The Impact of Corporate Governance on Efficiency, Solvency, and Information Symmetry in Financial Institutions of Pakistan

Researcher:
Muhammad Akmal
30-FSL/PHDIBF/F15
Degree:
Islamic Banking and Finance

Supervisor
Dr. Abdul Rashid

Professor/Director General, International Institute of Islamic Economics

Co-Supervisor
Dr. Muhammad Khaleequzzaman
Former Chairman/Associate Professor, School of Islamic Banking and Finance

JOINTLY OFFERED BY

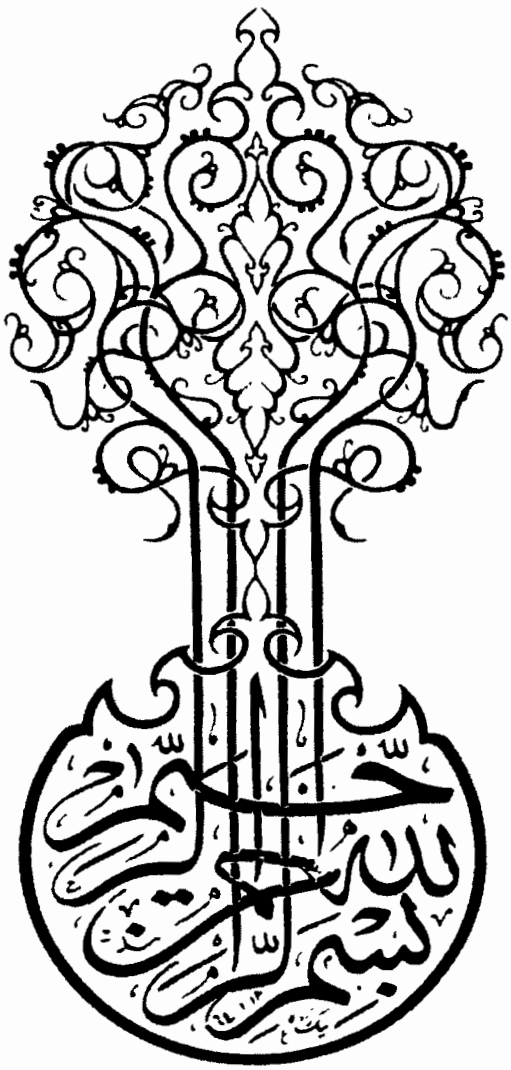
FACULTY OF SHARI'AH AND LAW

FACULTY OF MANAGEMENT SCIENCES

INTERNATIONAL INSTITUTE OF ISLAMIC ECONOMICS

INTERNATIONAL ISLAMIC UNIVERSITY
ISLAMABAD, PAKISTAN

TH-27032



"Allah will exalt in degree those of you who believe and those who have been granted knowledge."

(Chapter: 58, Verse: 11)

The Impact of Corporate Governance on Efficiency, Solvency, and Information Symmetry in Financial Institutions of Pakistan

Researcher:
Muhammad Akmal
30-FSL/PHDIBF/F15

Submitted in Partial fulfillment of the Requirements for the Ph. D Degree in Islamic Banking and Finance under the Joint Program of International Institute of Islamic Economics (IIIE), Faculty of *Shari'ah* and Law (FSL), Faculty of Management Sciences (FMS) at International Islamic University (IIU), Islamabad, Pakistan.

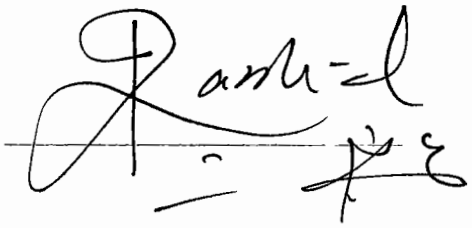
ACCEPTANCE BY THE VIVA VOCE COMMITTEE

TITLE OF THESIS:

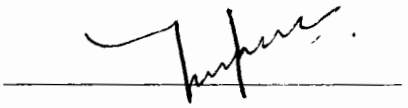
THE IMPACT OF CORPORATE GOVERNANCE ON EFFICIENCY, SOLVENCY, AND INFORMATION SYMMETRY: AN EXAMINATION OF ISLAMIC AND CONVENTIONAL FINANCIAL INSTITUTIONS IN PAKISTAN

Submitted by: Mr. Muhammad Akmal
Reg. No. 30-FSL/Ph.DIBF/F15

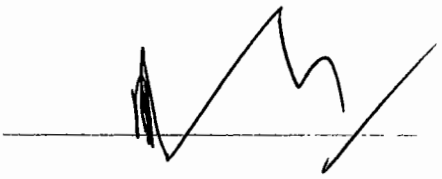
1. **Prof. Dr. Abdul Rashid**
   DG, IIIE/Professor (Economics), IIUI/
   Supervisor



2. **Dr. M. Khaleeq uz Zaman**
   Ex-Consultant/Assistant Professor, IIIE
   Co-Supervisor



3. **Dr. Miraj ul Haq**
   Chairperson/ Assistant Professor, IIIE, IIUI/
   Internal Examiner



4. **Dr. Mehboob Ahmad**
   Professor, SZABIST, Islamabad/
   External Examiner-I

5. **Dr. Mazhar Iqbal**
   Associate Professor, QAU, Islamabad/
   External Examiner-II

DEDICATION

This dissertation is dedicated to Prophet of Mercy Muhammad (ﷺ) who enlightened humanity with divine verses of true knowledge. Then, to my parents, who have always loved me, trusted in my capabilities, felt proud in introducing me and prayed for my success. Also, to my family to whom I am truly grateful for understanding my professional life and facilitating me to work with full concentration.

ACKNOWLEDGMENTS

Foremost, I humbly thank Allah Almighty, the Merciful and the Beneficent. This thesis would not have been completed without his blessing. He gave me health, thoughts and cooperative people and enabled me to achieve this goal.

He has commanded us to give thanks to Him for the blessings, and not to deny them. He says:

"Remember Me. I will remember you and be grateful to Me and never be thankless to Me" (*Al-Baqara,* 2:152)

O Allah send blessings upon Prophet (ﷺ), his family, and companions. As You said:

"Indeed, Allah confers blessings upon Prophet (ﷺ) and His angels too. O believers! You too praise him, and you should greet him in the best way of greeting" (*Al-Ahzab* - 33:56).

I can't stop myself to express my gratitude to some personalities who have always been a continuous source of encouragement during the challenges of my whole education career. The Prophet (ﷺ) said:

"Who does not thank people, does not thank Allah Almighty" (Sunan Abī Dāwūd, 4811).

Prof. Dr. Abdul Rashid, my supervisor, deserves my gratitude for his continues support, patience, inspiration, enthusiasm, and immense knowledge. His guidance has been invaluable in the research work and writing of the theses. I could not have imagined having a better supervisor and mentor for my research work. I also owe my sincere gratitude to my co-supervisor Dr. Muhammad Khaleequzzaman for his

courteousness and continues support particularly in guiding me on *Shari'ah* perspective of the dissertation.

I would also like to express my heartfelt gratitude to all of the Faculty of *Shari'ah* and Law and International Institute of Islamic Economics staff for their support, advice, and moral help. They have all encouraged and supported me greatly in finishing this task.

I can never forget thanking my high-ups at MCB Islamic Bank Ltd. and Bank Alfalah Ltd., especially Mr. Ali Raza Nemati, Mr. Mufti Syed Sabir Hussain and Mr. Mohsin Zafar for their support and guidance, enabled me to complete this work despite tough nature of the industry. I am also thankful to my colleagues at MCB Islamic Bank Ltd and Bank Alfalah Ltd to encourage and support me.

I am indebted to many of my friends, especially Dr. Syed Abdur Rehman Shah (UET, Texila), Mr. Muhammad Abubakr Siddiqqe (IIU, Islamabad), Dr. Muhammad Irfan Malik (NUST, Islamabad), Dr. Awais Ur Rehman (UCP, Lahore), Mr. Jamshid Ur Rehman Khatak (KKK University, Karak) and Mr. Muhammad Naveed Aslam for their continues help and encouragement and for everything we have had during this period. However, I cannot list all the names here, but they are always on my mind. I am grateful to everyone who has contributed to the success of this project. However, the author bears full responsibility for any potential flaws.

Muhammad Akmal

ABSTRACT

Financial sector is considered as a backbone of the economy, while effective Corporate Governance (CG) is very important for the smooth running of this sector. Therefore, this study aims to empirically investigate the impact of CG on performance, risk management and information symmetry of Islamic and conventional financial institutions. Nonetheless, this role is less explored in context of Pakistan. We used unbalanced panel data over the period of 2006-2017 of 57 financial institutions. Two-step system-Generalize Method of Moments (GMM) estimator is used to mitigate the endogeneity problem. Institution specific and macroeconomic variables are also used as control variables to estimate different models. Further, institutional quality is used as a moderator, between CG and performance of financial sector.

By estimating different models to investigate the impact of CG on performance, risk management and information symmetry, there is a strong evidence that CG has a significant impact on performance, risk management and information symmetry of IFIs and CFIs in Pakistan. However, the nature of relationship differs between IFIs and CFIs. This might be due to unique contractual and operational framework of IFIs. Further, role of *shari'ah* board is also significant toward all of said dimensions. Likewise, institutional quality is playing positive and significant role toward performance, risk management and information symmetry. Thus, owing to the importance of CG, financial institutions and regulators i.e. SECP and SBP should increase the focus on it, to improve the performance. Due to nascent in nature, IFIs should take appropriate measures to improve CG practices in order to compete with CFIs.

Key words: Corporate Governance, *Shari'ah* governance, *Shari'ah* board, Performance, Risk management, Information Asymmetry, Financial institutions, *Shari'ah* non-compliance Risk.

JEL Classification: D82, F65, G2, G32, G34, G38, L25.

ACRONYMS

AAOIFI	Accounting and Auditing Organization of Islamic Financial Institutions
BIS	Bank of International settlement
BODs	Board of Directors
CFIs	Conventional Financial Institutions
CCG	Code of Corporate Governance
CG	Corporate Governance
CGC	Corporate Governance Construct
e. g.	For example (exempli gratia)
et al.	And others (Et alii/alia)
etc.	And so forth (et cetera)
EU	Europe
FIs	Financial Institutions
FSR	Financial Stability Review
GDP	Gross Domestic Product
i.e.	That is
IBB	Islamic Banking Bulletin
ICC	International Chamber of Commerce
IFIs	Islamic Financial Institutions
IFSB	Islamic Financial Services Board
KIBOR	Karachi Interbank Offered Rates
NIC	National Insurance Corporation
OECD	Organization for Economic Co-operation and Development
PCA	Principal Component Analysis
PIC	Pakistan Insurance Corporation
PICG	Pakistan Institute of Corporate Governance
S.W.T	*Subhanahu Wa Ta'ala*
SBP	State Bank of Pakistan
SECP	Security and Exchange Commission of Pakistan
SGF	*Shari'ah* Governance Framework

SNCR	*Shari'ah* Non-Compliance Risk
SSB	*Shari'ah* Supervisory Board
UNDP	United Nations Development Program
USA	United States of America
%	Percentage

CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1:

INTRODUCTION

1.1 Background

Financial sector playing role of intermediation is considered as backbone of economy (Trinh & Thao, 2015; FSR, 2013). Owing to the importance of financial sector, effective Corporate Governance (CG) is very important for smooth operation of this sector in particular and economy as a whole (Bank for International Settlements, 2015). For economic growth, the role of financial sector, especially banking, is very crucial and central (Jarrett et al., 2019; Haini, 2019), because of its function of channeling funds form savers to the enterprises. Weak governance therefore is attributed to create sequence of hitches for the sector itself and for the whole economy, as evidenced by the recent financial crises.

Corporate governance is considered very crucial for the success of financial institutions, which is the predominant factor in business economy. Many interrelated factors contribute toward performance; however, CG is in the center of all performance drivers (Berghe, 2001). CG can be defined as "set of relationships between a company's management, its board, its stakeholders and other stakeholders" (OECD, 1999).

Concept of CG is not very nascent, even though it first came into vogue in the US in the 1970s. Afterward, within a quarter of the century, it became an icon for debate among investors, regulators and executive around the globe (Cheffins, 2013; Abu-Tapanjeh, 2006). The notion of CG exist since the inception of corporate form, which created the possibility of conflict of interest between managers and investors (Wells, 2010). Some researchers traced back the history of CG in the 17th century, when the

major companies like the Hudson's Bay, East India, the Levant Company and some other companies were launched (Cheffins, 2013).

However, the idea of contemporary CG could be considered relatively newer (Subramanian, 2015). In the decades of the 1980s and the 1990s the term CG got prominence (Zingales, 1997). It came into spot light in the 1990s, when some corporations in the US and the UK did not perform well and shareholders were left dissatisfied with the performance (Ginena, & Hamid, 2015). Then East Asia crisis in late the 1990s and financial crisis in the 2007 resulted the failure of giant companies and big organizations Bear Stearns, Lehman Brothers and etc. (Delhaise Philippe, 1998; Eigner, & Umlauft, 2015; Samra, 2016). These crises made CG as an area of interest and concern for the regulators, government, and for academics globally. Other factors which contributes toward the importance of CG in modern era are substandard monitoring, slow growth, aspect of institutional investors and increased concern of stakeholders rather shareholders (Anglo Saxon vs. European Model of CG)[1]

Corporate Governance protects the interests of different stakeholders of an entity i.e. shareholders, prospective investors, depositors, policy makers, managers, employees, customers, regulators, suppliers and government for a long-term success (Financial Reporting Council, 2014). As such, the primary objective of CG lies in protecting the rights of all stakeholders and public at large. To attain and uphold the public confidence and trust in the banking, effective CG is very important and crucial (BIS, 2010). CG refers to an allocation of authorities and responsibilities by which affairs of the business

[1] Anglo-American model of CG usually focused on the shareholders returns and capital growth. Shareholders' interest considered paramount on other stakeholders' interest. However, in European Model shareholders' interest is not the only priority rather other constituency of stakeholders are important as well.

are carried out by the board of directors and higher management which include, strategic objectives, human resource management, control functions, routine operations, protection of stakeholders interest and compliance of laws and regulations (BIS, 2015).

Form another perspective, "CG deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment." (Shleifer & Vishny, 1998). Broadly, it can be defined as "a set of relationships between a company's board, its shareholders and other stakeholders". CG provides the mechanism by which the company's objectives are set, and the means of achieving those objectives and performance management are determined. Alternatively it is a "set of relationships between a company's management, its board, its stockholders and other stakeholders" (OECD, 1999 & 2004). The central aim of CG is to protect the interests of all stakeholders of an entity.

Corporate Governance is based on three models in context of capital markets of western world, which are the Anglo-US model, the German model, and the Japanese model (Ewmi, 2005). Agency, stewardship and resources dependency theories among others have also been propounded with respect of CG (Sulphey, 2015). Maximizing the wealth of shareholder is focused in Anglo-US model, it has a well-developed legal framework which define the duties and rights of main players i.e. shareholders, management and board of directors. Commonly, financing is raised through equity in the USA and the United Kingdom.

However, German model is different from previous one, up to certain extent, it focuses on the protection of interest of stakeholders. It differs on three dimensions from other two models, such like, composition of the board i.e. supervisory board and

management board. Second, size of the board is set by law and third one is about the restrictions on voting rights are legal (Ewmi, 2005). The main component of Japanese model is higher level of block ownership by affiliated companies and banks. Directors are mostly from inside, whereas, outside directors representation is very low. Equity financing is major component of Japanese corporations, mostly held of insiders and affiliated institutions. Representation of outsiders is very low in Japanese institution.

The choice of one of these models and its implementation in a given scenario cannot be generalized. Market enjoinment is very vibrant, CG is structured according to the specific requirement of the country's environment. Due to globalization each of the above mentioned model is opening to accept the changes, while retaining its basic characteristics. CG is apprehensive to hold balance between social and economic and, common and individual goals. Framework of CG is there to ensure the efficient use and stewardship of these resources (Choudhury & Alam, 2013). The main objective is to align the interest of all concerned parties as nearly as possible. This framework is to define the relationship among all parties including managers, directors, investors and institutions to protect the invested capital and provide equity. This makes the board of director accountable to ensure the accomplishment of objective while observing the laws and regulations equally (ICC).

Some international standards setting bodies like World Bank has devised its own recommendation and principles for CG. In the same vein, OECD principles are the notable work on setting principles of CG with consultation of all the stakeholders including governments of different countries. These principles were originally followed by 30 countries, which were members of OECD in 1999 (Abu-Tapanjeh, 2009). These

principles also provide the guidance to stock markets, organizations, and corporations other than member countries of OECD. The OECD is a forum, which developed principles regarding CG. The principles developed by OECD gained acceptance not only in member countries but also from World Bank, United States and European Union (Morck, 2005). The main areas of the Principles developed by OECD (OECD, 2004) are but not limited to the basis of an effective CG framework, rights of shareholders, role of stakeholders and etc.

For the growth of developed and developing economics, role of CG is important. However, the depth of its importance increases for the emerging economies where Pakistan is no exception. The significance of CG increased due to recent corporate failure owing to poor governance practices (Khan, 2013). The importance of CG for the financial sector becomes crucial, due to the role and complexity of this sector. Economic development is directly related to the financial sector (Sardar et al., 2013). For economic progress, development of financial sector is very crucial. Without efficient financial sector, economic development cannot be attained (Tariq et al., 2014).

Corporate Governance is critical for financial sector of both developed and emerging economies i.e. Pakistan. In context of Pakistan, a major step towards the development of the codes of CG was a joint project by the SECP and the United Nation Development Program (UNDP) in collaboration with the Economic Affairs Division (EAD) of the Ministry of Finance in August 2002. Although, there was discussing on the banking sector as part of financial institutions, however the main focus of the project was corporate sector of the economy. They issued measures to bring stakeholders' awareness, capacity building, market confidence, and to interact with other economies. The first code

of CG was issued by SECP in 2002, being the regulator of corporate sector in the country (SECP, 2004). Likewise, the SBP issued a "Handbook of CG" to make the banking sector compatible to other developing economies in 2003 (SBP, 2003).

SECP has been continuously working to increase the awareness since the issuance of the code of CG in Pakistan and made it complementary to comply. SECP also issued different regulations regarding Code of CG in Pakistan i.e. "Listed Companies (Code of Corporate Governance) Regulations, 2019 & 2017. SBP has also made it mandatory to comply with the code of CG to all non-listed banks (ADB, 2008).

1.2 Concept of Governance in Islam

The main purpose of devising the principles of CG is to develop the mechanism for the business ethics, decision making, ensure the transparency and adequate disclosure and, mechanism of final account and book keeping. However, all of these principles and all of the models of CG are built on the manmade principles and law of land. Since, there are limitations on human logic and reasoning, therefore, these principles cannot be perfect. Consequently, different models are being practiced around the globe, because, in manmade principles, there is always a room for improvement. Therefore, there is no perfect mechanism, which can be used equally around the world. However, Islam is considered one of the divine religions. Consequently, the principles laid down in Islam are divine in nature.

Islamic principles of CG became a debate concern among scholars, since the inception of Islamic financial institutions. The major pillars of economic activity in Islam are to give a level playing field combining with fairness, justice and honesty to all concerned parties regarding their rights and duties (Tapanjeh, 2009). The dimensions of

CG in Islamic perspective have broader horizon and we cannot compartmentalize the aspects in respect of role and responsibilities to limited extent like OECD principles and other models of CG.

Islam is a religion that deals with all spheres of life, including commerce and trade (Abu-Tapanjeh, 2009). *Shari'ah* (Islamic Law) is not limited to religious rituals but it also deals with politics, social issues, economics, banking, contractual law and routine matters of one's life (Hafeez, 2016). As Islam deals with all spheres of life, economic activities have no exception, therefore Muslims are ordain to conduct their economic activities i.e. business according to the *Shari'ah*. The paradigm of accumulation of wealth is different in *Shari'ah*. Muslims are allowed to accumulate wealth with certain constraints imposed by the Lawgiver (Abu-Tapanjeh, 2009). Humans are vicegerent of Allah (S.W.T) on earth and status of wealth given to him is a trust. It is detrimental, if he fails to use is wisely (Saeed, 1996).

The concern regarding Islamic principles of CG is escalating in contemporary scenario. To ensure the rights and duties of concerned parties and, provide justice and fairness in economic activities, are the major components of Islam. Islamic finance has showed increasing trend over the last 3 decades, around the globe. Inter'alia, Islamic finance institutions require some additional arrangements for the good CG to be adhered to *Shari'ah* (Abdullah & Muhammed, 2012). Thus, some international standard setting bodies and SBP have issued governance standard to ensure the *Shari'ah* compliance in routine activities of the business. These bodies include IFSB and AAOIFI, and additionally the prudential regulations issued by the country's central bank.

Due to nascent in nature IFIs the significance of CG increases manifold for the former. In addition to regulatory requirements and law of land, IFIs have to follow *Shari'ah* rule in their day to day activities. Outline for the good governance is given in *Shari'ah* as *Quran, Sunna* and *Fiqh* enshrines the basic rules for the good governance, that is, just, fairness, transparency (*wuduh*), accountability, risk management, consultation (*Shura*), record keeping, *Uli al-Amr* etc (Malik, 2016). The concept of accountability (*Hisbah*) is also duly highlighted in *Shari'ah*. Furthermore, *Maqasid-e-Shari'ah* and legal maxims of *Shari'ah* also provide guidelines to decision makers for the protection of the rights of all stakeholders (Malik, 2019). For the existence of IFI's and to compete with the conventional institutions, good CG practices in line with *Shari'ah,* are very crucial. To ensure the *Shari'ah* compliance in IFIs, an additional layer of governance in shape of *Shari'ah* Supervisory Board (SSB)/*Shari'ah* Advisor is also appointed. AAOIFI defines SSB as "The SSB is entrusted with the duty of directing, reviewing and supervising the activities of IFIs in order to ensure that they are in compliance with *Shari'ah* Rules and Principles". The concept of governance in Islam will be discussed in detail in next chapter.

1.3 Corporate Governance and Performance

Keeping in view CG is the driving force to achieve efficiency of financial sector in term of profitability and its consistency. The term "efficiency" refers to the "maximization of outputs in such a way that the inputs are least utilized i.e. cost minimization" (Shahid et al., 2010). Efficiency, being a performance tool, means a process where the maximum amount of output is generated using the least amount of inputs (Investopedia, 2016). Theoretically, there is a very strong connection between the

growth of the financial and economic sectors. (Shahid *et al.*, 2010). Therefore, the financial sector has a crucial role in any country's economic development. If, this sector has an important role to play in the economy, then the sector itself should be productive and efficient. Therefore, it is fruitful to evaluate the role of CG on performance of this sector.

Financial sector of Pakistan comprises of commercial conventional and Islamic banks, investment banks, insurance companies, *Takaful* operators, microfinance banks, leasing companies, *Mudarba* companies and, Stock exchanges. Accordingly these institutions are governed by a complex system of governance which includes the code for CG issued by SECP, prudential regulations issued by State Bank of Pakistan (SBP), and governance standard issued by AAOIFI, as well as guidelines presented by the IFSB. Further, *Shari'ah* governance is an additional layer to govern the Islamic financial sector.

CG has an influence on performance. BODs are powerful mechanism to control the activities of organization (Nomran & Haron, 2019; Dalwai et al., 2015). The productivity of the BODs is determined by their numbers, independence and composition. Effective relationship between management and shareholders i.e. principal and agent, can be built through CG for the sustainable performance of financial sector (Adams and Mehran 2012). There are different theories, which support the relationship between CG and performance of financial sector (Haris et al., 2019). These theories include agency theory (Jensen & Meckling, 1976), resource dependent theory (Pfeer & Salancik 1978) and stewardship theory (Donaldson & Davis, 1991).

In Pakistan, with few exceptions of Khalid and Hanif (2005), Burki and Ahmad (2007), Bashir *et al.* (2018), Haris *et al.* (2019), Sheikh & Kareem, (2015); Rehmans &

Mangla, (2010), the work on CG of financial institutions is limited. These studies only focused on banking sector. Number of studies focused on the CG of non-financial sector (Rasheed, 2014; Shah, 2009; Javid *et al.*, 2008; Cheema *et al.*, 2003). Yet, the nexus of CG and performance of Islamic financial sector is relatively less explored.

Therefore, we want to check the impact of CG on the performance of CFIs and IFIs of Pakistan. Our framework allows us to see whether governance affects both types of institutions differently. After having established the governance effects at both conventional and Islamic financial institutions we investigate whether institutional quality has any role in formulating these effects on the performance of conventional and Islamic institutions, with particular emphasis on the Islamic financial sector of Pakistan.

1.4 Corporate Governance and Risk Management

Besides the performance and efficiency, risk management of the institution is also very important. Solvency refers to the ability of the institution to pay its long term liabilities, which is very important for the existence of the business. Financial institutions are also exposed to a number of risks, which should be managed prudently (Trinh & Thao, 2015). Islamic financial institutions face some additional risks i.e. *Shari'ah* non-compliance and fiduciary risks, which are not pertinent to the conventional financial institutions (IFSB, 2005). Therefore, researchers have emphasized the role of CG toward risk management (Zhong *et al.*, 2007; Tsorhe, 2011; McNulty, 2012; Salhi, 2012). Consequently, CG assumes an important role toward the risk management of both financial and non-financial institutions.

Islamic finance industry showed rapid growth since the 2000s. The assets of Islamic banking grown from $195 billion to $2714.3 billion from 2000 to 2020 and

expected to increase further rapidly (Thomson Reuters, 2016; IFSB, 2021). The industry growth urged scholar to explore the risks in Islamic financial industry (Čihák & Hesse, 2010; Kabir *et al.*, 2015; Mollah *et al.*, 2017; Safiullah & Shamsuddin, 2018; Rashid, 2020). Results of previous studies are mixed (Safiullah & Shamsuddin, 2018). There is difference of opinion among scholars on the differences of risks faced by Islamic and conventional industry (Mollah *et al.*, 2017; Kabir *et al.*, 2015; Beck, 2013).

Excessive risk taking and weak practices of CG may lead toward instability and huge losses, therefore, effective and strong CG is very important for banking and financial industry (Zagorchev & Gao 2015; Zhang *et al.*, 2016). In addition, the crisis drawn the attention of scholars to study the efficacy of CG in financial institutions (Tarchouna *et al.*, 2017). Researcher found that characteristics of CG such as board features, ownership structure and CEO pay has played role during financial crisis in banking sector (Beltratti & Stulz 2012; Erkens *et al.*, 2012).

Chen and Lin (2016) and Dı´az and Huang (2017) concluded that poor CG practices lead toward excessive risk taking and this became worse during financial crisis. Financial sector has been facing very complicated risks, which increases the need of good CG practices. For the protection of interest of stakeholder and strict compliance in line with regulatory requirement and ethics, CG very important (Permatasari, 2020).

Basel committee of BIS said that good CG practices are very important for the trust and confidence on banking sector and, this is very important for growth and sustainability of this sector and for the whole economy (BIS, 2010). Financial sector contribution toward economy is indispensable; therefore, for financial institutions, risk management and CG are important. (Trinh *et al.*, 2015). Consequently, in literature,

scholars have concentrated on the role of CG in risk management. (Salhi & Boujelbene, 2012; Trinh *et al.*, 2015; Tarchouna *et al.*, 2017; Mollah *et al.*, 2017; Permatasari, 2020).

Salhi and Boujelbene (2012) explored the relationship between risk management and internal governance of banking sector. Trin *et al.* (2015) investigated the effect of CG on various types of risks i.e. credit, liquidity and bank's capital. Tarchouna *et al.* (2017) stressed on checking the effect of CG on non-performing bank loans. Mollah *et al* (2017), examined the risk taking behavior of Islamic banks vs conventional banks based on different governance structures. Permatasari (2020) also worked on same parameters i.e. CG and risk taking. Many previous studies have investigated the relationship of CG and risk management, however, there is still room to investigate the relationship in context of Pakistan.

1.5 Corporate Governance and Information Symmetry

Effective CG on the other hand is also important for information symmetry. Information symmetry is a state where counter parties have an equal amount of information regarding assets or stock being traded. CG has to play an important role toward information disclosure in respect of financial institution (Haty, 2009). The aim of the preparation of the financial statements is to report the financial details, financial statues and the results of the busniess operations (Jamalinesari & Soheili, 2015). It is difficult to deny the value of information in decision making, less information can lead to greater uncertainty (Seresht et al., 2015). Proper functioning of captial markets are very important for the whole economy, CG has role to attract and retain the confidence of the investors. In situation of information asymmetry, suitable corporate measures are needed to monitor the behavior of opportunistic management (Han, Kim, & Lee, 2014). If CG is

not working properly, the confilts arises between big and small investors, principal-principal conflict (Jamalinesari & Soheili, 2015).

Confidence of the investors could be increased through efficient CG for the stability of cash flows in future. This plays a role of lever for the trust between investors and company. Past financial crises underlined the significance of good governance. Further, for investors, the accuracy of the information disclosed is depending on board of directors. Previous studies suggested that this structure reduce the information asymmetry (Sougne *et al.*, 213).

Information asymmetry is one of the important issue which leads the institution toward trouble. Attig & Morck (2005) contend that weak and ineffective board increase the level of information asymmetry, which create trouble for shareholders. This would shake the confidence of investors. On the other hand, effective board plays role to lessen the information asymmetry and increase the transparency of information. This is considered as essential for the transparency of financial information (Kachouri & Jarboui, 2017; Tahir *et al.*, 2019). Financial transparency and CG have been the object of many previous research, since 1960s. Recently, focus of the researchers increase to explore the relationship between governance and information disclosure (Kachouri & Jarboui, 2017). Girard and Rakotonjanahary (2005) reported in their study that good governance improve the information transparency for stakeholders and particularly for shareholders.

Most of the literature found on developed countries, nonetheless, limited number of studies found in developing countries like Pakistan (Tahir *et al.*, 2019; Nosheen & Sajjad, 2018). In south Asian countries where investors protection, legal enforcement, ownership structure and political environment differ considerably with developed

countries. Therefore, the relationship between CG and information asymmetry might differ from others. Gisbert and Navallas (2013) said in their study that in developing countries legal framework is inadequate, flow of information is ineffective and ownership concentration is high. Thus, this study might provide some good insights toward the relationship of CG and information asymmetry.

1.6 Problem Statement

The practices of CG of financial sector and non-financial sector are different, therefore number of studies found, which dealt both sector separately (Mecey, 2003). As discussed earlier, the work on CG of financial sector in Pakistan is limited with few exception (Haris *et al.*, 2019; Khalid & Hanif, 2005; Burki & Ahmad, 2007). Number of studies focused on the CG of non-financial sector (Rasheed, 2014; Shah, 2009; Javid *et al.*, 2008; Cheema *et al.*, 2003). Islamic financial sector has found very least focus in this regard (Bashir *et al.*, 2018; Sheikh & Kareem, 2015; Rehmans & Mangla, 2010).

Owing to the importance of financial sector in an economy, financial crisis can be hedged through this sector (Allen, 2001). Nevertheless, in comparison to the other emerging economies, Pakistani financial sector is behind the others as per the Economic Survey of Pakistan, 2009-2010. Access to Finance Survey (2015), only 23% of adult population is served by the formal financial sector of Pakistan, thus a vast area is available to excel.

The number of Islamic Financial institutions increasing in Pakistan either by opening of new subsidiaries, branches or starting window operations. Therefore, it is more important for Islamic Finance industry to be more vigilant in CG practices in order to compete with the conventional financial industry. Pakistan is growing economy and

CG issues are more critical in such economies where the institutional environment is weaker (Claessens, 2006).

The lending from banking sector has declined in Pakistan, which is the prime activity of banking sector. The advances to deposit ratio (ADR) has decreased from 75.9% in 2008 to 51.71 percent in 2019. Credit risk in commercial banks has found higher in Pakistan (Financial Stability Review, 2019). Credit and market risks have remained higher. Therefore, these banks need to enhance credit quality, speed up recovery efforts and improve the credit risk management (FSR, 2019). Further, financial inclusion is very low in Pakistan as compared to other developing countries in the world. As per the Access to Finance Survey (SBP, 2015), only 23% out of total population are formally served through formal financial services. This ratio is above 90% in developed countries. Further, financing to private and public sector also decline SBP (FSR, 2019).

The profitability of insurance sector declines in 2019 (FSR, 2019). According to FSR (2009), real premiums' growth in emerging economies was recorded as 3.5% while in Pakistan it stood at -3.9% against the world average -1.1% in 2009. In contrast to other nations, Pakistan has a very poor penetration of the insurance sector in its GDP, for example, India recorded 3.6%, Russia 1.4%, Brazil 3.1%, South Africa, 13.9% respectively, whereas in Pakistan it was less than 1% in 2019 (FSR, 2019). Surrendering of policies is also very high in Pakistan. Pakistan's insurance industry has undoubtedly immense potential that has yet to be realized. Despite its small size and low penetration, the sector can be effectively used to provide economic support as the data given in an annual report of SECP, 2019. Its share is less than 1% of GDP (FSR, 2019).

The asset base of *Modarabas* companies witness decline of 1.02% in 2019 from 2018, whereas, concentration risk also remain high (FSR, 2019). The asset portfolio of *Modarabas* increased from 52.9 billion to 53.7 billion from 2018 to 2019, which is very low. Share of *Modarabas* is 4.7% of Non-banking Financial sector. Despite growth of *Takaful* segment due to introduction of Window *Takaful* operations of conventional insurance companies in Pakistan, still there is room for the growth of this sector (FSR, 2019). As per the SECP annual report of 2019, Share of *Takaful* in overall market was 10.22% in 2018. Growth of Islamic banking is also not remarkable. It increased from 10.4% to 17% from 2014 to 2021, which is almost 6.6% growth over a time span of seven years (IBB, 2014 & 2021). Despite the fact that majority of population is Muslim.

Efficiency, solvency and information asymmetry are considered important indicators of any financial system. The governance setup of corporation is vital to achieve not only objective of the business but also its stability. Although Pakistan financial sector plays vital role in economy, it is suffering form problem of low efficiency, high risk taking and information asymmetry. There is also a question mark on efficient role of CG in FIs. IFIs have an extra check in shape of SSB although, there is a question mark on performance and effectiveness of SSB. There is also an issues in the developing countries like Pakistan, how IQ plays a role in making effective CG mechanism.

There is definitely a tremendous opportunity for the financial sector in Pakistan that has not been realized yet. Despite its relatively tiny size, this sector can be efficiently used to boost the economy, as compared to other emerging economies. Keeping in view the above mentioned hitches, we want to check the relationship of CG on the performance and risk and information asymmetry of financial sector and to define the

causes of relative growth as well as the growth potential of this sector, with particular focus on Pakistan's Islamic financial sector.

1.7 Research Gaps

We identified some important gaps based on the previous literature that need to be explored for thorough understanding of the relationship of CG with the performance, risk management and information asymmetry. First, this study explores the relationship of CG and performance of IFIs and CFIs. Some of the past studies only focuses either on comparison of Islamic and conventional banks or consolidated data of group of countries to find out the relationship of CG on performance. However, we do not find any study which investigates the relationship of CG on Islamic and conventional financial institutions in Pakistan. Few past studies are, Aslam & Haron (2020) on Islamic banks of Islamic countries, Rahman & Haron (2019) on Indonesian's Islamic Banks, Nomran & Haron (2019) on Islamic banks of Southeast Asia and GCC countries, Haris *et al.* (2019) on banking sector of Pakistan, Gafoor *et al.* (2018) on Indian banks, Bashir et al. (2018) on Pakistani banks, Galal (2017) on Egyptian banks, Ghosh (2017) on Middle East and North African countries and Mollah *et al.* (2017) on comparison of Islamic and conventional banks. CG is equally important for both types of institution i.e. Islamic and conventional including banks, insurance/*Takaful* and *Modarbas*, therefore, to explore the relationship for all of these types of institutions is important. Yet, until now, we are not very much acquainted with the differences of the relationship of CG with IFIs and CFIs' performance in Pakistan, therefore, we explore this relationship.

Further, this study explore the relationship of CG and risk taking behavior of IFIs and CFIs. Past studies focuses mostly on banking sector of different countries.

Permatasari (2020) and Rasli *et al.* (2020) focus on risk management of Indonesian and Malaysian banks respectively. Bhagat & Bolton (2019) investigate the relationship of CG with performance and risk taking of hundred top financial institutions of USA. Mollah *et al.* (2017) examine the effect of CG on risk taking in fourteen separate countries using combined data of conventional and Islamic banks. Tarchouna *et al.* (2017) and Faleye & Krishnan (2017) on risk management of US commercial banks. However, focus on financial sector i.e. IFIs and CFIs are found missing in context of Pakistan, as this is also very important to explore the relationship of CG and risk management of both types of institutions. Furthermore, *Shari'ah* board and *Shari'ah* non-compliance risk are very important elements of IFIs, therefore, we include these variables to check the relationship with CG. Through this dissertation, we might be in better position to gauge the behavior of risk management of IFIs and CFIs in Pakistan.

Moreover, this study intends to investigate the relationship of CG with information asymmetry of IFIs and CFIs. This area is also discussed widely in literature. However, existing literature emphasis on listed institutions to investigate the relationship of CG with information asymmetry, nonetheless, not listed institution are ignored largely. Few studies are, Wu *et al.* (2019) on US institutions, Joudi *et al.* (2019) on Iranian firms, Tahir *et al.* (2019) of Pakistani listed firms, the relationship between CG and disclosure quality of listed Pakistani institutions investigated by Nosheen and Sajjad (2018), Musovaa (2017) on listed firms of Bratislava Stock Exchange, Cai *et al.* (2015) explore the relationship on all Compustat institutions. Wilson (2011) on New Zealand's institutions. Given literature mainly focuses on non-financial sector, however, financial sector found little focus. Pakistan is a growing economy and symmetric information is

very important for the growth of financial sector. Therefore, we explore the role of CG toward asymmetric information of IFIs and CFIs of Pakistan.

Additionally, we include institutional quality in shaping the impact of CG on performance, risk taking behavior and information asymmetry. Several, previous studies have looked into the effect of quality of institutions on economic performance and economic behavior of agent. Like, Khan *et al.* (2020) on 15 different growth leading and emerging economies, Wasike (2017) in Kenya, Rashid and Intartaglia (2017) on different developing countries, Salti (2015) across different countries, Kirch and Terra (2012) on five South American countries, Panicos and Law (2006) on 72 different countries, Hall and Jones (1999) investigate the role across different economies, Knack and Keefer (1995) in USA. Therefore, we attempted to investigate the role of institutional quality in shaping the behavior of CG on different aspects i.e. performance, risk and information asymmetry. We used institutional quality as an interaction term between CG and different aspects of performance.

After reviewing the literature we identify following gaps. To the best of our knowledge, we did not find any study in which the impact of CG on performance and solvency of FIs is investigated. We do not have any empirical evidence on impact of CG on information asymmetry in FIs. There is also a dirt of empirical evidence on role of IQ in shaping the impact of CG on performance, solvency and information asymmetry. Role of *Shari'ah* supervisory board toward performance, solvency and information asymmetry in IFIs is yet to be explored. In conclusion, this study sheds light on various aspects of CG effects. First, this study help us to know the role of CG toward performance of different type of financial institutions in developing economy of Pakistan. Second, unlike

other countries Pakistan has a dual financial institutions i.e. Islamic and conventional financial institutions working side by side. Third, IFIs are relatively new and facing tough competition from their counterparts. Fourth, institutional quality of Pakistan is relatively not good, thus, this study will develop the understanding regarding its relation with performance of financial institutions. In a given, theoretical context, we examine the relationship of Islamic and conventional financial intuitions' CG with efficiency, risk management, and information asymmetry.

1.8 Research Objectives

CG is important in many respects, such as efficiency, risk management, information symmetry (Khan, 2013). Therefore, the basic objectives of this study are three folds. First, it aims to find out the role of CG towards efficiency of financial sector in Pakistan. Second, it evaluate the role of CG toward bankruptcy and risk taking. Third, the aim of this study is to discover the connection between CG and information symmetry. The study also presents recommendations to policy makers and practitioners to enhance and improve the level of governance in respect of performance, risk, and information symmetry.

Specifically, the objectives of the study are given as under:

- To find out the impact of CG on the efficiency of Islamic and conventional financial institutions.
- To find out the impact of CG on bankruptcy and risk taking behavior of Islamic and conventional financial institutions.
- To examine the relationship of CG on information symmetry in case of IFIs and CFIs.

- To explore the relationship between CG and *Shari'ah* non-compliance risk in IFIs.
- To find out the impact of *Shari'ah* governance on performance, risk taking and information symmetry of IFIs.
- To examine the role of institutional quality in shaping the effects of CG on performance, risk and information symmetry of financial institutions.

1.9 Research Questions

By carrying out this study, following questions are attempted to be answered:

- What is the impact of CG on efficiency, solvency and information symmetry of Islamic and conventional Financial Institutions?
- What is the impact of corporate and *Shari'ah* governance on risk management of IFIs?
- What is the impact of corporate and *Shari'ah* governance in addressing unique *Shari'ah* non-compliance risk of IFIs?
- What is the role of corporate and *Shari'ah* governance on information symmetry of IFIs?
- What is the role of IQ on the performance, risk management and symmetric information of financial institutions via CG?

1.10 Contribution of the Study

Corporate Governance is very important to ensure the interest of all stakeholders of the institutions. The concept of CG is not very new, concept arose when the ownership and management separated (Shah, 2009). In recent past, the failure of many big

corporations particularly financial institutions i.e. Lehman Brothers, American Insurance Group, Enron etc. has made this issue more important (Khan, 2013; Rasheed, 2014). SECP issued different rules and regulation on time-to-time basis to regulate the companies. SECP issued first code of CG in 2002 by SECP (SECP, 2017).

Immense amount of literature found on the CG, due to its importance. Many studies have concentrated on the institution's CG and efficiency (Nomran & Haron, 2019; Candida *et al.*, 2015; Ndlovu, 2014;Tariq, Ali, Ibrahim, & Rehman, 2014) and the relationship of CG on the risk (Permatasari, 2020; Trinh &Thao, 2015; Pearl-Kumah, Sare, & Bernard, 2014; Himaj, 2014; Whitford, 1993). However, in the context of Pakistan, to the best of our knowledge, only few studies have been done on the risk. Some other studies have been conducted for the efficiency of financial institutions, but no simultaneous research found on both topics at same time. Moreover, it is commonly known that *Shari'ah* Supervisory Board (SSB) plays a significant role toward the CG of Islamic financial institutions (Zaman, 2015). Despite this fact, to the best of our knowledge, no empirical study in Pakistan has given the due importance of the role of SSB, for the performance and efficiency of Islamic financial industry. Furthermore, we include accounting and market based measure for the performance of Islamic financial industry.

It is also commonly known that investment decisions are based on the parameters of risk and returns. It is also know that where the risk is high returns are also high. Therefore, risk and returns are associated with each other. To study the risk and return independently might not be so fruitful, until both aspects are studied on the same time. Risk and returns are very important for the decision making for institutions and

individuals. The importance of said parameters in the context of CG is manifold. Hence, we are exploring the said relationship for Islamic and conventional financial industry in Pakistan.

Moreover, focus of this study is to check the information symmetry of financial sector in context of Pakistan. Due the profit and loss sharing nature, IFIs are more vulnerable to the asymmetric information, thus it is more important for IFIs Furthermore, it focuses on role of institutional quality in shaping the effect of CG on performance, efficiency and solvency of financial sector. Likewise to explore the role of CG toward *Shari'ah* non-compliance Risk of IFIs.

Evaluating the aforementioned aspects of the Islamic financial institutions without a comparison to the conventional financial institutions may not be useful to policymakers. As a result, the current research could be beneficial to both the conventional and Islamic financial industries. It will also be useful to professionals, practitioners and the public at large.

This study contribute to the existing body of knowledge in different ways. First, this research analyzes the relationship between CG and performance, CG and risk and CG and information asymmetry in Pakistan. Which is an important contribution. Second, this study makes an important addition in respect of the role of SSB for the efficiency, risk and information symmetry of IFIs. Third, this study undertakes the role IQ toward performance, risk management and information asymmetry. Finally, it focuses on the role of IQ in shaping the effect of CG on performance/ efficiency and solvency of financial sector. This would provide as a value added contribution of this study in context of Pakistan.

Since, this study is on the financial sector of Pakistan, that includes banks, insurance, *Takaful* and *Modarbas*. Thus, this study presented an overall picture of Islamic and conventional financial sector. This study is beneficial for the investors as they would be in better position to make investment decisions while having clear picture of investment returns and risk associated with particular investment. On the other hand practitioners will have overall view of the financial industry over long run period. Thus, they would be in a better position to formulate their future policies and decisions. In Pakistan, most of the institutions have concentrated ownership, in given context, this study will open new avenues for policy makers to formulate new policies to safeguard the interests of all other parties concerned. Moreover, they would be in a better position to formulate polices for Islamic and conventional financial sector.

1.11 Structure of Research

Core subject matter of the dissertation has been presented in Chapter 1. Then we discussed the research gaps, objectives of study and research questions. The significance of the study also given in this section. Chapter 2 deals with the concept of CG in *Shari'ah.* The concept of governance in *Quran, Sunna* and in classical literature presented in detail in same chapter. Further, in chapter 3, theoretical framework of the study is given. In this chapter, different theoretical approaches and underpinning theories of CG are discussed. Chapter 4 provides details on literature of the given topic. All related aspects of the study are discussed in this chapter, which include the link between CG and performance, risk management and information asymmetry. The review of literature includes the CG versus performance, risk management and information asymmetry.

Chapter 5 describes data and empirical framework about the impact of CG on efficiency, solvency and information asymmetry. In this chapter the methodology and models are discussed to triumph the objectives of study. Variables of the study are also given in this chapter. Different models are given to explore the relationship between CG and performance, risk and information asymmetry. Discussion on robust two step system-the Generalize Method of Moments (GMM) estimator is also given in this chapter. Empirical findings through GMM estimator are discussed in Chapter 6. Strong relationship found between CG and performance of financial institutions. Further, the relationship is also significant with risk taking and information asymmetry. Finally, the last chapter #7, presents conclusion of the study. It also suggests some policy implication and future research agenda for Pakistan.

CHAPTER 2

CORPORATE GOVERNANCE: ROOTS AND CONCEPT IN *SHARI'AH*

2.1 Introduction

As Islamic financial institutions grow, the subject CG has been brought to the attention of researchers in the context of *Shari'ah* (Islamic Law). Due to nascent in nature, the importance of governance is manifold for such institutions. Islam is a religion, which deals with all spheres of life, including commerce and trade. *Shari'ah* is not limited to religious rituals but it also deals with politics, social issues, economics, banking, contractual law and routine matters of one's life. Therefore, whether the word governance is alien in *Shari'ah*, or is it deeply rooted? We tried to address the question, to profoundly mine the classical and contemporary literature on conventional mechanism of CG and then the concept of governance in *Shari'ah*. The concept of governance is deeply rooted in Islamic law. General principles of governance are found in the *Quran, Hadith*, and in classical literature of *fiqh*. In the *Quran*, it is ordained to fulfil the obligations, deliver the trust, do justice, testify truth, and not to eat others' property unjustly. In same lines, Prophet Muhammad (ﷺ) asked Muslims to show honesty, do not take things unlawfully, and everyone is responsible for his guardianship. Moreover, the concept of *Shura*, mutual cooperation, *Hisbah* for accountability, *Maqasid-e-Shari'ah*, and legal maxims of *Shari'ah* also provide guidelines to decision-makers for safeguarding the interest of all concerned parties. Detail discussion on the topic is given below.

