. Long-term Orientation versus Short-term Normative Orientation (LTO), known as "Confucian dynamism, it describes societies' time horizon" (Hofstede, 2011). The main implication of this dimension is the impact on business planning and performance, risk-taking, and investment decisions. The lower score of Saudi Arabia implies that Saudi people place greater emphasis on short-term performance. According to Hofstede and Minkov book (2010), members of short-term oriented culture are spending a lot in social life, attributing success/failure of students to luck, aiming to serve others, and considering best moments in their life had occurred in the past or will take place in the present not in the future (Hofstede and Minkov, 2010).

Indulgence versus Restraint (IND) is the last added and new metric of Hofstede's 2010 book. It has been recognized from previous studies of "happiness research". Indulgence means any culture that encourages free gratification of human desires related to enjoying life and having fun. Restraint stands for a society that controls gratification of needs and regulates it by means of strict social norms (Hofstede, 2011).

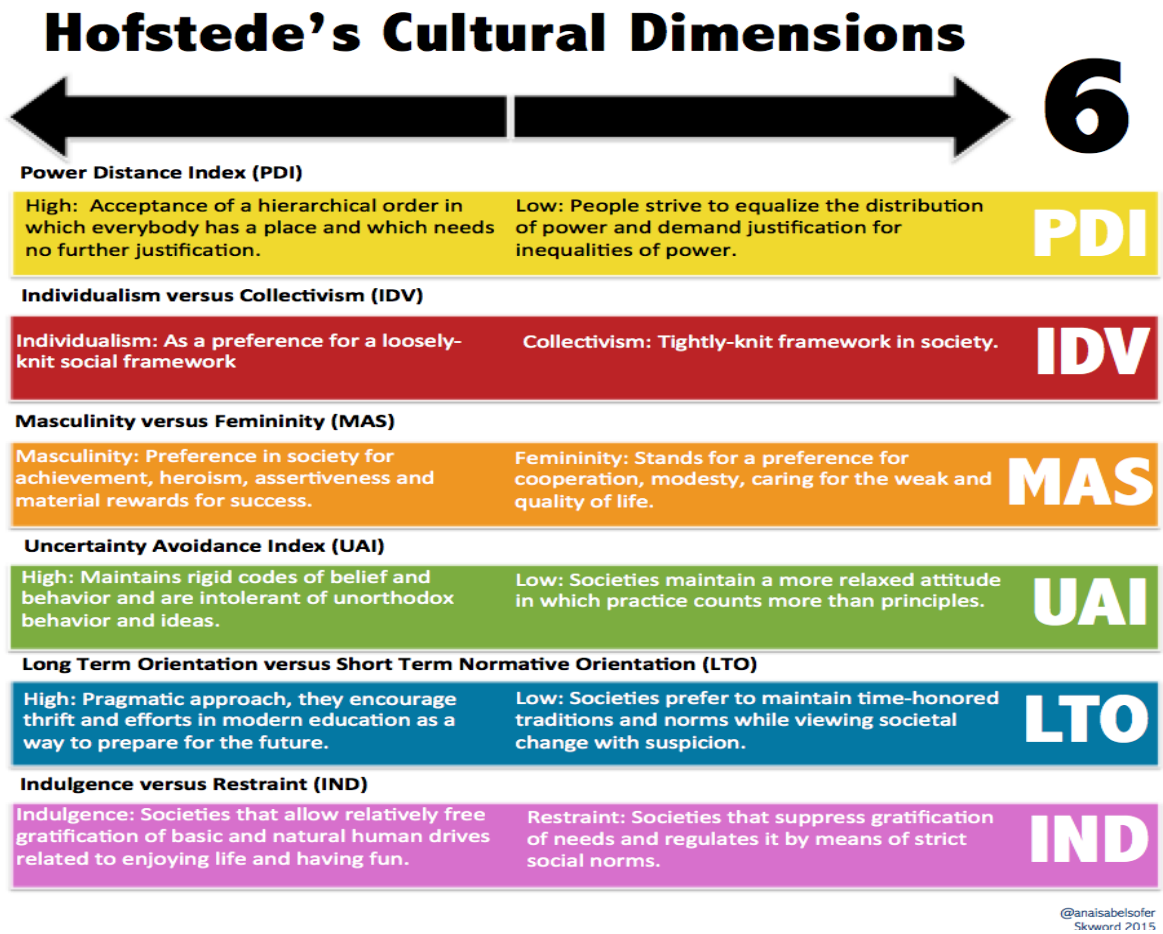
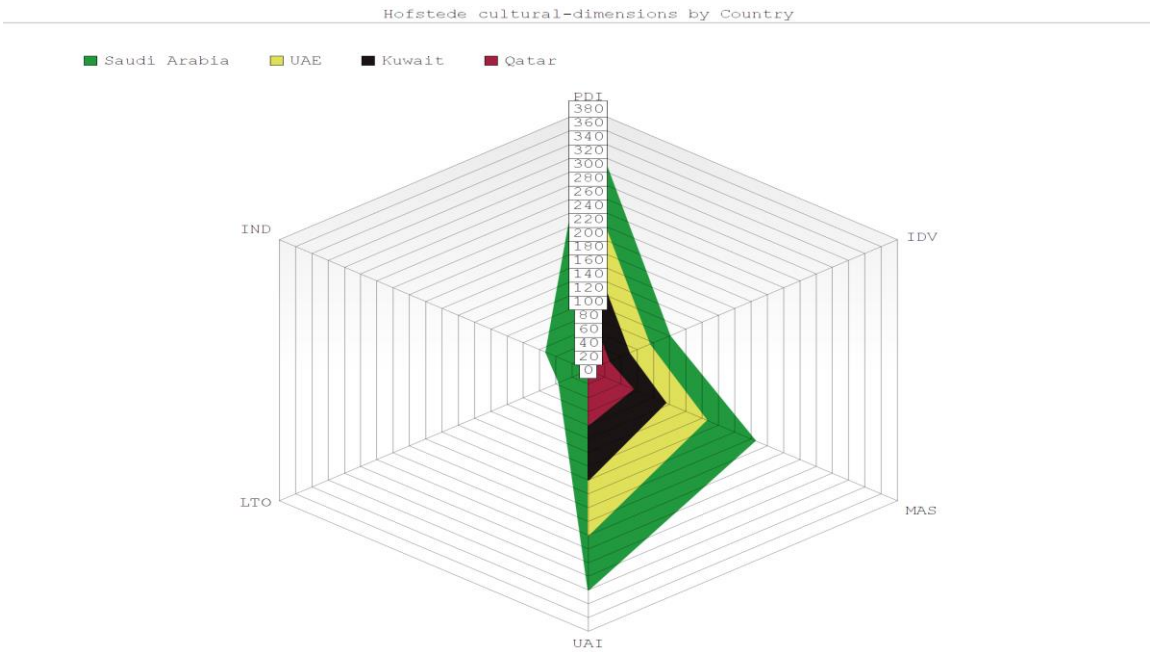