2.2 Concept of Corporate Governance

Concept of CG is not very nascent, although it first came into vogue in the United States in the 1970s. Afterward, within a quarter of the century, it became a buzzword for debate among investors, regulators and executive around the globe (Cheffins, 2013; Abu-Tapanjeh, 2006). The idea of CG exist since, the inception of corporate form, which created the possibility of conflict of interest between managers and investors (Wells, 2010). Some researchers traced back the history of CG in the 17th century, when the major companies like the Hudson's Bay, East India, the Levant Company and some other companies launched (Cheffins, 2013).

However, the idea of contemporary CG could be considered relatively newer (Subramanian, 2015). In the decades of the 1980s and the 1990s the term CG got prominence (Zingales, 1997). It came into spot light in the 1990s, when some corporations in the United States and the United Kingdom did not perform well and shareholders were left dissatisfied with the performance (Ginena, & Hamid, 2015). Then East Asia crisis in late the 1990s and financial crisis in the 2007 resulted the failure of giant companies and big organizations Bear Stearns, Lehman Brothers and etc. (Philippe, 1998; Eigner & Umlauft, 2015; Samra, 2016). These crises made CG as an area of interest and concern for the regulators, governments, and for academics globally. Other factors which contributes toward the importance of CG in modern era are substandard monitoring, slow growth, aspect of institutional investors and increased concern of stakeholders rather shareholders (Anglo Saxon vs. European Model of CG).

Financial sector playing role of intermediation is considered as backbone of the economy (Trinh & Thao, 2015; FSR, 2013). Considering the importance of financial

sector, effective CG is very important for smooth operation of this sector in particular and economy as a whole (BIS, 2015). For the growth of any economy, the role of financial sector is very crucial and central due to its function of channeling funds form savers to the enterprises. Weak governance therefore is attributed to create sequence of hitches for the sector itself and for the whole economy, as evidenced by the recent financial crises.

CG safeguard the interest of all concerned parties of an entity i.e. shareholders, prospective investors, depositors, policy makers, managers, employees, customers, regulators, suppliers and government for a long term success (Financial Reporting Council, 2014). CG refers to, an allocation of authorities and responsibilities by which affairs of the business are carried out by the board of directors and higher management which include, strategic objectives, human resource management, control functions, routine operations, protection of stakeholders interest and compliance of laws and regulations (BIS, 2015). The researchers like Daniel (2003) considered that CG is important due to many factors; firstly, it increases the growth and economic activity, which is a result of efficient use of capital and the confidence of foreign investors. Secondly, it increases the capacity of institutions to absorb the risk of crisis, and for the robustness of economy. Thirdly, it is important for market economy.

2.3 Corporate Governance from Islamic Perspective

In *Shari'ah*, the notion of CG is not new. At the time, when Muslim civilization was on peak, financial system of Islam succeeded for centuries. However, after the decline of Muslim civilization and infiltration of conventional economic system, it leads toward misplacement of Islamic civilization. Post-colonial time, again, Muslims tried to

develop their system in accordance with *Shari'ah* (Siddique & Ahmad, 2019). In Islam, leading sources of guidance are *Quran* and *Sunnah* (Siddique & Siddique, 2020). These sources are binding and Persuasive for legislation. Therefore, every aspect of the life of Muslims i.e. private and societal, is based on guidance ordain in said sources, no exception for the governance of joint stock companies (Sulphey, 2015).

Some features of Islamic economy are same like conventional one. However, Islamic economy differs in principal, on the primary features, like objective of this system is to give a balanced society with just, honest and fair system in line with the ethical values of Islam (Mirakhor, 2000; Ahmad, 2000; Warde, 2000; Siddique, 2018). Social wellbeing is the main feature of financial transactions in Islam, activities which are harmful to the wellbeing of society are prohibited (Asyraf, 2006). Islamic economic system is based on divine laws, which are balanced, ethical and moderate (Khalifa, 2003). Manipulation in any form and activities, which are against the wellbeing of individuals and society as a whole, are strictly prohibited.

Islam is a religion that covers all facets of life, including commerce and trade. *Shari'ah* (Islamic Law) is not limited to religious rituals but it also deals with politics, social issues, economics, banking, contractual law and routine matters of one's life. As Islam deals with all spheres of life, economic activities has no exception, therefore Muslims are ordain to conduct their economic activities i.e. business according to the *Shari'ah* . The paradigm of accumulation of wealth is different in *Shari'ah.* Muslims are allowed to accumulate wealth with certain constraints imposed by the Lawgiver (Abu-Tapanjeh, 2009). Humans are vicegerent of *Allah* (S.W.T.) on earth and status of wealth given to him is a trust. It is detrimental, if he fails to use is wisely (Saeed, 1996). The

prohibitions related to management, economic activities and use of wealth include *Riba*, *Gharar* & *Qimar*. Islam always encourage for undertaking trade and business (Al-Quran 2:275 & 62:10), however within the given limitations (Lewis, 2005). Business is needed to be arranged in a particular way for a particular result. Lewis (2005), define CG as a way to control, direct and organize a business. Islamic law provides a larger concept and guidelines of CG ranging from individual action to the social environment (Abu-Tapanjeh, 2009). Islamic concept of CG has some unique features in comparison with European and Anglo-Saxon models. In *Shari'ah* model the concept of *Tawhid* (Oneness of God), *Shura* (Concept of Consultation), rule of *Shari'ah* and maintaining the element of personal goals without ignoring the social welfare are important features (Haqqi, 2014).

Financial and economic attributes are discussed by *Ibn Ashur* i.e. he discussed different aspects like preservation, circulation, documentation and equity (*El-Mesawi*, 2006). The marketability (*rawaj*) of economic wealth, as established by Ibn Ashur, entails the circulation of wealth through investment in trade, as well as the establishment of contracts (*Quran* 5:1) for various financial dealings (eg. Sale/purchase, *Mugharasah* and *Qirad*). Transferring wealth among the society by as many hands as possible (i.e. kin, orphans, poor, and wayfarers; Quran 59:7), and promoting the economy (*Hadith* about dates of Khyber: *Muwatta*, 1312). Transparency (*wuduh*), is to mitigate harm and conflict at maximum. To ensure transparency, guidelines are given in Quran, for instance, pledges and documentation are required (Quran 2:282-283), as well as the prohibition of transgression (*Quran* 4:29).

Ethical values of Islam include, preservation (*hifz*), protection of others' property, damages reimbursement and documentation for correct perfection. There are certain examples of ethical values at the time of Prophet (ﷺ) which includes mutual help, protection of the interest of public, prohibition of wrong appropriation of others property and charity i.e Durability (*thabat*), Equity (*adl*) and endowments (*waqf*). Ibn Ashur contributed in the literature of *Maqasid* and discussed regarding freedom, equality, mutual help, freedom of thought and protection of *fitrah* i.e. nature.

Elements of good CG includes good board practices i.e. well structuring of board, roles and duties should be clearly defined, appropriate composition and mix of skills. Then control environment i.e. independent audit committee should be in place, risk management framework and, management information system be in place. Discloser and transparency and, shareholder rights are also an important attribute of good CG. Root cause of bad governance is the weak personal moral and internal limitations, where sometime personal interests supersede the overall interest of organization. In Islamic perspective, concept of the institution of *Hisbah* represents an accountable institution. The concept of monitoring can be achieved through *Hisbah.* This concept is not limited to the state duties rather it is extended to the all members of the society that is commanding of good and hindering of evil (*Amr bi al maroof wa nahi-anilmunkar*). It is a communal duty to promote good and discourage bad (*fardkifayah*).

In general the objective of *Hisba* is the safeguarding of people's religion, honor, property, privileges, and safety, as well as the preservation of public funds, services, and interests. In an economic perspective this is especially concerned with preventing corruption and monitoring markets to ensure that transactions are fair. As a consequence,

upholding equity, openness, and accountability are essential priorities for this institution. *Hisba* duties were performed by the Prophet Muhammad (ﷺ), caliphs and companions by their own and by delegation of powers to different members of the society.

Once the Prophet Muhammad (ﷺ) dug his hand into a pile of grain sold in the market and discovered it damp from the inside. He then asked and said "Anyone who cheats us is not one of us". Owing to wide-range of duties, Prophet Muhammad (ﷺ) appointed Umar (rta) to oversee the market of Medina and Makkah. After the death of the Prophet Muhammad (ﷺ), the caliphs continued performing the *hisba* functions (Ginena & Hamid, 2015). The outline for the CG can be inferred from the literature written by Al-Mawardī (d. 450 ah/1058 ce), Ibn, Al-Ghazalī (d. 505 ah/1111 ce), Ibn Taimīyah (d. 728 ah/1327 ce), Ibn Al-Mubarrad (d. 909 ah/1503 ce), and Al-Fāsī (d. 1096 ah/1685 ce).

There is concern of the advocates of CG, the segregation of management and ownership in organizations, which leads toward agency problem. This notion has been addressed in *Quran* and *Hadiths*, which put the light on the importance of accountability, ethics, fairness and justice in contracts. These ethics has clearly mentioned in *Quran* and *Hadiths*:

(i) Fulfillment of Obligations –

"يَا أَيُّهَا الَّذِينَ آمَنُوا أَوْفُوا بِالْعُقُودِ:" (المائدہ،5:112)

"O ye who believe! Fulfill (all) obligations."

It is clearly emphasized in above-mentioned verse of *Quran* that everyone should fulfill his/her commitments. These commitments would be on individual level or at

organizational level. Believers are asked to fulfill their responsibilities, and the same is applicable in CG structure.

(ii) Breach of trust & Fairness –

"يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَخُونُوا اللَّهَ وَالرَّسُولَ وَتَخُونُوا أَمَانَاتِكُمْ وَأَنْتُمْ تَعْلَمُونَ" (الانفال،8:27)

"O ye who believe! Betray not the trust of Allah and the apostle, nor misappropriate knowingly things entrusted to you."

In given verse of *Surah e Anfal,* it is ordained to not break the trust of others, if some responsibility is given to you, it must be performed truly. In CG structure, shareholders trust should not be betrayed by board of directors and management.

(iii) Prohibition of fraud, deception and manipulation –

"يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَأْكُلُوا أَمْوَالَكُمْ بَيْنَكُمْ بِالْبَاطِلِ إِلَّا أَنْ تَكُونَ تِجَارَةً عَنْ تَرَاضٍ مِنْكُمْ وَلَا تَقْتُلُوا أَنْفُسَكُمْ إِنَّ اللَّهَ كَانَ بِكُمْ رَحِيمًا " (النساء، 4: 29)

"O ye who believe! Eat not up your property among yourselves in vanities. But let there be amongst you traffic and trade by mutual goodwill, nor kill (or destroy) yourselves; for verily Allah hath been to you Most Merciful!"

" تِلْكَ الدَّارُ الْآخِرَةُ نَجْعَلُهَا لِلَّذِينَ لَا يُرِيدُونَ عُلُوًّا فِي الْأَرْضِ وَلَا فَسَادًا وَالْعَاقِبَةُ لِلْمُتَّقِينَ " (القصص،28:83)

"That home of the Hereafter We assign to those who do not desire exaltedness upon the earth or corruption. And the [best] outcome is for the righteous."

In the above-mentioned holy verses, it is asked, not to indulge in corruption and fraud and not to appropriate other property in unlawful manners. This is also very important for the transparency in dealings. Since, transparency is very important corporate activities, thus, this is also applicable in CG.

(iv) Undue advantage and bribery –

"وَلَا تَأْكُلُوا أَمْوَالَكُمْ بَيْنَكُمْ بِالْبَاطِلِ وَتُدْلُوا بِهَا إِلَى الْحُكَّامِ لِتَأْكُلُوا فَرِيقًا مِنْ أَمْوَالِ النَّاسِ بِالْإِثْمِ وَأَنْتُمْ تَعْلَمُونَ" (البقرہ،188:2)

"And do not eat up your property among yourselves for vanities, nor use it as bait for the judges, with intent that ye may eat up wrongfully and knowingly a little of (other) people's property."

In same lines bribery and undue advantage is prohibited. Sometime, undue advantage is given to large shareholders on expense of minority shareholders; this is prohibited in Islamic law.

(v) Minimizing information asymmetry and record keeping –

"وَلَا يَأْبَ الشُّهَدَاءُ إِذَا مَا دُعُوا وَلَا تَسْأَمُوا أَنْ تَكْتُبُوهُ صَغِيرًا أَوْ كَبِيرًا إِلَى أَجَلِهِ ذَلِكُمْ أَقْسَطُ عِنْدَ اللَّهِ وَأَقْوَمُ لِلشَّهَادَةِ وَأَدْنَى أَلَّا تَرْتَابُوا" (البقرہ،282:2)

"And let not the witnesses refuse when they are called upon. And do not be [too] weary to write it, whether it is small or large, for its [specified] term. That is more just in the sight of Allah and stronger as evi dence and more likely to prevent doubt between you."

Further, it is advised to write down the contractual obligations whether, these are of small amount or larger one and with witnesses. Symmetric information is very important for the growth of institution. Information asymmetry creates hurdles in capital raising. Therefore, it should be minimized.

"وَكُلَّ إِنْسَانٍ أَلْزَمْنَاهُ طَائِرَهُ فِي عُنُقِهِ وَنُخْرِجُ لَهُ يَوْمَ الْقِيَامَةِ كِتَابًا يَلْقَاهُ مَنْشُورًا" (الاسراء،13:17)

"And [for] every person We have imposed his fate upon his neck, and We will produce for him on the Day of Resurrection a record which he will encounter spread open."

It is clearly mentioned here that what the human beings are doing in this world, is recorded and it will be produced on the day judgment.

"يَوْمَ يَبْعَثُهُمُ اللهُ جَمِيعًا فَيُنَبِّئُهُمْ بِمَا عَمِلُوا أَحْصَاهُ اللهُ وَنَسُوهُ وَاللهُ عَلَى كُلِّ شَيْءٍ شَهِيدٌ"
(المجادلہ،6:58)

"On the Day when Allah will resurrect them all and inform them of what they did. Allah had enumerated it, while they forgot it; and Allah is, over all things, Witness."

In this holy verse, again, it is reminded that everything is being written to show them on the day when *Allah* (SWA) will resurrect them. These above mentioned verses are to remove the information asymmetry between the parties and show the importance of record keeping.

"عَنْ أَبِي هُرَيْرَةَ أَنَّ رَسُولَ اللهِ صَلَّى اللهُ عَلَيْهِ وَسَلَّمَ مَرَّ عَلَى صُبْرَةِ طَعَامٍ فَأَدْخَلَ يَدَهُ فِيهَا، فَنَالَتْ أَصَابِعُهُ بَلَلًا فَقَالَ: «مَا هَذَا يَا صَاحِبَ الطَّعَامِ» قَالَ أَصَابَتْهُ السَّمَاءُ يَا رَسُولَ اللهِ، قَالَ: «أَفَلَا جَعَلْتَهُ فَوْقَ الطَّعَامِ كَيْ يَرَاهُ النَّاسُ، مَنْ غَشَّ فَلَيْسَ مِنِّي»[2] "

"It was narrated from Abu Hurairah that the Messenger of Allah passed by a pile of foodstuff; he put his hand (deep) in it and found that it had gotten wet. He said: 'What is this, 0 seller of the foodstuff?' He said: 'It got rained on, 0 Messenger of Allah.' He said: 'Why don't you put it on top of the food so that people can see it? Whoever deceives (people) does not belong to me."

In this *Hadith*, it is asked to not to hide the information and do not deceive other people in the society. It is also applicable in corporate activities.

(vi) Fairness and Justice –

"وَأَوْفُوا الْكَيْلَ وَالْمِيزَانَ بِالْقِسْطِ" (الانعام،152:6)

"And give full measure and weight in justice."

"يَا أَيُّهَا الَّذِينَ آمَنُوا كُونُوا قَوَّامِينَ بِالْقِسْطِ شُهَدَاءَ لِلَّهِ"(النساء،135:4)

"O you who have believed, be persistently standing institution in justice, witnesses for Allah, even if it be against yourselves."

"عَنْ أَبِي حُمَيْدٍ السَّاعِدِيِّ، قَالَ: اسْتَعْمَلَ رَسُولُ اللهِ صَلَّى اللهُ عَلَيْهِ وَسَلَّمَ رَجُلًا عَلَى صَدَقَاتِ بَنِي سُلَيْمٍ، يُدْعَى ابْنَ اللُّتْبِيَّةِ، فَلَمَّا جَاءَ حَاسَبَهُ، قَالَ: هَذَا مَالُكُمْ وَهَذَا هَدِيَّةٌ. فَقَالَ رَسُولُ اللهِ صَلَّى اللهُ عَلَيْهِ وَسَلَّمَ: «فَهَلَّا جَلَسْتَ فِي بَيْتِ أَبِيكَ وَأُمِّكَ، حَتَّى تَأْتِيَكَ هَدِيَّتُكَ إِنْ كُنْتَ صَادِقًا» ثُمَّ خَطَبَنَا، فَحَمِدَ اللهَ وَأَثْنَى عَلَيْهِ، ثُمَّ قَالَ: أَمَّا بَعْدُ، فَإِنِّي

[2] Imam Muslim bin Al-Hajjaj (261H), Al-Sahih Al-Muslim, (Berut: Dar Ihya al Turath al-Arabi), 1: 99.

أَسْتَعْمِلُ الرَّجُلَ مِنْكُمْ عَلَى العَمَلِ مِمَّا وَلَّانِي اللهُ، فَيَأْتِي فَيَقُولُ: هَذَا مَالُكُمْ وَهَذَا هَدِيَّةٌ أُهْدِيَتْ لِي، أَفَلاَ جَلَسَ فِي بَيْتِ أَبِيهِ وَأُمِّهِ حَتَّى تَأْتِيَهُ هَدِيَّتُهُ، وَاللهِ لاَ يَأْخُذُ أَحَدٌ مِنْكُمْ شَيْئًا بِغَيْرِ حَقِّهِ إِلَّا لَقِيَ اللهَ يَحْمِلُهُ يَوْمَ القِيَامَةِ، فَلَأَعْرِفَنَّ أَحَدًا مِنْكُمْ لَقِيَ اللهَ يَحْمِلُ بَعِيرًا لَهُ رُغَاءٌ، أَوْ بَقَرَةً لَهَا خُوَارٌ، أَوْ شَاةً تَيْعَرُ" [3]

"Abu Humaid al-Sa'idi narrated that *Allah's* Apostle Muhammad (ﷺ) appointed a man called Ibn Al-Lutabiyya to collect the *Zakat* from Bani Sulaim's tribe. When he returned, the Prophet Muhammad (ﷺ) called him to account. He said (to the Prophet Muhammad (ﷺ), 'This is your money, and this has been given to me as a gift." On that, *Allah's* Apostle Muhammad (ﷺ) said, "Why didn't you stay in your father's and mother's house to see whether you will be given gifts or not if you are telling the truth?" "Then the Prophet Muhammad (ﷺ) addressed us, and after praising and glorifying *Allah*, he said: "Amma Ba'du", I employ a man from among you to manage some affair of what *Allah* has put under my custody, and then he comes to me and says, 'This is your money and this has been given to me as a gift. Why didn't he stay in his father's and mother's home to see whether he will be given gifts or not? By *Allah*, not anyone of you takes a thing unlawfully but he will meet

[3] Al-Bukhari, Muhammad bin Ismail (256H), Al-Sahih Al-Sahih, (Dar Tauq al-Najat, 1422H), Kitab al-Hiyal, Bab Ihtiyal al-'Amil Li Yahdia Lahu, 9: 28.

Allah on the Day of Resurrection, carrying that thing. I do not want to see any of you carrying a grunting camel or a mooing cow or a bleating sheep on meeting *Allah*"

In number of verses of holy *Quran* and *Hadiths*, it is emphasized to do justice and fairness in dealings. Justice should prevail, even if it is against someone interest.

(vii) Status of Guardian –

"أَنَّ عَبْدَ اللهِ بْنَ عُمَرَ، يَقُولُ: سَمِعْتُ رَسُولَ اللهِ صَلَّى اللهُ عَلَيْهِ وَسَلَّمَ يَقُولُ: «كُلُّكُمْ رَاعٍ، وَكُلُّكُمْ مَسْئُولٌ عَنْ رَعِيَّتِهِ، الإِمَامُ رَاعٍ وَمَسْئُولٌ عَنْ رَعِيَّتِهِ، وَالرَّجُلُ رَاعٍ فِي أَهْلِهِ وَهُوَ مَسْئُولٌ عَنْ رَعِيَّتِهِ، وَالمَرْأَةُ رَاعِيَةٌ فِي بَيْتِ زَوْجِهَا وَمَسْئُولَةٌ عَنْ رَعِيَّتِهَا، وَالخَادِمُ رَاعٍ فِي مَالِ سَيِّدِهِ وَمَسْئُولٌ عَنْ رَعِيَّتِهِ "[4]

"'Abdullah bin 'Umar had said, "I heard *Allah's* Apostle Muhammad (ﷺ) saying, 'All of you are guardians and responsible for your wards and the things under your care. The Imam (i.e. ruler) is the guardian of his subjects and is responsible for them and a man is the guardian of his family and is responsible for them. A woman is the guardian of her husband's house and is responsible for it. A servant is the guardian of his master's belongings and is responsible for them." (Al-Bukhari -Volume 2, Book 13, Number 18)"

Human beings are trustees of Allah, who is the sole owner of everything in the universe. It is not only essential to obey the orders of superior authorities, but it is also necessary to meet the responsibilities of all stakeholders. This should leads ultimately

[4] Al-Bukhari, Muhammad bin Ismail (256H), Al-Sahih Al-Sahih, (Dar Tauq al-Najat, 1422H), Bab al-Juma' Fi al-Qura wa al-Mudan, 2: 5.

towards the concept of *Falah*. Therefore, the concept of governance is broader in Islam than as in conventional institutions. This notion is also given further in following verses of Holy *Quran* and *Sunnah*;

"وَشَاوِرْهُمْ فِي الْأَمْرِ فَإِذَا عَزَمْتَ فَتَوَكَّلْ عَلَى اللهِ "(آل عمران،159:3)

"And consult them on affairs (of moment). Then, when thou has taken a decision, put thy trust in *Allah*"

"وَالَّذِينَ اسْتَجَابُوا لِرَبِّهِمْ وَأَقَامُوا الصَّلَاةَ وَأَمْرُهُمْ شُورَى بَيْنَهُمْ وَمِمَّا رَزَقْنَاهُمْ يُنْفِقُونَ"

(الشوریٰ،38:42)

"Those who respond to their Lord and establish regular prayer; who conduct their affairs by mutual consultation; who spend out of what we bestow on them for sustenance"

Mutual consultation is advised in above verses i.e. before making decision mutual consult each other so that best option should be chosen. Muhammad (ﷺ) by himself consulted with his companion on few occasions. Board of directors must consult each other while taking decisions.

"عَنْ أَنَسٍ عَنِ النَّبِيِّ صَلَّى اللهُ عَلَيْهِ وَسَلَّمَ قَالَ: لَا يُؤْمِنُ أَحَدُكُمْ، حَتَّى يُحِبَّ لِأَخِيهِ مَا يُحِبُّ لِنَفْسِهِ"[5]

"Anas bin Malik (RA) reported that the Prophet Muhammad (ﷺ) : None of you truly believe (in *Allah* and in his religion) until he loves for his brother what he loves for himself (*Al-Bukhari*- Vol. 1, Book 2, Hadith 13 & Muslims - Book 1, Hadith 72)".

[5] Al-Bukhari, Al-Sahih Al-Sahih, Kitab al-Iman, 1: 12

In financial transaction, the contract of *Mudaraba* provides the authority to *Rab ul Mall* that he/she can oversee the activities of *Mudarib.* Overseeing the activities is a part of the governance. The actual transaction is taking place through the *Mudarib,* but for the protection of *Rab ul Mall* rights, the option of overseeing the activities is granted as described by great *hanafi* jurist Al-Marghinani.[6]

Objectives of *Shari'ah* also laid down some guiding principles for the good governance. One of the objective of *Shari'ah* is related to the capital and its ownership (*Hifz Ul Mal*) i.e. preservation of wealth (Al-Shatibi, 790H). The preservation of capital and profit earning are also the objective of *Shari'ah,* which in fact the underlying aim is to save the capital from destruction. This aspect is also goal of *Shari'ah* ('Abd ul Rahman, 2009).

Moreover, legal maxims of *Shari'ah* also provide some outlines for the decision maker for the safeguarding the rights and interest of all stakeholders for the good CG (Mansoori, 2012). For instance, there are some maxims, which would affect the decision, making and policies of the organization, these maxims are as follows:

- Harm is to be removed;
- Harm may neither be inflicted nor reciprocated;
- Individual harm is to be tolerated to prevent public harm;
- The more severe of two harms is to be removed by the lesser of the two;
- Repelling harm takes precedence over acquiring benefit;
- The original ruling in transactions is that of permissibility;
- Hardship begets ease;

[6] Al-Marghinani, Burhan al-Din Abu al-Hassan, Al-Hidayah, Kitab al-Mudarbah (Berut: Dar Ihya al-Turas al-Arabi), 3: 202

- Necessity makes the unlawful lawful;
- Necessity is to be estimated by its true proportion;

Aforementioned *Shari'ah* maxims enshrine some broad criteria for the governance. These maxim are guiding principles in decision making for those who are appointed to run the company.

2.4 Concept of Governance in Classical Literature

Indication of the concept of governance can be taken through the institutionalism approach by the classical scholars throughout the history. The institutions established during Abbasid period by Muslim rulers were administratively very efficient and effective, which reflect the notion of good governance. As suggested by Buraey (1985: 257, 261) aforementioned examples of the institutions and the values on which these institutions were established, provide guidelines in contemporary scenario for the Muslims. These institutions depict the manifestation of Muslims rulers on how to do administration efficiently. Therefore, numerous pieces of work created by classical Muslims on given topic (Malik, 2011).

There is a wide range of topics discussed in a book titled Governance of the Rulers (Al-*Ahkam al-Sultaniyyah*) by al-Mawardi (circa 364 H/975 AD – 450 H/1058 AD, ranges from issues of political system to the finance, justice and administration of natural resources. The writer Al-Mawardi end up the book with the topic of *Hisba* institution, focusing on people and government accountability (al-Mawardi, 2005:337-362). He is considered as the first author to write on this topic (Malik, 2011).

In same lines some other classical Jurists wrote immense amount of literature on good governance for instance, *Kitab al-Kharaj* by Abu Yusuf (circa 113H / 731-182H /

798), *Kitab al-Kharaj* by Yahya bin Adam (130H / 752 AD - 204 H / 818 AD), *Kitab al-Amwal* by Abu Ubayd al-Qasim bin Salam (150/4H/ 770 AD - 224H / 838 AD) ,*Siyasat Namah* by Nizam al-Mulk (408H/ 1017AD – 485H/ 1091AD) and *Nasihat al-Muluk* (Counsel for Kings) by Muhammad Abu Hamid Al Ghazali (450H/ 1058AD – 505H/ 1111AD). These *fuqha* wrote on different topics which can be related to the good governance i.e. sovereignty of God, *Shura*, institution of *Hisbah*, *Maqasid e Shari'ah*, *Amanah* and accountability (Malik, M., 2011).

In classical literature two writings i.e. *al-Siyasah al-Shariyyah* (Statecraft as per *Shari'ah*) and *al-Hisbah fi al-Islam* (*Hisbah* as an institution in Islam) by Taqiy al-Din Abul Abbas Ahmad ibn Abd al-Halim Ibn Taimiyyah, (661H/1263 AD-728H/1328 AD), focused on the concepts and working of *Shura* and *Hisbah*. He emphasized that every citizen should play role in *Shura* rather confining to a limited number of people. People must have a check and balance on government to exercise the power (Ibn Taimiyyah, 2005: 250). He also asserts in his writing that effective governance is possible when there is no nepotism, incompetency and favoritism. In his second book *Al-Hisbah fi al-Islam*, he discussed about the *Hisbah* institutions. This function can only be performed with the presence of power (Ibn Taimiyyah, 1985).

In recent time, Al-Buraey's (1985) work is considered valuable on the subject of governance. His book titled "Administrative Development: an Islamic Perspective" is a valuable addition on subject matter. Although his focus is on "administrative development" nevertheless, he discussed lot of relevant issue regarding governance (Malik, 2011).

The above-mentioned citations from *Quran, Sunnah* and classical literature clearly emphasized on consultation, accountability, just and fairness, and equity in decision-making, keeping in view the benefits of all stakeholders. It encourages to work together and to rely on *Allah* (Sheikh, 1988). The establishment of institution called *Hibah* by Abbasides (750 a.d onward) is an example for good governance. The purpose was to ensure accountability and *Shari'ah* compliance, particularly in business affairs. Like keeping free market, prevention of hoarding of necessities, fair-trading rules, correction of measures and weight etc. (Abdul Rahman, 1998). Therefore, the concept of governance in Islam is not new.

The concern regarding Islamic principles of CG is escalating. To safeguard the rights and duties of concerned parties and, provide justice and fairness in economic activities, are the major components of Islam. Islamic finance has showed increasing trend in the last three decades around the globe and in Pakistan. *Inter'alia*, Islamic finance institutions require some additional arrangements for the good CG to be in line with *Shari'ah* (Abdullah & Muhammed, 2012). Thus, SBP and some other standard setting have issued governance standard to ensure the *Shari'ah* in routine activities of the business. These include IFSB and AAOIFI, as well as, the prudential regulations issued by the country's central banks.

2.5 *Shari'ah* Governance of Islamic Financial Institutions

Islamic finance is one of the world's most rapidly expanding sectors. According to the IFSB (2015), Islamic finance showed double-digit growth (17-18%) and by 2020 would result in Islamic financial assets totaling about USD 2.5 trillion (IFSB Strategic Performance Plan 2019-2021). Islamic finance is also gaining prominence in non-Muslim

countries such as the United Kingdom, Luxembourg, South Africa, Hong Kong, and others. Importance of Islamic finance sector' increased after financial crisis due to its role in real economic activity and inherited stability mechanism, as well as, transparent disclosure owing to the Islamic injunctions related to the financial transactions (Kaleequzzaman et al., 2016).

As discussed earlier, Islamic finance institutions have certain unique features as compared to conventional counterparts. Islamic finance industry needs to be regulated like the other industries (Shaharuddin, 2011). Different international standard-setting bodies issued governance standards for Islamic financial institutions on regular basis i.e. IFSB, AAOIFI and country's central bank.

Shari'ah governance is an important feature of IFIs (Haqqi, 2014) being part of the overall governance mechanism. *Shari'ah* compliance in products and services of IFIs has become a critical challenge. IFSB defines *Shari'ah* governance as "the set of institutional and organizational arrangements through which Institutions offering Islamic financial services ensures that there is effective independent oversight of *Shari'ah* compliance" (IFSB, 2009). In other words it is an arrangement to safeguard the *Shari'ah* compliance in the activities of the institutions (Shahzad, 2016). Board of directors of the institution are ultimately responsible for *Shari'ah* compliance (Song & Oosthuizen, 2014).

State Bank of Pakistan has issued guidelines for *Shari'ah* governance of Islamic banks, initially in 2008 with subsequent enhancement in 2014, effective from 2015. The updated *Shari'ah* Governance Framework (SGF) is applicable to all banks and their divisions operating under *Shari'ah* rules and regulation (IBD Circular No. 01 of 2018).

The main objective of SGF is the compliance of the overall activities of Islamic banks with *Shari'ah.* SGF clearly defined the role of board of directors (BOD), executive management (EM), *Shari'ah* board (SB), *Shari'ah* compliance department (SCD), internal and external auditors of the institution (Shahzad et al., 2016).

The *Shari'ah* board's duties and constitution, as well as the fit and proper criteria for their appointment, are specified by the SGF. The resident *Shari'ah* advisor, *Shari'ah* compliance department, external *Shari'ah* audit, and dispute resolution are also defined by the SGF. The framework provides guidelines for effective mechanism for the BODs oversight of the SFG, accountability of management and staff, *Shari'ah* compliance review mechanism, and internal and external *Shari'ah* audit of the Islamic banks.

AAOIFI has also given guiding principle for the appointment, independence and composition of *Shari'ah* supervisory board. The governance standards issued by AAOIFI refer to the various subject including formation of *Shari'ah* Supervisory Board: Appointment, Composition and Report; *Shari'ah* Review mechanism, Internal *Shari'ah* Review, Audit & Governance Committee, independence of *Shari'ah* Supervisory Boards, statement on Governance Principles and Corporate Social Responsibility Conduct and Disclosure for Islamic Financial Institutions.

IFSB defines *Shari'ah* governance system "as a set of institutional and organizational arrangement through which an Islamic financial institution ensures that there is effective independent oversight of *Shari'ah* compliance". This includes the issuance of *shari'ah* resolutions and their dissemination to relevant groups. Further, an internal system to record, report and address the non-compliance i.e. *shari'ah* audit or review system. The IFSB also discusses how the *shari'ah* governance structure operates

in accordance with IFIS' existing governance, control, and enforcement functions. (Nawal *et al.*, 2013).

The concept of Islamic governance is different from conventional one as conventional governance only focuses on the maximization of shareholders wealth and protecting the rights of stakeholders. However, on other side focus is on the *Shari'ah* compliance of the activities of the institution (Hassan, A. M, 2014). Therefore, Islamic Financial Institutions (IFIs) ensure that there is an effective independent oversight of *Shari'ah* compliance over the issuance of relevant *Shari'ah* pronouncements, dissemination of information and an internal *Shari'ah* compliance review"(IFSB, 2009). AAOIFI has also defined some parameters for governance principles for IFIs where *shari'ah* compliance is in the center. These principles are "effective *shari'ah* compliance structure, fair treatment of equity holders, equitable treatment of all stakeholders, fit and proper condition for board management, effective oversight, risk management, code of conduct, disclosure and enforcement of these principles". On the other side main components of OECD CG framework are "ensuring the basis for effect CG framework, rights and equitable treatment of shareholder, role of stakeholders in CG and disclosure and transparency". The main thing which creates differentiation in CG of Islamic and conventional setup is the *shari'ah* compliance.

2.6 Summary and Conclusion

Islam is a complete religion and provides set of rules for individuals and society as a whole. Islam provides rules and regulations in a general term rather specific. Therefore, economic activates have no exception and rules are defined for said activates in general term. Due to industrialization the nature of economic activities changed. The

structure of managing the organizations taken a paradigm shift from direct supervision to principal-agent relationship. Therefore, controlling power shifted from owners to managers. This shift cause agency problem i.e. principal-agent phenomenon. Therefore, in contemporary scenario different principle have been devised to ensure the corporate transparency, efficient and effective management, monitoring and risk management through the competent agents i.e. board of directors, who possess good expertise in relevant field (Lewis, 2005). Thus, the main principles of CG are transparency, effective management, fair reporting and disclosure and, long term sustainability. Moreover, Stakeholder's theory encourages the contribution of all concerned parties in decision-making, whereas, Islamic model of governance also supports the idea.

The concept of good governance in Islam is deeply rooted in *Quran, Sunnah* and *fiqh* literature. In Islam, human beings are the vicegerent of *Allah* SWA, ultimate ownership is belongs to *Allah* Almighty (2:284). In a sense, humans are the guardians of the resources, and they are ordered to use the resources as per the will of *Allah* Almighty. In *Quran*, it is ordained to fulfil the obligations, deliver the trust, do justice, testify truly, and not to eat others property unjustly. In same lines, Prophet Muhammad (ﷺ) asked Muslims to show honesty, do not take things unlawfully, and everyone is responsible for his guardianship. Moreover, in Islam there is a concept of *Shura* and mutual cooperation. There is also a concept of *Hisbah* for the accountability. Furthermore, *Maqasid-e-Shari'ah* and legal maxims of *Shari'ah* also provide guidelines to decision maker for the protection of the rights of all relevant stakeholders. Hence, the concept of governance is not alien in Islam rather general rules for the good governance are deeply embedded.

Therefore, the principles on which conventional models of CG are built are also a subset of good governance is Islam.

Overall, in this chapter we tried to explain the concept of CG theoretically in *Shari'ah* perspective. Firstly, we discussed the idea of good governance under the guidance of *Quarn,* afterward we shed light on the principles of good governance through *Ahadith.* We dig up classical literature as well to find out the viewpoint of *fuqha* on good governance. In last, we discussed the concept of *Shari'ah* governance and viewpoints of AAOIFI, IFSB and SBP on *Shari'ah* governance of IFIs.

CHAPTER 3

THEORETICAL FRAMEWORK

3.1 Introduction

In this chapter, we will discuss the theories, which are commonly employed in the field of CG to build the relationship of institution's performance, risk management and symmetric information toward CG. Therefore, detailed discussion will be done on different approaches and theories of CG to build the relationship and their use as a base among different dimensions i.e. CG, performance, risk management and information asymmetry.

Theory is a systematic set of facts, which portrays description and interpretation in a certain pattern. The observed facts should be tested to establish the principles, and on the basis of empirical results theory can be accepted or rejected (Engheta & Ziolkowski 2005). Theoretical framework guides to establish a statistical relationship.

Theoretical framework provides the guideline for the research to determine the variables to be measured and the statistical relationship to be established. According to Trochim *et al.* (2008), there are two major areas of research: theory and observation. Theory is something which is in scientist's mind, whereas, observation is the real world phenomenon. Therefore, for research these two realms are very important. Theory guides to develop research objectives, questions and development of hypothesis.

Some researchers are on the point of view that combination of different theories would better explain the practices of CG rather to focus on a single theory (Abdullah &Valentine, 2009). Main theories of CG are agency, stewardship, stakeholders, resource dependency and signaling theories. These theories talk about the cause and effect

relationship of different variables i.e. board composition, role duality and board members. Discussion on different theories and approaches are presented on following pages.

3.2 Regulatory Approach

Public and private interest theories are the two common theories, which comes under the regulatory approach. Public interest theory provides legislation and regulations for the public rights in efficient market (Belkaoui, 2002). Moreover, regulator keep the interest of all concern parties and whole society while making regulations. However, private interest theory aimed at to protect the interest of special group. In addition, public welfare is considered in public interest theory, however, in private interest theory, regulations are made to augment the benefits of specific groups.

Regulations are based on public and private interest (Davis & Menon, 1987). However, public interest is more important than private interest, although regulations are formulated for effective and efficient monitoring of governance and performance of all sectors (Pound, 1993). Bernanke (1983) indicated that, in result of failure of financial sector, aggregate investment, cost of lending/financing, and investment effect substantially. In addition, macroeconomics could also be affected in form of money supply (Friedman & Schwartz, 2008). However, strict monitoring and prudential regulations can limit the failure of sector and its consequences.

Private interest of different stakeholders like investors, customers, suppliers and bankers can affect public interest. In given scenario, CG structure can play a significant role in addition to the monitoring of government's authorities to overcome the problem (Elbahar, 2016). In nutshell, regulatory approach can affect the performance, risk

management and CG. This approach is relevant to this study up to some extent. However, there are some other approaches, which can explain the relationship between these dimensions. The next one is economic approach.

3.3 Economic Approach

Economic approach focuses on two parties i.e. agent (managers) and principal (shareholders). Focus of this approach is on profit maximization and achievements of objective and goals of organization (Elbahar, 2016). Agency, Signaling and Capital Market theories come under the umbrella economic approach.

3.3.1 Agency Theory

Main concern of agency theory is to align the interest of agents and owners (Meckling & Jensen, 1976; Stano, 1976; Fama, 1980; Jensen & Fama, 1983). Agency theory is rooted in economic theory and was presented by Demsetz & Alchian (1972) and further developed by Meckling & Jensen (1976). This theory can be defined as "the relationship between the principals and agents i.e shareholders and the company executives and managers". The agency theory's key tenet is that there is an implicit conflict between management and the institution's owners (Fama & Jensen, 1983). Its resilience was realized with the expansion of capitalism, which lead toward separation of control function and ownership of institutions (Berle &Means, 1932).

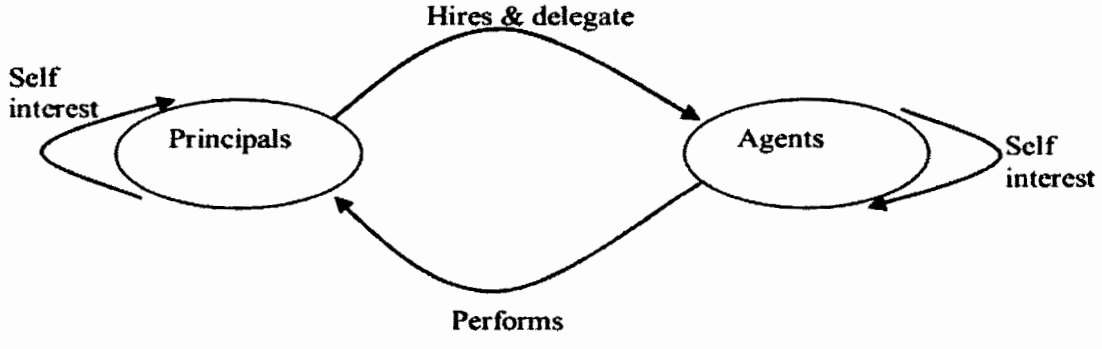
In contemporary scenario, management has superior knowledge about the institution and may pursue their personal interest at the cost of shareholders by using that knowledge. Jensen & Meckling (1976), contended that agency cost is an unavoidable part of the owners and management relationship. There should be clear and adequate monitoring mechanism to protect the interest of shareholders from management conflict

of interest i.e. "agency cost" (Jensen & Fama, 1983). The dilemma of agency has been discussed in many studies (e.g. Fama, 1980; Eisenhardt, 1989a). These studies elaborated that management interest can be classified in tangible (i.e. flying first class, large offices) and intangible like growth (Stano, 1976).

Various previous studies explored the impact of agency theory on CG (Dalton et al., 1998; Barnhart &Rosenstein, 1998; Wagneret al., 1998). These studies found contradictory results. For instance Pearce & Zahra (1992) found positive relation, Beatty & Zajac (1994) found negative relation and Buchholtz &Ribbens (1994) found no significant relation at all between CG variables and institution performance.

Rich amount of literature is available on this area that determine relationship between institution performance and leadership structure (Rhoades *et al.*, 2000, p. 77). Business community widely accepted the agency model, as can be seen in the need of independent directors to onversee board activities (Bosch, 1995; NACD, 1996).

Figure 3. 1 The Agency Theory



Source: Abdullah and Valentine (2009)

In IFIs like Islamic banks and *Modarbas*, status of depositors and investers is somehow equal with shareholders. Therefore the status of the said institons is like agent of the investors. As the role of investors in IFIs is like principal (*Rab-ul-Mall*) and the role of the institution is like agent (*Mudarib*). Thus, the relevene of agency theory is more significant in IFIs.

3.3.2 Signaling Theory

Information flow is the emerging issue in contemporary businesses. Idea of signaling was given by Spence in 1973. This theory suggests that asymmetric information can be reduced by giving signals to all related parties (An *et al.*, 2011). Morris (1987) also suggested that this theory proposed how to reduce or eliminate the asymmetric information when one party has more information than other. Signaling theory in some way is resembling to the agency theory i.e. it recognizes the separation of ownership and management (Elbahar, 2016).

Recent scandals also highlighted the importance of corporate transparency. Signaling theory elaborates that organization with high transparency in information, signals healthier CG (Elbahar, 2016). Some other studies also strengthen the idea that good CG indicates high performance (Chiang & Chai, 2005). Information asymmetry can be reduced by giving signal by the institution's management to the investors (Spence, 1973). Usually, investors depend on the information given by the institution's management (Poitevin, 1990; Saring & Ravid, 1991). Banks with better CG, signal information to the prospective investors in order to promote the better image of the organization (Elbahar, 2016).

Transparency in the institution increases the confidence of the investors and it sends message to the stakeholders that management is contributing toward their interest (Wang & Zhou 2006; Ye, 2009). The amount of information held by managers is more than other stakeholders therefore, they may send signals to the investors, government and owners.

Literature also emphasized that institutions with better information transparency indicate good CG practices. Therefore, institutions with good CG show better performance (Chiang & Chai 2005). In order to reduce agency cost and for better perception regarding CG, management tends to signal to the market. Value of the institution increases due to transparency and stakeholders confidence increase on the management (Wang & Zhou 2006; ye, 2009). As mentioned in previous chapter, fairness in dealings is one of the fundamentals of business in *Shari'ah*. Thus, this theory is also fit in the model of *Shari'ah* governance.

3.3.3 Capital Need Theory

Capital need theory depicts that when managers are in need of capital/financing, they tends to show good CG practices, performance and risk management, in order to raise the capital and financing on low cost and at earliest (Meek et al., 1995; Hossain et al., 1994). Therefore, the association between cost of capital and disclosure is positive, however, some researchers like Botosan (2006) depicts that the association may be otherwise in some cases.

Capital need theory and agency theory influence the behavior of the management, which consequently affect the financial outcomes of the institution. It motivates the managers to work for the best of institution' shareholders and improve capability of the

institution to take competitive measures. These both action can be improved through better CG practices (Elbahar, 2016). Board of directors can improve the motivation level and institution's capability, whereas, executive compensation and ownership concentration are the instruments to align the motivation with institutions performance (Fama & Jensen, 1983). Thus, capital need theory is helpful to explore the role of board of director, institution performance and information asymmetry.

3.4 Political Economic Approach

The relationship between economic activities, institutions, politics and society is recognized by political-economic approach. Thus, this approach does not only emphasize on the connection of management and shareholders nevertheless, on stakeholders as well (Elbahar, 2016). Further, it also consider the distribution of wealth and power in society (Abdullah & Valentine, 2009) i.e. it recognize the role of all stakeholders. Stakeholders and legitimacy theories are derived from this approach.

3.4.1 Stakeholder Theory

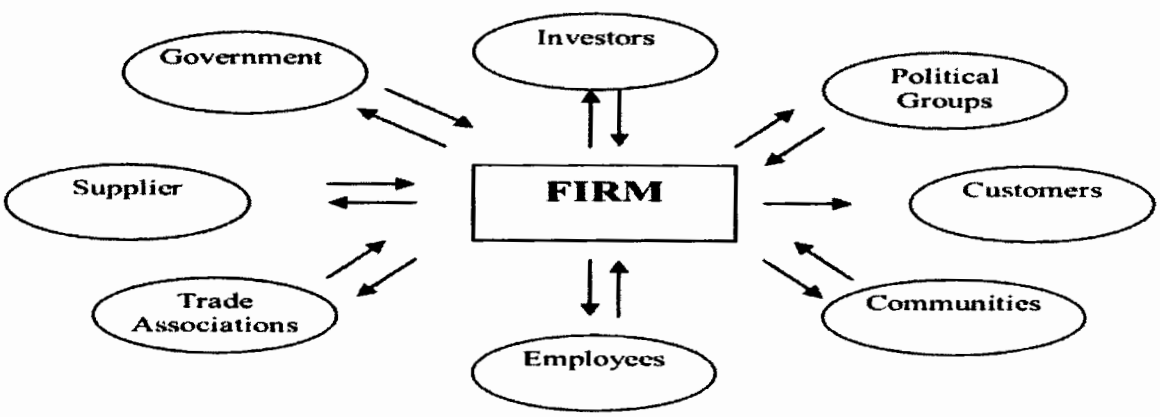
Roots of Stakeholder theory were in management discipline, further broad range of stakeholders were incorporated for corporate accountability by Freeman (1984). Some researchers argued that this theory is derived from organizational and sociological discipline (Wheeler et al., 2002). Stakeholders' theory can be defined as "any group or individual who can affect or is affected by the achievement of the organization's objectives". Agency theory postulates that managers works for shareholders. Whereas, stakeholder theorists propose that managers are serving in an organization to a network of relationships that comprise but not limited to suppliers, business partners, employees and etc. This network is also important besides owner-manager relationship. Sundaram &

Inkpen (2004) suggested that stakeholders' theory cover the interest of all stakeholders which require attention of managers. Clarkson (1995) proposed that purpose of institution is to create value for all the stakeholders.

Since, the institution has network of relationship with several groups which can affect the decision making processes, therefore stakeholder theory emphasizes the nature of these relationships (Freeman, 1984). Donaldson & Preston (1995) contended that stakeholder theory focuses on interest of all stakeholders and managerial decision making, where none of the party interest is dominated by other. Stakeholder theory is highly regarded to bring the ethics and moral value while managing the organization or institution (Himaj, 2014).

The concept of stakeholders theory is very much inline with *Shari'ah* . The concept of CG in Islam is broader (Abdullah & Muhammed, 2012; Hafeez, 2013). Islam take all the stakeholders in consideration while doing business, accountability, fairness, just, honesty etc are the principles of doing business.

Figure 3. 2 The Stakeholder Model



Source: Donaldson and Preston (1995)

3.4.2 Legitimacy Theory

The legitimacy theory postulates that for the existence of institution, the goals should be in line with the values and norms of society (Dowling & Pfeffer, 1975). An et al. (2011), described that this theory creates relationship between society and institution as a "social contract". Suchman (1995) concluded that all institutions and their management seek legitimacy. Further, legitimacy theory discuss that due to social contract, institution disclose greater level of information for the compliance of regulator and to meet the ethical level of society (Mokhtar & Mellett, 2013; Cheung et al., 2010). Since, this theory is based on perception of society, therefore, management and BOD have to take measures to build the confidence of external users (Cormier & Gordon, 2001).

Under this theory institution's behavior is monitored on continuously basis by the society, therefore, institution works on continues basis to acquire the approval of the society. Institution's existence is based on the acceptability of the society (Rizk, 2006). As concluded by Lindblom (1994) for the acceptability of institution's actions, it need to adopt different strategies like all stakeholders should be educated and informed regarding performance of institution, changing the perception of stakeholders and change in external perception of performance. Thus, the role of board of directors is very important in view of legitimacy theory for the information asymmetry and institution performance.

3.5 Other Relevant Theories

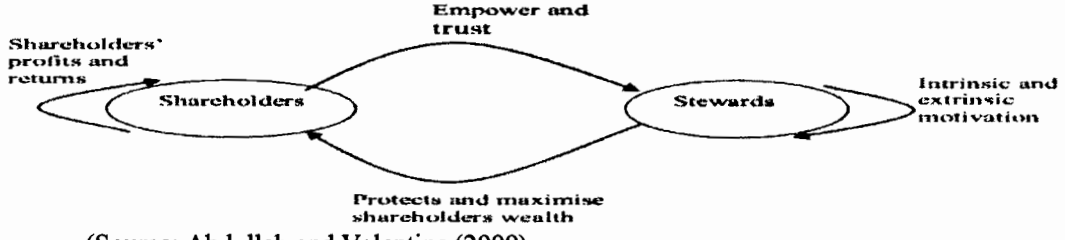
3.5.1 Stewardship Theory

Davis and Donaldson (1997) describe stewardship theory as having its origin in psychology and sociology as "a steward protects and maximises shareholders wealth

through institution performance, because by so doing, the steward's utility functions are maximised".In contrary to the agency theory, stewardship theory postulates that managers are honest and therefore, good stewards of the resources hand over to them (Donaldson, 1990; Donaldson and Davis, 1994). Executive directors spent lot of time in the organization and have better knowledge than outside directors, thus, in a position to make superior decisions (Donaldson and Davis, 1991). Therefore, steward theory postulate that inside directors are good for the shareholders wealth. In a renowned language of motivation, stewardship theory assumes as a "Theory Y" whereas, agency theory as a "Theory X" perspective.

Stewardship theory assumed that managers are primarily trustworthy and it minimizes agency cost, as executives are the protectors of the interest of shareholders (Donaldson & Davis, 1994). In agency theory, agency cost is the main concern, on the other hand steward theory says, outside directors cannot monitor effectively due to lack of time, knowledge, and resources to monitor effectively.

Figure 3. 3 The Stewardship Model



(Source: Abdullah and Valentine (2009)

In a stewardship literature, the link of board of directors towards institution performance is not explicit, making superior decisions is the key matter (Baysinger and Hoskisson, 1990). For better decision making, access to information and long term view are the main factors (Donaldson and Davis, 1994). Since, inside directors have superior

amount of knowledge and information therefore, they are in a state to make good decisions and it results in better institution performance (Nicholson & Kiel, 2007).

3.5.2 Resource Dependence Theory

Another theory, which is related to CG, is the resource dependence. It postulates that board has a vital role between institution and critical resources for the performance of organization (Pfeffer, 1973; Pfeffer & Salancik, 1978). This theory concnetrated on role of board of directors to provide the essential resources to institution. This theory is drawn through management and sociology discipline (Pettigrew, 1992). As a consequence, there is no widely accepted definition of what are an essential resource. Some researchers believe that the board of directors are an important resource for the organisation, especially their connections to the exteral enviroment (Hillmanet *et al.*, 2000; Palmer & Barber, 2001).

There are different types of resources and their value is determined on contextual basis i.e. urgency of need. Main resources, which are emphasized for the value of institution are, information, capital, link to suppliers, customers and other significant stakeholders (Baysinger & Zardkoohi, 1986; Stearns & Mizruchi , 1988; Sambharya & Banerji, 1996; Frooman, 1999; Evan & Freeman, 1990). Thus, this theory also maintain that governanc has role toward the performance of the organization.

3.6 Summary and Conclusion

In this chapter, we discussed different theories and approaches, which have been used in the field of CG, performance, and risk management and information asymmetry. These theories are helpful in construction of hypothesis and then for the rejection or acceptance of the hypotheses to answer the questions. Based on the discussion, no single

theory or approach can explain the relationship among different aspects of this research. Further, it is observed that there is some overlap among different theories and they are complementary with each other like capital market, agency and signaling theories.

As this study addresses the relationship of CG among performance, risk management and information asymmetry. Thus, there are many stakeholders of this study which include but not confined to shareholders, managers, regulators, government, investors and creditors/financers. Therefore, some theories are related to limited extent with this study as agency theory focuses on managers and shareholders. Further, regulatory approach also explains the relationship in limited way like it is related to government regulations.

These theories focus on the boards of directors and other aspects like performance, risk and information asymmetry. For example, agency theory posits the link between leadership structure or board independence on institution performance (Fama & Jensen, 1983). On the other hand, the stewardship theory emphasis that insiders are good for the performance (Davis & Donaldson, 1991). However, resource dependence theory also analyses the role of directors toward behavior and performance of institution (Pfeffer & Salancik, 1978).

We are using all these approaches and theories to support the relationship among different aspects of this study. Further, we cannot say that some of the theories are superior to others, thus all of them are important to certain extent for the development of hypotheses. In this chapter we built theoretical framework to support the relationship of CG with performance, risk and information asymmetry and purely based on theoretical

discussion. Theoretical relationship of CG variables with performance, risk and information asymmetry is given below.

Table 3. 1 Theoretical Relationship of CG and Performance

Variable	Theory	Relationship	Literature
Role Duality	Agency Theory	-ve	(Bhagat & Bolton, 2013) (Mollah & Zaman, 2015) (Rahman & Haniffa, 2003)
	Stewardship Theory	+ve	(Azeez, 2015)(Sridharan & Marsinko, 1997) (Dahya & McConnell, 2005)
Non-executive board member	Agency Theory	+ve	(Sheikh & Kareem, 2015)
	Resource Dependency	+ve	(Kathuria & Dash, 1999) (Gafoor et al., 2018)
Board Size	Agency Theory	-ve	(Dogan & Yildiz, 2013) (Yermack, 1996) (Sundgren & Wells, 1998) (Mollah, 2015)(Azeez, 2015)
	Resource Dependency Theory	+ve	(Sheikh & Kareem, 2015) (Gafoor et al., 2018).
Ownership Concentration	Agency Theory	+ve	(Sheikh & Kareem, 2015) (Abdullah et al., 2019) (Shahab-u-Din & Javaid, 2012)
CEO Remuneration	Agency Theory	+ve	(Sheikh & Kareem, 2015) (Xiao et al., 2013) (Smirnova & Zavertiaeva, 2017).
Shari'ah Supervisory Board (Size of SSB)	Resource Dependency Theory & Stewardship Theory	+ve	(Nomran & Hassan, 2017) (Matoussi & Grassa, 2012), (Mollah & Zaman, 2015) and (Mansour et al., 2018)
	Agency Theory	-ve	(Matoussi & Grassa, 2012) (Rahman & Haron, 2019)

Table 3. 2 Theoretical Relationship of CG and Risk Management

Variable	Theory	Relationship	Literature
Role Duality	Agency Theory	-ve	(Pathan, 2009) (Ben Zeineb & Mensi, 2018)
	Stewardship Theory	+ve	
Non-executive board member	Agency Theory	+ve	(Fakhrunnas & Ramly, 2017)
		-ve	(Pathan, 2009) (Bourakba & Zerargui, 2015).
Board Size	Agency Theory	+ve	(AlAbbad, et al., 2019) (Alman, 2012) (Ben Zeineb & Mensi, 2018).
	Resource Dependency Theory	-ve	(Wang, 2011) (Fakhrunnas & Ramly, 2017) (Pathan, 2009) (Bourakba & Zerargui, 2015)
Ownership Concentration	Agency Theory	+ve	(Ben Zeineb & Mensi, 2018)
		-ve	(Bourakba & Zerargui, 2015)
CEO Remuneration	Agency Theory	+ve	Al Shammari, H., 2018
Shari'ah Supervisory Board (Size of SSB)	Stewardship Theory	-ve	(Fakhrunnas & Ramly, 2017) (Bourakba & Zerargui, 2015).
	Agency Theory	+ve	Alman (2012) (Cheng, 2008; Pathan, 2009) (Hassan et al., 2019) (Mollah et al., 2017) (Safiullah & Shamsuddin, 2018)

Table 3. 3 Theoretical Relationship of CG and Information Asymmetry

Variable	Theory	Relationship	Literature
Role Duality	Agency Theory	-ve	(Chau & Gray, 2010) (Gul & Leung, 2004)
	Stewardship Theory	+ve	
Non-executive board member	Agency Theory	-ve	(Elbadry et al., 2010) (Jamalinesari & Soheili, 2015) (Elbadry et al., 2010).
Board Size	Agency Theory	+ve	
	Resource Dependency	-ve	(Sougne et al., 2013) (Flaherty & Small, 2006) (Agyei-Mensah, 2017)
Ownership Concentration	Agency Theory	-ve	
		+ve	(Elbadry et al., 2010) (Jamalinesari & Soheili., 2015)
CEO Remuneration	Agency Theory	-ve	(Elbadry et al., 2010)
Shari'ah Supervisory Board (Size of SSB)		-ve	-

CHAPTER 4

LITERATURE REVIEW

4.1 Introduction

CG can be defined as "A system of financial and other controls in a corporate entity, broadly speaking the relationship among board of directors, management and shareholders" (Sardar, 2013). In a financial sector the interest of all stakeholders are very important, in a today's environment an entity is associated with multiple parties and, CG is a main factor in organization. Therefore, CG framework should be clearly defined, and built in checks for the role, accountability and responsibilities in an entity (IAIS, 2004).

The way by which companies and business entities are managed and controlled, is basically a CG, which deals with setting of duties and right among different peoples who are involved in company affairs. SECP defines CG as "The mechanism by which the agency problems of corporation stakeholders, including the shareholders, creditors, management, employees, consumers, and the public at large are framed and sought to be resolved." One of its objective is to set the goals of company while considering the interest of the company's stakeholders (La Porta et al., 2000). More specifically, it is an arrangement between different stakeholders to achieve the common goals. In which decisions are made for corporate level. Stakeholders can be classified in two different ways, primary which include directors, managers and stockholders, whereas, secondary are employees, supplier, customers, financiers, government authorities and other related parties of the society in which company operates (Shliefer &Vishny, 1997).

In a financial sector, particularly in a banking industry, CG is different from other industries. Usually, other than financial sector, CG is envisioned to align the interest of

management and shareholders (Jensen & Meckling, 1976) or where the concentration of ownership is more *i.e.* controlling and minority shareholder (Shleifer & Vishny, 1997). The difference in banking sector is due to protection and safeguarding the interest of those who are fund providers including depositors. This factor becomes more important when it comes to Islamic financial institutions particularly Islamic banks due to the nature of contracts between parties. The role of banks is very crucial in the economy due to the main source of fund providers and circulation of money. The diverse mechanism of stakeholders leads to significance of CG and tend to high cost. Risk in banks is also very high owing to nature of its capital structure, satisfaction of claims and due to the asset and liability mismatch.

Owing to number of factors, the importance of CG in Islamic banking needs more focus. Firstly, *Shari'ah* compliance is very important for Islamic banks beside observance to banking regulations (Archer *et al.*, 1998). According to Chapra and Ahmed (2002) most of the Islamic bank investors and depositors want their money to be invested in accordance with *Shari'ah*. Hence, Islamic banks are more vulnerable to *Shari'ah* non-compliance risk. Depositors in such banks can withdraw their funds if adherence to *Shari'ah* is low in Islamic Banks.

Safieddine (2009) explains "agency problems in conventional companies arise when managers deviate from their duty to maximize shareholders' wealth, any divergence by managers of Islamic financial institutions from placing all supplied funds in *Shari'ah* -compliant investments creates an additional source of agency problems."

Secondly, in Islamic banks there are unrestricted investment account holders (IAHs). In a one way there interest is directly related to the profit and loss of company

like shareholders which appears to the part of agency conflicts (Chapra &Ahmed, 2002; Nienhaus, 2007). Usually, proportion of depositor's funds is more than the shareholders equity but they have no right to raise their voice in shareholder's meetings. While allowing investment account holders (IAHs) to participate in an annual general meeting is a debatable issue (Darmadi, 2013). Nonetheless, all related measure to protect the interest of deposit holder must be taken. It may include proper supervision, sufficient regulation, good CG and sound risk management (Darmadi, 2013). If not, then depositor has a right to with drawl, which is against the interest of other stakeholders.

Another factor, which is important, that is substantial portion of the Islamic banks operates in an emerging economies, where the institutional environment is weaker (Claessens, 2006). In such economies, family control and high levels of ownership concentration are normal, minority shareholders and IAHs are less protective by regulations, and controlling shareholders committed asset expropriation. Moreover, disclosure practices and transparency are weak in the emerging economies as compared to developed economies, which results in high monitoring cost and information asymmetry. Market discipline is an additional issue in such market. Aforementioned reasons stress the significance of CG in financial institutions particularly in Islamic banks.

4.2 Corporate Governance and Performance

The nexus between CG and performance has gained a rich importance in recent years. Some studies find positive, some other find negative, and even some studies find no relationship between them. Overall, there are mixed results in literature on subject (Larcker et al., 2007; Bauer et al., 2008; Gani & Jermias 2006; Stanwick & Stanwick,

2010; Fatimoh, 2012; Mollah *et al.*, 2017; Gafoor *et al.*, 2018; Bhagat & Bolton, 2019; Nawaz, 2019). Nawaz (2019) found positive impact of board size and CEO power on performance, whereas, SSB has negative relation, of 47 different Islamic banks of different countries. Gafoor *et al.* (2018) found positive impact of board size and independence on performance of different commercial banks of India. However, separation of CEO power had not significant relation. Mollah *et al.* (2017), investigated the impact of CG on performance of Islamic and conventional banks of 14 countries and found different performance behavior of both type of institutions. Weir *et al.* (2002) have found significant bidirectional relationship between performance and governance in case of non-financial institutions. Further, Lee *et al.* (1992) found a positive relationship between CG and value of non-financial institutions.

On the other hand, there is also evidence on a negative relationship between CG and value of institution (Hutchinson, 2002). However, some other found no relationship on institution's performance and governance (Gupta *et al.*, 2009). We observed that there is limited literature for financial sector, especially for banking and insurance industry as compared to non-financial sector. Example of these studies are Rahman and Haron (2019), Mollah *et al.* (2017), Pathan and Faff (2013), Wintoki *et al.* (2012), Adams and Mehran (2012) Francis *et al.* (2012), Cornett *et al.* (2009), Andres and Valledado (2008), and Sierra *et al.* (2006). Rahman and Haron (2019) found significant relationship with performance of Islamic banks in Indonesia. Pathan and Faff (2013) discovered a negative association between board size and independence and bank results in the United States. However, gender diversity improve the performance. Adams and Mehran (2012) found

significant relationship of board structure on performance. In same line other studies have found significant relationship between CG variables and performance.

4.2.1 Board Structure and Performance

Board structure comprises size and independence of the board. Both factors are very important for the performance of institution. Board size is also very important aspect for the effectiveness of governance. There is also a discussion in a literature on board size. Some researcher argued that small size boards are more productive than large boards. Large board size may increase agency problem, which results in less effectiveness (Lipton & Lorsch, 1992). Jensen (1993), said in his research that the decision making process become slower as board size increase. Few studies propose that more than seven to eight board members are possibly ineffective (Jensen, 1993; Florackis & Ozkan, 2004). Small board size is in a better state in order to coordinate, communicate and to make effective decisions and, results in better disclosure quality (Huther, 1997; Yoshikawa & Phan, 2003).

Board structure is very important for the success of company as it plays a conduit role between shareholders and company management (Hamza, 2013). Some researcher argued that small board of directors will effectively monitors the operations of company (Ahmed *et al.*, 2016). Small board size proved to be more effective and efficient to enhance the value of company. Few board members on board size will deploy more efforts and each member's responsibility will increase, in results the productivity will increase. Few members can monitor the institution effectively, larger board size are less effective. Because as the number of board members increase, some of them will become free riders and, agency problem may arise (Boone *et al.*, 2007; Bukhari *et al.*, 2013). In

banking sector, large board size brings problems in coordination, control, flexibility and decision-making (Zeineb & Mensi, 2018).

Agency theory supports the idea that small board size would increase the performance of institution (Isik & Ince, 2016). As contrary to larger board size, smaller board more efficient in coordination and communication. Moreover, smaller board size are effective to monitor the management activities and are less likely to be influenced by ECO. Therefore, boards with smaller number will increase the performance of the institution (Lipton & Lorsch, 1992; Jensen, 1993). This viewpoint strongly supports the concept of a smaller board for improved institution efficiency. However, as per resource dependency theory viewpoint, larger board size is more productive than smaller ones. For the reason that board with larger number of directors may be less dependent on external resources, because probability of external linkages of larger boards are greater (Pfeffer & Salancik, 1978; Goodstein *et al.*, 1994; Dalton *et al.*,1999; Ruigrok *et al.*,2006).

Another important aspect of CG is board composition i.e. the ratio of independent directors on board. In theory, wide range of studies argued that independent directors are good for the organization and independent directors reduce the agency problem between management and owners (Elbahar, 2016). There are different points of views on the presence of executive board of directors in a board. Executive directors have a greater view of the organization and have access to more information than non-executives. Therefore, this advantage enable them to make better decision for the growth of company. Moreover, good quality of information will reach to boards if numbers of executive directors are high in board (Adams & Ferreira, 2007). In another way, the

presence of executive directors in a board may create limitations in monitoring and disciplining the management due the lack of independence.

Board structure is very important for the CG (Choe and Lee, 2003). Despite the fact that executive directors have a greater understanding of the organizations, however, the role of independent directors is critical for making independent decisions that are in the best interest of shareholders (Weir, 1997; Firth *et al.*, 2002; Cho & Kim, 2003).

Agency theory upholds that Independent directors or outside directors are good for the monitoring of the organization against the self-centered actions of the managers (Van & Ingley, 2003; Nicholson & Kiel, 2007). According to this viewpoint, large number of independent board of directors on board will increase the fairness and limpidity of institution and resultantly increase the performance (Fama & Jensen, 1983). From the perspective of resource dependency theory, higher proportion of outside directors will play role towards providing necessary resources from outside environment (Pfeffer & Salancik, 1978). Therefore, theories, agency and resource dependency are in favor of the greater proportion of outside directors for the better financial performance of the institution (Isik & Ince, 2016).

Adams & Mehran (2012) and Rahman and Haron (2019) suggested that strong board has a better position to positively impact the performance of bank in terms of returns on assets and equities. Likewise, Andres and Valledado (2008) also found a positive impact of independent directors and board size on performance. Likewise, Kaur (2014) found a positive impact of the frequency of Board of Directors (BOD)'s meetings on performance of bank, Moreover, the proportion of non-executive directors, different

committees like audit and employee grievances under the practice of CG, positively contributed for the performance of banks in condition with a proper control at all. On the contrary, Pathan and Faff (2013) found that board size has an inverse association with institutions' performance. Moreover, the size of board, board structure and CEO duality has a negative impact on performance of banks. Another research on Pakistani Islamic banking sector concluded that the size of the board and its independence have a positive effect on performance. (Ghaffar, 2014). There is also empirical evidence suggesting that the proportion of outside directors is positively related with the performance of institutions (Cornett et al., 2009).

Working on the banking sector of Zimbabwe, it has been observed that board composition and board diversity both have a positive relation with performance (Shungu *et al.,* 2014). Similarly, for Malaysian banking sector, it was found that different variables of CG like size, board composition; composition and meeting of audit committee, all have a positive impact on performance. Likewise, Malik *et al.* (2014) have described that large board size can enhance the performance and profitability of business entities. However, non-executive directors in board and non-executive member in audit committee have negative impact on performance (Bahreini & Zain, 2013). In Nepalian banking sector, the relationship of board of directors meetings, board composition and audit committee size with the performance of banks found positive (Poudel & Hovey, 2013). There are found significant relationships between structure of board, size and performance of Italian Banks. Moreover, credit quality of the banks is statically significant with the structure of board and size (Bussoli & Tritto, 2015). CG variables such as board composition, ownership structure, and board size were found to have a

major impact on the Jordanian banking sector's performance (Tomar & Bino, 2012). Similarly, Ahmad *et al.* (2014) discovered that board composition has a positive effect on banks performance in Pakistan. Further, they have noted that efficient board composition can augment the performance of banks, whereas, in comparison to the proportion of non-executive directors, a large board size has a negative influence on performance.

There is question mark on the size of the board because large board has the problems of incoordination and burden of higher incentive, which affect the institution's performance inversely (Mollah & Zaman, 2015). Aslam and Haron (2020) discovered a negative association between the size of the board of directors and the performance of various Islamic banks in various countries. Similarly, agency theory assume that board size have inverse relationship with the performance, whereas stewardship and resource dependence theories assume its positive impact on institution's performance (Quttainah *et al.,* 2013). Further, Mollah and Zaman (2015) document that independent directors have positive impact on institution's performance. They consider them better for the monitoring and control of managers. Hence the hypotheses are;

H_1: *Board Size has a positive relationship with the performance of FIs*

H_2: *Independent directors have a positive relationship with the performance of FIs*

4.2.2 Ownership Concentration and Performance

The literature on the effect of ownership concentration on performance is mixed. Ownership concentration and performance are found with mixed results in different industries. Ownership concentration is a state when majority of issued shares of the organization is in few hands. Block ownership is also a sign of ownership concentration,

where one individual owns five percent or above of the total shares (Sorensen & Kang, 1999; Maher & Anderson, 2002). When majority of the issued shares are held by few individuals then they might use this power to select board members and CEO, who suits their interest (Htay *et al.*, 2013). This mechanism might create hurdle in information flow and can hurt organization performance. Block ownership may also create information asymmetry, because block owner can assess information through their proxies and they may not have to reveal the information in financial reports. (Htay *et al.*, 2013).

Monitoring effect is providing the base for the prophecies of positive impact of ownership concentration on institution's performance. Large shareholders have good disciplinary impact on managers because it is easy for them to monitor manager due to high influence (Shleifer & Vishny, 1986, 1997). Consequently, this notion decreases the agency problem and in turn increases the performance (Jensen & Meckling, 1976). The negative influence of ownership concentration on performance, on the other hand, is due to the expropriation effect (Young *et al.*, 2008). The viewpoint of this side of researchers is that the ownership concentration may facilitate the block holders towards drawing out their own benefits on the cost of minority shareholders interest (Filatotchev *et al.*, 2013; Wang & Shailer, 2015). Therefore, as the expropriation effect increase, institution's performance may be decreased.

In some cases, researchers found an opposite association between performance and ownership concentration (Foroughi & Fooladi, 2012). As per the research conducted by Sheikh & Kareem, (2015) the relationship between ownership concentration and performance is positive. Also, Tomar & Bino (2012) document a sound and substantial impact of ownership structure on financial sector performance. Contrary to the findings

of previous study, Al-Saidi & Al-Shammari (2015) unable to established any relationship between the performance of institution and concentrated ownership.

As per "monitoring effect", concentration of ownership may increase the performance. On the other side, highly concentrated ownership may work inversely on performance "expropriation effect" (Jaime *et. al.*, 2018). Expropriation effect may give rise to Principal-Principal conflict (Abdullah *et al.*, 2019). However, dispersed ownership decreases the monitoring role of shareholder's and increase the power of managers, which give birth to agency problem i.e. conflict of interest between managers and owners "principal-agent" (Li *et al.*, 2013).

Some other studies have also concluded that controlling shareholders has a greater power to elect board of directors of their own choice, who can compel the mangers to work in the interest of controlling shareholders (Ozili & Uadiale, 2017). However, some scholars are of the view that controlling shareholders are more effective in monitoring management and can use their power to compel managers to work in the best interest of shareholders (Jensen & Meckling, 1976). Thus, it improves the profitability of institutions and the value of minority shareholders. Consequently, mangers in concentrated ownership are less likely to work for the pursuit of their own self-interests (Thomsen & Pedersen, 2000). Therefore, we expect a positive relationship between ownership concentration and the performance of institutions.

H_3: Ownership concentration has a positive impact on performance of FIs.

4.2.3 CEO Duality and Performance

CEO duality is combining the role of CEO and chairman of the board. When CEO is more powerful, there is possibility that he may use his power to optimize his benefit on

the expense of shareholders (Yusoff & Alhaji, 2012). When the chief executive officer and board chairman is same person, this is called a dual role. Some researchers are in favor of role duality because they assume that chairperson has a better knowledge about the institution therefore, in a better position to make a suitable decision vis-à-vis risk and performance (Elbahar, 2016). Furthermore, role duality empower CEO, to make quick and suitable decision in challenging environment and would provide robust leadership style (Brickley *et al.* 1997). However, dual role, provide a strong individual power, which can influence the effective role of board (Aslam & Haron, 2020; Jensen & Meckling, 1976; Fama & Jensen, 1983; Donaldson & Davis, 1991; Whittington, 1993).

As per Jensen & Meckling (1976), agency theory contends for a parting of role of the chairman and CEO. If both roles are with one person then same person will be a judge of his performance subsequently the board will not be in a position to play an effective role (Finkelstein & D'Aveni, 1994; Florackis & Ozkan, 2004). Furthermore, for better flow of information to stakeholders, this role should be separate (Htay *et al.*, 2013).

Some other studies asserts that role duality provide more power when CEO perform as a chairman of board (Boyd & Nicolo, 2005). When CEO is acting as a chairman of board, being the most powerful person in the organization, which may persuade to get private benefits. Thus, if the task of management and control is different, then the conflict of interest between management and shareholder may reduce (Zeineb & Mensi, 2018). Another study states that when the role is not dual, the trust of stakeholders increase, which is helpful to raise the capital and chances of bankruptcy are less (Ehikioya, 2009). Nonetheless, there is no optimal structure of leadership, both type of leadership styles have some cost and benefits (Zeineb & Mensi, 2018).

The other side of literature emphasized on the positive impact of CEO duality. This dual role could provide better leadership to the company, which in turn increase the institution's performance and stability. In results it increases the confidence of investors (Stoeberl & Sherony, 1985). Donaldson & Davis (1991) also asserts the positive role of the CEO duality. As per the Stewardship theory, unifying role of CEO and chair by one person would be beneficial for shareholders returns (Donaldson & Davis, 1991). Some empirical studies have confirmed the aforesaid ascertain i.e. positive impact of role duality on better performance rather separation of this role (Azeez, 2015; Brickley & Jarrell, 1997; Donaldson & Davis, 1991).

Moreover, it is also perceived that CEO power may diminish the board independence and oversight role therefore; this might have an inverse relationship on performance of institution (Krause et al., 2014; Mollah, & Zaman, 2015; Qadorah, & Fadzil, 2018). Empirical studies have mixed results like Mollah & Zaman (2015) and Qadorah, & Fadzil, (2018) found negative relationship while Azeez (2015) found the same variables with positive relationship. Aslam and Haron (2020) found mixed results. As per Jensen and Meckling (1976), agency theory contends for a parting of role of the chairman and CEO. If both roles are with one person then same person will be a judge of his performance subsequently the board will not be in a position to play an effective role. (Finkelstein & D'Aveni, 1994; Florackis, 2008). Furthermore, for better flow of information to stakeholders, this role should be separate (Htay *et al.*, 2013). Thus, the hypothesis is;

H_4: CEO duality has a negative role in determining the performance of FIs.

4.2.4 CEO Remuneration and Performance

Remuneration is known as the rewards paid to employees in return of their services in shape of salary, wage or pay including cash and non-cash benefits. Companies, which give right compensation to their directors, should outperform in comparison to their peers in normal circumstances (Wilkinson, 2009). However, it is also argued that short-termism in pay for performance to the directors was responsible in part for the world economic crisis, result of downfall of banks (Bebchuk & Spamann, 2010; Fahlenbrach & Stulz, 2011). Directors' behavior is normally shaped by the remuneration paid to them; moreover attractive packages are important to retain the relevant talent (Razali *et al.*, 2018). Remuneration policy is an important factor for the success of any organization subject to the use.

Many scholars have used the agency theory to understand the agent-principal relationship in terms of agent's remuneration and principal's benefits (Razali *et al.*, 2018). According to some researchers, agency theory may be used to establish a connection between institutional performance and executive compensation (Murphy, 1985: Jensen & Murphy, 1990). One of the main objectives of executive compensation is to retain and motivate valuable resource to increase the shareholder value (Shaw & Zhang, 2010). If executives are more motivated and well rewarded then they would act in the best interests of the company's shareholders and, the agency problem will reduce. It results to align the interest of shareholders and management (Bebchukand, 2004). According to the agency theory, compensation should be linked to the institution's results this can enhance the performance of the institution. Moreover, according to agency

theory, higher CEO compensation will result in better productivity and good corporate performance (Smirnova, & Zavertiaeva, 2017).

The relationship between CEO remuneration and institution performance has previously been studied in the literature. Like Sheikh and Kareem (2015) determined positive association of CEO remuneration with the performance of banking sector in Pakistan. This positive finding suggests that well rewarded and motivated CEO work is in the best interest of shareholders through reducing the agency problem (Sheikh & Kareem, 2015; Merhebi *et al.*, 2006; Cerasi *et al.*, 2020). Consequently, this aligns the interest of shareholders and management (Bebchukand, 2004). Given these arguments, we structure the following hypothesis in this study.

H_5 : CEO remuneration has a positive impact on performance of FIs.

4.2.5 *Shari'ah* Supervisory Board (SSB) and Performance

IFIs' operations can be distinguished from their counterparts, at least technically, as being more socially responsible (Mollah & Zaman, 2015). The important thing, which creates difference in the governance of Islamic and conventional financial institutions, is the *Shari'ah* Supervisory Board or *Shari'ah* supervision, this plays an additional role in governance of institutions. *Shari'ah* board also detains board of directors to take excessive risk, playing a role of independent control mechanism (Hassan & Mollah, 2012). SSB encourages the management to be more transparent in disclosures. To strengthen the role of SSB, AAOIFI has also laid down governance standards related to the structure and role of *Shari'ah* board. Each board should have at least three members, and each board should produce an annual report that is included in the institution's financial statements (AAOIFI, 2015).

The religiosity and ethical beliefs compels board of directors to avoid poor quality financing and to avoid excessive risk taking while achieving social justice as well. The governance structure of IFI's with an additional mechanism of *Shari'ah* supervision ought not to face such type of difficulties, which is being faced by conventional financial institutions (Mollah & Zaman, 2015). The role of SSB will make the operations of IFIs more transparent and less risky which in turn increase the performance of IFIs.

Some researchers have stated that *Shari'ah* Board is same like BOD and audit committee (Rahman & Bukair, 2013). The structure of *Shari'ah* Board and the structure of conventional board i.e. BoD are alike (Bhatti & Bhatti, 2010). Therefore, the CG theories i.e. Stewardship, Agency and Resource Dependence, which explain the relationship of CG with the performance of institution, could be drawn-out to describe the impact of SSB on IFIs performance (Aslam & Haron, 2020; Naji *et al.*, 2018; Nomran & Hassan, 2017). Farook *et al.* (2011); Alman (2012) and Quttainah *et al.* (2013) have used these theories to explain the effectiveness of SSB as a theoretical base.

BOD and management can easily influence the smaller SSB as compared to larger one (Naji *et al.*, 2018). Larger SSB have scholars with different backgrounds, skills and experiences, therefore, can contribute towards the better performance of institution (Hamza, 2016).

Stakeholder theory emphasized that the interest of all stakeholders should be honored rather to protect the interest of shareholders only. However, focus of resource dependency theory is that the directors plays an important role toward provision of resources to institution through their external linkages. As a result, these theories can be

used to explain the link between SSB and institution performance (Musibah & Alfattani, 2014).

Prior studies on Islamic banks generally focused on profitability, stability and efficiency issues between Islamic and conventional banks. The volume of empirical research on governance of Islamic financial institutions including Islamic Banking sector is limited (Zaman & Mollah, 2015). *Shari'ah* supervision is also an imperative factor and performance can be assessed regarding *Shari'ah* supervision. Lewis (2005) found that SSB play and important role in governance of Islamic banks. Further, Zaman & Mollah (2015) have investigated CG of Islamic versus conventional banks and found that *Shari'ah* supervisory board has a positive but negligible impact on the performance of Islamic banks. Aslam and Haron (2020) concluded that SSB has a positive relationship with the performance of Islamic banks. Previous studies give mix results regarding role of *Shari'ah* Board size toward performance. Nomran *et al.* (2018) established positive relation between SSB and performance in line with stewardship and resource dependency theories. Yet, Rahman and Haron (2019) and Matoussi and Grassa (2012) found negative relationship in line with agency theory. SSB offered very important direction to management and board of directors. Further, they ensure the provision of *Shari'ah* compliant products to customers, which could have positive impact on performance. The increase in the size of SSB would ameliorate the supervisory and oversight function and can increase the performance (Almutairi & Quttainah, 2017). Therefore, based on given argument, following hypothesis is proposed.

H_7: Size of the Shari'ah board is positively related to the performance of FIs.

4.2.6 Corporate Governance Index and Performance

Overall, CG has a significant effect on performance. According to Haider et al. (2016), CG has a positive impact on performance; specifically, board size has a positive impact on the performance of Pakistan's Islamic financial institutions. Tariq *et al.* (2014) found a close association between a bank's performance and its CG structure, concluding that CG has a major effect on the efficiency of different banks in Pakistan. CG has no significant effect on the performance of the Nigerian banks, as per the study of Omoniyi *et al.* (2013). Further, they concluded performance of banking can be improved by proper supervision and monitoring of CG by the authorities. Similarly, Wintoki *et al.* (2012) found no evidence of a connection between institutional performance and governance. In Pakistan, CG has a positive relation on ROE, net income, interest income and earnings per share. In addition, efficient and effective CG leads to the progress of banking sector (Inam & Aqeel, 2014). Similarly, Rehmans & Mangla (2010) have concluded that CG has positive and significant impact on the efficiency of Islamic and conventional banks in Pakistan. Mollah *et al.* (2017) found significant relationship of CG and performance of conventional and Islamic banks. Therefore, the testable hypothesis can be formulated as follows;

H_8: Corporate Governance has a strong impact the performance of FIs

In conclusion, there are few studies on the effect of CG on the performance of institutions in Pakistan's financial sector. Moreover, Islamic financial sector is almost ignored with little exclusion i.e. Haris *et al.* (2019), Bashir *et al.* (2018) Sheikh and Kareem (2015), Rehmans and Mangla (2010). Likewise, we are unable to find the

literature on same topic for insurance, Takaful and Modarbas companies. Further, the empirical results of previous studies on banking sector are equivocal.

In addition, we use a variety of market and accounting-based metrics to assess the financial sector's efficiency. However, the influence of CG and the role of institutional quality in shaping the effect of CG on the performance of Pakistan's financial institutions has received little attention until now. First, we explored the association between CG and financial sector performance in this report. Further, we explore the role of SSB on performance of Islamic financial institutions (IFIs). This is the first research of its kind in Pakistan, as far as we know, in which the effects of CG on performance of Islamic and conventional financial sector, simultaneously. Therefore, we are conducting this study due to its importance, timely contribution and its paucity. In view of the importance role of SSB, we did not find any study that explored the effect of supervision of SSB on the performance of Islamic financial institutions in Pakistan with little exception on banking sector only (Aslam & Haron, 2020; Mollah, 2017; Mollah & Zaman, 2015; Rehmans & Mangla, 2010). Interestingly, *Shari'ah* supervision is an additional variable to examine the relationship of CG and performance.

4.3 Corporate Governance Indicators and Risk Taking

Probability of high returns are associated with high risk. However, everybody needs to optimize their return by taking the least amount of risk possible, if not none at all. One form of risk is systemic risk, while the other one is unsystematic risk. To better handle the risk, one can rely on experience, gut instincts, and intuitions. For ages, risk management has been a part of human life. Importance of insolvency, liquidity, credit

and, operational risks have gained attention again due to the recent past financial crisis (Lepetit & Strobel, 2015)

Because of the numerous corporate scandals that have occurred around the world, CG has become increasingly important, especially in light of the severe financial crisis that hit the market in 2007-08. Therefore, its importance is manifold toward the stability of financial intermediaries. Collapses of different institution and scandals like Worldcom and Enron increased the significance in improvement of governance system. However, subprime meltdown in the USA has manifold the importance and need to improve CG and risk management practices, especially in banking and financial sector, due to its importance in the economy.

It is perceived that global financial crisis in 2008 was due to the unnecessary activities of risk taking together with weak regulatory framework to restrain excessive risk taking (AlAbbad & Saba, 2019). Apart from this, there were other several reasons of such failure; one of them was the CG, which played a central role (Erkens *et al.*, 2012; Sharfman, 2009). Islamic finance industry was less effected and found resilient toward this crisis as compared to conventional system (Hasan & Dridi, 2010; Perry, 2011). Therefore, number of studies conducted on CG of Islamic financial institutions and their counterparts.

The key cause of the 2007-08 financial crisis, according to Ellul (2013), was financial institutions' CG and risk management. Similarly, another study depicted that mediating impact of CG, between risk and institution performance was not very much clear. Moreover, negative moderating effect found on relationship of institution's performance and risk (Chang & Hung, 2015).

Owing to the complexity of risks for banking and financial sector the need of CG has increased. Good CG practices are also important for the compliance, efficiency and for the protection of interest of stakeholders (Permatasari, 2020). Therefore, many researchers have been provoked to examine the association between CG and risk management. Further, practitioners and academics are paying attention to risk management and quantitative measurement of different type of risks like liquidity risk, credit risk and operational risk and how to manage these risks (Elbahar, 2016).

Rich quantity of literature has been found on the risk management in financial sector, researcher put significant attention on risk and CG (Permatasari, 2020; Safiullah, & Shamsuddin, 2018; Trad & Goux, 2016; Mubaraq, 2012; Adnan, Haty, & Meera, 2011; Haty, 2009). CG is very important for risk management in banking sector. According to one study, CG and risk management have a positive relationship (Tandelilin, 2007). Moreover, the negative relationship has been found in Bank performance and risk management i.e. risk management has negative impact on performance of bank (positive relation between risk and return). Another study, conducted on Islamic and conventional banks of GCC countries, concluded that some CG variables are negatively related with risk management in conventional banks, while they are insignificant in Islamic banks (Elbahar, 2016). Permatasari (2020) concluded in his study that CG has influence on risk management of Indonasian banks.

Financial intermediaries are very important due to risk acceptance and transfer of financial resources in the economy. Bankruptcy can be defined as "a legal status of an insolvent person or an organization, that is, the one who cannot repay the debts that owes to creditors". Bankruptcy is usually enforced by a court order, which is often triggered by

the debtor. When an organization's debt exceeds the value of its existing assets, it declares bankruptcy (Gittman, 1996). An institution's inability to repay its financial liabilities in an appropriate time period, shows financial distress of the company. Bankruptcy is a proxy of the financial distress of the institution. Bankruptcy is the across the globe phenomenon and is not associated with particular country or industry (Argenti, 1976).

When a bank fails to follow the *Shari'ah* Board's and regulators' rules and regulations, SNCR is triggered. IFSB define it "risk arising from Islamic banks failure to comply with the *Shari'ah* rule and principles determined by *Shari'ah* board or the relevent body in the jurisdiction in which the Islamic bank operates" (IFSB, 2005). A study was done on fifty one Islamic banks of different countries to find out the significnace of *Shari'ah* non-complinace risk (SNCR) on different variables i.e. size, profitability and marcroeconomic variables. It concluded that additional capital charge is not a solution of the SNCR, rather supervisory controls are more effective to deal with such risks. To avoid loss, such event can be ratified before occurance of SNCR (Oz *et al.*, 2016). Likewise, another study suggested that *Shari'ah* complinace is the responsibility of the board of directors and it is their domain to manage it (Ginena, 2014).

4.3.1 Board Size and Risk Taking

Since, board size is a major component to play an effective role to monitor management opportunist behavior (AlAbbad & Saba, 2019). Previous literature depicts that boards with small size can oversee the activities of management very effectively and can restrict the management to take unnecessary risk with the alignment of shareholders interest (Cheng, 2008; Pathan, 2009).

As per the agency theory, board size is critical to advice and monitor the management (Safiullah, & Shamsuddin, 2018). As per agency theory, large board size are less effective toward monitoring because of the agency problem and because of the higher cost of coordination and free riding in large boards. Some other studies have also documented the results in favor of small board, specially its effective role in controlling risk-taking behavior (Salhi & Boujelbene, 2012; McNulty *et al.*, 2012). Similary, Zeineb and Mensi (2018) also found that board size increases operational and liquidity risks.

Board size has an influence over management, consultation and supervision capacities of managers. Institutions with smaller board size works effectively as compared to larger board size because lager board size encounter more difficulties (Lorsch, 1992), some others have alternate views (Pearce & Zahra, 1992). Some studies concluded that smaller board size decreases risk taking activities (Salhi & Boujelbene, 2012; McNulty *et al.*, 2012).

Some researchers argued that large board size are more effective for the large and complex institutions (Coles *et al.*, 2008). Resource dependency theory propose that large board size have diverse expertise, knowledge and experiences, therefore, in a better position to control and advise the institution (Dalton *et al.,* 1999). As one of the study concluded that Operational risk and liquidity risk have a positive relation to the board size (Zeineb & Mensi, 2018).

Kogan and Wallach (1964) proposed that as the size of decisions maker increase the probability of risk taking decrease. Because, it is difficult to convince large group for the decision which has some inverse consequences. However, on the other side, larger board increase the cost and to compensate institution they might take higher risk. Some

empirical studies also support the agency theory that large board can impact the institution risk positively (Fakhrunnas & Ramly, 2017; Tarchouna *et al.*, 2017; Switzer *et al.*, 2016; Cao *et al.*, 2015; Tu, 2015). Alam & Shah (2013) also depicts that due to the risky environment of Pakistani institutions, there is a possibility that big board size impact the risk taking positively.

Likewise, there are some more evidences, indicating that larger boards are less effective in monitoring and to oversee the activities of institutions including risk management (Andres & Vallelado, 2008). Better governance by the board may control managers from excessive risk taking (Minton *et al.*, 2014). Smaller boards take less financial risk and reduce the overall risk of institutions (McNulty *et al.,* 2012). On the same line, Salhi and Boujelbene (2012) concluded that smaller boards are helpful in reducing the risk of institutions. Another study concluded that larger board increases the credit risk (Basiruddin & Ahmed, 2019). Smaller boards are more effective than larger ones. As larger boards are less effective in monitoring the activities, the risk of default also increases (Brogi & Lagasio, 2022). Based on this discussion we test the following hypothesis.

H_1: Board Size has a positive relationship with risk taking of FIs

4.3.2 Board Independence and Risk Taking

Board independence is another perspective in CG, which may affect the working of management. Previous literature suggests that outside directors on board decrease the moral hazard problem and conflict resolution of agency cost (AlAbbad & Saba, 2019). In previous research Fama and Jensen (1983) & Fama (1980) concluded that independent directors are useful tool to control managers due to their incitement towards controls.

This is because outside directors are very much concerned about their reputation in market which persuade them to work in best interest of institution.

A study concluded that the CG variables like board size and proportion of non executive directors have not significant impact on financial risk (Mubaraq, 2012). Another research found that the board of directors have a substantial impact on the institution's solvency. Independency and experience of board is very helpful for the institution to remain out of insolvency (Platt & Platt, 2012). Bourakba & Zerargui, (2015) concluded that there is a strong relationship in CG and credit risk of Islamic financial institutions. Moreover, they found negative relationship between credit risk and size of board of directors, and their composition. La Fond & Ashbaugh-Skaife (2006) concluded in their research that there is negative relatinoship between board size, board independence and credit rating. Higher proportion of non-executive board member may decrease the consultation role as it could prevent the executive from participation, which create problem in information flow between board and management (Brickley & Jarrell, 1997; Adams & Mehran, 2008). Studies proposed that lesser proportion of outside directors will results in additional risk taking action due to agency problem (Tsorhe *et al.*, 2011). Independent directors shows the strength of board. However, on other side, few studiees determind insignificant relation of board strength on liquidity, capital and credit risk (Tsorhe *et al.*, 2011; McNulty *et al.*, 2012).

Literature proposes that there is positive association between performance and independent directors. This is because outside directors are very much concerned about their reputation in market which persuade them to work in best interest of institution (Fama & Jensen, 1983). Independent directors restrain managers to take unnecessary risk.

Therefore, the risk of default decreases in the presence of independent directors (Brogi & Lagasio, 2022; Switzer *et al.*, 2018). Further, due to effective monitoring by independent directors, it is more likely that there would not be higher risk taking in institutions (Mathew *et al.*, 2018). Bourakba and Zerargui (2015) concluded that independent directors increase the transparency and control and thus, have a negative relationship with the credit risk of institutions. There is also a negative association between board independence and credit rating (LaFond & Ashbaugh-Skaife, 2006). Another research study has provided strong empirical evidence that independent directors act as an independent control authority, which significantly and effectively restrains other board directors to take excessive risk (Zeineb & Mensi, 2018). Given the theoretical arguments and empirical findings, we construct the following hypothesis.