Table A1.3. Hofstede's Cultural Dimensions



APPENDIX A2

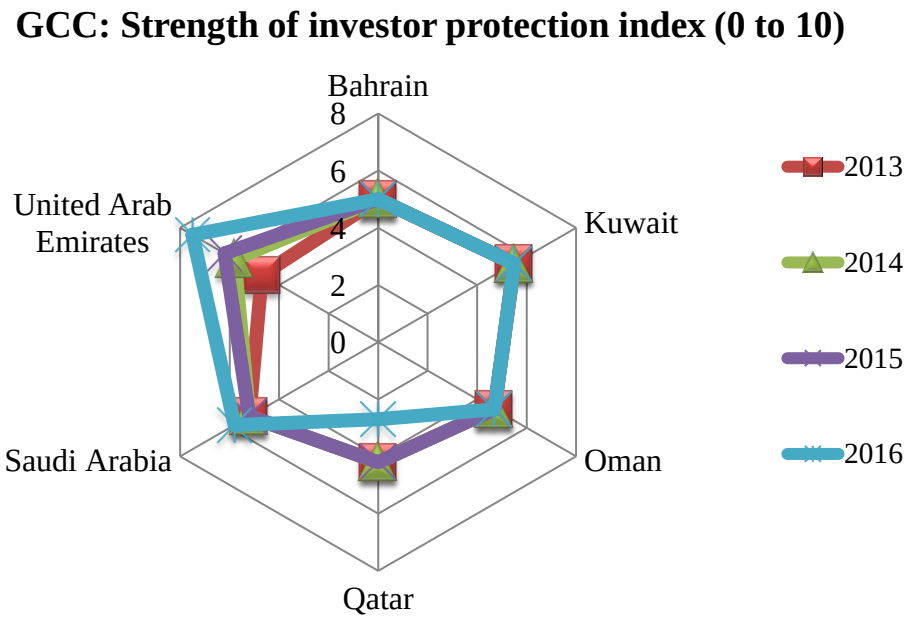


Figure A2. 1. GCC: Strength of investor protection index (0 to 10), 2013 – 2016

The strength of investor protection index is an average of 3 indices--the extent of disclosure index, the extent of director liability index, and the ease of shareholder suit index. The index ranges from 0 (little to no investor protection) to 10 (greater investor protection). The data are from a survey of corporate lawyers and are based on securities regulations, company laws and court rules of evidence.

Source: World Bank. 'World Bank: Doing Business Project'. Available at: <http://www.doingbusiness.org/ExploreTopics/ProtectingInvestors/>.

APPENDIX A3

Table A3.1.a GCC: Code of Corporate Governance by Country

Country	Corporate governance code's issuance date (a,b)	Main Public Regulators (b)	Modification Date (b)	Comply or Explain (b)	Declaration Method (b)
Bahrain	2010[a]	Central Bank (CB)	2011	Yes	Companies websites / Annual Report
Kuwait	2013 [b]	Capital Market Authority (CMA)	2016	Not Mandatory	Annual Report
Oman	2002 [b]	Capital Market Authority (CMA)	2003[a]/2015	Yes	Annual Report
Qatar	2009 [b]	Capital Market Authority (CMA)	2016	Yes	Annual Report
Saudi Arabia	2006 [b]	Capital Market Authority (CMA) and MCI	2010 / 2016	Yes, Partially Mandatory	Board of Directors' report
United Arab Emirates	2009[b]	Capital Market Authority (CMA)	2016	Yes	Annual Report

Source: a. International Finance Corporation (IFC), 'Corporate Governance Frequently Asked Questions,' 2016, accessed at December 1, 2016, http://www.ifc.org, b. Author, from CMAs websites.

Table A3.1.b GCC: Stock Exchanges (SE) establishment and ownership structure

Country	Stock Exchange	Abbreviation	Establishment	Ownership Structure
Bahrain	Bahrain Stock Exchange	BSE	1987	State-owned
Kuwait	Kuwait Stock Exchange	KSE	1984	Public institution
Oman	Muscat Securities Market	MSM	1988	State-owned
Qatar	Qatar Exchange	QE	1997	State-owned
Saudi Arabia	Saudi Stock Exchange	SSE	1984	State-owned
UAE	Dubai Financial Market	DFM	2000	State-owned
	Abu Dhabi Securities Exchange	ADX	2000	State-owned
	Nasdaq Dubai	ND	2005	State-owned