H_2: Board independence has a negative relationship with risk taking of FIs

4.3.3 CEO Duality and Risk Taking

CEO duality is another tool to control the activities of institution. CEO duality depicts that more power is vested in one individual. Some researcher found that CEO duality has a negative role toward risk taking (Pathan, 2009). This is because the CEO's wealth is vested in their non-diversifiablity of human capital. Risk averse CEOs will select safe investment in order to save their job and wealth (Smith & Stulz, 1985). Moreover, CEOs with dual roles, might hide some information from other board members which may reduce the ability of other board members to oversight of management (Fama & Jensen, 1983).

Since, role duality provide more power to CEO, therefore, agency theory asserts that when both role resides with one person the chance of conflict of interest arise. CEO

may draw more benefits due to his power concentration (Nicolo, 2005). Company can reduce this conflict of interest between both parties by separating this role. Ehikioya (2009) said in his research, companies in which dual role is not existed, the trust level is high among stakeholders and the chances of bankruptcy decrease. However, as per some researcher, there is no optimal structure of this role (Ben & Mensi, 2018). However, when CEO plays a role of chairman as well, he gained sufficient power to gain private benefits. Risk averse CEOs will select safe investment in order to save their job and wealth (Smith & Stulz, 1985). This could adversely affect the performance of institution (Zeineb, & Mensi, 2018). Faleye & Krishnan (2017) also presumed that for the better perfromance CEO role should be separated.

Switzer & Wang (2018) concluded that role duality can positively contribute toward default risk. Yet, another study depict that relationship between CEO power and credit rating in negative (Skaife *et al.*, 2006). Pathan (2009) determined in his study that role duality has negative impact on risk taking of bank, as he/she tried to protect undiversified asset of bank and to save his fixed salary. Faleye and Krishnan (2017) suggested that the seperation of roles and powers is good for the performance of the institution. It is also mentioned in the literature that role duality increases the probability of default (Switzer *et al.*, 2018). Yet, another investigation by LaFond & Ashbaugh-Skaife (2006) showed that the relationship between CEO power and credit rating of the company is negative. Therefore, we test the following hypothesis regarding the role of CEO duality in risk taking in financial institutions.

H_3: CEO duality is negatively, significantly related to risk taking FIs

4.3.4 CEO Remuneration and Risk Taking

CEO compensation took vey importance in researcher's books in last two decades in various perspective i.e. management, finance and accounting (Deschenes *et al.*, 2014; Hou, Priem & Goranova, 2014). Rich amount of studies found to explain the relationship of CEO compensation on performance, risk taking and corporate strategy (Shammari, 2018). The ground of the most of the research in this perspective was agency theory developed by Jensen & Meckling (1976).

As per the agency theory, preference and attitude toward risk taking is one of the departure point of interest between principal and agent. Shareholders have diversified portfolio of investments, therefore, for them diversification of risk is easy as compared to managers, they are not in a position to diversify risk in respect of their job security, due to non-diversifiable human capital (Wang & Barney, 2006; Amihud & Lev, 1981). Therefore, there is conflict of interest on this point. Thus, managers normally tends to reduce risk (Shammari, 2018).

Hence, different tools have been devised to bring into line the interest of manager and principal to mitigate the agency cost. As per Jensen & Meckling (1976), such tools include bonding, monitoring and incentive alignment. One of the important tool which capture the attention of researchers is compensation to executive to align the incentive more importantly the CEO (Taussig & Barker, 1925; Barkema & Gomez-Mejia, 1998). Agency theory depicts that compensation is a powerful tool to align the interest of agent and principal (Shammari, 2018).

It is well established that if executive compensations are designed properly, it will reduce the phenomenon of managerial opportunism, encourage optimal and positive risk

taking, and persuade towards those investment avenues, which will help to maximize the wealth of owners and enhance the performance of firms/institutions (Jensen & Murphy, 1990). For instance, if executives are given stock option i.e. long term incentives, they feel reluctant to invest in those avenues, which are not aligned to the interest of owners (Amihud & Lev, 1981; Sanders, 2001). Therefore, incentive mechanism for managers plays an important role in controlling the risk-taking behavior and risk management activities of insitutions. It is also evident that long-term incentives to CEO could positively contribute to institutions' ability and capabilities to perform better and to take effective, careful risk-taking decisions (Wright *et al.*, 2007).

H_4: CEO compensation/remuneration is negatively related to risk taking of FIs.

4.3.5 Ownership Concentration and Risk Taking

Agency theory of CG propose that ownership structure affect the risk taking behavior of institutions (Jensen & Meckling 1976; John, Litov & Yeung 2008). When there is conflict on alignment of incentives between owners and managers, potential difference on risk taking arise between these two parties. This issue becomes more complicated in the presence of regulations (Ellul, 2015).

In diversified ownership structure, owners do not have large fraction of equity investment, they tend to take more risk than managers and debt holders. In limited liability institution, owners have benefits to increase risk after collection of cash flow from other investors (Galai & Masulis, 1976; Esty, 1998). Shareholders have strong incentives toward taking excessive risk on the cost of debtors and deposit insurance (Mollah *et al.*, 2017). Likewise, managers with non-diversifiable human capital tend to

take less risk in order to save their job (Jensen & Meckling, 1976; Demsetz & Lehn, 1985; Kane, 1985).

In comparison to conventional banks, ownership concentration is a possible risk factor in Islamic banking as well (Safiullah, & Shamsuddin, 2018). Large shareholders can have an incentive to reduce bank risk by controlling bank managers' opportunistic risk-taking preferences, in situation where is concentrated ownership (Shleifer & Vishny, 1986; Stulz, 2005; John *et al.*, 2008). They may, on the other hand, use their controlling power to persuade bank executives to take more risks in order to increase their own interests by expropriating minority shareholders' interests (Shleifer & Vishny, 1986)). As a result, the impact of institution ownership concentration on its risk is a priori unknown. Thus, we investigated its effect on Islamic and conventional financial institutions' risk management.

Like the case of conventional banks, ownership concentration is a potential, possible risk factor in Islamic banking industry (Safiullah & Shamsuddin, 2018). Large shareholders can have an incentive to reduce banks' risk by controlling bank managers' opportunistic risk-taking preferences. However, the opposite is true in the case of highly concentrated ownership (Shleifer & Vishny, 1986; Stulz, 2005; John *et al.*, 2008). It is also stated that they may, on the other hand, use their controlling power to persuade bank executives to take more risks in order to increase their own interests by expropriating minority shareholders' interests (Shleifer & Vishny, 1986). Given these contents, one can say that the impact of institution ownership concentration on risk taking is a priori unknown at best. Thus, we investigate the effect of ownership concentration on the risk-

taking behavior of Islamic and conventional financial institutions by constructing the following hypothesis.

H_5: Ownership concentration has a significant influence on risk taking of FI.

4.3.6 *Shari'ah* Supervisory Board (SSB) and Risk Taking

SSB is one of the key governance feature which distinguish Islamic financial institutions from conventional ones. SSB works with top layer of institution i.e. board of directors, as an independent entity for the certification products and services in accordance with Islamic law (AlAbbad & Saba, 2019). Therefore, this is an extra layer to oversee the institution's operations. SSB might also confine BOD and higher management to take excessive risks (Mollah & Zaman, 2015). This will also add value toward solvency of the institution.

Current literature shows negative association between religiosity and risk taking by individuals (Mollah *et al.*, 2017). Miller and Hoffmann (1995) concluded that religious behavior is risk averse whereas, non-religious behavior is risk taking. Some empirical studies found that being religious and participating in religious activities more frequently have positive relationship with risk aversion (Miller, 2000). Some other researchers depicts that organizations located in countries with high religiosity are less risk taker (Hilary & Hui, 2009).

In Islamic financial institutions SSB would be responsible to ensure that none of the product is against the rulings of Islamic Law. This decision is based on the opinion and interpretation of member of SSB related to Islamic Law. The opinion regarding one product or service may differ from other board members, so one product or service could

be permissible for one member might be not acceptable for other one. The product or service cannot be offered until a consensus is developed among majority of SSB members. Therefore, this is a time and effort taking activity. Hence, as the size of SSB increases, it makes harder for SSB to attain a consensus on a particular issue. Consequently, large SSB would not be much effective to monitor the management risk taking behavior (AlAbbad & Saba, 2019).

Decisions of SSB involve understanding of legal issue, Islamic Law, modern economic, financial and banking system. Therefore, more members on SSB will bring more and diverse expertise to add value in financial decisions of institution and higher conformity with the Islamic law, consequently, might affect the risk taking of Islamic financial institution. Larger SSBs may also increase the capacity of board to improve the quality of ex-ante *Shari'ah* screening of financing and strategies. It may also decrease moral hazard problem of managers to extend the financing to customers i.e. less stringent toward screening of financing application (Safiullah & Shamsuddin, 2018). The stronger *Shari'ah* board might influence the aggressive financing of managers, in turn reduce the IFIs risk. Bourakba & Zerargui (2015) concluded that there is a negative relationship between credit risk and the *Shari'ah* board size. Some previous studies have found negative relatinship of *Shari'ah* Board size with some measures of risk taking (AlAbbad et al., 2019; Safiullah & Shamsuddin, 2018; Fakhrunnas & Ramly, 2017).

Further, Islamic financial institutions are exposed to an additional risk which is *Shari'ah* non-compliance risk (SNCR) (Basiruddin & Ahmed, 2019). SNCR arises when IFIs are failed to comply with *Shari'ah* rules and principles as defined of SSB and relevant regulator. Aim of BODs is to enhance the value of shareholders and investment

account holders by adhering *Shari'ah* principles. SSB plays role toward guiding and assisting BODs and management to ensure the *Shari'ah* compliance. Therefore, SSB has a significant contribution toward reduction of SNCR.

The relationship between SSB and the financial performance of of Islamic financial sevices sector is well established in the literature (Saputra & Ihsan, 2021). The current literature also shows a negative, significant association between religiosity and risk taking by individuals (Mollah *et al.*, 2017). Earlier evidence also shows that religiousity has a negative relationship with the risk-taking behavior (Miller & Hoffmann, 1995). Similarly, some empirical studies found that being religious and participation in religious activities more frequently have a positive relationship with risk aversion (Miller, 2000). Likewise, organizations located in the countries with high levels of religiosity appear to be less risk taker (Hilary & Hui, 2009). Yet, we also have an evidence that large SSB would not be much effective to monitor the management risk-taking behavior (AlAbbad *et al.*, 2019). In contrast, some of the previous studies have found a negative relatinship of *Shari'ah* board size with, at least, some measures of risks (AlAbbad *et al.*, 2019; Safiullah & Shamsuddin, 2018; Fakhrunnas & Ramly, 2016).

H_6: There is a negative relationship between the size of SSB and risk taking of IFIs

4.3.7 Corporate Governance Index and Risk Management

Greuning and Bratanovic (2003) suggested that the volatility of financial markets and liberalization, and intense competition between financial institutions, increase the exposure of risk toward these institutions and resultantly required advanced ways to manage business entities. Due to said reason banking and financial institutions are highly

regulated as compared to others. Nevertheless, regulation authorities are not in a position to prevent entity from failure because their role is like a facilitator, whereas, main responsibility lies over the board of directors and management. As Derwall and Verwijmeren (2007) concluded that better governance is related to the lower risk and inturen lower the insolvency risk.

Results are mixed in existing literature on relationship of CG and insolvency risk. One study found a positive relationship between shareholder friendly CG and insolvency risk (Anginer *et al.*, 2018). Switzer *et al.* (2016) concluded that large and independent board have large propensity of insolvency risk. On contrary, Switzer and Wang (2013) found inverse relationship between large and independent boards and insolvency risk on U.S. commercial banks. Likewise, La Fond and Ashbaugh-Skaife (2006) suggested that CG has an impact on a institution's bond rating due to the probability of default risk arises from agency conflicts. Inefficient governance may create agency conflict, profit might be channeled to pay more dividend. However tendency to invest in more risky project may increase which might results in default/insolvency risk. Another study suggested that good CG would encourage excessive risk taking (Iqbal *et al.*, 2015), which inturn leads toward insolvency risk (Ali *et al.*, 2021). Trinh & Thao, (2015) also concluded that CG has signigicant relationship with risk management.

H_7: CG has a strong relationship with risk management of FIs

In the contex of Pakistan, we would not able to find much literature that explores the association between CG and riks management except few studies (Safiullah, & Shamsuddin, 2018; Bourakba & Zerargui, 2015; Alam & Ali, 2013). Like, Alam& Ali (2013) explore the impact of CG on riks. They came to the conclusion that bank control

and family control have a negative impact on institution risk, while chairman/CEO duality and ownership structure have a positive impact. To the best of our knowledge, financial sector with few exception of banking sector, left unattended to explore the relationship of corporate governane on institution risk.

4.4 Corporate Governance and Information Symmetry

Foremost, purpose of preparing financial statement is to provide useful financial informations to the those who are in need of such information i.e. investors, creditors and regulators. Therefore, now a days no one can deny the importance of financial information for decision making. High quality and transparent information are demand of investors and creditors. Shareholder interest could be protected through transparent information, which has a positive relation with the performance of the company. Obscure information do not portray the true picture of the entity and can deceive the investors. Thus, transparency is very important for investors (Jamalinesari & Soheili, 2015). Information asymmetry is identified as one of the main problem/ challenge for emerging economies (Ciner & Karagozoglu, 2005; Murray, 2008; Rosser, 2001; Oluba; 2008)

It is generally accepted that some traders have nonpublic information about future prospects in security markets, which may affect prices of securities. There are theories that support the idea that information available to insiders are different from public investors (Kim & Lyn, 1991). Sometimes, prior to the release of some significant information regarding institution specific activity, may increase the degree of information asymmetry. The specific events, which may increase the information asymmetry are merger and acquisitions, dividend and earning announcements. As the degree of

information asymmetry increases, the behavior of informed and uninformed traders varies (Venkatesh & Chiang, 1986).

Information asymmetry is not good for shareholder's wealth, when it appears between management and shareholders (McLaughlin *et al.*, 1998). The agency theory postulates that management maximize their benefits at minority shareholders cost (Jensen &Meckling, 1976). Disclosure of information can be delayed by the management, to take the benefit of unpublished information, before its reflection in stock price (Han *et al.*, 2014).

To cater with said problem and for the protection of interest of investors, maximum possible information should be released on time (Tahir *et al.*, 2019). To prevent insiders to take the advnatage of information, timely disclosure of information reduces the chance os information asymmetry (Diamond, 1985; Verrecchia, 2001). Opportunistic management behavior should be monitored by adequate corporate measures to prevent information asymmetry. In the context of agency problem, CG, designed to prevent the self-interest of management can increase the shareholders wealth and information disclosure environment. Many researchers suggested that good CG can protect the interest of investors, whereas investors select those institutions which have strong CG policies (Gompers *et al.*, 2003; Joh, 2003; Baek *et al.*, 2004; Black *et al.*, 2006; Choi *et al.*, 2007) concluded in their study that outside directors are good for the institution market valuation and shareholders benefits.

The relationship between CG and information asymmetry has been studied in the past. (Ferreira & Laux, 2007; Han *et al.*, 2014; Cai, Liu, Qian, & Yu, 2015; Jamalinesari & Soheili, 2015; Musovaa *et al.*, 2017; Wu *et al.*, 2019). Wu *et al.* (2019) determine

negative relation between independent dirctors and inforamtion asymmetry on USA firms. Musovaa *et al.* (2017) concluded that CG has a positive impact in reducing information asymmetry. Mali and Anis (2017), found that CG has positive impact on information transparency in Tunisians institutions. Furthermore, some studies concluded that investors and stock markets give importance to the role of CG in information symmetry, which resulted to increase the wealth of shareholders (Welker, 1995).

4.4.1 Board Size and Information Asymmetry

Board size is another important factor to handle the management tendencies towards opaqueness. For instance, if board plays role to ensure transparency, whether an increase in board size will increase the transparency on same pace? Some researchers concluded that large corporate boards have lack of candid discussion on important issues leads towards poor performance (Jensen, 1993). Thus, large board size might play role towards hindering the transparency in information flow.

There is one point view that that the increase in board size increases the managing cost and less effective for the institution performance and may decrease the information flow. This view is postulated by agency theorist (Sougne *et al.*, 2013). However, on the other side it is resource dependency theory suggested that expanded council might increase the relationship between institution and other stakeholders and performance will increase. Some researchers also suggest that large board size will increase the monitoring and information flow and decreases the information asymmetry (Agrawal and Knoeber, 1999; Anderson *et al.*. 2004). Fama and Jensen (1983) suggest that most pivotal role of the board is to monitor and control the management. Thus, increase in the size of board of directors will increase the monitoring and controlling function. Further, Jensen (1993)

depicts that larger board might not have candid discussion and resulted in poor monitoring. However, on the other side some researchers contended otherwise, the oversight of management is more efficient with a larger board, and to provide better expertise (Adam & Mehran, 2003). Samahaet *et al.* (2015) and Nosheen and Sajjad (2018) concluded that board size has positive relationship with voluntary disclosure. As a result, the management will be more transparent and open to disclose information (Gandia, 2008; Leng & Ding, 2011; Agyei-Mensah, 2017). However, Agyei-Mensah (2017) and Ntow-Gyamfi & Gemegah, (2015) found negative relationship between board size and information asymmetry.

H_1: There is a positive relationship between board size and information asymmetry

4.4.2 Board Composition and Inforamtion Asymmetry

Board composition i.e. non-executive board members show the independence of board. As the number of outside directors increases on board the independence will increase (Cheng & Courtenay, 2006). Independent directors play role towards alignment of the goals of owners and managers. Independent directors increases the transparency and fairness in transaction and in information flow. However, past empirical studies showed mixed results (Ntow-Gyamfi *et al.*, 2015). Some researchers concluded that non-executive directors do not have any interest to be in good books of management, therefore, raise their voice on issues (Wan-Hussin, 2009; Clarke, 2006). Thereby, proportion of non-executive directors on board will increase the transparency and smoothen the information flow.

Board composition is also very important element of CG. Independent directors perform the role of control mechanism and they are very important for the institution's performance (Abor & Biekpe, 2007). Song and Windram (2004) and Uzunet *et al.* (2004) concluded that independent directors decreased the chance of corporate fraud and financial reporting problem. However, voluntary disclosure increases with the proportion of independent directors (Navarro & Urquiza, 2015).

The independent directors effectively control the managerial decision and reduce the information asymmetry (Sougne *et al.*, 2013). Sougne *et al.* (2013) and Jamalinesari and Soheili (2015) also produced the same results. There is also a literature which support that higher level of independent directors increase the information asymmetry (Eng and Mak, 2003; Barakoet *et. al.*, 2006). The reason could be that the independent directors might not have much power to influence the leaders in decisions making. This notion is depict by the Rooting theory (Sougne *et al.*, 2013).

Independent directors perform the role of control mechanism and they are very important for the institution's performance (Abor & Biekpe, 2007). Song and Windram (2004) and Uzunet *et al.* (2004) concluded that independent directors decreased the chance of corporate fraud and financial reporting problem. However, voluntary disclosure increases with the proportion of independent directors (Navarro & Urquiza, 2015). The independent directors effectively control the managerial decision and reduce the information asymmetry (Sougne *et al.*, 2013). Elbadry (2010) concluded in their study that independent directors have negative relationship with information asymmetry. Sun *et al.* (2012), Agyei-Mensah (2017) and Wu (2019) produced the same results in their studies.

H_2: Board Independence has a negative relationship with information asymmetry.

4.4.3 CEO Duality and Information Asymmetry

CEO duality or role duality increases the concentration of power, literature acknowledged the fact that this hinders the independence and governance roles of board. It also hampers the transparency and discloser policies i.e. information asymmetry (Ntow-Gyamfi *et al.*, 2015). Agency theory of CG is used to strengthen said claim (Gul & Leung, 2004; Fama & Jensen, 1983).

Another viewpoint, based on the stewardship theory, contends that having a dual role allows CEOs to have good leadership and be in a stronger position to make better decisions in the best interests of shareholders and institution (Gul & Leung, 2004). Some empirical studies recorded that role duality increases the opaqueness of the management and leads toward less limpidity (Chau & Gray, 2010; Gul & Leung, 2004).

CEO duality or role duality increases the concentration of power, literature acknowledged the fact that this hinders the independence and governance roles of board. It also hampers the transparency and discloser policies i.e. information asymmetry (Ntow-Gyamfi *et al.*, 2015).

H_3: CEO duality has a positive impact on information asymmetry

4.4.4 CEO Remuneration and Information Asymmetry

Performance related Incentive are intended to increase the wealth of shareholder by encouraging the shareholders to expand their efforts toward this cause. It is suggested by researchers to extend regular compensation with equity base incentives to encourage the managers for wealth maximization of shareholders (Camara, 2001). Some other researchers suggest that long term incentives like equity based are better for the

alignment of interest of CEO/managers and investors (Shleifer & Vishny, 1997; Kang *et al.*, 2006). Rewards for managers for their better performance are also reduce information asymmetry, because they revealed their efforts to investors for the qualification of performance based rewards.

As per agency theory, to cater the issue of information asymmetry between shareholders and managers, shareholders assign performance based compensation contract to reduce adverse selection and moral hazard agency cost (Zhang, 2011). If bonuses and rewards are performance based and higher the amount of compensation to CEO, lower the level of asymmetry information. Combination of long term incentives with bonuses scheme and executive benefits will boost performance and reduce information asymmetry (Elbadry & Skinner, 2010). Elbadry (2010) found negative relationship between CEO remuneration and information asymmetry on UK institutions.

H_4: CEO remuneration is negatively related to information asymmetry

4.4.5 Ownership Concentration and Information Asymmetry

Institutional investors have a fiduciary responsibility for the owners, thus they try to protect every investment made on behalf of owners. Since, institutional owners have big stock in company, thereby, play close monitoring which results to eradicate information asymmetry and enhanced transparency (Ntow-Gyamfi *et al.*, 2015). It is also argued that block holders increase the quality of CG and play a role to minimize the agency problem (Thadden, 2003; Renneboog, 2005).

Another perspective is that institutions are prone to more private information, if it has more institutional ownership. There are more chances that block holders may reach at decisions under the table which results in manipulation of stock prices. Adverse selection

cost might increase in case of higher concentrated ownership (O'Neill & Swisher, 2003) .Subsequently, institutions which have higher institutional ownership are susceptible to more private information and higher the probability of information asymmetry (Aerts *et al.*, 2007; Elbadry *et al.*, 2010). Information asymmetry is positively and strongly linked to ownership concentration for IFIs and CFIs. Elbadry *et al.* (2015), Lin *et al.* (2017) and Byun *et al.* (2011) also produced same results in their research.

In an emerging economies, members of the founding families and related entities of the institution hold power with themselves by keeping largest amount of shares and voting rights (Byun *et al.*, 2011). This form of situation creates a conflict of interest between majority and minority shareholders, which in not found in diffused ownership. This type of equity structure in business conglomerates may encourage the management to divert resources at the cost of smaller shareholders (Bae *et al.*, 2002). Majority shareholders have an opportunities to use the information for expropriation by taking private information (Byun *et al.*, 2011). Anderson *et al.* (2009) also predict that majority shareholders can enhance opacity to restrain disclosures, which reduce the transparency in the institution. Therefore, there is a positive relation between concentrated ownership and asymmetric information. Elbadry *et al.* (2015), Lin *et al.* (2017) and Byun *et al.* (2011) concluded that ownership concentration has a positive association with informaion asymmetry.

H_5: *There is a positive relationship between ownership concentration and information asymmetry*

4.4.6 *Shari'ah* Supervisory Board and Information Asymmetry

The primary goal of SSB in Islamic financial institutions is to ensure that the goods and services provided are compliant with Islamic law. There are two forms of agency problems in Islamic financial institutions: one is a conflict of interest over shareholder wealth maximization. Second, is to make sure the operations of institution and investment is in compliance with Islamic law. *Shari'ah* scholars on SSB strengthen the credibility of institutions, which in turn results in less withdrawal and liquidity risk (Safiullah, & Shamsuddin, 2018).

SSB also increase the transparency in organization which increases the confidence of investors and reduce information asymmetry. In SSB is an extra layer to monitor the operations of Islamic financial institutions, therefore, increase the transparency (AlAbbad, & Saba, 2019). SSB can communicate the shareholders, if managers deviate from transparency. Members of SSB are ethically and morally driven rather greed, therefore, they report to shareholders truthfully (Rammal, 2006; Farook & Farooq, 2011).

Shari'ah board also play role to increase the transparency in the institution, in result, it increase the confidence of the investors (AlAbbad & Saba, 2019). Members of SSB are ethically and morally driven rather greed, therefore, they report to shareholders truthfully (Rammal, 2006; Farook and Farooq, 2011). Hence, *Shari'ah* board decrease the level of information asymmetry. Results of this study is also in line with the theory.

H_6: There is a negative relationship between size of SSB and information asymmetry

4.4.7 Corporate Governance Index and Information Asymmetry

It is proved in researchers books that efficient CG is very imperative for the accurate functioning of capital markets. Therefore, it is important for economy that capital market should play their role properly. Effective CG is vital for the efficient utilization of capital and performance of the entity. Once the CG weaken, conflict between small and big investors will increase.

Stakeholders have made many reforms in CG towards reducing the probability that one party will have more information than other one about institutions i.e. information asymmetry (Ntow-Gyamfi *et al.*, 2015). Transparency is safeguarded through the reduction in the factor of information asymmetry. In past literature, it has been admitted that corporate transparency and governance provoke good impact (Kyereboah-Colemanet al., 2006). Like For Beeks and Brown (2005) are agreed on the point that institutions with good quality of CG have good disclosure quality and are more transparent than those institutions which have weak governance structure. Many researchers suggested that good CG can protect the interest of investors, whereas investors select those institutions which have strong CG policies (Tahir *et al.*, 2019; Maali & Anis, 2017; Gompers *et al.*, 2003; Joh, 2003; Baek *et al.*, 2004; Black *et al.*, 2006; Choi *et al.*, 2007) concluded in their study that outside directors are good for the institution market valuation and shareholders benefits.

H_7: There is a negative relationship between CG and information asymmetry

Literature is available in which different researchers tried to examine the relationship between coproate governance and information asymmetry. Studies found that some variables of CG are positively related with information asymmetry and others are

negatively (Jamalinesari & Soheili, 2015). In context of Pakistan, we found very few studies which focuses on non-financial sector with a little focus on banking sectore like Rizwan (2019) and Tahir *et al.* (2019). However, the research on Islamic banking and financial sector found missing. Therefore, this is the first study that will explore the impact of corporate governanc variables on information asymmetry of financial sector.

4.5 Role of Institutional Quality on Performance, Risk Taking and Information Asymmetry of Financial Institutions

Douglass (1981), Olson (1982), and Jones (1987) have done path breaking studies which inspired policy makers and researchers to explore the significance of institutions on economic development and growth. Profound volume of literature is found on role of institutional quality (i.e. rule, regulation and legal laws) in shaping the performance of institutions. Role of institutions in economic activities would be considered as a social tecnologies (Nelson & Sampat, 2001). There are many aspects of low institutional quality i.e. pollution of corruption in institution, rights of the property, frequent change in rules and regulations and, their poor enforcement. When regulations and rules are not properly observed and follwed, consequently, market will not perform properly and uncertainty will increase (Rashid & Intartaglia, 2016).

Institutional quality can be defined as guiding principles to direct and governs the human beings to meet the expectations from one another (Winful & Agyei-Ntiamoah, 2016). Role of human and physical capital is emphasized in conventional growth models for the performance across the countries and time. It has been explained in the literature that institutions played a vibrant role in formation of human and physical capital toward the growth of economies (Winful & Agyei-Ntiamoah, 2016).

The phenomenon of institutional quality and economic performance has got high importance in researcher books. For instance, North (1994), Acemoglu *et al.* (2001), Aron (2000), and Collier (2006) concluded that institutions played very crucial role toward economic growth. Similarly, some other researcher confirmed the assertion that poor performance is due to the poor institutional quality (Ndulu, 2006; Collie, 2006; IMF, 2003). On the other hand, Jones (1999) and Acemoglu *et al.* (2002) confirmed that one of the determinant of economic growth is institutional quality.

Moreover, when rule of law is poor, cronyism, favoritism and, nepotism prevails, certainly it will effect the performace of institutions. Previous studies have empirically deduced that poor institutional quality has detrimental impact on performance of institutions (e.g Hall & Jones, 1999; Knack & keefer, 1995; Mauro, 1995; Reinert, 1999; Rodrick *et al.*, 2004; Panicos & Law, 2006; Kirch & Terra, 2012; Salti, 2015).

Likewise, Goswani & Haider (2014) concluded that government inefficieny is the fundamental casuse of poor foreign direct investment flow (FDI). Since, the role of institutions is very important for economy as whole and for the financial institutions as well. Therfore, we want to explore the relaionship between isntitutional quality (the quality of the implementation of legal rules and laws) and the performance of financial institutions in the context of CG.

Another study done on Middle Eastren and North Africa to check the impact of institutional quality on the performance of entrepreneur. This study reveals that high quality of institutions leads to the better performance of the institutions (Bastian & Zali, 2016). Likewise another study, which was done on 41 emerging economies, concluded that the rule of the institutional quality is vital for the performance of institutions. It also

concluded that institutional quality has a substantial impact on performance of stock market (Winful *et al.*, 2016).

Similarly, a study was don to check the role of institutions on economic growth of the economies. This study established a significant relationship of institutional quality on the growth of economy (Nawaz & Khan, 2014). A working paper by Asian Development Bank concluded that economies with good governance and institutional quality grew faster than others which have weak governance (Zhuang & Lagman-Martin, 2010). Likewise, Butkiewicz & Yanikkaya (2006), explore the relationship of institutional quality and democracy on the economic growth. According to this study, institutional quality is more important and vital than democracy for the economic development. Therefore, institutional quality has positive relationship with the performace of institutions in the economy.

Good quality institutions provide enabling environment, in which CG can work effectively. An effective institutional atmosphere safeguards contract enforcement and transparency and, reduces agency cost and, helps to make long term and sustainable decisions to grow the entity (Lu, Xu *et al.*, 2009). Similarly, in another research, it is depicted that, weak institutions, weaken the ability of outsider to hold accountable the insiders for their wrong decisions in a usual framework of CG (Mukherjee, 2013).

In another study, it was examined the impact institutional quality and CG on shaping export of the institutions. This study conclude that institutional quality has positive impact on exports and enhance the role of CG as a moderator (Lu, Xu *et al.*, 2009). Some other studies concluded that country institutions have strong impact on performance and internationalization strategies in emerging economies. Over

diversification is not good for performance, where institutional quality of the country is not good (Wan & Hoskisson, 2003; Hitt *et al.*, 2006).

Institutional quality has an important and positive effect on development and economic growth, according to a large body of literature. For instance khan *et al.* (2020) found that institutional quality has role in financial development of fifteen developing economies. Kutan *et al.* (2017) concluded in his study that institutional quality has role in economic development through financial development in Middle East and African economies. Another study documented that efficient and honest institutions plays role in mobilization of physical and human resources in an economy (Assane and Grammy, 2003). Wang *et al.* (2014) suggested that well developed institutional quality signifies the momentum of economic development and economic growth. In same lines, Law and Habibullah (2006) concluded that institutional quality not only plays role in economic development but also in developing the benefit.

Mardan (2017) addresses the issues faced by less developed economies, that includes constrains in fund raising, text and interest rate exemptions which restrict investment opportunities. Kuvvet and Pagano (2017) concluded that bribery is one of the core component in hampering the development of financial market. They also claimed that governance structure of country promote the board independence and expansion of new ventures.

Altunbaş and Thornton (2012) found that efficient bank credits to private sector can be used to control the corruption. Rostami *et al.* (2016) found that financial market return have strong linkages with CG measures i.e. ownership concentration, board independence and board size. Le *et al.* (2016) concluded that Institutional quality has a

role in financial development. Another study also focused on the relationship of economic performance and institutional quality (Farooq *et al.*, 2013). The above studies have provided the theoretical foundation on the role of institutional quality and CG on financial performance and economic growth.

Institutional quality plays a very significant and crucial role in growth of financial sector of emerging countries (khan *et al.*, 2020). Le *et al.* (2016) also concluded with the same results. Wasike (2017) found financial regulation moderated the impact of CG on performance of financial sector of Kenya. As per the study of Kairuthi (2010), institutional quality has played vital role in development of financial institutions in Kenya. The literature has also acknowledged the fact that supervisory practices, define well-structured banking system. Which results in good governance and financial performance (Purnamasari & Fitdiarini, 2016). La Porta *et al.* (2000) said in their study that laws of the country protect monitory shareholders from mangers and controlling shareholder from expropriation. Wasike (2007) found that CG and institutional framework are significantly related to variation in performance of financial institutions in Kenya. He also concluded that institutional quality is on of main factor in providing accountability, stability and guidance to the financial institutions.

Institutions transform social technologies in economic activities. In fact, poor enforcement of rules, lack of transparency, undefined property rights, and high level of corruption lead the economic markets to failure. Arslan and Alqatan (2020) and Arslan *et al.* (2019) concluded that institutional determinants like legal, political, corruption, cultural and values are very important to determine practices of CG in developed and developing countries. In same lines, some other studies have emphasized on the role of

institutional environment on CG practices in developing countries (Creed *et al.*, 2010; Lubatkin *et al.*, 2007).

Some scholar contended that institutional factors formed CG in international context (Creed *et al.*, 2010; Williamson, 1989). There is also growing understanding of institutional influence on CG in developed countries (Lubatkin *et al.*, 2007). It is also documented that country's political system is intimated by CG (Adegbite *et al.*, 2013). Arslan and Alqatan (2020) concluded that economy has role on corporate standard and performance and, political stability plays role toward stable economy. Similarly, in order to ensure good CG practices, it is very important that an effective, productive and reliable legislative, legal and institutional structure is developed (OECD, 2004). Roe (1991) also acknowledge the role of politics in shaping practices of CG. The principals of CG are instigated by the guidelines propagated by state and/or other regulatory bodies. The robustness of institutional frameworks in developed economies may have reassured CG enforcement mechanisms, but replication in emerging economies may not yield the same results due to a weak institutional framework (Arslan & Alqatan, 2020). Further, in same lines Young et al. (2008) stated that polices formulated for developed economies might be ineffective for underdeveloped economies owing to weak institutional framework (Gugler *et al.*, 2003) and same for CG. Further, Filatotchev *et al.* (2013) stated that ownership structure and board does affected by institutional environment.

This argument also support that the institutional environment of the country does not only effect the institutions directly but also indirectly by moderating the role of CG (Young *et al.*, 2008). Therefore, due to the sensitiveness of institutional quality for the performance of financial sector in emerging economies. IQ plays a very significant and

crucial role in in growth of financial sector of emerging countries (Khan *et al.*, 2020). Wasike (2017) found financial regulation moderated the effect of CG on performance of financial sector of Kenya. IQ has played key role in development of financial institutions in Kenya. The literature has also acknowledged the fact that supervisory practices significantly define well-structured banking system (Purnamasari & Fitdiarini, 2016). La porta *et al.* (1998) stated that laws of the country protect monitory shareholders from managers and controlling shareholder from expropriation.

Further, literature is pointed out that institutional determinants like legal, political, corruption level, cultural, and values are very important to determine practices of CG in developed and developing countries (Arslan & Alqatan, 2020; Arslan *et al.*, 2019). This argument also supports that the institutional environment of the country does not only affect the institutions directly but also indirectly by moderating the role of CG (Young *et al.*, 2008). Given these arguments, we can say that the good quality institutional environment is a prerequisite for an effective CG setup. Indeed, there exist some previous studies that have focused on the role of institutional quality towards soundness of banking sector and poverty reduction. For example, Rashid and Intartaglia (2017) indicated that financial development has a more substantial role in reducing poverty in the economy when the institutions are sound. Similarly, Rashid and Nosheen (2020) concluded that institutional quality plays a vital role towards the stability of banks. However, in the context of Pakistan, there is still a gap in the literature regarding the examination of the role of institutional quality towards performance, risk management and information symmetry in financial sector. Therefore, this study adds to the body of knowledge on the role of institutional quality by investigating how the good quality

institutional environment moderates the effect of CG structure on above mentioned aspects of the financial services sector in Pakistan. Further, the study expands the existing literature by examining whether the moderating role of institutional quality in determining the effectiveness of CG is similar for both IFIs and CIFs.

H_1: *Institutional quality plays an imporatnt role in shaping the effect of CG on performance of FIs.*

H_2: *Institutional quality play an important role in shaping the effect of CG on risk management of FIs.*

H_3: *Institutional quality plays an important role in shaping the effect of CG on information asymmetry of FIs.*

4.6 Summary and Conclusion

We attempts to present a literature review of the impact of CG on performance, risk management, and information asymmetry in this chapter. Futher, we develope hypothesis on different constructs of coroporate governance. This study will contribute in existing literature in following ways.

First, in this study, we are exploring the relationship between CG, *Shari'ah* supervisory role and performance of the financial sector. This is the first research of its kind in Pakistan, as far as we know, on Islamic and conventional financial sector. Literature on evaluating the performance of Islamic and conventional financial sector is very limited. Therefore, we are conducting this study due to its importance, timely contribution and its paucity. In view of the importance role of SSB, we did not find any study which that explored the effect of supervision of *Shari'ah* board on the performance

of IFIs in Pakistan with few exception on banking sector (Mollah & Zaman, 2015; Rehmans & Mangla, 2010)

Further, in measuring the performance and efficiency of financial sector, we include a range of market and accounting based measures. Thus our research complements to many previous studies i.e (Mollah & Zaman, 2015; Rehmans & Mangla, 2010; Adams & Mehran, 2012; Wintoki, 2012; Andres & Vallelado, 2008; Sierra *et al.*, 2006; Aebi *et al.*, 2012; Francis *et al.*, 2012; Pathan & Faff, 2013; Sheikh & Kareem, 2015).

Second, this study explores the impact of CG variables on institution risk. We did not find much literature in the context of Pakistan except few on non-financial sector that bulit the said relationship. Third, this study is unique in way that we are exploring the relationship of CG on the symmetric information. We were unable to find any study on said topic in Pakistan. By combining these two seemingly disparate fields of research, this study contributes to CG and information asymmetry research.

Forth, this study contributes to the literature in way that how institutional quality plays its role toward performance, riks management and asymmetric information of institution via CG. Therefore, in given context, this is the first research in context of Pakistan that explore the impact of CG very comprehensively on performace, risk management and informatin asymmetry. Moreover, this study explores the role of institutional quality in shaping the effect of CG on performance of financial sector in Pakistan. Some researchers worked on role of institutional quality toward the performance and soundness of financial institutions; however, it is limited to the banking sector only or on poverty in the context of Pakistan (Rashid & Nosheen, 2020; Rashid &

Intartaglia, 2017). Therefore, this work makes this study unique in aforementioned perspectives.

CHAPTER 5

DATA DESCRIPTION AND RESEARCH METHODOLOGY

5.1 Introduction

In this chapter we explain the data and empirical framework. Data are collected on an annual basis and it is an unbalanced panel data of Islamic and conventional financial institutions. These institutions include commercial banks, insurance companies, *takaful* operators and *Modarbas* companies. Independent variable is CG and dependent variables are performance, risk and information asymmetry. Likewise, we also include institution specific and macroeconomic variables. Additionally, institutional quality is used as a moderator.

The methodology is divided into different parts. The population, sample size, and data are discussed in the first section. In next section corporate variables (independent) are discussed in detail and their definitions are given. Further, dependent variables are elaborated, which include performance, risk and information asymmetry variables. In next section we analyze the inter-linkage of institutional quality with the performance of Islamic and conventional financial sector. At the end, this chapter explains the robust system-the Generalize Method of Moments (GMM) estimator proposed by Arellano and Bover (1995) and further developed by Blundell and Bond (1998) to inspect the impact of CG on performance, risk management and information asymmetry. This study explores the impact of CG on performance, risk and information asymmetry by using unbalanced panel data of Islamic and conventional financial sector.

5.2 Population, Sample Size, and Data

The financial sector of Pakistan comprises banks, insurance companies and NBFIs (Non-Banking Financial Institutions). As of 2019 number of banks operating in Pakistan was 33, with the asset size of PKR 21991 billion. Five full fledge Islamic Banks are working in Pakistan with an asset size of PKR 3633 billion (IBB, 2020), with a share of 15.3% in assets of banking industry, whereas the number and asset size of microfinance banks recorded 11 and Rs. 373.6 billion respectively (Pakistan Economic Survey 2019). Total number of insurance companies are 49 including general, life and *Takaful* companies, whereas, one re-insurance state owned company (Pakistan Economic Survey 2019-20) with an asset size of PKR 1464.6 billion (IAP, 2019-Private Insurance Sector). There was 422 NBFIs with accumulated assets of PKR 1140 billion (SECP Annual Report, 2019).

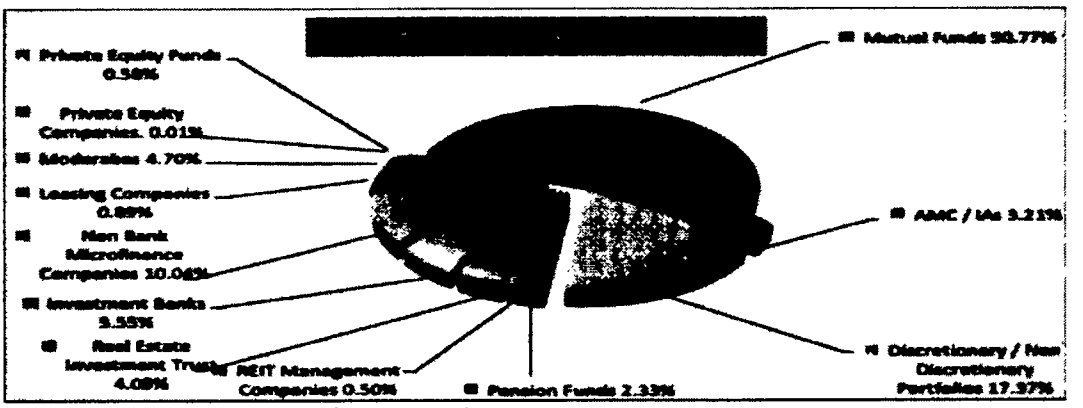
Table 5. 1 Portfolio of NBFIs in Pakistan

Sector	Number of Entities	Total Assets (In Million)	As % of total assets
Mutual Funds/Plans	297	577644	50.77
AMCs/IAs	23	36559	3.21
Discretionary/Non-Discretionary Portfolios	-	197635	17.37
Pension Funds	19	26497	2.33
REIT Management Companies	5	5722	0.5
Real Estate Investment Trust	1	46054	4.05
Investment Banks And Micro Finance Institutions	36	179917	15.59
Leasing Companies	6	10154	0.89
Modarabas	28	53453	4.7
Private Equity Companies	4	158	0.01
Private Equity Funds	3	6568	0.58
Total	**422**	**1,140,367**	**100**

Source: SECP Annual Report, 2019

Aforementioned data constitute population of this study. For sample frame, we drop the NBFIs and Microfinance institutions, since they own little proportion of asset size and further there is an issue of availability of data.

Figure 5. 1 Asset Size of NBFC



Source: SECP Annual Report, 2019

However, to represent Islamic financial institutions, we include *Modarabas* companies. In this research our focus is on financial industry of Pakistan particularly the Islamic finance industry. As stated earlier, the population of this study is both Islamic and conventional financial industry i.e. banks, insurance companies and *Modarabas*. As a sample we take three Islamic banks and five *Takaful* companies. Furthermore, twenty Modarbas are taken in sample and all are listed on Pakistan Stock Exchange. From conventional financial sector, banks and insurance companies are the major shareholders. Fifteen conventional banks are the part of this study, almost contains 80% share of banking industry. On the other side all listed insurance companies are the sample i.e. fourteen.

Table 5. 2 Banks, Insurance, *Takaful* and Modarbas

Banks

Sr.	Conventional Banks	Sr.	Islamic Banks
1	Allied Bank	1	Meezan Bank
2	Askari Bank	2	Bank Islami
3	Bank Al-Falah	3	Al Baraka Bank
4	The Bank of Khyber		
5	Bank of Punjab		
6	Faysal Bank		
7	Habib Bank.		
8	JS Bank		
9	MCB Bank		
10	National Bank		
11	Standard Charted Bank		
12	Silk Bank		
13	Summit Bank		
14	Soneri Bank		
15	United Bank		

Insurance Companies and *Takaful* Operators

Sr.	Insurance Companies	Sr.	*Takaful* Operators
1	Askari General Insurance	1	Takaful Pakistan
2	Adamjee Insurance	2	Dawood Family Takaful
3	Asia Insurance	3	Pak Kuwait General Takaful
4	Atlas Insurance	4	Pak Qatar Family Takaful
5	Century Insurance	5	Pak Qatar General Takaful
6	Crescent .Star Insurance		
7	EFU General		
8	EFU Life Assurance		
9	IGI Insurance		
10	IGI Life Insurance		
11	Jubile Life Insurance		
12	PICIC Insurance		
13	Premier Insurance		
14	Reliance Insurance		

***Modarabas* Companies**

Sr.	Company Name	Sr.	Company Name
1	Allied Rent.	13	Equity Modaraba
2	B.F.Modaraba	14	1st.Fid.Leasing
3	B.R.R.Guardian	15	Habib Modaraba
4	Cres. Stand.Mod	16	I.B.L.Modaraba
5	AL-Noor ModXD	17	Imrooz Modaraba
6	Elite Cap.Mod	18	National Bank Mod.
7	Punjab Modaraba	19	Pak Mod.
8	Paramount Mod	20	Trust Modaraba
9	U.D.L.Modaraba		
10	KASB Mod		
11	Mod.Al-Mali		
12	Orix ModarabaXD		

Secondary data are extracted from the annual financial statements of the respective institutions of each sector over the period of 2006-2017. Other sources are also used for data collection, such as SECP, SBP and Insurance Association of Pakistan and Ministry of Finance.

Figure 5. 2 Conceptual Model of Study

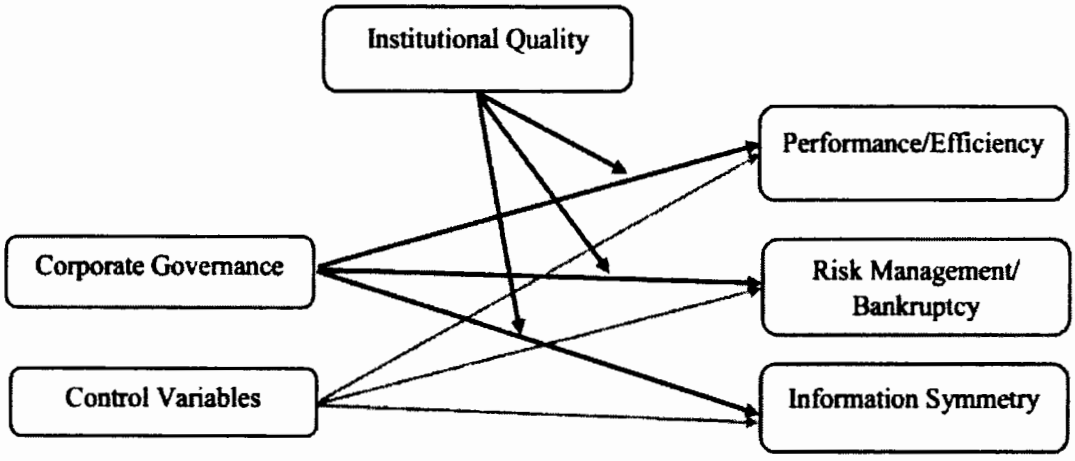


Figure 5.2 depicts research framework, which includes CG as an explanatory variable based on five separate proxies. Performance, risk management and information symmetry are on dependent side and these are measured on different proxies of performance, risk management and information symmetry. Performance is measured thorough four different proxies, risk has also further four proxies and information symmetry has further five different proxies. Additionally, institution specific and macro-economic variables are used as control variables. Institutional quality is used as a moderator. Strong institutions have an impact on the governance of the institution. If regulatory quality, law and order, and control on corruption are strong, it certainly has an impact on governance of institutional level. Further, detailed explanation of each of above mentioned aspect is given on following pages.