Source: Author, from CMAs websites

Table A3.2 World development indicators

Country Name	Country Code	Series Code	2008 [YR2008]	2009 [YR2009]	2010 [YR2010]	2011 [YR2011]	2012 [YR2012]	2013 [YR2013]	2014 [YR2014]	2015 [YR2015]	2016 [YR2016]
Bahrain	BHR	NY.GDP.PCAP.KD	21563.65067	20797.00522	20722.10389	20514.75639	20921.19971	21799.65217	22390.68285	22436.20753	..
Bahrain	BHR	NY.GDP.PCAP.KD.ZG	-1.256630472	-3.555267427	-0.360154395	-1.000610284	1.981224226	4.198862721	2.711193193	0.20331975	..
Oman	OMN	NY.GDP.PCAP.KD	19112.19706	19408.63402	19280.74739	17914.02822	18300.32899	17830.34586	17132.08878	17070.95839	..
Oman	OMN	NY.GDP.PCAP.KD.ZG	4.425000534	1.55103554	-0.658916198	-7.088517612	2.156414905	-2.568167639	-3.91611629	-0.356818128	..
Kuwait	KWT	NY.GDP.PCAP.KD	47965.00883	41936.81677	38497.61696	39652.17118	39733.28919	37924.47244	36259.39194	35490.29352	..
Kuwait	KWT	NY.GDP.PCAP.KD.ZG	-3.274442247	-12.56789523	-8.200908123	2.99902776	0.204573952	-4.552396214	-4.390517227	-2.121101267	..
Saudi Arabia	SAU	NY.GDP.PCAP.KD	19792.72038	18861.11	19259.58726	20575.49795	21056.34715	21005.01212	21183.46489	21507.95569	21395.35978
Saudi Arabia	SAU	NY.GDP.PCAP.KD.ZG	3.430997525	-4.706833456	2.112692511	6.832496856	2.336999074	-0.24379834	0.849572305	1.531811756	-0.523508209
Qatar	QAT	NY.GDP.PCAP.KD	67262.45171	65769.00718	70306.22784	72670.95866	70396.81612	68899.48531	67901.21881	67277.24313	66415.34414
Qatar	QAT	NY.GDP.PCAP.KD.ZG	0.750174951	-2.220324263	6.898721541	3.363472755	-3.129369129	-2.126986546	-1.448873664	-0.91894622	-1.2811152
United Arab Emirates	ARE	NY.GDP.PCAP.KD	43658.94478	37203.39799	35049.14832	35550.83127	36408.49755	38064.00442	39034.37628	40159.55787	40864.24985
United Arab Emirates	ARE	NY.GDP.PCAP.KD.ZG	-9.533910255	-14.7863097	-5.790464829	1.431369888	2.412506949	4.547034313	2.549316256	2.882540228	1.754730404

A3.2. The Worldwide Governance Indicators constructs aggregate indicators of six broad dimensions of governance:

The six aggregate indicators are based on 31 underlying data sources reporting the perceptions of governance of a large number of survey respondents and expert assessments worldwide. Details on the underlying data sources, the aggregation method, and the interpretation of the indicators, can be found in the WGI methodology paper.

The Worldwide Governance Indicators (WGI) are a research dataset summarizing the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. The WGI do not reflect the official views of the World Bank, its Executive Directors, or the countries they represent. The WGI are not used by the World Bank Group to allocate resources.Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption.

Government Effectiveness

Reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

Legend

Estimate	Estimate of governance (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance)
StdErr	Standard error reflects variability around the point estimate of governance.
NumSrc	Number of data sources on which estimate is based
Rank	Percentile rank among all countries (ranges from 0 (lowest) to 100 (highest) rank)
Lower	Lower bound of 90% confidence interval for governance, in percentile rank terms
Upper	Upper bound of 90% confidence interval for governance, in percentile rank terms

Regulatory Quality

Reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

Legend

Estimate	Estimate of governance (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance)
StdErr	Standard error reflects variability around the point estimate of governance.
NumSrc	Number of data sources on which estimate is based
Rank	Percentile rank among all countries (ranges from 0 (lowest) to 100 (highest) rank)
Lower	Lower bound of 90% confidence interval for governance, in percentile rank terms
Upper	Upper bound of 90% confidence interval for governance, in percentile rank terms

Rule of Law

Reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

Legend

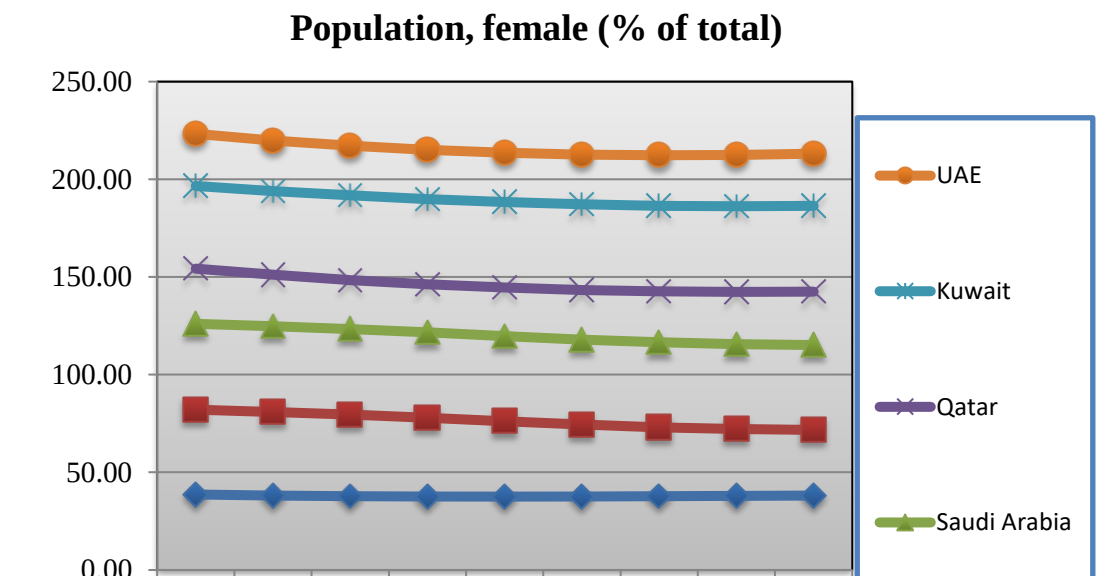
Estimate	Estimate of governance (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance)
StdErr	Standard error reflects variability around the point estimate of governance.
NumSrc	Number of data sources on which estimate is based
Rank	Percentile rank among all countries (ranges from 0 (lowest) to 100 (highest) rank)
Lower	Lower bound of 90% confidence interval for governance, in percentile rank terms
Upper	Upper bound of 90% confidence interval for governance, in percentile rank terms

APPENDIX A4

Table A4. 1. GCC: The Gender Gab report for all GCC countries in 2013

Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	UAE
Women in Parliament: (Female/Male=Female-to-Male Ratio)					
10/90=0.11	6/94=0.07	1/99=0.01	0/10=0.00	20/80=0.25	18/83=0.21
Women in ministerial positions: (Female/Male=Female-to-Male Ratio)					
12/88=0.13	6/94=0.07	7/93=0.07	0/100=0.00	0/100=0.00	18/82=0.22
Legislators, senior officials and managers (Female/Male=Female-to-Male Ratio)					
12/88=0.14	14/86=0.16	9/91=0.10	7/93=0.07	7/93=0.08	10/90=0.11
The global Gender Gap Report 2013, overall rank					
112	116	122	115	127	109

Source: World Economic Forum, (2013) Available at: http://www3.weforum.org/docs/WEF_Gender-Gap_Report_2013.pdf [Accessed in: May 2017].



	2007	2008	2009	2010	2011	2012	2013	2014	2015
UAE	26.70	25.88	25.38	25.18	25.24	25.49	25.88	26.32	26.74
Kuwait	42.32	42.87	43.33	43.64	43.81	43.87	43.87	43.84	43.82
Qatar	28.24	26.29	25.11	24.65	24.78	25.30	26.03	26.76	27.36
Saudi Arabia	43.95	43.85	43.77	43.68	43.60	43.53	43.47	43.44	43.45
Oman	43.43	42.81	41.78	40.34	38.60	36.81	35.30	34.24	33.67
Bahrain	38.64	38.14	37.79	37.60	37.56	37.63	37.77	37.92	38.02

Figure A4. 1. GCC: Population of female over 2007-2015, female (% of GNI per capital)