5.3 Variables Construction: Corporate Governance

As discussed earlier, immense literature is available on CG which shows its importance. Different researchers use diverse variables for the CG, according to their research objective and business environment. We include those CG variables that are most relevant and are available. These variables are board size, board composition, CEO duality, CEO remuneration and ownership concentration (Aslam & Haron, 2020; Nawaz, 2019; Bhagat & Bolton, 2019; Sheikh & Kareem, 2015; Ndlovu, 2014; Tariq *et al.*, 2014; Zaman, 2015; Matoussi, 2014 and Velnampy, 2013; Tornyeva & Wereko, 2012).

The role of directors towards the effective management has been emphasized and recognized in the literature (Fama & Jensen, 1983). The structure of the BOD plays a vital role toward the performance of the entity (Cerbioni & Parbonetti, 2007; Khanchel, 2007). Size of the board may negatively affect the performance of the institution (Hermalin & Weisbach, 2003), because the cost of coordination increases, and incentive of BOD (Bushman et al., 2001; Cerbioni & Parbonetti, 2007). Contrary to large board size, company-monitoring abilities increase with small board (Jensen, 1993; Yermack, 1996; Khanchel, 2007). Another aspect of CG is the duality of the role i.e. CEO and chairman of the board. It is stated in the literature that dual role reduces board independence and flexibility and, as a result the oversight role of BOD affects (Cerbioni & Parbonetti, 2007; Li *et al.*, 2008; Krause *et al.*, 2014).

The composition of the BOD i.e. inside versus outside and independent directors have been largely discussed in literature. Based on previous literature, boards with a majority of independent and outside directors are better to control and evaluate the entity's performance. This link is established by number of studies (Byrd & Hickman,

1992; Rosenstein & Wyatt, 1990; Pathan & Faff, 2013). These studies conclude that the operating performance is directly linked with the proportion of the outside directors. Independent board members are less vulnerable to the influence of the CEO.

Basuroy *et al.* (2014) suggested in their study that the compensation to the CEO generates better management behavior. Thus, the result level of customer satisfaction rise and the performance of the institution increase. They conclude that CEO compensation is an important factor for the institution value. Another study also determine that CEO compensation is positively related to institution performance (Xiao *et al.*, 2013).

Some other researchers find inconclusive results regarding ownership concentration and performance. This relationship also varies according to the industry. In some cases, they find an inverse relationship between performance and ownership concentration (Foroughi & Fooladi, 2012). Another study find substantial effect of ownership structure on the performance of financial sector (Tomar & Bino, 2012). However, Al-Saidi and Al-Shammari (2015) unable to show the relationship of ownership concentration on performance. However, implication of the agency theory suggest that ownership concentration reduces the conflict of interest and improve monitoring, which results in performance of the institution (Sheikh, 2015).

In addition to the main components of CG, Islamic financial institutions have additional layer of governance which is *Shari'ah* board. The role of *Shari'ah* board is to ensure that the activities of institution are compatible with the Islamic law (Bourakba & Zerargui, 2015). Thus, one of the key difference between Islamic and conventional financial institutions in terms of CG is existence of SSB in IFIs. In Islamic financial

institutions, the management of IFIs has an opportunity to discuss operational issues with the *Shari'ah* boards in the light of *Shari'ah* (Usmani, 1998).

Table 5. 3 Indicators for Corporate Governance

Variables	Proxy	Description	Definition
Board Size	BSIZ	Serving members of the company's board of directors	Log of board size.
Board Composition	BCOM	Independent directors are the directors who are from outside and have not material relationship with the institution.	Number of independent directors/ Total number of directors.
Ownership Concentration	OWNC	Amount of stock owned by individual stock holders or block holders	Shares held by 5 largest shareholders / Total common shares.
CEO Remuneration	CEOR	Salaries and other benefits paid to the CEO and President	CEO remuneration / Net Profit
CEO Duality	CEOD	Whether role of CEO and chair is performed by one person or differently	Hold dual Position i.e. CEO and chairman of the board
Shari'ah Board Size	SBS	Number of the members of *Shari'ah* board	Size of *Shari'ah* Board

Previous studies use *Shari'ah* board size and *Shari'ah* board attributes i.e. size, number of meeting, fee etc. as an explanatory variables as a part of CG (Aslam & Haron, 2020; Basiruddin & Ahmed, 2019; Matoussi & Grassa, 2014; Zaman & Mollah, 2015). For this research we use five variables for CG and one for *Shari'ah* governance as given in table 5.3.

5.4 Construction of Performance Proxies

There are different tools available to measure the performance of financial sector. This topic took lot of attention from the researchers. Most common tools available to gauge the accounting performance of financial sector are ROE and ROA (Aslam & Haron, 2020; Norman & Haron, 2019; Sheikh & Kareem, 2015; Zaman & Mollah, 2015; Tariq *et al.*, 2014; Matoussi, 2014; Aebi, Sabato, and Schmid, 2012; Mollah & Karim,

2012; Wereko, 2012; Hutchinson & Gul, 2004; Gani & Jermias, 2006). For efficiency, cost to income ratio is used (Rashid *et al.,* 2017). Above mentioned variables are extensively used in diffenet studies, based on their credibility, therefore we use these variable to measuer the accounting performance of institutions.

To measure the market performance of institutions in financial and non-financial sector Tobin's Q is broadly used in previous studies for instance, (Farhan *et al.*, 2020; Zaman & Mollah, 2015; Mollah & Karim, 2012; Connelly *et al.*, 2012; Shah, 2009; Ehikioya, 2009; Imam & Malik, 2007). Therefore, to measure performance of financial sector in Pakistan we use Tobin Q.

Institution specific variables are also used in this study i.e. institution size, capitalization, advances to total asset. The said variables are extensively used by many researcher for measuring the performance and efficiency of the institution i.e. (Mollah & Zaman, 2015; Sayilgan & Yildirim, 2009; Parvez *et al.* 2014; Sufian & Habibullah, 2009; Ali, Akhtar *et al.*, 2011; Sheikh & Kareem, 2015).

Macroeconomic conditions of the economy also effect the performance of financial sector, therefore, we also use few macroeconomic variables like Gross Domestic Product (GDP), Consumer Price Index (CPI) and Karachi Interbank Offer Rate (KIBOR). Previous studies explore and confirm the role of macroeconomic variable on performance of the financial sector (Mollah *et al*, 2017; Rashid *et al.*, 2017).

To explore the impact of CG on IFIs and CFIs, we used following model.

$$E_{i,t} = \beta_0 + \beta_1 E_{i,t-1} D^{IFI} + \beta_2 E_{i,t-1} D^{CFI} + \beta_3 CGC_{i,t} D^{IFI} + \beta_4 CGC_{i,t} D^{CFI} + X_{i,t}\,\lambda + e_{i,t}$$

(5.1)

Table 5. 4 Variables for Performance Model

Variables	Proxy	Description	Definition
Return on Asset	ROA	It shows the ability of institution to earn profit by utilizing its assets	Net Income/Total Asset
Return on Equity	ROE	It shows the ability of institution to earn profit by utilizing its equity.	Net Income/Total Equity
Cost to Income	CTI	It is an efficiency Measure. It describes that how efficiently resources are utilized to earn income	Operating Expenses /Operating income
Tobin Q	TQ	It provides an estimate of the value of both tangible and intangible assets, such as market power, goodwill, quality of the management, and growth opportunities	Tobin's Q Ratio= Equity Market Value/Equity Book Value
Institution Specific and Macro Economic Variables			
Institution Size	INSZ	This variable shows the size of institution, size of the institution is an advantage and contribute toward performance	Log of the total asset of the institution, a proxy for size
Capital Buffer	CAPB	It is a measure of the institution for the level of protection.	It is proportion of equity to total asset of the institution = EQ/TA
Advances to Total Asset	ADTA	How much an institution efficiently use its resources for the investment i.e. how much asset are tied up to advances	It is ratio of Net advances to total asset of the institution
Gross Domestic Product	GDP	It is the gross domestic product of the country.	It is the log of GDP
Consumer Price Index	CPI	It is a measure to gauge the increase in prices of certain goods and services.	Log of the Yearly data of inflation in country
Karachi Interbank Offer Rate	KIBOR	This is a pricing benchmark used for financing	Yearly value of the KIBOR

where, $E_{i,t}$ is a measure of performance of institution, $CGC_{i,t}$ is the proxy of CG. (D^{IFI}) and (D^{CFI}) are used as a dummy variables for Islamic and conventional financial institutions to check the differential effect on performance. $X_{i,t}$ is a set of additional explanatory institution-specific and macroeconomic variables. $e_{i,t}$ is the composed error term. λ is a vector of coefficients and β is intercept.

$$E_{i,t} = ROA_{it}, ROE_{it}, TQ_{it}, CTI_{i,t}$$

where, E is a performance and efficiently measure:

ROA = Return on Asset

ROE =Return on Equity

TQ = Tobin-Q

CTI = Operating performance of Institution

$$CGC_{i,t} = BSIZ_{it}, BCOM_{it}, OWNC_{it}, CEOR_{it}, CEOD_{it}, SBS_{it}$$

where CGC is a set of CG variables:

BSIZ = Board Size

BCOM = Board Composition

OWNC = Ownership Concentration

CEOR = CEO Remuneration

CEOD = CEO Duality

SBS = *Shari'ah* Supervisory Board Size

$$X_{i,t} = INSZ_{it}, CAPB_{it}, ADTA_{it}, \mathrm{LGDP}_t, \mathrm{LCPI}_t, \mathrm{KIBOR}_t$$

where X is a set of control variables which includes institution specific and macroeconomic variables:

INSZ = Size of the Institution

CAPB = Equity to total Asset (Capital buffer)

ADTA = Net Advances to Total Asset (Resource Utilization)

LGDP= Log of Gross Domestic Product

LCPI= Log of Consumer Price Index

KIBOR= Karachi Interbank offered rate

5.5 Variable Construction of Risk Management

5.5.1 Credit Risk/ Insolvency

Risk management gains attention due to recent past financial crisis (Lepetit & Strobel, 2015). One of the popular measures of the insolvency in financial sector is Z-score. Its popularity is due to the simplicity and it uses only accounting information. It can be used for unlisted financial institutions as well. These factors make it preferable to other market based risk measures (Lepetit & Strobel, 2015). Altman (1968) was the first researcher, who developed the Z-score for bankruptcy prediction. Further, it was extended for non-normal return distributions (Hannan & Hanweak, 1988; Boyd *et al.*, 1993)

To measure the risk and solvency of institutions, many studies use Z-Score model to measure the risk of banks, insurance, Takaful and other institutions, for instance (Rashid *et al.*, 2017; Jan & Mariumuthu, 2015; Lepetit & Strobel, 2015; Yousop *et al.*, 2014; Rahman, 2010; Chouhan & Goswami, 2014; Hayes & Hughes, 2010; Laeven & Levine, 2009; Rahman *et al.*, 2009; Blaško & Sinkey, 2006; Bandyopadhyay, 2006). Other researchers also use this model in their research. This repetaton shows the confidence of researchers on this model.

Rashid *et al.* (2017) use Z-Score model to measure the financial soundness of banking in Pakistan. Yousop *et al.* (2014) use this model to assess the financial distress in *Takaful* institutions in Malaysia. Some other studies use this model to measure the insolvency in Islamic Banks (Rahman, 2010). Similarly, Bandyopadhyay (2006) use this model to prdict the default of Indian corporate bonds. Therefore, we adopt this model to assess the default risk in financial sector in Pakistan.

$$Z - Score = (\frac{EQ}{A} + \mu_{ROA})/\sigma_{ROA} \qquad (5.2)$$

5.5.2 Operational and Liquidity Risks

In addition to solvency measuerd through Z score, we also measure other risk by using differnet ratios, namely, liquidity and operational risks. These risks are important to guage the efficeint working of institution.

Operaional risk is "the risk of loss due to failed internal processes, people and systems". Liquidity risk is a state when institution is unble to fullfil its obligation timely and investment of excess funds timely in porfitable avenues.

Previous researches also use financial ratios to measure the said riks for instance (Oz *et al.*, 2016; Imane, 2014; Ali & Sadaqat, 2011; Khan, 2013).

In additon, we use institution specific variables, which have either positive or negative relationship with different risks like operational, liquidity and insolvency. These variable are advance to total asset, institution size, and capital buffer. These institution specific variables are intensively used by many researchers around the globe for the comparison of Islamic vs. conventional financial institutions (Rashid *et al.*, 2017; Rahman, 2010; Asyah *et al.*, 2009; Tandelilin *et al.*, 2004).

Table 5. 5 Variables for Risk Model

Variable	Proxy	Description	Definition
Operational Risk	OPRSK	Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events	Operational Exp. to Income Ratio
Liquidity Risk	LIQRK	Financial institution inability to meet its obligation timely and investment of excess funds timely.	Investment to total assets.
Shari'ah Non-complinace Risk	SNCR	It is a risk which arises due to failure of Islamic financial institution to comply with *Shari'ah* rules.	SNCI/Net Income
Z-Score (Insolvency Risk/Credit Risk)	Z-Score	It is an index which is used to measure the insolvency risk of financial institutions	Z-Score: (Mean value of Return on Asset+Capital Ratio)/Return on Asset's standard deviation
Control Variables /Institution Specific Variables			
Advances to Total Asset	ADTA	How much an institution efficiently use its resources for the investment i.e. how much asset are tied up to advances	It is ratio of Net advances to total asset of the institution
Institution Size	INSZ	This variable shows the size of institution, size of the institution is an advantage and contribute toward performance	Log of the total asset of the institution, a proxy for size
Capital Buffer	CAPB	It is a measure of the institution for the level of protection.	It is proportion of equity to total asset of the institution = EQ/TA
Gross Domestic Product	LGDP	It is the gross domestic product of the country.	It is the log of GDP
Consumer Price Index	LCPI	It is a measure to gauge the increase in prices of certain goods and services.	Log of the Yearly data of inflation in country
Karachi Interbank Offer Rate	KIBOR	This is a pricing benchmark used for financing	Yearly value of the KIBOR

Further, we also use some macroeconomic variables like GDP, CPI and Karachi Interbank Offer Rate (KIBOR). Such variables are used by previous studies (Rashid & Nosheen, 2020; Mollah *et al.*, 2017; Rashid *et al.*, 2017).

$$PB_{i,t} = \beta_0 + \beta_1 PB_{i,t-1} D^{IFI} + \beta_2 PB_{i,t-1} D^{CFI} + \beta_3 CGC_{i,t} D^{IFI} + \beta_4 CGC_{i,t} D^{CFI} + X_{i,t}\,\lambda + e_{i,t} \quad (5.3)$$

where $PB_{i,t} = [\,Z - Score]$ is a measure of probability of bankruptcy of institution, $CGC_{i,t}$ is the proxy of CG as already explained. (D^{IFI}) and (D^{CFI}) are used as a dummy variables for Islamic and conventional financial institutions to check the differential effect on risk management. $X_{i,t}$ is a set of additional explanatory institution specific and macroeconomic variables. $e_{i,t}$ is the composed error term, λ is a vector of coefficients and β_1 is intercept.

$$X_{i,t} = INSZ_{it}, CAPB_{it}, ADTA_{it}, LGDP_t, LCPI_t, KIBOR_t$$

where X is a set of variables, which are already defined in previous section.

$$RTB_{i,t} = \beta_0 + \beta_1 RTB_{i,t-1} D^{IFI} + \beta_2 RTB_{i,t-1} D^{CFI} + \beta_3 CGC_{i,t} D^{IFI} + \beta_4 CGC_{i,t} D^{CFI} + X_{i,t}\,\lambda + e_{i,t} \quad (5.4)$$

where $RTB_{i,t}$ is a risk taking behavior of institution, $CGC_{i,t}$ is the proxy of CG. (D^{IFI}) and (D^{CFI}) are used as a dummy variables for Islamic and conventional financial institutions. $X_{i,t}$ is a set of additional explanatory institution specific variables. $e_{i,t}$ is the composed error term, λ is a vector of coefficients and β_1 is intercept.

$$RTB_{i,t} = LIQRK_{i,t}, \mathrm{OPRSK}_{i,t}$$

where $RTB_{i,t}$ is a risk taking behavior of institution:

LIQRK = Liquidity risk

OPRSK = Operational risk

$$X_{i,t} = INSZ_{it}, CAPB_{it}, ADTA_{it}, LGDP_t, LCPI_t, KIBOR_t$$

where X is a set of variable as already defined.

5.5.3 *Shari'ah* Non-Compliance Risk

Islamic financial institutions face some unique and explicit risks. *Shari'ah* non-compliance is one of them. SNCR arises, when the institution fails to comply with the rules and regulations prescribed by the *Shari'ah* Board and regulators. Islamic Financial Services Board (IFSB) define it as "risk arising from IFIs failure to comply with the *Shari'ah* rule and principles determined by *Shari'ah* board or the relevant body in the jurisdiction in which the Islamic bank operates" (IFSB 2005).

$$SNCR_{i,t} = \beta_1 + \beta_2 SNCR_{i,t-1} + \beta_2 CGC_{i,t} + X_{i,t}\,\lambda + e_{i,t} \qquad (5.5)$$

where $SNCR_{i,t}$ is *Shari'ah* non-compliance risk of institution, $CGC_{i,t}$ is the proxy of CG, $X_{i,t}$ is a set of additional explanatory institution specific and macroeconomic variables. $e_{i,t}$ is the composed error term. Where λ is a vector of coefficients and β_1 is intercept.

$$X_{i,t} = INSZ_{it}, CAPB_{it}, ADTA_{it}, LGDP_t, LCPI_t, KIBOR_t$$

where X is a set of control variables as explained in earlier model.

5.6 Construction of Asymmetric Information Index

Researchers suggest different measures for information asymmetry. Some of them use institution size as a proxy of information asymmetry i.e. as the institution size increases, the level of information asymmetry decrease (Vermaelen., 1981). Expenditure on research and development is positive relation with information asymmetry (Aboody & Lev, 2000). Growth opportunity is positively related with the information asymmetry (Smith & Watts, 1992). Many past studies, however, uses one or two variables to

measure information asymmetry (Cai, Liu, Qian, & Yu, 2015). However, in this study, we construct information asymmetry index (AI Index) as a comprehensive measure.

I. Institution Size

Institution size is negatively associated with information asymmetry. Larger institutions are more mature, have time-tested and established disclosure policies. Big volume institution share more information than smaller one. Larger institutions are more focused by regulators and market (Diamond & Verrecchia, 1991; Harris & Raviv, 2008). Institution size is measured by log of assets and market value of equity (Cai, Liu, Qian, & Yu, 2015).

II. Institution Age

There is a relationship between institution age and the information asymmetry. Old institutions are more mature and have established policies and procedures for the information disclosures. Therefore, where the policies and procedures are well established, it is assumed that it will reduce the information asymmetry. It is expected that old institutions are more open to information as compared to new one; investors are more familiar with old institutions. Thus, institution age is another proxy, which is used for the information asymmetry (Helwege & Liang, 1996).

III. Number of Shareholders

Some researchers argue that stock market is a source of information (Allen, 1993). As the number of shareholders increase, the volume of information increase as well, which in results reduce the information asymmetry (Jung, King & Stulz, 1996; Klein & Belt, 1994; Cai, Liu, Qian, & Yu, 2015). Because shareholder have information about the institution, some obtain information at cost and some other at free.

IV. Intangible Assets

Information asymmetry has a positive relationship with size of intangible assets. If the size of intangible assets likes brand name and technology is high then problem of information asymmetry increase. Because there is uncertainty and therefore difficult to measure the value of intangible asset. If data are not available then it is considered as zero.

V. Tobin's Q

Institutions, which have more investment opportunities faces severe issue of information asymmetry (Smith & Watts, 1992). Therefore, different proxies, which are available to measure growth and investment opportunities are used for information asymmetry (McLaughlin *et al.*, 1998). Tobin, Q is one to measure the growth opportunities of the institution.

Below model is given to estimate the effect of CG on information asymmetry.

$$AII_{i,t} = \beta_0 + \beta_1 AII_{i,t-1} D^{IFI} + \beta_2 AII_{i,t-1} D^{CFI} + \beta_3 CGC_{i,t} D^{IFI} + \beta_4 CGC_{i,t} D^{CFI} + X_{i,t}\,\lambda + e_{i,t} \qquad (5.6)$$

where $AII_{i,t}$ is a measure of information asymmetry index, $CGC_{i,t}$ is the proxy of CG. (D^{IFI}) and (D^{CFI}) are used as a dummy variables for Islamic and conventional financial institutions. $X_{i,t}$ is a set of additional explanatory institution specific and macroeconomic variables. $e_{i,t}$ is the composed error term.λ is a vector of coefficients and β_1 is intercept.

$$AII_{i,t} = INSZ_{it}, INAG_{it}, NSH_{it}, TQ_{it}, INTAS_{it}$$

where AII is asymmetric information index which is constructed by using Principal Component Analysis (PCA).

Table 5. 6 Information Asymmetry Variables

Variable	Proxy	Description	Definition
Institution Size	INSZ	This variable shows the size of institution, which is measured by the asset size of the institution. Large institution has less problem of information asymmetry as compared to small institution.	Size = Log of assets
Institution Age	INAG	This variable denote the number of years from its inception. Old institution are less vulnerable to information asymmetry as compared to new institutions.	INAG: number of years from inception.
Number of Shareholders	NSH	By increasing the number of shareholder the volume of information increases, results less information asymmetry.	NSH: Total number of shareholders
Tobin'Q	TQ	It provides an estimate of the value of assets of institution and growth opportunities.	Tobin's Q Ratio= Equity Market Value/Equity Book Value
Intangible Asset	INTAS	It includes the asset such as market power, goodwill, quality of the management and etc	INTAS: Value of intangible asset
Control Variables/Institution Specific Variables			
Leverage	LEV	Financial leverage of the company which is equal to company's total debts divided by its total assets	LEV = Total Debt/ Total Asset
Opportunities for Growth	GRTOPR	Institution with high growth opportunities faces information asymmetry problems.	GO = Market Price/ Earnings Per Share
Gross Domestic Product	LGDP	It is the gross domestic product of the country.	It is the log of GDP
Consumer Price Index	LCPI	It is a measure to gauge the increase in prices of certain goods and services.	Log of the Yearly data of inflation in country
Karachi Interbank Offer Rate	KIBOR	This is a pricing benchmark used for financing	Yearly value of the KIBOR

INSZ = Size of Asset of institution

INAG = Age of institution

NSH = Number of Shareholders

TQ = Tobin Q

INTAS = Intangible asset

$$X_{i,t} = LEV_{it}, \mathrm{GO}_{it}, \mathrm{LGDP}_t, \mathrm{LCPI}_t, \mathrm{KIBOR}_t$$

where $X_{i,t}$ is a measure of additional explanatory institution specific variables that includes:

LEV = Leverage

GRTOPR = Growth Opportunities

LGDP, LCPI and KIBOR are already defined in previous models.

5.7 Institutional Quality

The role of institutions is very important toward identifying the restriction, which could be imposed on stakeholders of institution. Legal rules of the country strengthen the right of shareholder and on other hand make managers accountable. This accountability makes the CG to function properly (Himaj, 2014). It is widely recognized by the institutional economist that legal, cultural and political are important factors that affect management of institution (Demirguc-Kunt & Maksimovic, 1998; La Porta *et al.,* 1997a,b). CG issued are dealt as per the political and legal system of the society. It has been widely documented that how cultural, political and legal institutions interact with financial institution and how it impact the economic growth and efficiency (Fligstein 1990; Bebchuk & Roe, 1999; Fligstein, 2001; Hall & Soskice 2001; Roe, 2003).

Deficiencies in institutions like inefficient legal framework, weak enforcement of rules and corruption are the sources of instability that results in hampering of innovations and growth (La Porta *et al.*, 1998; Doh *et al.* 2003). Usually new institutions are small (Kirchhoff, 1994), these are subject to the resource constrains. Market entry of new institution in emerging economies are difficult due to the weak institutions (Lechner & Pfeiffer1993). In most of the developing economies, entrepreneurs face weak institution that hamper the institution management and discourage the business activities (Bloom & Van Reenen, 2010; Filatotchev, Jackson, & Nakajima, 2013). The employment of resources is depending on the quality of institutional framework, which either prohibit or enable entrepreneur from hefty profit. Institutions with high quality enhance the entrepreneurial activities, though low quality institutions incite unproductive entrepreneurial activities (Alonso & Garcimartín, 2013).

As institution plays important role toward the performance of the business entities in the economies. Institutional quality/governance is an authority, which is exercised in a country. There are international organizations which measure the quality of the institutions of different countries around the globe i.e. The Worldwide Governance Indicators by World Bank, The International Country Risk Guide by PRS group, The Heritage Foundation, Freedom House and, etc. In this study, we use Worldwide Governance Indicators (WGI) by World Bank, due to the relevance and availability. Institutions are divided in three categories legal, political and economic (Kuncic, 2013). Detail of the proxies is given below.

Table 5. 7 Institutional Proxies

Variables	Proxy	Description
Legal Institutions	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.
Political Institutions	Control of Corruption	Reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.
Economic Institutions	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.

Following model are used to check the role of institutional quality on different aspect of this study through CG.

$$E_{i,t} = \beta_0 + \beta_1 E_{i,t-1} D^{IFI} + \beta_2 E_{i,t-1} D^{CFI} + \beta_3 CGC_{i,t} D^{IFI} + \beta_4 CGC_{i,t} D^{CFI} + \beta_5 CGC_{i,t} D^{IFI} \times IQ_{i,t} + \beta_6 CGC_{i,t} D^{CFI} \times IQ_{i,t} + \beta_7 IQ_{i,t} + X_{i,t}\lambda + e_{i,t} \quad (5.7)$$

This model is constructed to check the moderating role of institutional quality on performance through CG.

$$PB_{i,t} = \beta_0 + \beta_1 PB_{i,t-1} D^{IFI} + \beta_2 PB_{i,t-1} D^{CFI} + \beta_3 CGC_{i,t} D^{IFI} + \beta_4 CGC_{i,t} D^{CFI} + \beta_5 CGC_{i,t} D^{IFI} \times IQ_{i,t} + \beta_6 CGC_{i,t} D^{CFI} \times IQ_{i,t} + \beta_7 IQ_{i,t} + X_{i,t}\lambda + e_{i,t} \quad (5.8)$$

Model 5.8, helped us to check the role of institutional quality via CG on solvency of institution.

$$SNCR_{i,t} = \beta_0 + \beta_1 SNCR_{i,t-1} D^{IFI} + \beta_2 SNCR_{i,t-1} D^{CFI} + \beta_3 CGC_{i,t} D^{IFI} + \beta_4 CGC_{i,t} D^{CFI} + \beta_5 CGC_{i,t} D^{IFI} \times IQ_{i,t} + \beta_6 CGC_{i,t} D^{CFI} \times IQ_{i,t} + \beta_7 IQ_{i,t} + X_{i,t}\lambda + e_{i,t} \quad (5.9)$$

By using this model, we checked the role of institutional quality on Shari'ah non-compliance risk through CG.

$$RTB_{i,t} = \beta_0 + \beta_1 RTB_{i,t-1} D^{IFI} + \beta_2 RTB_{i,t-1} D^{CFI} + \beta_3 CGC_{i,t} D^{IFI} +$$

$$\beta_4 CGC_{i,t} D^{CFI} + \beta_5 CGC_{i,t} D^{IFI} \times IQ_{i,t} + \beta_6 CGC_{i,t} D^{CFI} \times IQ_{i,t} + \beta_7 IQ_{i,t} + X_{i,t}\,\lambda + e_{i,t}$$

(5.10)

Model 5.10 explained the role of CG toward risk taking behavior of financial institutions via institutional a quality.

$$AII_{i,t} = \beta_0 + \beta_1 AII_{i,t-1} D^{IFI} + \beta_2 AII_{i,t-1} D^{CFI} + \beta_3 CGC_{i,t} D^{IFI} + \beta_4 CGC_{i,t} D^{CFI} +$$

$$\beta_5 CGC_{i,t} D^{IFI} \times IQ_{i,t} + \beta_6 CGC_{i,t} D^{CFI} \times IQ_{i,t} + \beta_7 IQ_{i,t} + X_{i,t}\,\lambda + e_{i,t} \quad (5.11)$$

Equation (5.11) is used to explain the relationship of CG with information asymmetry by using institutional quality as a moderator.

$$IQ_{i,t} = ROL_{i,t}, COC_{i,t}, RQ_{i,t}$$

where,

$IQ_{i,t}$ = It is a measure of institutional quality index and:
ROL = Rule of Law
COC = Control of corruption
RQ = Regulatory quality

5.8 Estimation Method: The Generalize Method of Moments (GMM) Estimator

5.8.1 Generalize Method of Moments Estimator (GMM)

GMM is a common method for estimation in econometric models. It provides solutions for the diversified econometric problems. Linear moment conditions are also fulfilled by this technique which are specified in different econometric models for estimation of equations. This method was initially introduced by Holtz-Eakin *et al.* (1988) and Arellano-Bond (1991). This method was further developed by Arellano and Bover (1995) and Blundell and Bond (1998) in a series of papers. This estimator is used

for dynamic panel data and emerged as a most common method for estimation among researchers.

This is being used in many empirical studies because of its advantages over other estimators of panel data. This estimator was designed for the situation where time periods are small and cross sections are greater. GMM estimators are good in case there is non-normality in dependent variables in an econometric model (Blundell & Bond, 1998). Further, they recommended that by adding lagged, finite sample bias can be mitigated. Therefore, performance of the model can be increased by reducing finite sample bias.

Random-effects and fixed-effects models are also used for the estimation in panel data. We used both model for the estimation, however, the results of both models i.e. fixed and random effects were not satisfactory. Therefore, we moved to the alternate model Generalized Least Square (GLS). Furthermore, after regressing the model through GLS, we estimated the model through Generalized Method of Moments (GMM) estimator. Studies on CG normally confronted with the econometric issue of endogeneity, therefore, the researchers had to move toward GMM because GMM estimator yields effective results in this case. Endogeneity is the limitation of the earlier models. The issue of the endogeneity is pervasive in the data of CG and efficiency as concluded in past studies (Flannery & Hankins, 2013).

Fixed effect model can only cater with the issue of heterogeneity but not with correlation among error term and the lag dependent variable. Since, correlation is a function of 1/t, therefore, fixed effect model is appropriate where data set is for longer time period. However, in finance usually data consists many cross-sections and limited time periods. This type of data yields bias results on fixed effect model. OLS estimators

render upward biasness whereas, fixed effect model is downward bias and this biasness becomes higher as the time period decreases (Nickell, 1981; Lee & Yu, 2014).

There are certain advantages to use two step system GMM estimator. It mitigates cross-sectional correlation and endogeneity problem and allowing researchers to use first difference instruments. Second order serial correlation is tested through the Arellano and Bond (1991) test. System-GMM is preferred over other estimators in contemporary estimation techniques. With few exception, generally two step system GMM is considered reliable in production of empirical results as compared to one step estimation models (Shah, 2019). However, no one is certain about the preference of one over other. Likewise, for the selection of optimal set of instruments, there is no well-developed mechanism. Further, the use of instruments in large number in regression analysis may results in the problem of "many instruments". This issue may be more disturbing in case of limited sample size for analysis. To cater with such type of issue we use Sargan test (Sargan, 1958). This test used to detect over identified restrictions to ensure the validity of the instruments for the estimation.

Validity of these instruments is depending on second order serial correlation. If there is no second order serial correlation then these instrument are valid. Reliability of the GMM is depending upon the validity of instruments. Therefore, for the said reasons Sargan test is used for the validity of instruments and Arellano-Bond (AR) is used for the second order serial correlation in residuals.

5.8.2 Sargan Test

Instrumental variables rise by increasing the time periods. Instrumental variables are added for estimation to curb the issue of endogeneity and these are the additional

variables in the data. The addition of the instrumental variables is validated through Sargan test (Sargan, 1958). This test is used for the over identification restriction. Null hypothesis of the test is that over identifying restrictions are valid and model is correct for specification. Therefore, null hypothesis must not be rejected for the validity of results. Literature states that rejection of the null hypothesis is not good for the validity of the results (Vateva, 2014). If p-value is less than 0.05 results will rejected.

5.8.3 Arellano Bond Test

We used this test for detecting serial correlation. Second order correlation must not exist for reliability of GMM. Mathematically we can write as;

$$E\,(E_{i,t} - E_{i,t-1}) = 0 \qquad (5.12)$$

Null hypothesis of this test tells that there is no serial correlation in variables and serial correlation is checked at two level in this test. The p-value of the first test should be less than 0.05, which depicts that there is serial correlation in the data. The p-value of the second level should be more than the 0.05, which depicts that there is no serial correlation in the data. Therefore, we use the Arellano Bond test to check the issue to serial correlation for the post analysis of GMM regression based upon the previous literature (Shehata & Mickaiel, 2013).

5.8.4 Principal Component Analysis (PCA)

Checking the effect of CG on efficiency, risk management, and information asymmetry is one of the goal of this study. For the fulfilment of said aim, PCA method is used to construct the different indexes i.e. CG index, Information asymmetry index and institutional quality index. PCA is used due to different advantages. First, this instrument helps us to construct a single unique index for each institution by aggregation the

available information. Further, this instrument can control the problem of multicollinearity; this could arise when many different CG variables are introduced separately in same regression (Agrawal and Knoeber 1996). This is very important to control the potential interrelation among different variables of CG, as it is known that to cater the agency problem different mechanisms of CG may work as substitutes (Peasnell *et al.*, 2003; Lasfer 2006)

Furthermore, the PCA produces the weight of each variable of CG automatically. Therefore, the variance in set of different corporate variables is much explained in the index of CG, made through PCA. Consequently, there is no need of predetermination of weights (Ammann *et al.,* 2011). However, Adams et al., (2005) and Cremers and Nair (2005) have created ranking variables CG based on the supposition that each variable of CG have equal weight and contribution for the index of CG. Due to above mentioned advantages of PCA, many previous studies have relied on this technique to condense the data in one single index by losing least variation in data (Florackis & Ozkan 2009; Veprauskaitė & Adams, 2013; Tarchouna & Bouri, 2017; Shaidullina & Ikhsanova, 2019).

Principal component calculation can be minimized to singular decomposition of data matrix or covariance matrix by calculating eigenvalues and eigenvectors of original data. Some variables in data have more influence while other have little effect, which can be neglected while creating model. In contrast to the number of parameters that specify the object structure, the principal component analysis takes into account a smaller number of functions, but saves a lot of structure information. PCA is based on analysis of correlation matrix.

$$R = \begin{pmatrix} 1 & r_{12} & \cdots & r_{1n} \\ r_{21} & 1 & \cdots & r_{2n} \\ \cdots & \cdots & \cdots & \cdots \\ r_{n1} & r_{n2} & \cdots & 1 \end{pmatrix} \quad (5.13)$$

where r_{xy} is coefficients of linear pair correlation between two parameters x and y.

r_{xy} is determined by following equation,

$$r_{xy} = \frac{\overline{xy} - \bar{x}\bar{y}}{\sigma_x - \sigma_y} = \frac{n\sum_{i=1}^{n} x_i y_i - \sum_{i=1}^{n} x_i \sum_{i=1}^{n} y_i}{\sqrt{(n\sum_{i=1}^{n} x_i^2 - (\sum_{i=1}^{n} x_i)^2)(n\sum_{i=1}^{n} y_i^2 - (\sum_{i=1}^{n} y_i)^2)}} \quad (5.14)$$

Variables are dimensionless in correlation matrix, which is important in scenario of different measurement units of variables. Parameters influence on each other is showing in this matrix, eigenvalues and eigenvectors allows to estimate the degree of relationship among parameters. The coefficient r_{xy} ranges from -1 to 1of linear pair correlation. Correlation is high if the value is closer to 1 or -1, zero shows no correlation. For $-1 < r_{ij} < 0$, if value of one indicator increases the value of other indicator decreases and for $0 < r_{ij} < 1$, the relationship is positive i.e. if one value increase the other will also increase. $r_{xy} = 1$, for all diagonal elements.

By calculation of the correlation matrix's eigenvalues and eigenvectors (Mirzadzhanzade & Stepanova, 1977), linear decomposition of principal component's coefficients obtained. Which contained information of aggregate change, the mutual duplication and complementarity of the variables.

The principal components are linear combinations composed of independent variable (x), with correlation among each other:

$$F_j = \sum_{i=1}^{n} {a_{ij}}^k x_i, \text{ where i,j=1,2....n} \quad (5.15)$$

The choice of linear combination of independent variables is not arbitrary, but strictly defined, i.e. the purpose of PCA is the linear transformation of the n characters $(x_1, x_2, \ldots\ldots, x_n)$ in to a new set of K independent random variables $(F_1, F_2, \ldots\ldots, x_k)$, these are arranged in way of decreasing influence on the aggregate influence of original data.

Principal components describe and classify the variables in groups by their contribution to the change in the overall structure. The contribution is ranked by the variance for each principal component. Linear combinations that describe the principal components (factors) are displayed, in decreasing order of eigenvalues (Shaidullina & Ikhsanova, 2019).

5.9 Summary and Conclusion

In this chapter we discussed data and empirical framework. We have collected unbalanced panel data of Islamic and conventional financial institutions. Further, we built independent and dependent variables. Moreover, we discussed institution specific and macroeconomic variables and their rational to be used in this study. We started with the model in which the impact of CG is investigate on performance of IFIs and CFIs. Next model is constructed to check the relationship of CG with risk taking behavior of IFIs and CFIs. Moreover, we explored the model to check the relationship of CG with information asymmetry. To check the impact of CG with interaction term of institutional quality, we have constructed different models for each dimension.

In addition, this chapter explain the Generalize Method of Moments (GMM) estimator. For the validity Sargan and Arellano Bond test are discussed. To construct the indexes, Principal Component Analysis technique is discussed.

In panel data, generally two approaches, fixed random-effects are availed. In order to determine the suitable from one of them to have accurate estimates, we applied the Hausman's (1978) specification. But the results of both the random effects and the alternative the fixed effects indicated to move to alternate method of Generalized Least Square Method (GLS). After regressing the models through GLS, we moved to adopt GMM estimator because to mitigate the problem of endogeneity effectively System GMM estimator is suitable. However, this is limitation of earlier two econometric techniques. Therefore, we adopted the System GMM estimator to investigate the relationship of CG on performance, risk management and information asymmetry.

Further as stated above, we preferred this technique over others due to problem of endogeneity. Because, this model handle the problems of endogeneity, autocorrelation and also deal with the non-stationary process in data (Hayat, 2018). It removes endogeneity "internal transforming the data". Transforming is a statistical process in which past values of variables are subtracted from present ones. Therefore, this process (internal transformation) decreases the number of observations to enhance the efficiency of system GMM (Ullah *et al.*, 2018). System GMM estimates two questions, one is "level form" and other one is "difference form", former utilizes suitable lag level as an instrument and later uses lag first difference as an instrument. Both sets of moments conditions are combined by system GMM as a linear estimator and it cover both difference and level equations (Mileva, 2007). System GMM is suitable for this study as it fulfills the basic requirement for applying GMM i.e. cross-section (N) should be greater than time series (T). Therefore, this study fulfills the required conditions.

CHAPTER 6

STATISTICAL RESULTS AND DISCUSSION

6.1 Introduction

In this chapter, results of empirical models are discussed. Sample includes commercial banks (Islamic and conventional), insurance companies, *takaful* operators and *Modarbas*. In first section, we discuss the descriptive statistics of industry. In Section 2, regression analysis is interpreted. First, we interpret the relationship of CG variables with different performance measures. Afterward, the relationship of institutional quality as a moderator is explored.

Further, the relationship of CG with different measures of risk s explored by using regression models. Firstly, relationship of the each variable of CG with risk measures is probed, afterward, the relationship of CG index with institutional quality is explored. Additionally, SNCR and its relation with CG and *Shari'ah* governance is also investigated by using regression models. In this section the impact of CG variables on SNCR are elaborated.

In last section, we investigate the impact of CG with information asymmetry on Islamic and conventional financial institutions. The relationship of CG index with moderating impact of institutional quality is explored by using different models as given in methodology section. Overall, these models are adopted to investigate the relationship of CG with the performance, risk management and information asymmetry of financial institutions in Pakistan.

6.2 Descriptive Statistics

In this section descriptive statistics are used to explain data. This is a technique to

explain the large set of data in quantitative description form with simple measures. These descriptive statistics are further categorized in different measures like mean, standard deviation, minimum and maximum. With the help of central tendency (mean) and spread (minimum and maximum) large number of data are explained in simple and understandable way (Jing, 2017).

Descriptive statistics are given in Table 6.1. Statistics pertain to all independent, dependent, control and macroeconomic variables are given in table below. Average board size is seven, whereas minimum size of the BOD is three and maximum is fourteen. The average size of the independent BOD is one. However, some of the institutions have not even one independent directors, while maximum number of independent directors at one time is eight. If CEO is playing dual role it is equal to 1 otherwise 0. As per the data both type of roles are existed in financial sector of Pakistan. Mean of the size of *Shari'ah* board is 1.365, whereas, board size varies between 0 and 7 (some of the *Mudaraba* companies do not had even a single board member in early years of data). Average remuneration of the CEO is Rs. 25 million per year. This varies from Rs. 0.2 m. (Crescent Insurance, 2012) to Rs. 37.7 million (Faysal Bank, 2007). Ownership concentration is calculated as the percentage of the shares held with five large numbers of shareholders. The average of ownership concentration is 64%, with minimum 15% and maximum 100%. The reason behind high concentration of ownership is the cultural of family owned businesses in Pakistan.

Profitability measures are ROE, ROA, CTI and TQ. The average of ROE is 0.0002 percent, whereas minimum is -16.8 (Pak Kuwait Takaful, 2015) and maximum 10.5 percent (PICIC Insurance, 2017). Mean value of ROA is 0.035% with minim -

0.935% (Al Baraka, 2007) and maximum 0.818% (First Elite, 2006). Next measure is cost to Income ratio, the average is 0.4, which ranges from -715.8% (First Pak Modarba, 2009) to 139.749% (Summit Bank, 214). Mean of Tobin Q is 1.25 with maximum value 32.70 (EFU Insurance, 2008) and minimum -63.035 (PICIC Insurance, 2017).

Table 6. 1 Descriptive Statistics of Overall Industry

Variable	Obs.	Mean	Std. Dev.	Min	Max
CG Variables					
BSIZ	678	7.183	2.092	3	14
BCOM	678	0.999	1.355	0	8
CEOD	677	0.535	0.499	0	1
CEOR*	674	25.19	34.47	0.20	377.0
OWNC	678	64.062	21.784	15	100
Profitability Measures					
ROE	678	0.0002	1.25	-16.814	10.505
ROA	678	0.035	0.107	-0.938	0.8189
CTI	680	0.4	31.179	-715.8	139.749
TQ	610	1.258	3.776	-63.035	32.706
Risk Measures					
OPRSK	678	1.937	28.431	-616.701	215.873
LIQRK	677	0.291	0.242	0	0.926
ZSCR	678	3.046	5.301	-3.792	53.879
SNCR	266	0.0003	0.0025	0.00	0.0243
Information Asymmetry Proxies					
Log-INSZ	678	9.785	1.268	6.119	12.429
INAG	678	25.562	19.33	1	85
# of Shareholders	654	9255.456	16745.044	5	109200
Log-INTA	678	5.109	3.51	0	10.44
TQ	610	1.258	3.776	-63.035	32.706
Institutional Proxies					
Regulatory Quality	12	-0.615	0.065	-0.72	-0.48
Rule of Law	12	-0.832	0.072	-0.97	-0.72
Control of Corruption	12	-0.924	0.116	-1.09	-0.78
Institution Specific Variables					
INSZ	678	9.785	1.268	6.119	12.429
CAPB	678	0.102	0.208	0.008	0.960
ADTA	678	0.556	0.277	0.0	0.946
LEVER	678	0.604	0.311	0.011	0.980
GRTOPR	610	-9.905	574.75	-14106.192	907.627
Macroeconomic Variables					
Log-GDP	12	14.275	0.575	13.97	14.539
Log-CPI	12	2.24	0.11	2.119	2.331
KIBOR	12	10.706	2.498	6.4	14.8
*CEOR is in millions Rupee					

Measures of the risks are operational risk, liquidity risk, Z score and SNCR. The average of the operational risk is 1.93 with minimum -616.7 (Pak Qatar General Takaful, 2007) and maximum 215.8 (First Al Noor Modaraba, 2016). Liquidity risk ranges from 0 to 0.926 (IGI General, 2010) with average of 0.291. Next risk measure is Z-score with mean of 3.04. The maximum value of this variable is 53.87 (Adamjee, 2017) and minimum value -3.79 (PICIC, 2017). Average of SNCR is 0.003 with minimum score zero and maximum 0.024.

Log of institution size, which is the proxy of information asymmetry, varies from 6.11 to 12.43 with mean of 9.875. Average age of the financial institutions is 25.5 years, ranges from one year to eighty-five years. Number of shareholders varies from 5 to 109200 and the mean of the number of shareholders is 9255. Next proxy in log of intangible asset, the average of log is 5.1 with maximum value of 10.44 and minimum is zero. Range of ownership concentration varies from 15% to 100% with standard deviation 21.7.

Institutional proxies are regulatory quality, rule of law and control of corruption. The average of regulatory quality is -0.615, with maximum value -0.48 and minimum -0.72. Further, the mean of rule of law is -0.832, which ranges from -0.97 to -0.72. The values of control of corruption vary from -1.09 to -0.78 with mean of -0.924.

Institution specific variables are institution size, capital buffer, advances to total asset, leverage, and growth opportunities. Capital buffer ranges from .0083 (Summit, 2013) to 0.960 time (Crescent, 2014) with mean of 0.102. The average of advances to total asset is 0.556, which varies from 0 to 0.946. Leverage ranges from 0.011 to 0.980 (First Elite Modarba, 2006) with mean of 0.604. The mean of the growth opportunities is

-9.90 with maximum value 907.62 and minimum -14106.1.

Macroeconomic variables are log of GDP, Log of CPI and KIBOR. The average of log of GDP is 14.27 with standard deviation of 0.575. The maximum value is 14.53 and minimum value is 13.97. Mean of the log of CPI is 2.24 and standard deviation 0.1, which ranges from 2.11 to 2.33. The average of KIBOR is 10.706 with maximum value 14.8 and minimum is 6.4.

Descriptive statistics for the conventional and Islamic financial institutions are given in table 6.2. On first stage descriptive statistics of the CG variables are given. Average of the board size for conventional is 8.15 whereas, average of the board size for Islamic is 6.16. Maximum size of the board for conventional is 13 whereas, for Islamic it is 14. The average of the number of independent directors for the conventional institutions is 1.36 and for Islamic is 0.61.

Mean of the CEO's duality for conventional institutions is 0.92 whereas, for Islamic Financial institutions is 0.13 i.e. conventional institutions CEOs are more powerful. Next CG variable is CEO remuneration, average yearly remuneration paid to the CEOs of conventional financial institutions is higher than the CEOs of Islamic financial institutions which are Rs. 36.7m and Rs. 12.9m respectively.

The average of the ownership concentration for conventional institutions is 67.7%, whereas, for Islamic financial institutions, it is 60.1%. The maximum percentage is 99 and 100 respectively for conventional and Islamic. Mean value of *Shari'ah* board is 1.14, with minimum zero and maximum 4 members.

Table 6. 2 Descriptive Statistics – Conventional & Islamic Financial Institutions

Variable	Obs.	Mean	Std. Dev.	Min	Max
CG Variables					
$BSIZ^{CFI}$	347	8.156	1.52	4	13
$BSIZ^{IFI}$	331	6.163	2.126	3	14
$BCOM^{CFI}$	347	1.369	1.502	0	8
$BCOM^{IFI}$	331	0.61	1.051	0	4
$CEOD^{CFI}$	346	0.922	0.269	0	1
$CEOD^{IFI}$	331	0.13	0.337	0	1
$CEOR^{CFI}$	347	36.77	41.96	0.20	377.00
$CEOR^{IFI}$	327	12.92	17.03	0.30	100.00
$OWNC^{CFI}$	347	67.764	20.162	15	99
$OWNC^{IFI}$	331	60.181	22.754	23	100
SBS^{IFI}	331	1.147	1.245	0	4
Profitability Measures					
ROE^{CFI}	347	0.114	0.678	-2.763	10.505
ROE^{IFI}	331	-0.119	1.641	-16.814	1.206
ROA^{CFI}	347	0.025	0.083	-0.616	0.706
ROA^{IFI}	331	0.045	0.465	-0.938	0.8189
CTI^{CFI}	348	2.184	10.501	-66.592	139.749
CTI^{IFI}	332	-1.47	43.263	-715.8	88.451
TQ^{CFI}	347	2.117	4.822	-63.035	32.706
TQ^{IFI}	263	0.125	0.416	0	2.544
Risk Measures					
$OPRSK^{CFI}$	347	2.714	6.679	-12.239	60.466
$OPRSK^{IFI}$	331	1.122	40.128	-616.701	215.873
$LIQRK^{CFI}$	347	0.426	0.214	0	0.926
$LIQRK^{IFI}$	330	0.149	0.181	0	0.808
$ZSCR^{CFI}$	347	5.176	6.579	-3.792	53.879
$ZSCR^{IFI}$	331	0.812	1.574	-3.144	6.505
$SNCR^{IFI}$	266	0.0003	0.0025	0.00	0.0243
Information Asymmetry Proxies					
$INSZ^{CFI}$	347	10.535	1.121	7.836	12.429
$INSZ^{IFI}$	331	9	0.878	6.119	11.893
$INAG^{CFI}$	347	33.527	23.084	1	85
$INAG^{IFI}$	331	17.211	8.436	1	37
$NSHR^{CFI}$	335	14635.642	21507.628	30	109200
$NSHR^{IFI}$	319	3605.417	5235.759	5	40604
$INTAS^{CFI}$	347	6.299	3.162	0	10.44
$INTAS^{IFI}$	331	3.861	3.427	0	9.5
TQ^{CFI}	347	2.117	4.822	-63.035	32.706
TQ^{IFI}	263	0.125	0.416	0	2.544
$OWNC^{CFI}$	347	67.764	20.162	15	99
$OWNC^{IFI}$	331	60.181	22.754	23	100
Institution Specific Variables					
$INSZ^{CFI}$	347	10.535	1.121	7.836	12.429
$INSZ^{IFI}$	331	9	0.878	6.119	11.893
$CAPB^{CFI}$	347	0.192	0.257	0.083	0.960
$CAPB^{IFI}$	331	0.0082	0.047	.0014	0.858
$ADTA^{CFI}$	347	0.671	0.251	0.00	0.946
$ADTA^{IFI}$	331	0.434	0.251	0	0.930
$LEVER^{CFI}$	347	0.742	0.997	0.244	0.979
$LEVER^{IFI}$	331	0.460	0.309	0.0117	0.98
$GRTOPR^{CFI}$	347	-26.737	758.606	-14106.192	314.904
$GRTOPR^{IFI}$	263	12.303	83.584	-246.588	907.627
CEOR is in million rupee					

The detail regarding statistics of profitability measures are as follows. The average of ROE for CFIs is 0.114 and for IFIs is -0.199, from the statistics conventional financial institutions ROE is higher than Islamic. Maximum ROE for conventional is 10.5, whereas for Islamic this figure is only 1.02. These statistics shows higher level of ROE for CFIs as compared to IFIs is better.

The average of ROA is 0.025 & .045 for conventional and Islamic respectively. Further, maximum values for ROA are 0.70 and 0.818 respectively for conventional and Islamic. Mean value of cost to income ratio (CTI) for conventional is 2.18 and for Islamic it is -1.47. The maximum value for conventional is 139.74 and for Islamic it is 88.451. The average value of Tobin q for conventional is higher than Islamic. Specifically, these values are 2.11 and 0.125 respectively for conventional and Islamic financial institutions. The higher side value is higher for conventional in comparison of Islamic which is 32.7 as compared to 2.54.

Proxies for risk measures are operational, liquidity, Z-score (solvency) and SNCR. The average of operational risk is 2.71 for conventional and 1.12 for Islamic. Maximum value for conventional is 60.46 and for Islamic is 215.87. On average CFIs are more risky than IFIs on operational risk. Maximum value of liquidity risk for conventional is 0.926 and for Islamic is 0.808. While the average are 0.426 and 0.149 for conventional and Islamic respectively. The average of Z-score for conventional is 5.17, whereas, for Islamic is 0.812. The maximum value for conventional is 53.87 and for Islamic is 6.50. Results show that conventional institutions are more solvent than Islamic. Mean value of *Shari'ah* non-compliance risk is 0.0003, with minimum 0 and maximum 0.024. SNCR only pertain to Islamic financial sector.

To measure the information asymmetry different proxies are used which include institution size, institution age, and number of shareholders, intangible asset, and Tobin q. The average of log of institution size for CFIs is 10.53. The maximum value for conventional is 12.429 and for Islamic it is 11.89. Mean value of institution age for conventional is 33.5 and for Islamic it is 17.2, i.e. the age of conventional sector is higher than Islamic. Maximum age for CFIs is 85 years, while for IFIs it is 37 years. Next proxy for information asymmetry is number of shareholders. The average of number of shareholders for CFIs is 14635.64 and for Islamic it is 3605.41. The maximum number of shareholders for CFIs is 109200 and for Islamic it is 40604. This shows that the number of shareholders are higher for conventional than Islamic. Mean of the log of intangible assets for CFIs are 6.29 with maximum value 10.44.However, mean of the log of intangible asset for Islamic is 3.86 with maximum value 9.5. Next variable is Tobin q, which is already discussed.

Institution specific variables are institution size, capital buffer, advances to total asset, leverage and growth opportunities. Institution size has already been discussed. The average of the capital buffer for CFIs is 0.192 and for Islamic it is 0.0082, whereas, maximum values are 0.960 & 0.858 for conventional and Islamic respectively. Statistics show that CFIs capital is higher than IFIs. The average of the ratio of advances/investment to total asset for the CFIs is 0.671 with maximum value is 0.946. While the average for IFIs is 0.434 and maximum value is 0.930. Again on this ratio CFIs are performing well as compared to IFIs. The average for the leverage of CFIs is 0.434 and for IFIs is 0.460, with maximum values 0.979 and 0.98 respectively for conventional and Islamic financial institutions. This ratio is almost same for both type of institutions.

Mean value of the growth opportunities for the conventional is negative i.e. -26.73, while for Islamic it is 12.30. However, maximum values are 314.9 and 907.62 for conventional and Islamic respectively.

6.3 Corporate Governance and Performance of Financial Institutions

Relationship of CG with performance of organization is widely discussed in literature. In this section the results of the relationship of CG on performance of Islamic and conventional financial institutions are discussed. Results are given in a table below. First column shows the list of independent variables, which include CG, institution specific and macroeconomic variables. However, dependent variables (measures of performance) are given in first row.

The results of validity tests given in above table 6.3 depicts that the model is fitted well. Also, the results of second order autocorrelation of AR (2) and Sargan test for over identifying restrictions are insignificant statistically. The residuals in AR (1) of first difference should be serially correlated, however, these should not be serially correlated in second difference i.e. AR(2). Therefore, the results given in table are significant in AR (1) and insignificant in AR(2). Accordingly, Sargan J- statistics are statistically insignificant, therefore, instruments are valid for two step system GMM.

Table 6.3 represents the regression results of impact of CG on performance of FIs in Pakistan. Board size of Islamic and conventional financial institutions is positively and significantly related to return on equity. But operational efficiency i.e. CTI[7] is significantly and negatively related to board size of Islamic and conventional institutions. It shows that board size has a positive relation with performance on CTI.

[7] Small value of CTI is good, whereas, higher value shows that cost is high as compared to income, which is negative.

Table 6. 3 Relationship of CG Variables & Performance

VARIABLES	ROE	ROA	CTI	TQ
BSIZ × D^{IFI}	0.865**	0.0544***	-0.102***	-0.231***
	(0.397)	(0.0174)	(0.033)	(0.0855)
BSIZ × D^{CFI}	1.698***	0.0872***	-0.534*	-0.214***
	(0.128)	(0.0323)	(0.289)	(0.0014)
BCOM × D^{IFI}	-0.130**	-0.158***	0.163***	0.166***
	(0.0541)	(0.00586)	(0.00686)	(0.0476)
BCOM × D^{CFI}	0.623***	0.587***	-0.649***	-0.266***
	(0.0395)	(0.0797)	(0.140)	(0.0195)
CEOD × D^{IFI}	0.200***	0.0166	-0.583***	0.0696
	(0.0740)	(0.0120)	(0.0519)	(0.158)
CEOD × D^{CFI}	-0.223	-0.490	0.292**	-0.248***
	(0.729)	(0.842)	(0.121)	(0.00792)
CEOR × D^{IFI}	0.232	-0.000032	0.153***	0.743
	(0.389)	(0.000097)	(0.00521)	(0.265)
CEOR × D^{CFI}	0.507**	0.113***	-0.454***	0.118***
	(0.231)	(0.00430)	(0.0358)	(0.0164)
OWNC × D^{IFI}	0.112	0.102***	0.565***	-0.225***
	(0.105)	(0.0145)	(0.0205)	(0.0441)
OWNC × D^{CFI}	-0.195***	0.134***	0.138***	-0.985***
	(0.00841)	(0.0247)	(0.0157)	(0.0122)
SBS^{IFI}	-0.0395**	-0.0137***	0.631*	0.573***
	(0.0455)	(0.00251)	(0.324)	(0.0864)
INSZ	-0.735***	-0.838***	0.126***	0.232***
	(0.0642)	(0.0920)	(0.0048)	(0.00961)
CAPB	-0.131***	-0.00163	0.908***	-0.0600***
	(0.0229)	(0.00194)	(0.298)	(0.0191)
ADTA	-0.00153	0.109***	-0.104***	0.0660***
	(0.0161)	(0.0192)	(0.00173)	(0.0242)
LOG-GDP	0.888***	0.953***	-0.141***	0.536***
	(0.0782)	(0.0645)	(0.0396)	(0.00758)
LOG-CPI	-0.570***	-0.146***	0.143***	0.0211
	(0.0686)	(0.00823)	(0.00359)	(0.132)
KIBOR	0.00645	-0.415**	0.141***	-0.123***
	(0.147)	(0.176)	(0.00139)	(0.00307)
LAG-ROE	0.227***			
	(0.00510)			
LAG-ROA		0.00721***		
		(0.000311)		
LAG-CTI			0.0109***	
			(0.000120)	
LAG-TOQ				0.367***
				(0.00182)
CONSTANT	-4.941***	-0.227***	126.0***	65.39***
	(1.124)	(0.0397)	(6.749)	(0.882)
# of observations	564	564	566	508
# of Institutions	57	57	57	51
# of Instruments	54	51	53	49
		Validity Tests		
AR (1)	-2.047	-2.469	-2.074	-2.443
	(0.041)	(0.0139)	(0.038)	(0.014)
AR (2)	1.532	-0.196	-1.85	-1.723
	(0.125)	(0.884)	(0.277)	(0.084)
P value (Sargan)	37.62(0.955)	45.59(0.785)	54.04(0.472)	47.47(0.722)
Standard errors in parentheses		*** p<0.01, ** p<0.05, * p<0.1		

Return on asset has also a positive and significant relationship in Islamic and conventional financial institutions. Board size confirms the prophecy of resource dependency theory and stewardship theory, that big board having links with external environment, plays a positive role toward performance (Sheikh & Kareem, 2015). These results are in line with Malik *et al.* (2014).

Tobin Q has a negative and significant impact on board size. This result is in conformity with hypothesis, which says board size has a positive relationship with performance. Overall, some of the findings are consistent with the study of (Mollah & Zaman, 2015; Sheikh & Kareem, 2015).

Board composition of IFIs is negatively related to ROE, ROA and, to CTI. The reason might be to fulfill the regulatory requirement only for the independent directors. Moreover, the other reason, may be higher expense due to nascent in nature. These results are against the hypothesis. These results are consistent with the previous studies like (Mollah, & Zaman, 2015; Pathan and Faff, 2013; Wintoki *et al.*, 2012; Yermack, 1996). However, the relationship with Tobin Q which is a market based measure of performance, is positive. This could be due to the investors' confidence on independent directors. This proxy supports our hypothesis. Some studies support this relationship i.e. high stock returns are positively related with the higher number of independent directors (Byrd and Hickman, 1992; Pathan and Faff, 2013).

However, the results of conventional financial institutions are contradictory with Islamic financial intuitions on proportion of independent directors. ROE and ROA are positively related to the proportion of independent directors and negatively to CTI. The negative association of board composition with CTI is due to a decrease in operating

expense or because of an increase in operating income, which is beneficial for institutions. Overall, the results of CFIs are contradictory to that of IFIs. Due to the independent directors board becomes more effective, therefore, the results are positive and these results are consistent with the previous studies like Awan, (2012) and Ghaffar, (2014). We find that ROA and ROE and CTI support the hypothesis of this study. Nevertheless, the relationship with market-based performance is negative. One study suggested that CEO might be reluctant to share information with the independent directors and this may decrease the shareholder value (Adams & Ferreira, 2007). Bhagat and Bolton (2008) and Bhagat and Bolton (2013) found negative relationship with the proportion of independent directors and operating performance of institution.

CEO power has a positive and significant impact on return on equity and negative on operating performance of Islamic financial institutions. However, results are insignificant on return on equity and Tobin Q but the trend is positive. Since, IFIs are new in the market therefore, they need quick and timely decisions and if CEO is powerful then he will be in a position to make quick decisions. Therefore, this could be the reason that CEO power is positively related with the performance of IFIs. These results reject the hypothesis. Few studies found positive relations of CEO power and performance for instance (Naushad & Abdul, 2015; Maxwell et al. 2014; Galal, 2017).

For CFIs the impact of CEO duality is found negative for ROE, ROA, and Tobin-Q. When CEO is more powerful, there is possibility that he may use his power to optimize his benefits on the expense of shareholders (Yusoff & Alhaji, 2012). These results support hypothesis. Moreover, it is also perceived that CEO power may diminish the board independence and oversight role with negative impact on performance of

institution (Krause et al., 2014; Mollah & Zaman, 2015; Qadorah & Fadzil, 2018).

An association of CEO's remuneration with performance is different between IFIs and CFIs. CEO's remuneration is found insignificant except operational performance of Islamic financial institutions. It is positively related to the operational performance i.e. operational performance decreases when CEO plays dual role. However, the results of CEO's remuneration on performance of conventional financial institutions found significant and positive on all variables except CTI. In literature it is discussed that if executives are more motivated and well rewarded then they will work in the best interest of shareholders and, the agency problem will reduce. Consequently, this will align the interest of shareholders and management (Bebchuk & Fried, 2004). These results support the hypothesis and are aligned with the results of (Sheikh & Kareem, 2015; Merhebi *et al.*, 2006; Cerasi *et al.*, 2020).

The results on ownership concentration and performance are contradictory between IFIs and CFIs. The strong empirical evidence on the negative impact of ownership concentration on three performance measures of CFIs supports the importance of CG. This finding also suggests that concentrated ownership has influenced the BODs to make biased decisions for certain groups (Arif & Syed, 2015). Since, the BODs are not in a position to play their significant role in decision-making; therefore, adverse impact on the performance of institution is noted here. Similarly, there is a negative and significant impact of ownership concentration of IFIs on Tobin Q. This finding is similar to Arif and Syed (2015), Aebi *et al.* (2012), Bourakba and Zerargui (2015) and Ben and Mensi (2018). Further, ownership concentration has a positive association with ROE (insignificant) and ROA (significant), and CTI (significant) for IFIs except with Tobin Q

where ownership concentration appears significantly and negatively associated to it. Overall, we observe that the empirical results of CFIs do not support hypothesis, while, results of IFIs are in line with hypothesis.

Another important factor for IFIs is *Shari'ah* governance. Islamic financial institutions are operating on Islamic principles. Therefore, to maintain and increase the confidence of customers, *Shari'ah* compliance is very important. Thus, *Shari'ah* governance provide a road map for the *Shari'ah* compliance in IFIs. *Shari'ah* governance is also playing a similar role as CG. In this study, *Shari'ah* board size has a significant and negative impact on ROE, ROA and operating performance. This might be due to certain constrain being implemented by *Shari'ah* board on acceptances and investment decisions of the institution. Due to certain constrains the investment avenue for IFIs is limited. However, it has a positive and significant impact on Tobin Q, a market performance based measure. This might be due to investors' confidence on IFIs due to an extra supervisory measure and adherence to *Shari'ah* principles interpreted by *Shari'ah* Board. Only Tobin Q support the hypothesis.

Institution specific variables or control variables i.e. institution size, capital buffer and advances to total asset are also used in this study to see the impact on performance. Institution size has a negative impact on ROE, ROA and operating performance. The reason might be the less aggressive financing or investment as compared to smaller institutions (Tafri *et al.*, 2009). Moreover, it is also observed that banks with higher asset size have higher non-performing loans (Bourakba & Zerargui, 2015). These results are also in line with some of the previous researches i.e. (Mollah & Zaman, 2015; Kaur, 2014; Nosheen & Rashid, 2020). However, the relationship with Tobin q is significant

and positive. This might be because of the investors' confidence with the institutions having large asset base.

Second control variable is capital buffer which is ratio of equity to total asset. The results have a significant and negative association with the performance of financial institutions in Pakistan. Results indicate that if the proportion of equity preservation is higher and risk taking is low then the profitability will be low as well (Mollah & Zaman, 2015). Shareholders might be reluctant to take higher risk if the equity proportion is higher in the balance sheet. Mollah & Zaman (2015) also produced the same results. The association among advances to total asset and the performance variables is positive and significant. As the investment and financing of the institution increase the return will be higher and vice versa.

Macroeconomic variables are also used for the analysis like log of GDP, log of CPI and KIBOR. GDP is positively related to the performance of institution. Since, financial sector is very important for the growth of economy. Therefore, it is positively related to the GDP of country. However, log of CPI is negatively associated with the performance of the financial sector. As the economy experiences inflation, the cost of living rises, the value of money falls, and the nominal interest rate rises. This would have adverse impact on the investments of financial institutions. On the other hand, profitability decrease due to increase in labor price, change in asset price and interest rate. Previous researches support the results of this study (Nosheen & Rashid, 2020; Mollah & Zaman, 2015; Zarrouk *et al.*, 2016).

Further, KIBOR has a significant and inverse relationship with ROA, operational efficiency and Tobin Q. However, insignificant relation observed with ROE. Cost of

financing and KIOBR have a positive relationship. Therefore, due to increase in the price, demand falls, which adversely affect the performance of financial institutions. Further, KIBOR and inflation have a positive relation. As the inflation has negative impact on the performance, thus, KIBOR as well (Lybashaheen *et al.,* 2018; Ahmed *et al.*, 2018; Zaman *et al.*, 2014).

6.4 Corporate Governance, Institutional Quality and Performance

In this section, we examine the role of institutional quality in shaping the performance of FIs in Pakistan. Table 6.4 summarizes the empirical results of CG and interaction term of institutional quality. Following Tarchouna *et al.*, (2017), the indexes for CG and institutional quality are calculated by using Principal Component Analysis (PCA) method. Instead of individual characteristics of CG, an index for CG is developed to align it with institutional quality.

Two different approaches have been used for the governance in related literature (Galal, 2017). One is to examine the relationship of CG variables with institution performance such as, board size, board composition, ownership structure etc. by measuring CG individually (Adams & Mehran, 2012; Naushad & Abdul, 2015; Mohsin. et al., 2016). Second, CG index can be constructed for the analysis (Elbannan & Elbannan, 2014; Zagorchev & Gao, 2015). As discussed earlier, this index is constructed through PCA and this approach is used in many previous studies (Florackis & Ozkan 2009a, b; Ammann *et al.*, 2011; Veprauskaitė & Adams 2013; Tarchouna *et al.*, 2017).

The role of institutions (i.e. rules, legal laws and regulations) is very important in shaping the behavior of economic agents. Rich amount of literature is available on the role of intuitional quality on behavior of economic agents (Rashid & Intartaglia, 2017).

Institutions play role of social technologies in economic activates (Nelson & Sampat, 2001).

Further, when there is lack of transparency, then in result, financial institutions will not work properly. Consequently, performance of institution will hamper (Hall & Jones, 1999; Panicos & Law, 2006; Kirch & Terra, 2012; Salti, 2015). Hence, we tried to examine the role of institutional quality in shaping the performance of financial institutions in Pakistan.

When the enforcement of rules is poor and frequent changes happen, property rights are not clearly defined, high level of corruption, markets are not working properly, and lack of transparency found, then financial institutions will not work properly. In result, performance of institution will hamper (Hall & Jones, 1999; Panicos & Law, 2006; Kirch & Terra, 2012; Salti, 2015). Hence, we tried to examine the role of institutional quality in shaping the performance of financial institutions in Pakistan.

As given in Table 6.4, CG construct is positively and significantly related to performance variables of Islamic FIs. Nonetheless, found insignificant with Tobin Q. It means CG is playing a positive role toward the performance of Islamic financial institutions. These results are consistent with Mollah *et al.* (2017).

When it comes to conventional financial institutions CG construct is positively related to ROE, ROA and operational performance, however, the relationship with Tobin Q is significant and negative. The reason might be that the investors are not confident with the structure of CG or might be affected because of overall instable political environment of country.

The regression results with the interaction term of institutional quality with CG

depict that relationship with performance of Islamic financial institutions is significant and positive.

Table 6. 4 Impact of CG Construct with Institutional Quality Interaction Term

VARIABLES	ROE	ROA	CTI	TQ
CGC^{IFI}	0.130***	0.00413***	-0.1993***	0.0954
	(0.0136)	(0.00120)	(0.00338)	(0.0927)
CGC^{CFI}	0.0782***	0.00599***	-0.2270***	-0.2170***
	(0.0151)	(0.00227)	(0.0114)	(0.000348)
CGC^{IFI}_IQ	0.0727***	0.00608***	-0.861***	0.351***
	(0.00526)	(0.000213)	(0.00658)	(0.0354)
CGC^{CFI}_IQ	0.114***	0.00261***	-0.915***	-0.452***
	(0.00536)	(0.000830)	(0.0294)	(0.00199)
IQ	0.0491***	0.00450***	-0.413***	0.419***
	(0.00489)	(0.000284)	(0.0253)	(0.00241)
INSZ	-0.868***	-0.0800***	0.1229***	0.2079***
	(0.0462)	(0.00411)	(0.00133)	(0.000477)
CAPB	-0.179***	0.000015	0.904***	0.0556***
	(0.0123)	(0.000934)	(0.101)	(0.000918)
ADTA	-0.0106	0.0109***	-1.118***	0.0121***
	(0.00839)	(0.00116)	(0.0162)	(0.00139)
LOG-GDP	1.157***	0.0792***	-0.1472***	4.721***
	(0.0541)	(0.00326)	(0.00366)	(0.0130)
LOG-CPI	-0.798***	-0.144***	0.1023***	-0.130***
	(0.0428)	(0.00535)	(0.00194)	(0.00876)
KIBOR	0.00931***	-0.00120***	0.1775***	-0.0842***
	(0.00191)	(0.000096)	(0.00107)	(0.000331)
LAG-ROE	0.238***			
	(0.00331)			
LAG-ROA		0.00926***		
		(0.000314)		
LAG-CTI			-0.00733***	
			(7.45e-05)	
LAG-TQ				0.379***
				(0.000124)
Constant	-0.6320***	-0.0136	1.325***	0.5015***
	(0.0600)	(0.0287)	(0.0588)	(0.00118)
# of observations	564	564	566	508
# of Institutions	57	57	57	51
# of Instruments	53	56	54	48
		Validity Tests		
AR (1)	-2.005	-2.456	-1.885	-2.133
	(0.015)	(0.014)	(0.059)	(0.032)
AR(2)	1.405	0.225	-1.089	-0.864
	(0.159)	(0.812)	(0.275)	(0.387)
P Value (Sargan)	53.75(0.485)	47.76(0.712)	56.62(0.377)	49.81(0.636)
Standard errors in parentheses			*** p<0.01, ** p<0.05, * p<0.1	

Further, relationship with Tobin Q is also significant and positive, however, the results without interaction term are insignificant. Whereas, the results of conventional financial institutions are significant and positive with ROE, ROA and operational performance, however, the relation of Tobin Q is significant but negative. The results show that institutions plays important role toward shaping the behavior of institution. The value of coefficients is higher with the interaction term of institutional quality. Overall the impact of IQ is significant and positively related to the performance of financial institutions. Generally, the empirical results are found in line with the hypothesis of this study. The role of institutional quality is confirmed by other studies as well (Nosheen & Rashid, 2020; Winful *et al.*, 2016; Johan, 2015).

Institution specific variables are institution size, capital buffer and advance to total asset. Institution size is negatively related to the performance variables except Tobin Q (Schneider & Lenzelbauer, 1993; Mollah, & Zaman, 2015; Kaur, 2014; Nosheen & Rashid, 2020). This might be due to the investors' confidence on institution due to size. Capital buffer is negatively related to the performance of the institution, which are consistent to the previous results, however, it is negatively related to the ROE. The relationship of advances to total asset is positively and significantly related to the performance of Islamic financial institutions, which is in support of previous results except ROE, which is found insignificant.

Log of GDP is positively related to performance of financial institutions. Log of CPI is significantly and negatively related to the performance of the institution. These results are also in consonance with previous results. KIBOR is also negatively and significantly related to the performance of financial institutions in Pakistan except ROE.

Partially, results are in line with previous studies (Lybashaheen *et al.*, 2018; Ahmed *et al.*, 2018; Zaman *et al.*, 2014).

The augmented model gives the empirical results same as before interaction term except the CG construct become significant with Tobin Q of IFIs. Moreover, the values of coefficients improve after augmentation of the interaction term of IQ. The results show that institutions' quality affects substantially the performance of financial institutions of Pakistan (Nosheen & Rashid, 2020; Winful, *et al.*, 2016; Johan, 2015). Institutional quality is regressed individually with all four measures of institutions' performance and found significantly favorable.

6.5 Corporate Governance and Risk Taking

Relationship of CG with risk management is also widely discussed in literature. In this section the results of the impact of CG on risk taking behavior of Islamic and conventional financial institutions are discussed. CG is regressed on operational risk, liquidity risk and on insolvency/ credit risk. The result are presented in following table.

First column shows the list of independent variables, which include CG, institutions specific and macroeconomic variables. However, dependent variables (measures of risks) are given in first row. The results of validity tests are given in Tables 6.5 and 6.6 depict that the models are fitted well. The results of second order autocorrelation of AR(2) and Sargan test for over identifying restrictions are insignificant statistically. The residuals in AR(1) of first difference should be serially correlated, however, these should not be serially correlated in second difference i.e. AR(2). Therefore, the results are significant in AR (1) and insignificant in AR(2).

Table 6. 5 Impact of CG on Risk Taking

VARIABLES	OPRSK	LIQRK	ZSCR
BSIZ × D^{IFI}	2.475***	0.126**	-0.164
	(0.0723)	(0.0605)	(2.628)
BSIZ × D^{CFI}	1.611	0.552***	-2.768***
	(1.679)	(0.0710)	(0.887)
BCOM × D^{IFI}	-5.725***	-0.176***	-1.661
	(0.606)	(0.0297)	(1.128)
BCOM × D^{CFI}	1.137**	0.161***	1.716***
	(0.489)	(0.0355)	(0.469)
CEOD × D^{IFI}	-2.206***	-0.114***	0.827*
	(0.0516)	(0.0288)	(0.431)
CEOD × D^{CFI}	2.939	0.0387	3.564***
	(2.383)	(0.0236)	(0.246)
CEOR × D^{IFI}	6.309***	0.000449	0.00608***
	(0.00881)	(0.000745)	(0.00199)
CEOR × D^{CFI}	1.111***	0.0131***	0.0140
	(0.0175)	(0.00208)	(0.0892)
OWNC × D^{IFI}	-0.337***	0.00148***	-0.00570*
	(0.00176)	(0.000450)	(0.00338)
OWNC × D^{CFI}	-0.0328***	-0.00180***	-0.00164
	(0.00343)	(0.000382)	(0.00509)
SBS^{IFI}	-3.256***	-0.00836	0.121
	(0.101)	(0.00935)	(0.166)
INSZ	-0.0141	0.0718***	0.542**
	(0.189)	(0.0262)	(0.268)
CAPB	1.078***	0.931***	5.920***
	(0.104)	(0.0282)	(0.129)
ADTA	-0.0401	0.116***	-0.0376
	(0.0398)	(0.0271)	(0.0304)
LOG-GDP	1.185***	0.166***	-0.296
	(0.0632)	(0.0349)	(0.603)
LOG-CPI	0.955***	-0.108***	-0.458
	(0.0311)	(0.0373)	(0.663)
KIBOR	0.752***	0.00240***	-0.0686***
	(0.0208)	(0.000815)	(0.0135)
LAG.OPRSK	0.0715***		
	(0.000297)		
LAG-LIQRK		0.0132***	
		(0.000964)	
LAG.ZSCR			0.108***
			(0.0175)
CONSTANT	-1.793***	-3.013***	1.277*
	(0.0078)	(0.407)	(0.680)
# of observations	564	563	564
# of Institutions	57	57	57
# of Instruments	53	53	53
		Validity Tests	
AR(1)	-1.995	-1.318	-4.471
	(0.046)	(0.187)	(0.000)
AR(2)	0.583	0.781	-1.778
	(0.558)	(0.434)	(0.175)
P value (Sargan)	51.865(0.557)	44.076(0.830)	40.761 (0.908)
Standard errors in parentheses			*** p<0.01, ** p<0.05, * p<0.1

Accordingly, Sargan J- statistics are statistically insignificant; therefore, instruments are valid for two-step GMM.

Proxies of the risk are liquidity risk, operational risk and Z-score (solvency/credit risk). Size of the board of Islamic financial institutions is positively related to operational and liquidity risks, whereas Z-score is insignificant and negatively related. Operational risk and liquidity risk are positively related to the board size. Because, it is difficult to convince large group for the decision-making which has some inverse consequences. However, on the other side, larger board increase the cost and to compensate institution they might take higher risk. Some empirical studies also support the agency theory that large board can impact the institution risk positively (Cao *et al.*, 2015; Switzer *et al.*, 2016; Tu, 2015). Alam and Shah (2013) also depicts that due to the risky environment of Pakistani institutions, there is a possibility that large board size impact the risk taking positively. Further, due to the concentrated ownership, power resides with few members therefore, this might increase the propensity to take risk. Board size of the conventional financial intuitions is also positively related to the operational and liquidity risk. It means that large board size take higher risk than small board size in Pakistan. These results are consistent with the results of Islamic financial institutions. The results for Islamic and conventional FIs support the hypothesis i.e. positive relationship between CG and risk taking. However, the board size is negatively and significantly related to the Z-score i.e. Larger board size increase the insolvency risk, as concluded in the study of Safiullah and Shamsuddin (2018). Results are partially in line with few previous researches (Zeineb & Mensi, 2018).

Board composition is the second important component of the CG. Board composition is negatively related to the operational risk and liquidity risk for Islamic financial institutions. Literature suggests that there is a positive relation between performance and independent directors. This is because outside directors are very much concerned about their reputation in market, which persuade them to work in best interest of institution (Fama & Jensen, 1983). Independent directors act as an independent control authority, which restrain other board of directors to take excessive risk (Zeineb & Mensi, 2018). Board composition is insignificantly related to the Z-score (solvency) for Islamic financial institutions. Since, Islamic financial institutions are nascent in nature, might not be comfortable to take higher risk, therefore, relationship is negative. There is also a possibility that independent directors do not allow to invest in risky avenues due to new entrant in market. These results support the hypothesis.

As far as the conventional institutions are concerned, the relationship of independent directors is positive toward risk taking. Both liquidity risk and operational risk are positively and significantly related to the board composition. Further, board composition is positively relate to solvency. Independent directors increase the independence and transparency and effectiveness of CG and positively affect the institution risk management (Bourakba & Zerargui, 2015; Trinh *et al.*, 2015). Lu and Wang (2018) concluded in study that independent directors contribute positively toward value enhancing by positive risk taking. However, in this study as the proportion of independent director increase, risk also increase, this positive relationship in CFIs might be due to old and mature in nature and prefer to take higher risk. Fakhrunnas & Ramly (2017) study support these results. However, these results do not support hypothesis.

Results are contradictory with IFIs. The difference might be due to different nature of business and the age of the both type of institutions.

CEO duality has a negative relationship with risk of Islamic financial institutions. Relationship with operational risk and liquidity risk is negative, nevertheless, positive and significant with Z-score i.e. playing positive role toward solvency of institution. When CEO plays a role as a chairman of board, he gained sufficient power to gain private benefits. Risk-averse CEOs will select safe investment in order to save their job and wealth (Smith & Stulz, 1985). This is discouraged by the agency theory and could adversely affect the performance of institution (Zeineb, & Mensi, 2018). These results are in line with the study of Zeineb, & Mensi (2018). CEO's duality impact is insignificant but has a positive relation with operational and liquidity risks, however, significant and positive relation with Z-score for conventional financial institutions. The stewardship theory postulates that managers are responsible and work for the best interest of the owners. Therefore, this theory may be related to positive results with solvency because in unified command, decision-making is more focused. It reduces the confusion between managers and stockholders and helpful in effective decision-making (Finkelstein & Aveni, 1994). The results support the hypothesis for IFIs however, the results of CFIs are contrary. Based on the results, we can conclude that the risk-taking behavior of both types of institutions is quite different.

CEO's remuneration is positively related to the operational and liquidity risks of Islamic and conventional financial institutions. However, its relation with solvency is positive. Jensen & Murphy, (1990) argued that if manager's compensations are properly designed, it would result in induction of wealth maximization strategies and positive risk

taking attitude. The agency theory also supports the idea of properly designed executive compensation for better performance (Shammari, 2018). Results are consistent with research of Shammari (2018).

Ownership concentration is negatively related to the risk taking behavior of Islamic and conventional financial institutions. However, liquidity risk is positively and significantly related to ownership concentration for IFIs. The literature confirmed the negative relationship between institution performance and ownership concentration. Ownership concentration is considered a potential driver of risk taking (Safiullah, & Shamsuddin, 2018). Large shareholder may have incentive to monitor the manager' risk taking preferences to reduce the institution risk. Alternatively, they have power to influence the mangers to take higher risk to protect their interest on the expense of minority shareholder by expropriating their interest (Shleifer & Vishny, 1986; Stulz, 2005; John *et al.*, 2008). In this study, ownership concentration is associated with lower risk. However, it is negatively associated with solvency i.e. ownership concentration increase the insolvency risk. The results confirm the hypothesis. In this study the relationship is negative between ownership concentration and risk taking and in line with the findings of Safiullah & Shamsuddin (2018).

Shari'ah board is an important factor for IFIs and its fundamental role is to ensure *shari'ah* compliance in the operations of IFIs. The results of this study indicate that *Shari'ah* board has a negative and significant relation with operational and liquidity risks and is in line with the findings of Fakhrunnas & Ramly (2017). However, it is positive and insignificant with Z-score i.e. playing positive role toward solvency of institution. Agency theory depicts that board size is an important aspect of CG to advise and monitor

the institutions' management (Shamsuddin & Safiullah, 2018). When the institutions are more complex and larger in size, larger boards are more effective as they have diversified expertise and knowledge to offer specialized advice (Coles *et al.*, 2008). Dalton *et al.* (1999) argue that large boards are better for institutions' performance as they have diverse experience to offer quality services and this is in the line of resource dependency theory. For *Shari'ah* supervisory board, diversified knowledge and expertise like legal issues, Islamic law, banking and finance are important for the decision-making. Therefore, larger *Shari'ah* board having such expertise, are vital for the conformity of products and services with Islamic law and they can influence the risk taking of institution (Shamsuddin & Safiullah, 2018). Larger *Shari'ah* board improves the quality of board in terms of policy making and strategic decisions making. On the other hand *Shari'ah* board may also confine aggressive financing and investments, in result, lower the risk taking of institution (Fakhrunnas & Ramly, 2017). Findings are in line with the hypothesis.

The control variables used in this study are institution size, capital buffer and advances to total asset. Institution size is positively related to the risk of financial institutions in Pakistan. Relationship with z-Score (solvency) is also positive and significant. Bigger institutions allow to run risker operations to increase efficiency. Further, larger institution size have larger Z-score i.e. naturally less risky (Zeineb, & Mensi, 2018). Financial institutions having higher asset size and higher Z-score have less probability of insolvency and positively contribute toward the sustainability of financial sector (Rashid *et al.*, 2017). These results are in line with the previous studies (Husein, 2014; Rashid *et al.*, 2017; Bouvatier *et al.*, 2018; Safiullah, & Shamsuddin, 2018).

Second control variable is capital buffer. This variable is positively related to the risk taking behavior of FIs in Pakistan. Z-score is also positively related to the capital buffer. The higher capital buffer may persuade the institution to take higher risk like operational and liquidity risks as they have equity to absorb the risk of the institution (Berger and Bouwman, 2009). Due to higher level of capital buffer, the institution might be less insolvent. The results of this study is in line with the research of Safiullah, & Shamsuddin, (2018). The results of advance to total asset are insignificant with operational risk and Z-score. However, it is positive and significant with liquidity risk of financial sector. When institution's assets are tied up with the investment and financing, the liquidity issue might arise. Therefore, this has a positive impact with the liquidity risk.

Three macroeconomic variables are used as a control variables in this study. These variables are gross domestic product, inflation (CPI) and KIBOR. GDP is positively related to the operational, liquidity risk but insignificantly with Z-score. The reason might be that during boom in economy institution may take higher risks to take the benefit of economic growth (Rashid *et al.*, 2017; Zeineb & Mensi, 2018).

Inflation (CPI) has a negative relation with liquidity risk and Z-score (Rashid & Nosheen, 2020). Due to increase in inflation cost of input increase and efficiency of institution decrease. Further, inflation shows the economic uncertainty and restrain institutions to investment and to take lesser risk (Bohachova, 2008).

Further, inflation weaken the financial stability (Rashid *et al.*, 2017). Financial weakness of the institution might increase operational risk. Results showed that inflation

is positively related to operational risk. The results are in line with Rashid *et al.* (2017) and Bohachova (2008).

Next macroeconomic variable is KIBOR. It has a positive and significant relationship with operational and liquidity risks. The relationship with Z-score is negative i.e. increase in KIBOR will increase the insolvency. Literature on this relationship says that due to the increase in the cost of funds the risk of default would also increase. Second, increase in KIBOR would also increase in the operational expenses and so as operational risk. Further, due to increase in cost of funds, demand for the funds decrease, which could increase the liquidity risk of the institution.

Table 6.6 shows the results of the impact of CG construct on risk taking behavior and solvency. Further, it shows the results of the CG construct with the interaction term of Institutional quality. As previously discussed that institutional quality does have impact on the performance of financial institution. Thus, it has a relation with risk taking behavior of FIs (Rashid & Nosheen, 2020; Al Abaad *et al.,* 2019; Safiullah, & Shamsuddin, 2018).

The impact of CG construct on operational and liquidity risks is negative and significant for IFIs. However, it is positive but insignificant with solvency. Good governance can help to align the interest of managers and shareholders, further, it align the risk taking behavior (Jensen and Meckling, 1976; Boyd *et al.,* 2011). Keeping in view the results, good governance may lead toward lower risk taking. Nonetheless, the management may sometime take excessive risk, just to take more performance linked incentive rather to protect the interest of shareholders (Diamond and Rajan, 2009; Laeven, 2013).

Table 6. 6 Impact of CG Construct on Risk & Role of IQ

VARIABLES	OPRSK	LIQRK	ZSCR
CGC^{IFI}	-0.4239***	-0.0337***	0.0426
	(0.000645)	(0.00501)	(0.126)
CGC^{CFI}	0.3690***	0.0861***	0.1047***
	(0.0330)	(0.00614)	(0.00837)
CGC^{IFI}_IQ	-0.1325***	-0.00622***	0.0915***
	(0.00277)	(0.00135)	(0.0321)
CGC^{CFI}_IQ	0.1443***	0.0362***	-0.0167
	(0.00487)	(0.00213)	(0.0448)
IQ	-0.707***	-0.0110***	0.288***
	(0.0204)	(0.000974)	(0.0437)
INSZ	0.02703***	0.0511***	-0.1768***
	(0.217)	(0.0103)	(0.169)
CAPB	0.1509***	0.944***	0.5776***
	(0.0399)	(0.0104)	(0.0116)
ADTA	0.241***	0.100***	-0.0522*
	(0.0619)	(0.0105)	(0.0298)
LOG-GDP	0.1319***	0.140***	0.1351***
	(0.00720)	(0.0268)	(0.0372)
LOG-CPI	0.1608***	-0.0930***	-0.1371***
	(0.00884)	(0.0311)	(0.0495)
KIBOR	0.1161***	0.00339***	0.0351***
	(0.00409)	(0.000370)	(0.0107)
LAG-OPRSK	0.0686***		
	(0.000342)		
LAG-LIQRK		0.0146***	
		(0.000429)	
LAG-ZSCR			0.161***
			(0.0122)
Constant	-2.801***	-2.258***	1.714
	(0.124)	(0.281)	(4.458)
# of Observations	564	563	564
# of Institutions	57	57	57
# of Instruments	53	53	53
	Validity Tests		
AR (1)	-2.126	-1.238	-4.325
	(0.033)	(0.215)	(0.000)
AR (2)	1.231	0.794	-1.545
	(0.218)	(0.426)	(0.122)
Sargan Test	50.225	45.793	49.112
	(0.620)	(0.778)	(0.737)
Standard errors in parentheses			*** p<0.01, ** p<0.05, * p<0.1

Therefore, occasionally, good governance may restrict manager's excessive risk taking behavior through their monitoring role (Minton *et al.*, 2014). Thus, the negative relation with risk taking is might be due to the strict monitoring of managers. The results are partially in line with the research of Safiullah and Shamsuddin (2018). CG construct of CFIs is positively and significantly related to the liquidity risk, operational risk and solvency. Therefore, CG plays a positive role to decrease the insolvency risk. This might be due to the CG structure may allow to take higher risks for CFIs. Results support the hypothesis that CG has impact on risk management of financial institutions. The results are in line with previous research (Faleye & Krishnan, 2017; Mollah *et al.*, 2017). Risk taking of IFIs and CFIs is different, as the relationship of CG with risk taking is different for both type of institutions.

As discussed earlier, strong institutional quality has a strong relationship with risk taking behavior of financial institutions. In an economies where rule of law prevails and institutional quality is strong, it might restrict managers to take excessive and unnecessary risks (Al Abaad *et al.*, 2019). In this study, interaction term between CG construct and institutional quality has a negative impact on operational and liquidity risks. However, it increases the solvency of the institutions. Rashid and Nosheen (2020) have produced same results for institutional quality and solvency. However, the results for the conventional financial institutions are positive with operational and liquidity risks, nevertheless, insignificant with solvency. CFIs results are in line with study of Safiullah and Shamsuddin (2018).

The relation of Institutional quality with the operational risk and liquidity risk is negative and significant for the financial institutions in Pakistan. The relationship with

solvency is positive and significant. The negative relationship might be due the restrictions imposed through regulatory institutions to not to take excessive risks (Al Abaad *et al.*, 2019). These results support the hypothesis for both IFIs and CFIs. Nonetheless, strong institutional quality increases the stability and solvency of financial institutions (Rashid & Nosheen, 2020).

Institution specific control variables are institution size, capital buffer and advances to total asset. Institution size is positively related to the operational risk and liquidity risk. The bigger organization might allow to take higher risk, therefore, the relationship is positive and significant with institution size. However, in this regression the relationship with solvency is negative. Finding is in line with the previous studies (Bourkhis & Nabi 2013; Ashraf *et al.*, 2016; Rashid & Nosheen, 2020). Capital buffer is positively and significantly related to operational and liquidity risks and solvency. When equity contribution is high, it increases the solvency and enable institution to take higher risk. Advances to total asset are positively and significantly related to the operational and liquidity risk. When institution makes aggressive investment the risk will increase simultaneously. This would affect the solvency of the institution. This might be the cause of negative relationship with solvency.

The relationship of GDP with all proxies of risks and solvency is positive and significant. Perhaps, institution takes higher risks during boom. Inflation has a negative relation with liquidity risk and solvency. Inflation creates uncertainty in the economy, which may restrain the institutions to take excessive risks. KIBOR is positively and significantly related to the operational risk and liquidity risks, which are in line with the previous results. However, the relationship with Z-score is positive which is contrary to

the previous results.

6.6 Corporate Governance and *Shari'ah* Non-Compliance Risk

Shari'ah non-compliance risk is defined as "failure of the IBs to comply with the *Shari'ah* rules and principles determined by the *Shari'ah* board or the relevant body in the jurisdiction in which the IB operates" (IFSB, definition). SNCR arises due to not complying with the guidelines given by *Shari'ah* Board. *Shari'ah* compliance is the main objective of Islamic financial institutions and considered as a backbone. *Shari'ah* Board role is very important toward *Shari'ah* compliance.

The income received from void transaction i.e. the transactions, which are not complied with *Shari'ah*, does not become part of a bank's income, and it goes to charity account. The result of such transactions is direct loss to the institution. Additionally, there are other negative consequences of the SNCR as well. For instance, this is the fiduciary responsibility of the bank to adhere with the *Shari'ah* rules, therefore, *Shari'ah* non-compliance is the breach of contract (Ginena, 2014). In addition, reputational risk is another factor that arises due to *Shari'ah* non-compliance (Abdullah *et al.*, 2011; Archer & Abdullah, 2007). SNCR shaken the trust of depositors and investors, and depositors who use Islamic financial services due to religious convictions and in result they would close their accounts (Basiruddin & Ahmed, 2019). Chapra and Ahmed (2002) concluded that in case of violation of *Shari'ah* rules, customers of IFIs would move their accounts and investments into other banks.