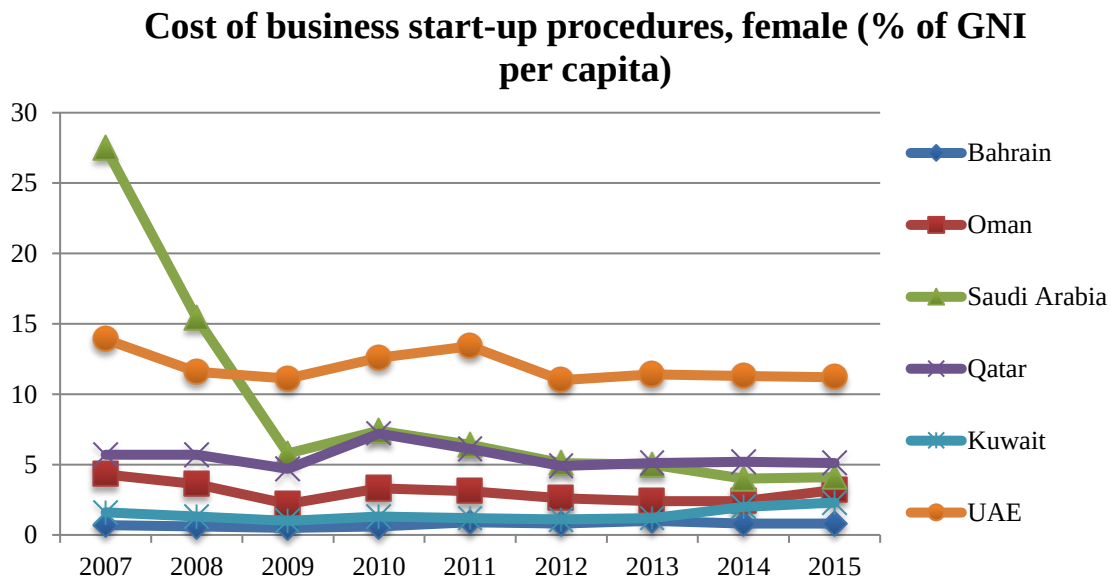


Figure A4. 2. GCC: Cost of business start-up procedures over 2007-2015, female (% of GNI per capital)

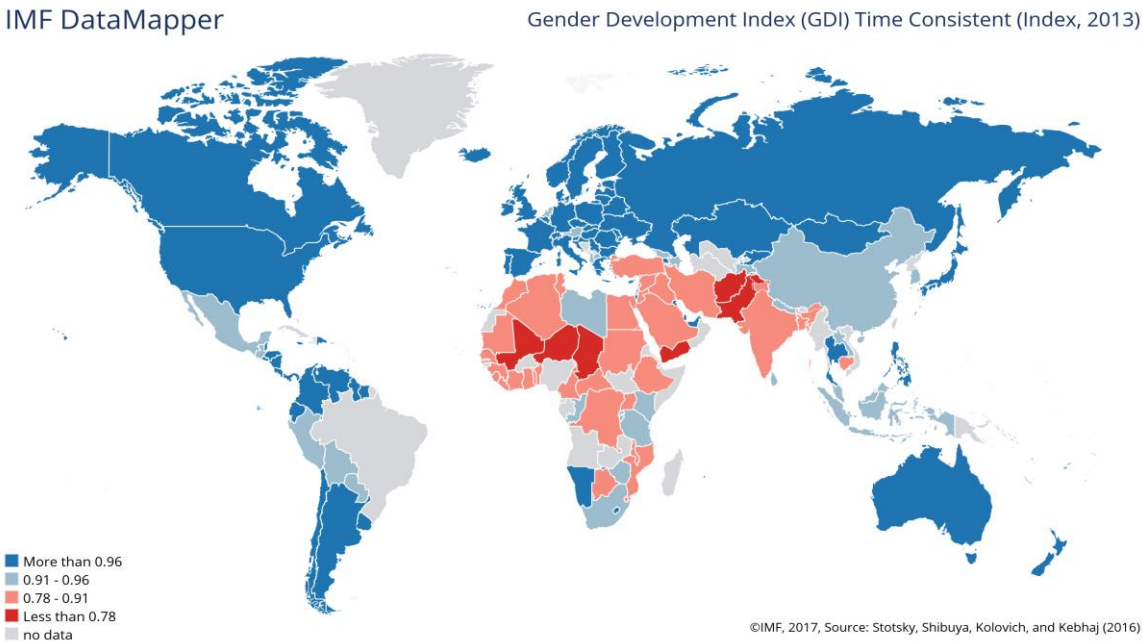


Figure A4. 3. GCC: Gender Development Index (GDI) for all GCC countries as of 2017