The results of validity tests given in above Table 6.7 depicts that the model is fitted well. Further, results of second order autocorrelation of AR(2) and Sargan test for over identifying restrictions are insignificant statistically (Pathan & Faff, 2013).

Table 6. 7 CG and SNCR of IFIs

CG and SNCR of IFIs		CG Construct and SNCR of IFIs: Role of IQ	
Variables	SNCR	Variables	SNCR
BSIZ	0.0933***	CGC	-0.0336
	(0.0170)		(0.227)
BCOM	-0.0423***	CGC_IQ	0.0217***
	(0.0163)		(0.0054)
CEOD	0.0409	IQ	-0.0516***
	(0.0976)		(0.00359)
SBS	-0.227***	INSZ	-0.120**
	(0.0516)		(0.0556)
CEOR	-0.0222	CAPB	-0.0129***
	(0.0294)		(0.00465)
OWNC	-0.0458*	ADTA	0.0854*
	(0.0235)		(0.0471)
INSZ	0.120*	LOG-GDP	-0.0859***
	(0.0795)		(0.0122)
CAPB	-0.00157	LOG-CPI	0.0974***
	(0.0104)		(0.0151)
ADTA	-0.0773	KIBOR	0.0737***
	(0.107)		(0.0243)
LOG-GDP	0.194	LAG-SNCR	0.742***
	(0.215)		(0.0184)
LOG-CPI	-0.0575	Constant	0.0113***
	(0.385)		(0.00133)
KIBOR	0.0829		
	(0.0755)		
LAG-SNCR	0.811***		
	(0.0316)		
Constant	-0.00389*		
	(0.00256)		
# of Observations	243	# of Observations	243
# of Institutions	23	# of Institutions	23
# of Instruments	21	# of Instruments	21
Validity Test		Validity Test	
AR(1)	-1.02	AR(1)	-1.02
	(0.307)		(0.308)
AR(2)	0.90	AR(2)	0.87
	(0.371)		(0.385)
Sargan	3.35	Sargan	3.43
	(1.00)		(1.00)
Hansen test	13.58	Hansen test	17.85
	(0.697)		(0.398)
Standard errors in parentheses		*** p<0.01, ** p<0.05, * p<0.1	

The residuals in AR(1) of first difference should be serially correlated, however, this should not be serially correlated in second difference i.e. AR(2). Therefore, the results given in table are significant in AR (1) and insignificant in AR (2). Accordingly, Sargan J- statistics are statistically insignificant; therefore, instruments are valid. Islamic financial institutions and conventional financial institutions differ significantly. Adhering to Islamic law is main objective of IFIs to enhance the value of shareholders.

IFIs are restricted to take excessive risk by an additional layer of governance i.e. *Shari'ah* board. *Shari'ah* board assists the BOD to ensure the *Shari'ah* compliance in overall business activities (Ahmed, 2011). IFIs face an additional risk i.e. SNCR other than traditional risks including credit, operational and liquidity risks (Basiruddin & Ahmed, 2020).

Shari'ah non-compliance income is used as a proxy of SNCR (Basiruddin & Ahmed, 2020; Oz *et al.*, 2016). *Shari'ah* non-compliance is a result of not following the approved process and procedures as approved by *Shari'ah* board and selling products, which are not approved (Ginena, 2014; Oz *et al.*, 2016).

BODs are also an important component to mitigate the SNCR. They can indirectly influence SNCR through *Shari'ah* auditing. Reputation is very important for the high quality board of directors. Therefore, they are more concerned about the reputational losses and they may get involved in institutions operations including *Shari'ah* risk (Basiruddin & Ahmed, 2020). Thus, an effective board may asked an independent and extensive *shari'ah* audit to fulfill their monitoring role. Failure to mitigate SNCR may results in reputational risk and shareholders may be disappointed. A majority of the investors and depositors of IFIs are highly concerned toward *Shari'ah*

compliant investments (Chapra & Ahmed, 2002). Since, high quality BODs manage SNCR through better *Shari'ah* audit, therefore, it is expected, high quality directors will be more concerned toward SNCR through *Shari'ah* audit (Basiruddin & Ahmed, 2020).

Table 6.7 presents the results of the relationship of CG variables and measure of SNCR. Board size is significantly and positively related to SNCR. This positive relation might be due to the ineffective communication between board members. Further, BOD's might not be very much concerned over SNCR. Further, there is also a possibility that in case of aggressive financing and investments, *Shari'ah* compliance might be little ignored. The findings of this study suggest that small board members are good to oversee and monitor SNCR. Basiruddin and Ahmed (2020) also produced the same results. Board composition is negatively and significantly associated with SNCR. These results support the preposition of agency theory that independent directors are an effective tool to monitor the institution activates. This is an indication that independent directors play their due role toward the mitigation of SNCR and to strengthen the reputation of the institution. This finding is also in line with the study of Basiruddin and Ahmed (2020). CEO duality is not significantly related to the SNCR, however, it is positive. This relation is might be due the aggressive financing strategy of CEOs and *Shari'ah* compliance might be ignored during this process.

Shari'ah board is significantly and negatively related to SNCR. It means that *Shari'ah* board has a role in determining SNCR. *Shari'ah* boards in context of Pakistan seem effective with respect to the management and control of SNCR. *Shari'ah* board members are looking very keenly toward the operations and procedures of Islamic financial institutions. SBP and SECP have also set an effective and appropriate criterion

for the members of *Shari'ah* board and focuses in the training of SB on other relevant fields. Basiruddin and Ahmed (2020) also produced same results. They also concluded that *Shari'ah* board having financial expertise has a negative relationship with SNCR.

Further, ownership concentration is negatively and significantly related to SNCR. The results might be due to the fact that when ownership is concentrated, shareholders may closely oversee the activities of the institution. Larger shareholders might use their power to select board of directors and CEO who suit their interest. Owing to the income loss due to *Shari'ah* non-compliance, shareholder demand for strict control over operations of institution. Likewise, SNCR creates the reputational risk and the confidence of shareholders might shake due to non-compliance with Islamic Law (Basiruddin & Ahmed, 2019). Further, monitoring effect is providing the base for the prophecies of positive impact of ownership concentration on institution's performance. Larger shareholders have good disciplinary impact on managers because it is easy for them to monitor, due to high influence (Shleifer & Vishny, 1986, 1997). Consequently, it decreases the agency problem and in turn increases the performance (Jensen & Meckling, 1976). Thus, these might be the reasons of negative relationship of ownership concentration with SNCR.

Institution size is positively and significantly related to SNCR. As the asset size increases the probability of the *Shari'ah* non-compliance increase. Because, when institution is aggressive in financing this might lose control over the compliance of the institutions activities, which results in SNCR. All other institution specific variables and macro variables have inconsistent and insignificant relationship with SNCR.

Table 6.7 represents the results of the impact of the construct of CG and institutional quality on SNCR. As far as the construct of CG is concerned, it is negatively and insignificantly related to SNCR. The negative relationship depicts that CG is playing its due role toward *shari'ah* compliance of institutions. However, interestingly the relationship with interaction term of Institutional quality is significant and positive. The relationship with institutional quality is negative. It means that if institutional quality at country level is strong, the impact on financial institution is also good. As the institutional quality increases the level of compliance at institution level also increase.

Further, institution size is positively and significantly related to SNCR. As discussed earlier, as the size of the asset increases the control of the institution might decrease which result in increase of SNCR. Capital buffer is inversely and significantly related to SNCR. Amount of capital shows the stake of stockholders in institution; therefore, larger amount of equity is a sign that stockholder will be keener toward the operation of institution. Therefore, in order to satisfy equity holders, the board of directors and *Shari'ah* board will try to reduce SNCR. Next control variable is advances to total asset, which is positively related to SNCR. SNCR is mostly related to financing and investment activities of the institution. Therefore, with the increase in such activities the probability of SNCR also increases. Thus, the relationship with advances to total asset is positive.

Log of GDP is positively related to SNCR. GDP has a positive impact on the growth of financial sector including Islamic financial sector (Muhammad *et al.*, 2019; Ashraf *et al.*, 2016). As financial sector grows the financing and investment activities also increase. As the investment and financing activities increase the risk of non-*Shari'ah*

compliance also increase which results in SNCR. Previous studies found inverse relationship between inflation and profitability of financial institutions (Bilal *et al.*, 2013). When the profitability decrease the pressure on institution. Therefore, in given scenario the issue of non-compliance may arise and some transactions may fall in to void category. This might be the one reason of inverse relationship between CPI and SNCR. The relationship between KIBOR and SNCR is also positive and significant.

6.7 Corporate Governance and Information Asymmetry

In this section, we discuss the results and discussion on relationship of CG and information asymmetry. The results of the impact of CG on information asymmetry of IFIs and CFIs is discussed in detail. CG is regressed on index of information asymmetry. First column shows the list of independent variables, which include CG, institution specific and macroeconomic variables.

The results of validity tests given in Table 6.8 depicts that the model is fitted well. The results of second order autocorrelation of AR (2) and Sargan test (Pathan & Faff, 2013) for over identifying restrictions are insignificant statistically. The residuals in AR (1) of first difference should be serially correlated, however, these should not be serially correlated in second difference i.e. AR (2). Therefore, the results given in tables are significant in AR (1) and insignificant in AR (2). Accordingly, Sargan J- statistics are statistically insignificant, therefore, instruments are valid for two step GMM.

For the performance of institution trust level must be high among all stakeholders. In most of the countries, people do not trust even on those institutions, which are considered the pillars of the society, and this is a sad indictment (Rieset *et al.*, 2018).

Table 6. 8 CG and Information Asymmetry

Variables	AII	Variables	AII
BSIZ × D^{IFI}	-0.153	CGC^{IFI}	0.134***
	(0.0955)		(0.0297)
BSIZ × D^{CFI}	-0.889***	CGC^{CFI}	0.0195*
	(0.128)		(0.0115)
BCOM × D^{IFI}	0.00494	CGC^{IFI}_IQ	0.0151***
	(0.0471)		(0.00433)
BCOM × D^{CFI}	-0.202***	CGC^{CFI}_IQ	-0.0319***
	(0.0411)		(0.00668)
CEOD × D^{IFI}	0.0932***	IQ	-0.0101*
	(0.0360)		(0.00514)
CEOD × D^{CFI}	-0.174**		
	(0.0752)		
CEOR × D^{IFI}	0.00260*		
	(0.00156)		
CEOR × D^{CFI}	-0.00693		
	(0.00800)		
OWNC × D^{IFI}	0.0224***		
	(0.000622)		
OWNC × D^{CFI}	0.0189***		
	(0.000578)		
SBS^{IFI}	-0.0524***		
	(0.0142)		
LEVERAGE	-0.0515***	LEVERAGE	-0.0751***
	(0.0119)		(0.00342)
GRTOPR	0.0113	GRTOPR	2.170**
	(0.0100)		(0.864)
LOG-GDP	0.232	LOG-GDP	-0.0992**
	(0.150)		(0.0408)
LOG-CPI	-0.182***	LOG-CPI	0.120**
	(0.0614)		(0.0552)
KIBOR	-0.00215	KIBOR	-0.00484***
LAG- AII	0.424***		(0.00105)
	(0.0312)	LAG-AII	0.606***
Constant	-3.650*		(0.0280)
	(2.131)		(0.588)
# of Observations	487	# of Observations	487
# of Institutions	49	# of Institutions	49
# of Instruments	47	# of Instruments	47
Validity Test		Validity Test	
AR1	-2.140	AR(1)	-2.097
	(0.032)		(0.035)
AR2	0.982	AR (2)	1.730
	0.325		(0.083)
Sargan Test	28.736 (0.954)	Sargan Test	25.694 (0.943)
Standard errors in parentheses		*** p<0.01, ** p<0.05, * p<0.1	

Unfortunately, people lost the trust on business because they do not know which ventures are working for their best interest (Dumay *et al.*, 2019). There are some recent examples in which it is proved that the trust of investors is ruined overnight i.e. "defeat device" scandal of Volkswagen (Hotten, 2015). The agency theory depicts that when owners cannot perfectly monitor the managers, the value of the institution decreases. Information economic suggests that asymmetric information between owners and controlling managers increase the cost of capital (Grossman & Stiglitz, 1976; Merton, 1987).

Asymmetric information results in value destruction of institution and wealth transfer due to the opportunistic behavior of managers, however, CG protect the owners from this value destruction (Wu & Sun, 2019).

Table 6.8 shows the results of asymmetric information index and variables of CG. First variable of CG is board size, which is negatively related to the asymmetric information. However, the results of conventional financial institutions are significant, whereas, the relationship with Islamic financial institutions is insignificant. Some scholars are on the view that the increase in board size increases the managing cost and less effective for the institution performance and may decrease the information flow. This view is postulated by the agency theory (Sougne *et al.*, 2013). On the other side, resource dependency theory suggested that expanded council might increase the relationship between institutions and other stakeholders and performance will increase. Some researchers also suggest that large board size will increase the monitoring and information flow and decreases the information asymmetry (Agrawal & Knoeber, 1999; Anderson *et al.*, 2004). Fama and Jensen (1983) suggested that most pivotal role of the

board is to monitor and control the management. Thus, increase in the size of board of directors will increase the monitoring and controlling function. This will results in transparency and more disclosure of information by the management (Gandia, 2008; Leng & Ding, 2011; Agyei-Mensah, 2017). The results of this study also suggest that there is a negative relationship between board size and information asymmetry. These results negate the hypothesis that board size has a positive relationship with information asymmetry. The results are in line with the previous studies i.e. (Sougne *et al.*, 2013; Flaherty & Small, 2006; Agyei-Mensah, 2017).

Board composition is significantly and negatively related to information asymmetry of conventional financial institution. However, it is positively and insignificantly related to Islamic financial institutions. Board composition is also very important element of CG. Independent directors perform the role of control mechanism and they are very important for the institution's performance (Abor & Biekpe, 2007). Song and Windram (2004) and Uzunet *et al.* (2004) concluded that independent directors decreased the chance of corporate fraud and financial reporting problem. However, voluntary disclosure increases with the proportion of independent directors (Navarro & Urquiza, 2015). The independent directors effectively control the managerial decision and reduce the information asymmetry (Sougne *et al.*, 2013). Sougne *et al.* (2013) and Jamalinesari and Soheili (2015) also produced the same results. The results of CFIs support the hypothesis that board composition has a negative relationship with information asymmetry. There is also a literature which supports that higher level of independent directors increase the information asymmetry (Eng & Mak, 2003; Barakoet *et al.*, 2006). The reason could be that the independent directors might not have much

power to influence the leaders in decisions making. This notion is depicted by the rooting theory (Sougne *et al.*, 2013). The positive results of IFIs might be due to the said reason. Behavior of both type of institutions on board composition is different on information asymmetry.

The results of CEO duality or power concentration are also contradictory between Islamic financial institutions and conventional financial institutions. CEO duality is positively and significantly related to information asymmetry for Islamic financial institutions. However, it is significantly and negatively related to conventional financial institutions. CEO duality or role duality increases the concentration of power. The literature acknowledged the fact that this hinders the independence and governance roles of board. It also hampers the transparency and disclosure policies i.e. information asymmetry (Ntow-Gyamfi & Gemegah, 2015). However, on the other hand resource dependency and stewardship theories assert that role duality is beneficial for the performance of the institution (Sougne *et al.*, 2013). In this study CEO duality is not good for the Islamic financial institutions in context of the information asymmetry and it is in consonance with the hypothesis. However, the results of the conventional financial institutions are in line with the resource dependency and stewardship theories.

Next variable is CEO remuneration. It is positively and significantly related to asymmetric information for IFIs. However, it is insignificantly and negatively related to the CFIs i.e. contradictory to each other. As per the agency theory, to cater the issue of information asymmetry between shareholders and managers, shareholders assign performance based compensation contract to reduce adverse selection and moral hazard agency cost (Zhang, 2011). CEO's remuneration is negatively related to asymmetric

information for conventional financial institution, which depicts that incentives are correctly align with the performance. Results are in line with the study of Elbadry and Skinner (2010). The results of CFIs support the hypothesis. However, for IFIs, incentive might not be correctly align with the performance of CEO and this might be due the nascent in nature.

Ownership concentration for the IFIs and CFIs is positively and significantly related to information asymmetry. Elbadry *et al.* (2015), Lin *et al.* (2017), and Byun *et al.* (2011) also produced same results in their studies. In emerging economies, members of the founding families and related entities of the institution hold power with themselves by keeping largest amount of shares and voting rights (Byun *et al.*, 2011). This type of scenario creates the agency conflict between controlling shareholders and minority shareholders, which in not found in diffused ownership. This type of equity structure in business conglomerates may encourage the management to divert resources at the cost of smaller shareholders (Bae *et al.*, 2002). Majority shareholders have opportunities to use the information for expropriation by taking private information (Byun *et al.*, 2011). Anderson *et al.* (2009) also predict that majority shareholders can enhance opacity to restrain disclosures, which reduce the transparency in the institution. Therefore, there is a positive relation between concentrated ownership and asymmetric information & results are in line with hypothesis.

Shari'ah Board size has a negative and significant impact on asymmetric information index. *Shari'ah* board is also playing a monitoring role in institution like board of directors. This is very important organ of IFIs. Because IFIs claim that they are offering *Shari'ah* compliant products and services. The role of *Shari'ah* board is to

ensure the *Shari'ah* compliance of the institution and to guard the interest of all stakeholders. *Shari'ah* board strengthens the credibility of the institutions (Safiullah & Shamsuddin, 2018). *Shari'ah* board also play a role to increase the transparency in the institution, as a result, it increases the confidence of the investors (AlAbbad & Saba, 2019). Members of SSB are ethically and morally driven rather greed. Therefore, they report to shareholders truthfully (Rammal, 2006; Farook & Farooq, 2011). Hence, *Shari'ah* board decreases the level of information asymmetry. Results are in line with the literature and hypothesis of this study.

Institution specific control variables are also used in this study i.e. leverage and growth opportunities. The relationship between information asymmetry and leverage is significant and negative. The reason might be that the agency theory postulates that monitoring cost is higher in those institutions, which are highly leveraged (Agyei-Mensah, 2017). Therefore, to decrease these costs, institution discloses maximum information (Jensen & Meckling, 1976). Inchausti (1997) also suggested that institution disclose more information in order to reduce agency cost and minimize information asymmetry. Therefore, it is concluded that more information need to be disclosed in order to satisfy creditor in leveraged institutions (Uyar & Kilic, 2012). In this study, results are in line with the study of Jamalinesari and Soheili (2015) and Agyei-Mensah (2017).

The next control variable is growth opportunities, which is measured by price to earnings ratio. If this ratio is higher it means the investors are willing to pay higher price against return of one rupee, with the expectation that he will get benefit in future. This is an indicator of institution's growth in future. In literature it is argued that institutions with higher growth opportunities face higher information asymmetry problem (Smith & Watts,

1992). This variable is insignificantly related to the information asymmetry, however the sign is negative.

Only one macroeconomic variable i.e. CPI is significantly and negatively related to information asymmetry. However, other both have insignificant relationship with information asymmetry. Increase in CPI will increase the input cost of the institution and this may adversely affect the growth of the institution. Institution may needs financing to fulfill its operational cost, therefore, to get the financing, institution may disclose more information to creditor. This might be one of the reasons of negative relation of CPI with information asymmetry.

Table 6.8 shows the results of the construct of CG on asymmetric information index. The results show that the impact of construct of CG is significantly and positively related to asymmetric information index. This positive impact shows that governance structure of financial institutions might be weak in Pakistan. The results of CG construct with the interaction term of Institutional quality for the Islamic financial institutions are positive and significant. However, the results for CFIs are significant and negatively associated with the asymmetric information index. Different results could be due to the reason that institution can only play their role when the CG practices are good within the FIs. Results do not support the hypothesis that CG has a negative relationship with information asymmetry.

Further, the relationship of institutional quality with the AII is significant and negative. It means that if institutional quality is good. This will play role toward smooth flow of information. When institutions are strong the financial sector performs well and play their role toward growth of GDP (Rashid & Intartaglia, 2017). Winful *et al.* (2016)

also concluded in their study that institutional quality plays positive role toward performance of stock market. Results support the hypothesis of this study. A good quality institutions play their role toward transparency, contract enforcement and decrease agency cost (Lu *et al.*, 2009).

Institution specific variables are leverage and growth opportunities. Leverage has a significant and negative relationship with AII. This result is in line with previous results. However, growth opportunities have a positive and significant association with information asymmetry. This result is in line with the argument that institution with higher growth opportunities face higher information asymmetry problem (Smith & Watts, 1992).

GDP is significantly and negatively associated with AII, whereas, CPI has a positive and significant relation with AII. While, the relationship of KIBOR is significant and negative. Negative relationship with GDP is might be due to reason that when economy grows, financial institutions also grow. Performance of the financial institutions are good, therefore, this plays role toward smooth flow of information. CPI might play role toward hampering the performance of financial institutions. Therefore, the relationship with information asymmetry is positive. The reason behind negative relationship with KIBOR could be that when KIOBR increases the cost of debt also increase, therefore, institutions might search for alternative sources of finance and one of them is equity financing. Therefore, to increase the confidence of investors, institution might disclose more information.

6.8 Summary and Conclusion

In this chapter we presented the empirical results of the relationship of CG on performance, risk management and information asymmetry. First, we discussed the descriptive statistics of different variables of FIs. Further, we presented the results of each dimension of the study i.e. performance, risk management and information asymmetry with corporate and *Shari'ah* governance. Our results confirmed that CG has a significant relationship with performance, risk management and information asymmetry for IFIs and CFIs in context of Pakistan.

First we presented the results of the impact of CG on the performance of IFIs and CFIs. The impact is significant for all variables of CG for CFIs and CFIs. However, we observed on the basis of coefficient values that the impact of CG is strong for CFIs as compared to IFIs. Further, we observe that CG construct has a significant relationship with performance i.e. CG has an influence to drive the performance of financial institutions. Likewise, institutional quality has a positive relation with performance i.e. performance can be increased through increasing the quality of institutions. However, the relationship of *Shari'ah* Board is not positive with performance. This relationship is also confirmed in existing literature (Haris *et al.*, 2019; Aslam *et al.*, 2021; Norman & Haron, 2019).

The results of CG and risk management also confirmed the relationship. The impact of CG with risk management of both type of institutions is different from each other. Further, *Shari'ah* board has a negative relationship with operational and liquidity risk, however, it is significant with operational risk only. Its relationship with solvency is positive but not significant, its role toward solvency is positive. Relationship of CG

construct with risk is also significant but the behavior for IFIs and CFIs is different. Institutional quality has a negative relationship with operational and liquidity risk, however, positive with solvency. It means institutional quality is restricting institutions to take higher risks and making to institution solvent. Relationship of CG with risk management is also confirmed by previous studies (Permatasari, 2020; Mollah *et al.*, 2017).

The relationship of CG variables with SNCR is also significant and negative. In the same vain, the relationship of SSB with SNCR is negative. Overall, the role of majority of the variables of CG and SSB is positive toward reducing the risk of *Shari'ah* non-compliance. Further, CG has a negative relationship with SNCR. However, it is insignificant. Furthermore, the role of institutional quality is also positive toward reduction of the risk of *Shari'ah* non-compliance. Basiruddin and Ahmed (2019) has also confirmed this relationship in their studies.

Last dimension of the research is information asymmetry. Results confirmed the relationship of CG with information asymmetry. However, again the behavior of the relationship is different between IFIs and CFIs. As per the results, CG of IFIs is not playing positive role toward symmetric information. However, CG of CFIs is playing positive role toward symmetric information. *Shari'ah* board of IFIs is also playing positive role toward symmetric information. It means CG has a role to reduce the information asymmetry in CFIs. However, in IFIs SSB is playing role toward reduction of information asymmetry. Further, the construct of CG has a significant relationship with information asymmetry. CG playing positive role for symmetric information among concerned parties. However, the control of CG for symmetric information for CFIs is

stronger than IFIs. Furthermore, the role of institutional quality is confirmed through results. Role of institutional quality is positive toward reduction of information asymmetry. Existing body of knowledge also confirmed the relationship of CG and information asymmetry (Jamalinesari & Soheili, 2015; Lin *et al.* (2017).

Thus, as per the different theories presented in chapter three and literature review, the impact of CG with performance, risk management and information symmetry is confirmed. This means that CG has strong and significant role to derive the performance, risk management and information symmetry of financial institutions in Pakistan. Further, SSB has a significant influence to derive the performance of IFIs.

Summary of the acceptance or rejection of hypotheses of each dimension is given below.

Table 6. 9 CG and Performance of IFIs and CFIs

Sr. #	Statement	Institution	Decision Based on Results of IFIs and CFIs			
			ROE	ROA	CTI	Tobin Q
H_1	Board Size has a positive relationship with the performance of FIs	IFIs	Accept	Accept	Accept	Rejec.
		CFIs	Accept	Accept	Accept	Rejec.
H_2	Independent directors has positive relationship with the performance of FIs	IFIs	Rejec.	Rejec.	Rejec.	Accep.
		CFIs	Accep.	Accep.	Accep.	Rejec.
H_3	Ownership concentration has a positive impact on performance of FIs.	IFIs	Insig.	Accept.	Accept	Rejec.
		CFIs	Rejec.	Reject.	Accept	Reject
H_4	CEO duality has a negative role in determining the performance of FIs.	IFIs	Rejec.	Insig.	Rejec	Insig.
		CFIs	Insig.	Insig.	Accep.	Accep.
H_5	CEO remuneration has a positive impact on performance of FIs	IFIs	Insig.	Insig.	Rejected	Insig.
		CFIs	Accep.	Accep.	Accep.	Accep.
H_6	Size of the *Shari'ah* board is positively related to the performance of IFIs	IFIs	Rejec.	Rejec.	Rejec.	Accep.
		CFIs	NA*	NA	NA	NA
H_7	CG has strong impact the performance of FIs	IFIs	Accep.	Accep.	Accep.	Insig.
		CFIs	Accep.	Accep.	Accep.	Accep.

*Not applicable.

Table 6. 10 CG and Risk Management of IFIs and CFIs

Sr.#	Statement	Institution	Decision Based on Results of IFIs and CFIs			
			OPRSK	LIQRK	ZSCR	SNCR
H_1	Board Size has a positive relationship with risk taking of FIs	IFIs	Accep.	Accep.	Insig.	Accep.
		CFIs	Insig.	Accep.	Accep.	NA
H_2	Board independence has a negative relationship with risk taking	IFIs	Accep.	Accep.	Insig.	Accep.
		CFIs	Reject.	Reject.	Accep.	NA
H_3	CEO duality is negitively related to risk taking of FIs	IFIs	Accep.	Accep.	Accep.	Insig.
		CFIs	Insig.	Insig.	Accep.	NA
H_4	CEO remuneration/ compensation is negitively related to risk taking of FIs	IFIs	Rejec.	Insig.	Accept.	Insig.
		CFIs	Rejec.	Rejec.	Insig.	NA
H_5	Ownership concentraion has a significant inluence on risk taking of FIs.	IFIs	Accep.	Accep.	Accep.	Accep.
		CFIs	Accep.	Accep.	Reject.	Reject.
H_6	There is a negative relationship between the size of SSB and risk taking	IFIs	Accep.	Insig.	Insig.	Accep.
		CFIs	NA	NA	NA	NA
H_7	CG has a strong relationship with risk management	IFIs	Accep.	Accep.	Insig.	Insig.
		CFIs	Accep.	Accep.	Accep.	NA

Table 6. 11 CG and Information Asymmetry

Sr.#	Statement	Institution	Decision
H_1	There is a positive relationship between board size and information asymmetry.	IFIs	Insig.
		CFIs	Rejected
H_2	Board Independence has a negative relatioship with information asymmetry	IFIs	Insig.
		CFIs	Accepted
H_3	CEO duality has a positive impact on information asymmetry	IFIs	Accepted
		CFIs	Rejected
H_4	CEO remunation is negatively related to information asymmetry.	IFIs	Rejected
		CFIs	Insig.
H_5	There is a positive relationship between ownership concentraion and information asymmetry	IFIs	Accepted
		CFIs	Accepted
H_6	There is a negative relationship between size of SSB and information asymmetry.	IFIs	Accepted
		CFIs	NA
H_7	There is a negative relationship between CG and information asymmetry	IFIs	Rejected
		CFIs	Rejected

Table 6. 12 Institution Quality vs Performance, Risk Management and Information Asymmetry

Sr.#	Statement	Institutions	Decision
H_1	Institutional quality plays an important role in shaping the effect of CG on performance of financial institutions.	IFIs	Accepted
		CFIs	Accepted
H_2	Institutional quality plays an important role in shaping the effect of CG on risk management of financial institutions.	IFIs	Accepted
		CFIs	Accepted
H_3	Institutional quality plays an important role in shaping the effect of CG on information asymmetry of financial institutions.	IFIs	Accepted
		CFIs	Accepted

CHAPTER 7

CONCLUSION AND POLICY IMPLICATIONS

7.1 Introduction

This chapter is designed to discuss the conclusion of this dissertation. It also takes into account contribution of the study in existing literature, implications and recommendations for future research. Limitations of the study are mentioned in the last.

The concept of CG (CG) was first introduced in the United States in 1970s (Akmal *et al.*, 2020). However, it came into spotlight in the 1990s when some investors remained dissatisfied with the performance of the institutions, they had invested in. Keeping in view the importance of CG, we have examined the impact of CG on different aspects viz. performance, risk management and information asymmetry. For the estimation of the effect of CG, we have selected some of the institutions' specific variables and macroeconomic variables as controls. Accordingly, we have examined the impact of CG on efficiency, risk management and information asymmetry for the Islamic and conventional financial institutions.

Through the results we have attempted to address the objectives of this study, which relate to find out the impact of CG and *Shari'ah* governance on performance, risk taking (including SNCR), and information symmetry of Islamic and conventional financial institutions. We have also attempted to examine the role of institutional quality in shaping the effect of CG on performance, risk management and information symmetry of Islamic and conventional financial institutions.

To examine the aforementioned relationship empirically, we have applied regression analysis. Since, GMM is considered the most relevant technique to explore

such relationships therefore, we have used this technique for the analysis. The hypotheses formulated from theories and literature have been tested on the basis of the results of the research.

7.2 Key Findings

In this study we have highlighted the application of different theories of CG to understand the relationship between CG, performance, risk taking and information asymmetry. Based on results, some of the hypotheses are accepted while the others could not be supported by the results. Additionally, we have also highlighted the differences between Islamic and conventional financial institutions in result of relationship of CG with performance, risk taking and information asymmetry.

7.3 Corporate Governance and Performance

Overall, the different measures of CG are significantly related to the performance of Islamic and conventional financial institutions. Board size has a significant and positive impact for both Islamic and conventional financial institutions, however, the relationship with conventional financial institutions has stronger than the Islamic ones. This might be due to nascent nature of Islamic institutions. Board composition has a negative impact on performance of Islamic financial institutions while positive on the performance of conventional financial institutions. This transpire that independent directors have not performed effectively for Islamic financial institutions. Since, Islamic financial institutions are new entrant in market therefore, it could be possible that that the CEO or internal directors might have not shared proper information with independent directors. Ownership concentration has not played positive role for conventional financial institutions but otherwise in Islamic financial institutions. This could be due to the reason

that most of the Islamic financial institutions are not listed on stock exchange as they yet have not decided to go public.

The results depict that CEO's remuneration rightly aligned with his/her performance in conventional financial institutions, hence bringing positive impact on performance. However, this factor could not prove in case of Islamic financial institutions. Conversely, CEO duality played positive role for IFIs but not effective for CFIs. IFIs are new and they need quick decisions, if CEO is more powerful, he might play role for quick and timely decisions. IFIs should align CEO's remuneration with the performance, the results might be positive. Further, in Pakistan, cultural support concentrated power, therefore, CFIs should take appropriate measures, so that CEO's duality work properly.

As discussed earlier, significance of *Shari'ah* board is quite high for the *Shari'ah* compliance mechanism in Islamic financial institutions. However, the study could not evidence the said role of *Shari'ah* board toward performance Islamic financial institutions. This might be due to the limitations imposed by *Shari'ah* board in investing and financing activities of Islamic financial institutions that are not permissible.

CG is played positive role toward performance of Islamic and conventional financial institutions. The role of institutional quality also played positive toward performance of these institutions. This reflects the importance of the institutional quality toward performance of financial institution and in turn the economy as a whole.

In summary, we observed that the impact of CG variable and its constructs carried significant relationship with performance of Islamic and conventional financial institutions. The relationship of *Shari'ah* board found negative while institutional quality

found positive with performance. However, the relationship of CG with performance found stronger for conventional financial institutions as compared to Islamic ones. This might be due to the difference in nature of business, age, size and *Shari'ah* limitations toward prohibited transactions, restricting productivity of the Islamic financial institutions.

7.4 Corporate Governance and Risk Management

The regression analysis investigated the relationship between CG and risk management. Results indicated the positive relationship of board size with the operational and liquidity risks of Islamic and conventional financial institutions. While, the relationship with credit risk/bankruptcy found negative for both types of institutions and insignificant for Islamic financial institutions. Impact of board composition on risk taking and bankruptcy of Islamic financial institutions found negative. However, this relationship was positive and significant for conventional financial institutions. This means independent directors played due role in conventional financial institutions and this might be due to their age and maturity.

CEO duality has left a negative relationship with operational and liquidity risks for IFIs. Yet, positive with solvency of the institutions. CEO duality has an insignificant relationship with operational and liquidity risk for conventional financial institutions. However, it has a positive and significant relationship with solvency. Ownership concentration has a negative relationship with both types of institutions for different type of risks.

As mentioned earlier *Shari'ah* board is also important in decision-making process, therefore, it has a role in risk taking behavior of the institution. In this study,

Shari'ah board has a negative relationship with operational and liquidity risks. However, it has a positive relationship with solvency but insignificant. *Shari'ah* board also constrains the management to take excessive risks. *Shari'ah* Board has played a positive role toward solvency of institution as the creditworthiness of the institution increases due to presence of *Shari'ah* scholar/board in institution.

Construct of the CG has a negative and significant relationship with operational and liquidity risks of Islamic financial institutions and positive for conventional financial institutions. However, it played a positive role toward solvency of Islamic and conventional financial institutions. When we run the regression with the interaction term of institutional quality, the coefficient values decreases without changing of sing. This means that institutional quality moderated the relationship between CG and risk taking. Institutional quality itself has a negative and a significant relationship with operational and liquidity risks. Yet, it played a positive role toward solvency of both type of institutions.

Relationship between CG and risk management has also confirmed through results. Behavior of the relationship of CG with risk management is also different for both type of intuitions. *Shari'ah* board has a negative relationship with operational and liquidity risks, however, it has a positive impact on solvency. Nonetheless, it found significant with operational risk only. Institutional quality has a negative relation with operational, liquidity and insolvency risks.

7.5 Corporate Governance and *Shari'ah* Non-compliance Risk (SNCR)

SNCR is a unique risk for Islamic financial institutions. When we examined the role of the CG on SNCR, we observed that board size has a positive and significant

impact on SNCR. Nonetheless, board composition has a negative and significant impact on SNCR, which means that large number of board of directors may increase the SNCR due to coordination issues. While independent board of directors found good to reduce the SNCR. Further, *Shari'ah* board and ownership concentration have a negative and significant relationship with SNCR. Since, the main role of *Shari'ah* board is to ensure *Shari'ah* compliance in activities of the institution, therefore, it has a negative impact toward SNCR. Further, *shari'ah* non-compliance leaves negative image among the public and decreases the performance ultimately. This might be the reason that owners plays role to decrease this risk.

CG construct has a negative and insignificant impact on SNCR. Institutional quality has also a negative and significant relationship with SNCR. Results depict that good institutional quality played role toward reduction of SNCR. Interaction term of institutional quality with CG has a positive role toward SNCR. The managers might have not played their role efficiently as the institutions become strong and make managers accountable. This could be the possible reason of positive relation.

Overall, the role of CG variables and its construct has a positive role toward managing SNCR. Further, the role of *Shari'ah* board is also positive to reduce SNCR. Moreover, the institutional quality has a negative relationship with SNCR i.e. strong institutions have role to decrease the SNCR.

7.6 Corporate Governance and Information Asymmetry

Information asymmetry is a state where one party has more information than the other. One of the important role of the managers is to ensure the symmetric information flowing through all stakeholders. Therefore, we have regressed the CG on information

asymmetric index. Results showed that the board size and composition have impacted negatively on information asymmetry for conventional financial institutions. However, both were insignificant for Islamic financial institutions. CEO duality, CEO remuneration and ownership concentration played positive role toward information asymmetry for Islamic financial institutions. The reason might be that CEO remunerations are not rightly aligned to their role, hence the requisite performance is not coming up. Yet, the ownership concentration has played a positive role toward asymmetric information for both Islamic and conventional financial institutions. Large shareholders might influence the managers not to share information of vital importance with minority shareholders.

CEO duality and CEO remuneration both have a negative relationship with information asymmetry for conventional financial institutions. These results depict that CEO remuneration righteously aligned and he/she has been using his/her power wisely. This might be due to the age and maturity of conventional financial institutions as contrast to Islamic ones. *Shari'ah* board of Islamic financial institutions has a negative relationship with information asymmetry. It means *Shari'ah* board played due role to reduce the information asymmetry. As, one of the role of *Shari'ah* board is to ensure the transparency and *Shari'ah* compliance.

When we regressed CG construct on information asymmetry, the results show that CG has a positive relation with information asymmetry for Islamic and conventional financial institutions. It means that CG not played effective role to reduce information asymmetry. The relationship of the CG with interaction term of institutional quality for Islamic found positive and for conventional found negative. Results showed that interaction term of institutional quality has impact to reduce the information asymmetry.

However, results are stronger for conventional financial institutions. The individual effect of institutional quality on information asymmetry found negative. This shows that institutional quality does play role to reduce information asymmetry.

In sum, CG has a significant relationship with information asymmetry. Behavior of relationship varied between Islamic and conventional financial institutions. CG of Islamic financial institutions not played effective role as compared to conventional to reduce the level of information asymmetry. However, institutional quality played positive role toward reducing information asymmetry.

7.7 Contribution to the Knowledge

This research has significant contribution to the existing body of knowledge by analyzing the relationship among CG, performance, risk management and information asymmetry. To the best of our knowledge, this is the first study, which takes into account the Islamic and conventional financial institutions of Pakistan. Further, this is the first study in which we have analyzed the relationship of CG with performance, risk management and information asymmetry. Therefore, this study will have very important implication for all stakeholders, which include managers, board of directors, CEOs, shareholders and regulators and policy makers. These findings would provide them insight to improve and strengthen the CG in efficient and effective manner for better performance, risk management and for providing symmetric information. Empirically, we have contributed in the following way:

- This study filled the gap in way that to the best of our knowledge this is the first research which took into consideration the whole financial sector of Pakistan, to

check the impact of CG on performance, risk management and information asymmetry.

- Further, this is the first study in context of Pakistan in which we have investigated the impact of CG on SNCR of Islamic financial institutions.
- Moreover, this research filled the gap by examining the role of CG on information asymmetry of Islamic and conventional financial institutions.
- The results provide the evidence that strong relationship of CG exist with performance, risk management and information asymmetry.
- *Shari'ah* board of Islamic financial institutions has a significant relationship with performance, risk management and information asymmetry.
- CG and *Shari'ah* governance of Islamic financial institutions have a significant relationship with SNCR.
- The behavior of relationship of CG varies for Islamic and conventional financial institutions.

7.8 Recommendation and policy Implications

This study has multiple implications at managerial level as well as policy level. First the CG as a whole and its different measures i.e. board size, composition, role duality, compensation and ownership concentration have a significant impact on performance, risk management and information asymmetry. Therefore, due consideration should be given while making decision to elect board of directors, CEOs and their remuneration. Since, CG plays an important role in the performance of financial sector, the policy makers should be careful while formulating polices under the code of CG. Overall, independent directors play a positive role toward performance of the companies,

risk management and information asymmetry. It is therefore urged that the instructions of the Securities and Exchange Commission of Pakistan for appointment of the independent board of directors be implemented in true letter and spirit. The institutions should involve independent board of directors with sound financial knowledge and operational matters.

The independent directors and CEO's remuneration are not impacting well on the performance of IFIs. Therefore, independent directors should be chosen on the basis of relevant experience and *Shari'ah* and financial knowledge. Further, CEOs remuneration should be aligned with the market as well as the performance of the organization. Results depict that CEO's duality plays negative role toward performance of CFIs. Therefore, this role should be separated for the better performance of the institutions. Moreover, the concentration of ownership has not proved beneficial for the performance of IFIs and CFIs and the size of the *Shari'ah* board leaves negative impact on the performance of IFIs. It is therefore needed that IFIs should choose those scholars with requisite expertise about financial and operational matters of their institution who would be able to play a positive role towards performance of IFIs. Further, the *Shari'ah* board should facilitate the business of IFIs without any compromise on *Shari'ah* compliance. Moreover, *Shari'ah* board should increase their competences in banking business enabling to understand business activates in a better way. Institutional quality also leaves positive impact on performance of both IFIs and CFIs.

This study reveals that CG is an important factor in risk management. Since the board size has a positive role toward risk taking and solvency of IFIs and CFIs, therefore, a suitable size of board should be chosen to manage the risk effectively. Risk taking behavior of IFIs differs from conventional counterparts on different aspects of CG,

therefore, the regulators and international standard setting bodies should tailor regulatory framework accordingly. The size of the *Shari'ah* board has proved insignificant for liquidity and insolvency which requires that the regulators should set fit and proper criteria accordingly i.e. scholar should have knowledge of financial matters. Further, institutional quality has positive contribution toward risk taking and solvency; therefore, effort should be made to strengthen these institutions.

Shari'ah non-compliance is a unique risk faced by IFIs. Therefore, the board of directors must pay attention to avoid this risk as it results into the loss of both reputation and resources of the IFI. Regulators have already taken initiative to hold BODs responsible for this type of risk and issued guidelines to improve *shari'ah* compliance of the institutions. However, the BODs should take this responsibility at their own to improve the level of *Shari'ah* compliance at institutional level.

For information symmetry, the board size, board composition and CEO remuneration are not playing effective role for IFIs, therefore, these areas are required to be reconsider and structural changes be carried out. Overall, the CG is not playing effective role to restrict asymmetric information for both IFIs and CFIs. The due importance, therefore should be given in this regard. SSB has a role to decrease the information asymmetry from *Shari'ah* perspective, as well. Therefore, they should keep an eye on this issue continuously to reduce the information asymmetry on all levels and for all stakeholders, especially for *Mudarabah* base depositors in order to safeguard the interest of stakeholders.

Recommendations for SECP and SBP

Corporate sector of Pakistan is being regulated by SECP in Pakistan, which is working under the control of Ministry of Finance (MOF). Currently, SECP is responsible

to regulate the corporate matters of capital market and non-banking financial institutions. While SBP is mandated with regulation of the banking sector in Pakistan.

SECP has issued CCG and established Pakistan Institute of Corporate Governance (PICG) to increase the awareness and advantages of CG in business community. Keeping in view the continually changing environment, SCEP should consider updating the CCG more frequently, rather after a period of five or ten years, and with its implementation effectively. There is also a need to introduce an assessment criteria and independent rating agencies to issue rating on the basis of the quality of CG practices. It is also recommended that number of independent directors should also be increased to two in terms of clause 6.1 of CCG, 2019 since independent directors have played important role in enhancing the performance of institutions in this study. There should be a proper criteria to set the remuneration of directors in order to enhance their productivity (clause 16&17, CCG, 2019). Also, there should be an appropriate training curriculum for training of the members of the BODs including independent directors.

CG for the banking sector is very important keeping in view the share of banking in financial sector and GDP of Pakistan. Role of BOD in banking sector is twofold; protect the interest of shareholders and depositors. Therefore, the alignment of the interest of management with shareholders and depositors must be ensured. Ownership structure of banking sector varied significantly in Pakistan such as the state owned, foreign owned and family owned banks. Some of them are the part of industrial groups having vested interests in allied industries. Therefore, in the given circumstances, a good CG can ensure fairness and transparency in financing/lending activities. SBP had also issued a handbook and guidelines regarding CG from time to time for the banking sector.

CCG issued by SECP is also applicable on banks, however, SBP guidelines and prudential regulations supersede CCG. SBP may focus more on independence of board of directors (clause 3.11 of Ch. # 3 of Handbook on CG) as family owned intuitions might take control on the BODs. Further, training and relevant qualification of board of directors is also important to discharge their duties. SBP has also issued guidelines for the annual performance evaluation of the BODs of every bank (Circular No. 11 of 2016 dated 22nd August, 2016). The frequency of the external evaluation should be increased from every three years to yearly basis, due to ever changing circumstances in which the banks operate. Further, besides PICG, there should be other evaluators as well to independently evaluate the performance of BODs. Moreover, it is recommended that SBP may look into the ways for better implementation of these guidelines, as well as, the CCG for smooth running of this sector.

7.9 Limitations and Avenues for Future Research

This dissertation has certain limitations, however, it also opens some new avenues for future research. First, this research only relies on quantitative method for to investigate the relationship due to limitation of time and resources. However, qualitative techniques may be adopted like questionnaire and interviews to support the evidence and for comprehensive understating of the relationship CG with performance, risk management and information asymmetry. Secondly, this research used limited proxies to measures performance, risk management and information asymmetry. Nevertheless, there are certain other proxies which can be used for the analysis.

Thirdly, for future research, the time span can be increased to investigate the same relationship. Further, some other financial institutions can also be added like

microfinance banks and leasing companies for the analysis. Fourthly, more variables can be added for performance and risk management. IFIs are new entrants in the market and they are different form conventional counterparts, conceptually and socio-religious level. Therefore, a separate comprehensive regulatory framework for CG and for *Shari'ah* governance is required. This draws attention of researchers for new research in this field.

REFERENCES

Abdul Rahman, R., & Haniffa, R. M. (2003). Effectiveness of internal governance mechanisms: an empirical analysis of Malaysian listed companies for the period 1996-2000. *In Proceedings of ANZAM Conference*, Australia.

Abdul Rashid, Maurizio Intartaglia , (2017)," Financial development – does it lessen poverty? ", *Journal of Economic Studies, 44*, 69 – 86.

Abdullah M.I., Sarfraz M., Qun W., Chaudhary M., (2019). Ownership concentration impact on firm financial performance. *Log Forum 15* (1), 107-118.

Abdullah Saif Alnasser, S., & Muhammed, J. (2012). Introduction to CG from Islamic perspective. *Humanomics, 28*(3), 220-231.

Abdullah, H., & Valentine, B. (2009). Fundamental and ethics theories of CG. *Middle Eastern Finance and Economics*, *4*(4), 88-96.

Abdullah, M. I., Sarfraz, M., Qun, W., & Chaudhary, M. (2019). Ownership concentration impact on firm financial performance. *Log Forum, 15*(1), 107-118.

Abdullah, M. N., Parvez, K., & Ayreen, S. (2014). Bank specific, industry specific and macroeconomic determinants of commercial bank profitability: A case of Bangladesh. *World Journal of Social Sciences,* 4(3), 82 – 96.

Abdullah, M., Shahimi, S. and Ismail, A.G. (2011), Operational risk in Islamic banks: examination of issues. *Qualitative Research in Financial Markets, 3* (2), 131-151.

Aboody, D., and B. Lev, (2000). Information Asymmetry, R&D, and Insider Gains. *Journal of Finance 55*(6), 2747–2766.

Abor, J. and Biekpe, N. (2007). Corporate Governance, ownership structure and performance of SMEs in Ghana: implications for financing opportunities. CG: *The International Journal of Business in Society, 7*(3), 288-300.

Abu-Tapanjeh, A. M. (2009). Corporate Governance from the Islamic perspective: A comparative analysis with OECD principles. *Critical Perspectives on accounting*, *20*(5), 556-567.

Abu-Tapanjeh, M. (2006). Good Corporate Governance mechanism and firms' operating and financial performance: Insight from the perspective of Jordanian industrial companies. *Journal of King Saud University, 19*(2), 101-121.

Acemoglu D, Johnson S, Robinson JA (2001). An African Success Story: Botswana. *MIT Department of Economics Working Paper* No. 01-37. Available at SSRN: http://ssrn.com/abstract=290791 or http://dx.doi.org/10.2139/ssrn.290791

Adams, R., and Ferreira, D. (2009) Ownership Structure, Voting, and Risk. *Oxford Journals Review of Financial Studies, 28*(2), 521-560.

Adams, R. and H. Mehran, (2012). Bank board structure and performance: Evidence for large bank holding companies. *Journal of Financial Intermediation, 21*(2): 243-267.

Adams, R. B., & Ferreira, D. (2007). A theory of friendly boards. *The Journal of Finance, 62*(1), 217-250.

Adams, R. B., & Mehran, H. (2008). Corporate Performance, Board Structure and Its Determinants in the Banking Industry. *Federal Reserve Bank of New York, Staff Report No.* 330.

Adams, R.B., Almeida, H., Ferreira, D., (2005). Powerful CEOs and their impact on corporate performance. *Review of Financial Studies. 18*, 1403–1432.

ADB (2008), Private sector Assessment in Pakistan., Asian Development Bank. Pakistan

Adegbite, E., Amaeshi, K., Nakajima, C., (2013). Multiple influences on CG practice in Nigeria: agents, strategies and implications. *International Business Review*, 22(3), 524–538.

Adnan, M. A., Haty, S. N., & Meera, H. M. (2011). Panel Data Analysis Of Malaysian Listed Banks on CG and Risk. *Economics, Management, and Financial Markets,* 6(1), 957–974.

Adnan, M. A., Htay, S. N. N., Rashid, A., Majdi, H., Meera, M., & Kameel, A. (2011). A Panel Data Analysis on the Relationship between Corporate Governance and Bank Efficiency. *Journal of Accounting, Finance and Economics, 1*(1), 1-15.

Aebi, V., Sabato, G., & Schmid, M. (2012). Risk management, CG, and bank performance in the financial crisis. *Journal of Banking & Finance, 36*, 3213–3226.

Aerts, W., Cormier, D., & Magnan, M. (2007). The association between web-based corporate performance disclosure and financial analyst behaviour under different governance regimes. *Corporate Governance: An International Review, 15*(6), 1301-1329.

Agrawal A., Knoeber C. (1999). Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantitative Analysis, 31*, 377-397.

Agrawal, A., Knoeber, C.R., (1996). Firm performance and mechanisms to control agency problems between managers and shareholders. *The Journal of Financial and Quantitative Analysis. 31*, 377–397.

Agyei-Mensah, B.K. (2017). The relationship between Corporate Governance, corruption and forward-looking information disclosure: a comparative study. Corporate Governance, 17 (2), 284-304.

Ahmad, K. (2000). Islamic finance and banking: the challenge and prospects. *Review of Islamic Economics*, 57-82.

Ahmad, Naveed., Tariq, Suleman. Muhammad., Hamad, Naqvi., Samad, Sadia. (2014). An Exploration of CG and Its Relation with Financial Performance: A case study from Banking Institutions of Pakistan. *Arabian Journal of Business and Management Review (Oman Chapter), 4*(1).

Ahmad, S., & Omar, R. (2016). Basic Corporate Governance models: a systematic review. *International Journal of Law and Management, 58* (1), 73-107.

Ahmed Sheikh, N., Wang, Z., & Khan, S. (2013). The impact of internal attributes of CG on firm performance: evidence from Pakistan. *International Journal of Commerce and Management, 23*(1), 38-55.

Ahmed, A., Rehan, R., Chhapra, I. U., & Supro, S. (2018). Interest rate and financial performance of banks in Pakistan. *International Journal of Applied Economics, Finance and Accounting, 2*(1), 1-7.

Ahmed, H. (2011a). *Shari'ah* governance regimes for Islamic finance: types and appraisal. *Economia Internazionale (International Economics), 64* (4), 393-412.

Aik, A. C. (2004). The Impact of Corporate Governance Practices on Firms' Financial Performance Evidence from Malaysian Companies. *ASEAN Economic Bulletin* , *21*(3),308-318,.

Al Shammari, H. (2018). CEO Incentive compensation and risk-taking behavior: The moderating role of CEO characteristics. *Academy of Strategic Management Journal, 17*(3), 1-15.

AlAbbad, A., Hassan, M.K. and Saba, I. (2019). Can *Shari'ah* board characteristics influence risk-taking behavior of Islamic banks? *International Journal of Islamic and Middle Eastern Finance and Management*, 12(4), 469-488

Alagathurai, A., & Nimalathashan, B. (2013). Corporate Governance and Banking Performance. A ComparativeStudy between Private and State Banking Sector in Sri Lanka. *European Journal of Business and Management*, *5*(20), 92-100

Alam Choudhury, M., & Nurul Alam, M. (2013). Corporate Governance in Islamic perspective. *International journal of Islamic and Middle Eastern finance and management, 6*(3), 180-199.

Alam, A., & Ali Shah, S. Z. (2013). Corporate Governance and its impact on firm risk. *International Journal of Management, Economics and Social Sciences, 2*(2), 76-98.

Al-Bukhari, Muhammad bin Ismail (256H), Al-Sahih Al-Sahih, (Dar Tauq al-Najat, 1422H), *Bab al-Juma' Fi al-Qura wa al-Mudan*, 2: 5.

Al-Bukhari, Muhammad bin Ismail (256H), Al-Sahih Al-Sahih, (Dar Tauq al-Najat, 1422H), *Kitab al-Hiyal, Bab Ihtiyal al-'Amil Li Yahdia Lahu*, 9: 28.

Al-Buraey, Muhammad (1985). Administrative Development: An Islamic Perspective. *London: KPI Limited.*

Alchian, A.A. and Demsetz, H. (1972). Production, Information Costs and Economic Organization. *American Economic Review, 62*, 772-795.

Alexakis, C., & Tsikouras, A. (2009). Islamic finance: regulatory framework–challenges lying ahead. *International Journal of Islamic and Middle Eastern Finance and Management*, *2*(2), 90-104.

Ali, K., Akhtar, M. F., & Sadaqat, S. (2011). Financial and Non-Financial Business Risk Perspectives - Empirical Evidence from Commercial Banks . *Middle Eastern Finance and Economics,11*,150-160.

Ali, K., Akhtar, M. F., & Ahmed, H. Z. (2011). Bank-specific and macroeconomic indicators of profitability-empirical evidence from the commercial banks of Pakistan. *International Journal of Business and Social Science*, 2(6), 235-242.

Ali, S., Hussain, N., & Iqbal, J. (2021). Corporate Governance and the insolvency risk of financial institutions. *The North American Journal of Economics and Finance*, 55, 101311.

Allen, F., & Carletti, E. (2008). Mark-to-market accounting and liquidity pricing. *Journal of accounting and economics, 45*(3), 358-378.

Allen, F., (1993), Stock Markets and Resource Allocation, inCapital Markets and Financial Intermediation, edited by C. Mayer and X. Vives, Cambridge, *U.K.: Cambridge University Press,* 81–108.

Allen, F., (2001). Financial Structure and Financial crises. *International Review of Finance, 2*, 1-19.

Alman, M. (2012). *Shari'ah* supervisory board composition effects on Islamic banks' risk-taking behavior. *Journal of Banking Regulation, 14*(1), 134-163

Al-Mawardi, Ali b Muhammad (2005). Al-Ahkam al-Sultaniyyah (The Law of Islamic Governance). (Translated by Asadullah Yate*). London: Taha Publisher.*

Almutairi, A.R. and Quttainah, M.A. (2017). Corporate Governance: evidence from Islamic banks. *Social Responsibility Journal*, 13(3), 601-624

Alonso, J. A., & Garcimartín, C. (2013). The determinants of institutional quality. More on the debate.*Journal of International Development, 25*(2), 206–226.

Al-Saidi, Mejbel, and Bader Al-Shammari (2015). Ownership concentration, ownership composition and the performance of the Kuwaiti listed non-financial firms." *International Journal of Commerce and Management, 25*(1): 108-132.

Al-Shatibi, Ibrahim bin Musa (790H), *Al-Muafqat,* (Dar Ibn 'Affan, 1997), 4: 348

Altunbaş, Y., and J. Thornton. (2012). Does financial development reduce corruption? *Economics Letters 114* (2):221–23.

Amihud, Y. & Lev, B. (1981). Risk reduction as a management motive for conglomerate mergers. *Bell Journal of Economics, 12*(2), 605-617.

Amini, S., Delgado, M.S., Henderson, D.J. and Parmeter, C.F. (2012). Fixed vs Random: The Hausman Test Four Decades Later", Baltagi, B.H., Carter Hill, R., Newey, W.K. and White, H.L. (Ed.) Essays in Honor of Jerry Hausman (Advances in Econometrics), *Emerald Group Publishing Limited, Bingley, 29*, 479-513.

Dowling, J. & Pfeffer, J., (1975) "Organizational legitimacy: Societal values and organizational behaviour".*Pacific Sociological Review, .18*, 122-136.

Ammann, M., Oesch, D., Schmid, M.M., (2011). Corporate Governance and firm value: International evidence. *J. Empirical Finance* 18, 36–55.

An, Y., Davey, H., & Eggleton, I. R. (2011) towards a comprehensive theoretical framework for voluntary IC disclosure. *Journal of Intellectual Capital,12*(4), 571-585.

Anderson R., Mansi S., David R. (2004), Board characteristics, accounting report integrity, and cost of debt , *Journal of Accounting and Economies 37*, 315-342

Anderson, R., Duru, C.A., Reeb, D.M., (2009). Founders, heirs, and corporate opacity in the United States. *Journal of Financial Economics 92*, 205–222.

Andres, Pablo-de, Vallelado, E., (2008). Corporate governance in banking: The role of the board of directors. *Journal of Banking & Finance 32*, 2570-2580

Archer, S. and Abdullah, H. (2007). Operational risk exposures of Islamic banks, in Archer, S. and Karim, R.A. (Eds), Islamic Finance: Regulatory Challenges, *Wiley, Singapore*, 121-131.

Archer, S., Ahmed, R. and Al-Deehani, T. (1998). Financial contracting, governance structures, and the accounting regulation of Islamic banks: an analysis in terms of agency theory and transaction cost economics. *Journal of Management and Governance*, *2*(2) ,149-70.

Arellano, M., Bond, S., (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies 58*, 277–297.

Arellano, M., Bover, O., (1995). Another look at the instrumental variable estimation of error-component models. *Journal of Econometrics 68*, 29–51.

Argenti, J. (1976), Corporate Collapse: The Cause and Symptoms. Mc Graw-Hill. Altman E. I., *Journal of Finance 23*, 589-609

Arif, K., & Syed, N. (2015). Impact of Corporate Governance on performance of a firm: A comparison between commercial banks and financial services companies of Pakistan. European Journal of Business and Management, *7*(10), 54-60.

Ariffin, N. M., Archer, S., & Karim, R. A. A. (2009). Risks in Islamic banks: Evidence from empirical research. *Journal of Banking Regulation*, *10*(2), 153-163.

Arslan, M., & Alqatan, A. (2020). Role of institutions in shaping Corporate Governance system: evidence from emerging economy. *Heliyon*, 6(3), e03520.

Arslan, M., Abidin, S., Alqatan, D., & Roudaki, J. (2019). Corporate Governance in extreme institutional environment: evidence from emerging economy. *Corporate Ownership & Control,* 17(1), 211-235.

Ashbaugh-Skaife, H., Collins, D. W., & LaFond, R. (2006). The effects of Corporate Governance on firms' credit ratings. *Journal of accounting and economics, 42*(1-2), 203-243.

Ashraf D, Rizwan MS, L'Huillier B (2016) A net stable funding ratio for Islamic banks and its impact on financial stability: an international investigation. *Journal of Financial Stability 25*:47–57.

Aslam, E., Haron, R., & Ahmad, S. (2021). A comparative analysis of the performance of Islamic and conventional banks: does corporate governance matter?. *International Journal of Business Excellence*, 24(1), 53-67.

Aslam, E. and Haron, R. (2020). Does Corporate Governance affect the performance of Islamic banks? New insight into Islamic countries. *Corporate Governance*, *20*(6), 1073-1090.

Assane, D., and A. Grammy (2003). Institutional framework and economic development: International evidence. *Applied Economics 35*(17):1811–17.

Asyraf, W. D. (2006). Stakeholders' expectation toward corporate social responsibility of Islamic Banks. *In IIUM International Accounting Conference* (INTAC) III.

Attig, N., & Morck, R. (2005). Boards, Corporate Governance in a typical country. *In CEA 39th Annual Meeting.*

Auda, J. (2007). *Maqasid Al-Shariah* as Philosophy of Islamic Law: A Systems Approach. *The International Institute of Islamic Thought*, London, UK.

Awan, S. H. (2012). Effect on board composition on firm performance: A case of Pakistan Pakistani listed companies. Interdisciplinary *Journal of Contemporary Research in Business, 3*(10), 853-863.

Ayorinde, Oladayo.,Ajala. Toyin, Amuda. And Leye, Arulogun. (2012). Evaluating the Effects of Corporate Governance on the performance of Nigerian Banking Structure. *Review of Contemporary Business Research*, 1(1), 32 -42.

Azeez, A. A. (2015). Corporate Governance and firm performance: evidence from Sri Lanka. *Journal of Finance, 3*(1), 180-189.

Aziz, S., Husin, M., & Hashmi, S. H. (2016). Performance of Islamic and Conventional Banks in Pakistan: A Comparative Study. *International Journal of Economics and Financial Issues*, 6(4): 777-780.

Bae, K., Kang, J., Kim, J., (2002). Tunneling or value added? Evidence from mergers by Korean business groups. *Journal of Finance 57*, 2695–2740.

Baek, J. S., J. K. Kang, and K. S. Park, (2004), Corporate Governance and firm value: Evidence from the Korean financial crisis, *Journal of Financial Economics 71*, 265–313.

Bahreini, Mahboubeh. And Zain, Mat., Mazlina. (2013). Impact of Corporate Governance on performance of banking sector in Malaysia. *Research Journal of Finance and Accounting* , *4*(19), 53-62.

Baltagi BH (2005) Econometric analysis of panel data. *Wiley, Chichester*. P14

Baltagi BH, Wu PX (1999) Unequally spaced panel data regressions with AR(1) disturbances. *Econ Theory 15*: 814–823

Bandyopadhyay, A. (2006). Predicting probability of default of Indian corporate bonds: logistic andZ-score model approaches. *The Journal of Risk Finance*, 7, 255-272.

Banerji, K. and Sambharya, R. B. (1996). Vertical Keiretsu and International Market Entry: The Case of the Japanese Automobile Ancillary Industry. *Journal of International Business Studies*, 27, 89–114.

Barako, D.G., Hancock, P. and Izan, H.Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan Companies. Corporate Governance: *An International Review,14*(2), 107-125.

Barkema, H.G. & Gomez-Mejia, L.R. (1998). Managerial compensation and firm performance: A general research framework. *Academy of Management Journal, 41*(2), 135-145.

Barnhart, S. W. and Rosenstein, S. (1998) Board Composition, Managerial Ownership, and Firm Performance: *An Empirical Analysis,Financial Review, 33*, 1–16.

Barton, D., Coombes, P., & Wong, S. Y. (2004). Asia's governance challenge .*McKinsey Quarterly, 2*, 54–61

Bashir, U., Fatima, U., Sohail, S., Rasul, F., & Mehboob, R. (2018). Internal Corporate Governance and Financial Performance Nexus; a Case of Banks of Pakistan. *Journal of Finance and Accounting, 6*(1), 11-17.

Basiruddin, R., & Ahmed, H. (2019). Corporate Governance and *Shari'ah* non-compliant risk in Islamic banks: evidence from Southeast Asia. Corporate Governance: *The International Journal of Business in Society. 20*(2). 240-262.

Bastian, B., & Zali, M. R. (2016). The impact of institutional quality on social networks and performance of entrepreneurs. *Small Enterprise Research*,.23(2), 151-171.

Basuroy, Suman, Kimberly C. Gleason, and Yezen H. Kannan (2014). CEO compensation, customer satisfaction, and firm value. *Review of Accounting and Finance, 13*(4): 326-352.

Bauer, R., Frijns, B., Otten, R., Tourani-Rad, A., (2008). The impact of Corporate Governance on corporate performance: evidence from Japan. *Pacific-Basin Finance Journal 16*, 236-251.

Baysinger, B. D. and Zardkoohi, A. (1986) Technology, Residual Claims and Corporate Control, *Journal of Law, Economics and Organization, 2*, 339–344.

Beatty, R. P. and Zajac, E. J. (1994). Managerial Incentives, Monitoring, and Risk Bearing: A Study of Executive Compensation, Ownership, and Board Structure in Initial Public Offerings, *Administrative Science Quarterly, 39*, 313–335.

Bebchuk , A . and Hamdani , A. (2009). The Elusive Quest for Global Governance Standards. *University of Pennsylvania Law Review*, 157 (2009), 1263-1317.

Bebchuk, L.A. & Spamann, H., (2010). Regulating bankers' pay. *Georgetown Law Journal 98*, 247–287.

Bebchuk, L.A. and Fried, J.M. (2004). Pay without performance: the unfulfilled promise of executive compensation, PartII: power and pay. Boston, MA: *Harvard University Press*.

Beck, T., Demirguc-Kunt, A., Merrouche, O., (2013). Islamic vs. conventional banking: Business model, efficiency, and stability. *Journal of Banking and Finance 37*, 433-447

Beeks, W. and Brown, P.R. (2005). Do better-governed Australian firms make more informative disclosures?", available at http://ssrn.com/abstract 650062orhttp://dx.doi.org/10.2139/ ssrn.650062 (accessed 31 May 2013).

Beltratti, A., Stulz, R.M., (2012). The credit crisis around the globe: why did some banks perform better? *J. Financial Econ. 105*, 1–17.

Ben Zeineb, G. and Mensi, S. (2018). Corporate Governance, risk and efficiency: evidence from GCC Islamic banks", *Managerial Finance*, 44(5), 551-569.

Ben Zeineb, G., & Mensi, S. (2018). Corporate Governance, risk and efficiency: evidence from GCC Islamic banks. *Managerial Finance, 44*(5), 551-569.

Berle, A. A. and Means, G. C. (1932). The Modern Corporation And Private Property. *New York: Commerce Clearing House*.

Bernanke, B. S. (1983). Non-monetary effects of the financial crisis in the propagation of the Great Depression (No. w1054). *National Bureau of Economic Research.*

Bhagat, S., & Bolton, B. (2013). Director ownership, governance, and performance. *Journal of Financial and Quantitative Analysis, 48*(1), 105-135.

Bhagat, S., & Bolton, B. (2019). Corporate Governance and firm performance: *The sequel. Journal of Corporate Finance, 58*, 142-168.

Bhatti, M. and Bhatti, M.I. (2010). Toward understanding Islamic Corporate Governance issues in Islamic finance, *Asian Politics and Policy, 2* (1), 25-38.

Bhushan, R. (1989). Firm Characteristics and Analyst Following. *Journal of Accounting and Economics* ,11(2-3), 255-274.

Bilal M, Saeed A, Gull AA, Akram T (2013). Influence of bank specific and macroeconomic factors on profitability of commercial banks: a case study of Pakistan. *Research Journal of Finance and Accounting 2*(2): 117–126

BIS. (2010). Principles for Enhancing Corporate Governance. Bank for International Settlement (BIS), *Basel, Switzerland.*

Black, B. S., H. Jang, and W. Kim, (2006). Does Corporate Governance predict firms' market values? Evidence from Korea, *Journal of Law, Economics & Organization* 22, 366–413.

Blaško, M., & Sinkey, J. F. (2006). Bank asset structure, real-estate lending, and risk-taking. *The Quarterly Review of Economics and Finance, 46*, 53–81.

Bloom, N., & Van Reenen, J. (2010). Why do management practices differ across firms and countries?*Journal of Economic Perspectives*, *24*(1), 203–224.

Blundell, R., Bond, S., (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics 87*, 115–143.

Bohachova, O. (2008). The impact of macroeconomic factors on risks in the banking sector: a cross-country empirical assessment (No. 44). *IAW Diskussionspapiere.*

Boone, A, Field, L., Karpoff, J. & Raheja, C. (2007). The determinants of corporate board size and composition: An empirical analysis. *Journal of Financial Economics, 85*, 65-101

Bosch, H. (ed.) (1995) Corporate Practices and Conduct. *Melbourne: FT Pitman Publishing.*

Botosan, C. A. (2006). Disclosure and the cost of capital: what do we know*? Accounting and business research, 36*(sup1), 31-40.

Bourakba, C., & Zerargui, H. (2015). The relationship between credit risk and CORPORATE GOVERNANCE in Islamic banking: An empirical study. *Issues in business management and economics, 3*(4), 67-73.

Bourkhis, K., Nabi, M.S., (2013). Islamic and conventional bank' soundness during the 2007-2008 financial crisis. *Review of Financial Economics 22*, 68-77.

Bouvatier, V., Lepetit, L., Rehault, P. N., & Strobel, F. (2018). Bank insolvency risk and Z-score measures: caveats and best practice. Available at SSRN 2892672.

Boyd, J., & De Nicolo, G. (2005). The Theory of Bank Risk Taking and Competition Revisited", *Journal of Finance, 60*(3), 1329-1343.

Boyd, B.K., Haynes, K.T., Zona, F., (2011). Dimensions of CEO–board relations. *J. Manag. Stud. 48,* 1892–1923.

Boyd, J.H., Graham, S.L (1986), Risk , Regulations And Bank Holding Company Expansion In To Non-Banking. Quarterly Review - *Federal Reserve Bank of Minneapolis 10*, 2-17.

Boyd, J.H., Graham, S.L., Hewitt, R.S., (1993). Bank Holding Company Mergers with non-bank Financial Firms: Effects on the risk of Failure. *Journal of Banking and Finance 17*, 43-63.

Brickley, J. A., Coles, J. L., & Jarrell, G. (1997). Leadership Structure: Separating the CEO and Chairman of the Board. *Journal of Corporate Finance, 3*(3), 189-220.

Bryd, J., and Hickman, K., (1992). Do outside directors monitor managers? Evidence from tender offer bids. *Journal of Financial Economics 32*, 195-222

Buchholtz, A. K. and Ribbens, B. A. (1994). Role of Chief Executive Officers in Takeover Resistance: Effects of CEO Incentives and Individual Characteristics,*Academy of Management Journal, 37*, 554–579.

Bukhari, K. S., Awan, H. M., & Ahmed, F. (2013). An evaluation of Corporate Governance practices of Islamic banks versus Islamic bank windows of conventional banks: a case of Pakistan. *Management Research Review, 36*(4), 400-416.

Burki, A. A., & Ahmad, S. (2007). Corporate Governance changes in Pakistan's banking sector: is there a performance effect. *Center for Management and Economic Research*, working paper, (07-59).

Burt, R. S. (1983) Corporate Profits and Cooptation: Networks of Market Constraints and Directorate Ties in the American Economy. *New York: Academic Press.*

Bushman, R.M. and Smith, A.J., (2001). Financial accounting information and Corporate Governance. *Journal of Accounting and Economics 31*, 237-333.

Bussoli, C., Gigante, M., & Tritto, M. B. (2015). The Impact of Corporate Governance on Banks Performance and Loan Quality: Evidence From Italian Cooperative Banks. *Chinese Business Review, 14*(8), 390-401.

Butkiewicz, J. L., & Yanikkaya, H. (2006). Institutional quality and economic growth: Maintenance of the rule of law or democratic institutions, or both? *Economic Modelling* , 23(4), 648-661.

Byun, H. Y., Hwang, L. S., & Lee, W. J. (2011). How does ownership concentration exacerbate information asymmetry among equity investors?. *Pacific-Basin Finance Journal, 19(*5), 511-534.

Cai, J., Liu, Y., Qian, Y., & Yu, M. (2015). Information Asymmetry and Corporate. *Quarterly Journal of Finance*, 5(03). 1-32.

Camara, A. (2001). The pricing of relative performance based incentives for executive compensation. *Journal of Business Finance & accounting, 28*(9), 1115-1139.

Candida, B., & Gigante Marisa & Tritto, M. B. (2015). The Impact of Corporate Governance on Banks Performance and Loan Quality: Evidence From Italian Cooperative Banks. *Chinese Business Review*, August, *14*(8), 390-401.

Cao, Z., Leng, F., Feroz, E. H., & Davalos, S. V. (2015). Corporate Governance and default risk of firms cited in the SEC's Accounting and Auditing Enforcement Releases. *Review of Quantitative Finance and Accounting, 44*(1), 113-138.

Cerasi, V., Deininger, S. M., Gambacorta, L., & Oliviero, T. (2020). How post-crisis regulation has affected bank CEO compensation. *Journal of International Money and Finance*, 104, 102-153.

Cerbioni, F. and Parbonetti, A., (2007). Exploring the effects of Corporate Governance on intellectual capital disclosure: an analysis of European biotechnology companies. *European Accounting Review 16*, 791-826.

Chang, C. S, Yu, S.W., & Hung C-H (2015). Firm Risk And Performance; The Role Of Corporate Governance. *Review of Managerial Sciences, 9*: 141-173;.

Chapra, M. Umer, and Ahmed, H. (2002). Corporate Governance in Islamic Financial Institutions. *Working paper, Islamic Development Bank*

Chau, G. and Gray, S.J. (2010). Family ownership, board independence and voluntary disclosure: evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation, 19*: 93-109.

Cheema, A., F. Bari and O. Siddique, (2003). Corporate Governance in Pakistan: Ownership, Control and the Law in A Comparative Analysis of CORPORATE GOVERNANCE in South Asia: Charting a Roadmap for Bangladesh, *Bangladesh Enterprise Institute, Dhaka, Bangladesh*.,162-263.

Cheffins, B. R. (2013). The history of Corporate Governance. *The Oxford handbook of CORPORATE GOVERNANCE*, 46, 56--58

Chen, H.J. and Lin, K.T. (2016). How do banks make the trade-offs among risks? The role of Corporate Governance. *Journal of Banking & Finance, 72:* S39-S69.

Cheng, S. (2008). Board size and the variability of corporate performance. *Journal of Financial Economics, 87*(1), 157-176.

Cheung, Y. L., Jiang, P., & Tan, W. (2010). A transparency disclosure index measuring disclosures: Chinese listed companies. *Journal of Accounting and Public Policy, 29*(3), 259-280.

Chiang, H. T., and Chia, F. (2005). An empirical study of corporate governance and corporate performance. *Journal of American Academy of Business*, *6*(1), 95-101

Choe, H. and Lee, B. S. (2003). Korean Bank Governance Reform After the Asian Financial Crisis, *Pacific-Basin Finance Journal, 11*, 483-508.

Choi, J. J., S. W. Park, and S. S. Yoo, (2007). The value of outside directors: Evidence from CORPORATE GOVERNANCE reform in Korea. *Journal of Financial & Quantitative Analysis* 42, 941–962.

Chouhan, V., Chandra, B., & Goswami, S. (2014). Predicting financial stability of select BSE: companies revisiting Altman Z score. *International Letters of Social and Humanistic Sciences, 26*: 92-105.

Chung, K. H., & Charoenwong, C. (1991). Investment Options, Assets in Place, and the Risk of Stocks. *Financial Management*, *20*(3), 21-33.

Chung, K. H., Thomas, A, R., & J, D. (1995). Production of Information, Information Asymmetry, and the Bid-Ask Spread: Empirical Evidence from Analysts' Forcasts . *Journal of Banking and Finance*, 19(6), 025-1046.

Čihák, M., Hesse, H., 2010. Islamic banks and financial stability: an empirical analysis. *J. Financ. Serv. Res. 38*, 95–113

Ciner, C. and Ahmet K. Karagozoglu, (2005). Information Asymmetry, Speculation and Foreign Trading Activity: Emerging Market Evidence. *International Review of Finance Analysis 14* (4): 407 -427

Claessens, S. (2006). Corporate Governance of Islamic banks., available at: www.ifc.org/ifcext/ corporategovernance.nsf/content/islamic_fin_institution_governance.

Clarke, D. (2006). The independent director in Chinese Corporate Governance. *Delaware Journal of Corporate Law, 31* (1):125-228.

Clarkson, M. B. E. (1995). A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance. *Academy of Management Review*, *20*(1) 92-117

Coles, J. L., Daniel, N. D., & Naveen, L. (2008). Boards: Does One Size Fit All?. *Journal of Financial Economics, 87*(2), 329- 356.

Collier, P (2006). African Growth – Why a Big Push? *Journal of African Economies*, *15*, 188-211.

Connelly, J. T., Limpaphayom, P., & Nagarajan, N. J. (2012). Form versus substance: The effect of ownership structure and Corporate Governance on firm value in Thailand. *Journal of Banking & Finance, 36*: 1722–1743.

Cormier, D. and Gordon, I.M. (2001). An examination of social and environmental reporting strategies. *Accounting, Auditing & Accountability Journal*, 14(5), 587-617. Cornett, M. M., McNutt, J. J., & Tehranian, H. (2009). The financial crisis: Did Corporate Governance affect the performance of publicly-traded US bank holding companies?. *Unpublished working paper Boston College.*

Cornett, M. M., McNutt, J. J., & Tehranian, H. (2009). The financial crisis: Did Corporate Governance affect the performance of publicly-traded US bank holding companies?. Unpublished working paper Boston College.

Creed, W.D., DeJordy, R., Lok, J., (2010). Being the change: resolving institutional contradiction through identity work. *Academy of Management Journal,* 53 (6), 1336–1364.

Cremers,K., Nair, V.B., (2005). Governance mechanisms and equity prices. *Journal of Finance 60*, 2859–2894.

Dahya, J., & McConnell, J. J. (2005). Outside directors and corporate board decisions. *Journal of Corporate Finance, 11*(1–2), 37–60.

Dalton, D. R., Daily, C. M., Ellstrand, A. E. and Johnson, J. L. (1998). Meta-analytic Reviews of Board Composition, Leadership Structure, and Financial Performance, *Strategic Management Journal, 19*, 269–290.

Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of Directors and Financial Performance: A Meta-Analysis. *Academy of Management Journal, 42*(6), 674-686.

Dalwai, T.A.R., Basiruddin, R. and Abdul Rasid, S.Z. (2015). A critical review of relationship between Corporate Governance and firm performance: GCC banking sector perspective. Corporate Governance: *Finance, 8*(2), 1-18.

Daniel B. (2003). Experiences with the OECD Corporate Governance principles. In: *Middle East and North Africa Corporate Governance Workshop*; 2003.

Daniel P., and Brian Belt, (1994). Sustainable Growth and Choice Of Financing: A Test of Pecking Order Hypothesis. *Review of Financial Studies* 3: 143 – 154

Darmadi, S. (2013). Corporate Governance disclosure in the annual report An exploratory study on Indonesian Islamic banks. *Emerald Group Publishing Limited, 29*. 14-23.

Davis, J.H., Schoorman, F.D. and Donaldson, L. (1997). Toward a Stewardship Theory of Management. *Academy of Management Review, 22*, 20-47.

Davis, S. W., & Menon, K. (1987). The formation and termination of the cost accounting standards board: Legislative intervention in accounting standard-setting. *Journal of Accounting and Public Policy, 6*(3), 185-207.

Delhaise Philippe F. (1998) Asia in Crisis: The Implosion of the Banking and Finance Systems. John Wiley & Sons. ISBN 0-471-83193-X.

Demetriades, P., & Hook Law, S. (2006). Finance, institutions and economic development. *International journal of finance & economics*, *11*(3), 245-260.

Demirguc-Kunt, A. and Maksimovic, V. (1998). Law, finance and firm growth, *Journal of Finance*, *53*(6), 2107-2137

Demsetz, H., Lehn, K., 1985. The structure of corporate ownership: causes and consequences. *Journal of Political Economy 93*, 1155–1177.

Derwall, J., & Verwijmeren, P. (2007). Corporate Governance and the cost of equity capital: Evidence from gmi's governance rating. *European Centre for Corporate Engagement Research Note*, 6(1), 1-11.

Deschenes, S., Bouaziz, M.Z., Morris, T., Rojas, M. & Boubacar, H. (2014). CEO's share of top-anagement compensation, characteristics of the board of directors and firm-value creation. *Academy of Strategic Management Journal, 13*(8), 57-73.

Dı´az, V. and Huang, Y. (2017). The role of governance on bank liquidity creation. *Journal of Banking & Finance, 77*,137-156.

Diamond, D. W., & Rajan, R. G. (2009). The credit crisis: Conjectures about causes and remedies. *American Economic Review,* 99(2), 606-10.

Doğan, M., & Yildiz, F. (2013). The impact of the board of directors' size on the bank's performance: Evidence from Turkey. *European Journal of Business and Management, 5*(6), 130-140.

Diamond, D. W., and R. E. Verrecchia, (1991), Disclosure, Liquidity, and the Cost of Capital, *Journal of Finance 46*(4), 1325–1359.

Doh, J. P., Rodriguez, P., Uhlenbruck, K., Collins, J., & Eden, L. (2003). Coping with corruption in foreign markets. *Academy of Management Executive, 17*, 114–127.

Donaldson, L., & Davis, J. H. (1991) Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management,16* (1), 49-64.

Donaldson, L. (1990) The Ethereal Hand: Organizational Economics and Management Theory, *Academy of Management Review*, *15*, 369–381.

Donaldson, L. and Davis, J. H. (1991) Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns, *Australian Journal of Management*, *16*, 49–64.

Donaldson, T. and Preston, L.E. (1995) "The Stakeholder Theory of the Corporation: Concepts, Evidence and Implications". *Academy of Management Review*, 20(1), 65-91.

Dougherty, Christopher (2011), Introduction to Econometrics. *Oxford: Oxford University Press*

Dumay, J., La Torre, M. and Farneti, F. (2019), "Developing trust through stewardship: Implications for intellectual capital, integrated reporting, and the EU Directive 2014/95/EU", *Journal of Intellectual Capital*, 20(1), 11-39

Ehikioya, B. (2009). Corporate Governance structure and firm performance in developing economies: evidence from Nigeria. *Journal of Corporate Governance, 9*(3), 231-243.

Eigner, P., & Umlauft, T. S. (2015). The Great Depression (s) of 1929-1933 and 2007-2009? Parallels, Differences and Policy Lessons. Parallels, Differences and Policy Lessons (July 1, 2015). Hungarian Academy of Science *MTA-ELTE Crisis History Working Paper*, (2).

Eisenberg, T., Sundgren, S., & Wells, M. T. (1998). Larger board size and decreasing firm value in small firms. *Journal of financial economics, 48*(1), 35-54.

Eisenhardt, K. M. (1989a). Agency Theory: An Assessment and Review, *Academy of Management Review, 14*, 57–74.

Eisenhardt, K. M. (1989b). Building Theories from Case Study Research, *Academy of Management Review, 14*, 532–550.

Elbadry, A, Gounopoulos, D and Skinner, F (2010). Governance Quality and Information Alignment In: *Multinational Finance Society (MFS), Barcelona, Spain.*

Elbadry, A., Gounopoulos, D., & Skinner, F. (2015). Governance quality and information asymmetry. Financial Markets, Institutions & Instruments, *24*(2-3), 127-157.

Elbahar, E. (2016). Corporate Governance, Risk Management, and Bank Performance in the GCC Banking Sector (*Doctoral dissertation, University of Plymouth*).

Elbannan, M.A. and M.A. Elbannan (2014). Corporate Governance and accounting performance: A balanced scorecard approach. *Accounting and Finance Research, 3*(2): 60-76.

Ellul, A. (2015). The role of risk management in Corporate Governance. *Annual review of financial economics, 7*, 279-299.

Ellul, A., & Yerramilli, V. (2013). Stronger risk controls, lower risk: Evidence from US bank holding companies. *The Journal of Finance, 68*(5), 1757-1803.

El-Mesawi, M. El-Tahir. (2006). (Translated and Annotated) "Ibn Ashur: Treatise on *Maqasid al Shariah*", *The International Institute of Islamic Thought*, USA and UK 2006, 5.

Eng, L. and Mak, Y. (2003). Corporate Governance and Voluntary Disclosure. *Journal of Accounting and Public Policy, 22* (4), 325-345.

Engheta, N., & Ziolkowski, R. W. (2005). A positive future for double-negative Meta materials. *IEEE Transactions on Microwave Theory and Techniques, 53*(4), 1535-1556.

Erkens, D., Hung, M. and Matos, P. (2012),"Corporate Governance in the 2007-2008financial crisis: evidence from financial institutions worldwide", *Journal of Corporate Finance,18* (2), 389-411.

Esty, B., 1998. The impact of contingent liability on commercial bank risk taking. *Journal of Financial Economics 47*, 189–218.

Ewmi, P. F. (2005). Three models of Corporate Governance from developed capital markets. *Lectures on* Corporate Governance, *December*, 1-14.

Fahlenbrach, R. & Stulz, R.M., (2011). Bank CEO incentives and the credit crisis. *Journal of Financial Economics 99*(1), 11–26.

Fakhrunnas, F., & Ramly, Z. (2017). Board of directors and risk-taking behavior of Islamic banks in South east Asia. *Tazkia Islamic Finance and Business Review, 10* (2).

Faleye, O., & Krishnan, K. (2017). Risky lending: Does bank Corporate Governance matter?. *Journal of Banking & Finance, 83*, 57-69.

Fama, E. F., and Jensen, M. C., (1983). Agency Problems and Residual Claims. *Journal of Law and Economics 26*, 327-335.

Fama, E. and Jensen, M. (1983). Separation of ownership and control. *The Journal of Law and Economics, 26* (2), 36-67.

Fama, E. F. (1980). Agency Problems and the Theory of the Firm. *Journal of Political Economy, 88*, 288–307.

Fanta BeyeneAshenafi., Kemal SrmoloKelifa. And WakaKassaYodit. (2013). Corporate Governance and Impact on Bank Performance. *Journal of Finance and Accounting*, 1(1), 19 -26.

Farhan, N., Tabash, M., Almaqtari, F., & Yahya, A. (2020). Board composition and firms' profitability: Empirical evidence from pharmaceutical industry in India. *Journal of International Studies*, *13*(3), 180-194.

Farook, S.Z. and Farooq, M.O. (2011). *Shari'ah* governance for Islamic finance: challenges and pragmatic solutions", *Working Paper, Bahrain Institute of Banking and Finance*,

Farook,S., Hassan, K.and Lanis ,R.(2011). Determinants of corporate social responsibility disclosure: the case of Islamic banks. *Journal of Islamic Accounting and Business Research,.2*(2).114-141

Farooq, A., M. Shahbaz, M. Arouri, and F. Teulon. (2013). Does corruption impede economic growth in Pakistan? *Economic Modelling 35*, 622–33.

Ferreira, M. A., and P. A. Laux, (2007). Corporate Governance, Idiosyncratic Risk, and Information Flow, *Journal of Finance 62*, 951–989.

Filatotchev, I., Jackson, G., & Nakajima, C. (2013). Corporate Governance and national institutions: Areview and emerging research agenda. *Asia Pacific Journal of Management*, *30*(4), 965–986.

Filatotchev, I., Jackson, G., Nakajima, C., (2013). Corporate Governance and national institutions: a review and emerging research agenda. *Asia Pacific Journal of Management.* 30 (4), 965–986.

Financial Stability Review (2015), State Bank of Pakistan; http://www.sbp.org.pk/FSR/2015/index.htm

Finkelstein, S. & D' Aveni, R. (1994). CEO duality as a double-edged sword: How boards of directors balance entrenchment avoidance and unity of command. *Academy of Management Journal, 37*(5): 1079-1108.

Firth, M., Fung, P. M. Y. and Rui, O. M. (2002) Simultaneous Relationships Among Ownership, CORPORATE GOVERNANCE and Firm Performance. Retrieved May 20, 2010. http://www.baf.cuhk.edu.hk/acy /staff/orui/AUTHORS.pdf.

Flaherty, S., Li, J., & Small, K. (2006). Evidence on board size and information asymmetry: a capital markets perspective. *J Corp Ownership Contr, 4*, 248-256.

Flannery, M. J., & Hankins, K. W. (2013). Estimating dynamic panel models in corporate finance. *Journal of Corporate Finance, 19*(1), 1-19.

Fligstein, N. (1990). The transformation of corporate control. Cambridge, Mass.: *Harvard University Press.*

Fligstein, N. (2001). The architecture of markets: an economic sociology of twenty-first century capitalist societies. *Princeton: Princeton University Press.*

Florackis, C. (2008). Agency costs and Corporate Governance mechanisms: evidence for UK firms. *International Journal of Managerial Finance*, 14(1), 37-59.Florackis, C., Ozkan, A., (2009a). The impact of managerial entrenchment on agency costs: an empirical investigation using UK panel data. Eur. *Financial Manage. 15*, 497–528.

Florackis, C. (2008). Agency costs and Corporate Governance mechanisms: evidence for UK firms. *International Journal of Managerial Finance.*

Florackis, C., Ozkan, A., (2009b). Managerial incentives and corporate leverage: evidence from the United Kingdom. *Account. Finance 49*, 531–553

Foroughi, Meysam, and Masood Fooladi (2012). Concentration of ownership in Iranian listed firms. *International Journal of Social Science and Humanity*, 2(2), 112-116.

Francis, B., Hasan, I., Wu, Q., (2012). Do corporate boards affect firm performance? New evidence from the Financial Crisis. Bank of Finland Research, *Discussion Papers* No. 11. Available at: www.ssrn.com

FRC. (2014). The UK Corporate Governance Code. Financial Reporting Council.

Freeman, R. E. (1984) "Strategic Management: A Stakeholder Approach". *Pitman, London.*

Freeman, R. E. and Evan, W. M. (1990). Corporate Governance: A Stakeholder Interpretation, *The Journal of Behavioral Economics, 19*, 337–359.

Friedman, M., & Schwartz, A. J. (2008) A monetary history of the United States, 1867-1960. *Princeton University Press.*

Frooman, J. (1999) Stakeholder Influence Strategies, *Academy of Management Review, 24*, 191–205.

Gafoor, C. A., Mariappan, V., & Thyagarajan, S. (2018). Board characteristics and bank performance in India. *IIMB management review, 30*(2), 160-167.

Galai, D., Masulis, R., 1976. The option pricing model and the risk factor of stock. *Journal of Financial Economics 3*, 53–81

Galal, M. (2017). Corporate Governance and Banks' Performance: Evidence from Egypt. Asian *Economic and Financial Review, 7*(12), 1326-1343.

Gambin, L. (2004). Gender differences in the effect of health on wages in Britain. York, University of York Department of Economics and Related Studies (ECuity III Working Paper 20).

Gandia, J. (2008). Determinants of internet-based Corporate Governance disclosure by Spanish listed companies. *Online Information Review Journal, 32* (6), 791-817.

Gani, L., and Jermias, J., (2006). Investigating the effect of board independence on performance across different strategies. *The International Journal of Accounting 41*, 295-314.

Ghaffar, A. (2014). Corporate Governance and Profitability of Islamic Banks Operating in Pakistan. *Interdisciplinary Journal Of Contemporary Research In Business,* 6(2), 320-336.

Ginena, K. (2014). Sharī 'ah risk and Corporate Governance of Islamic banks. *Corporate Governance, 14*(1), 86-103.

Ginena, K., & Hamid, A. (2015), Corporate and Sharī'ah Governance of Islamic Banks. Foundations of Sharī 'ah Governance of Islamic Banks, 57-102.

Ginena, K., & Hamid, A. (2015). Foundations of *Shari'ah* governance of Islamic banks. *John Wiley & Sons.*

Girard, A. and Rakotonjanahary, P. (2005), Le Rapport Annuel Aux Actionnaires: en Voie de Disparition?, Comptabilité et connaissances, Cd-rom.

Gisbert, A., & Navallas, B. (2013). The association between voluntary disclosure and Corporate Governance in the presence of severe agency conflicts. *Advances in Accounting, 29*(2), 286–298.

Gitman, L.J., (1996). Principal of Managerial Finance, 7th Edn., *Harper Collins College.* New Yark.

Gompers, P., J. Ishii, and A. Metrick, (2003). Corporate Governance and equity prices, *Quarterly Journal of Economics 118*, 107–155.

Goodstein, J., Gautam, K., & Boeker, W. (1994). The Effect of Board Size and Diversity on Strategic Change. *Strategic Management Journal, 15*, 241-250.

Gour Gobinda Goswami, Samai Haider, (2014). Does political risk deter FDI inflow?: An Analytical Approach Using Panel Data and Factor Analysis. *Journal of Economic Studies*, 41(2) .233-252.

Government of Pakistan (2010). Economic Survey 2009-10. Ministry of Finance. Islamabad.

Government of Pakistan (2020). Economic Survey 2019-20. Ministry of Finance. Islamabad.

Greene, William H (2012) .Econometric Analysis, *7th ed. Harlow: Pearson.*

Greuning and Bratanovic. (2003). Analyzing and Managing Banking Risk: A Framework for Assessing Corporate Governance and Financial Risk. *World Bank Publications*, Washington, D.C.

Grossman, S. and Stiglitz, J. (1976). Information and competitive price systems. *American Economic Review, 66* (2), 246-253

Guerrero-Villegas, J., Giráldez-Puig, P., Pérez-Calero Sánchez, L., & Hurtado-González, J. M. (2018). Ownership concentration and firm performance: the moderating effect of the monitoring and provision of resources board roles. *Spanish Journal of Finance and Accounting*/Revista Española de Financiación y Contabilidad, *47*(4), 464-484.

Jain, P. K., E. Kuvvet, and M. S. Pagano. (2017). Corruption's impact on foreign portfolio investment. *International Business Review 26* (1):23–35.

Gugler, K., Mueller, D.C., Burcin Yurtoglu, B., (2003). The impact of Corporate Governance on investment returns in developed and developing countries. *The Economic Journal*. 113 (491), F511–F539.

Gul, F.A. and Leung, S. (2004). Board leadership, outside directors' expertise and voluntary corporate disclosures. *Journal of Accounting and Public Policy, 23*(5), 351-379.

Gulzar, M. & Wang, Z. (2010). Corporate Governance and Non-Listed Family Owned Businesses: Evidence from Pakistan. *International Journal of Innovation, Management and Technology, 1*(2), 124-129.

Gupta, P.P., and Kenndy, D.B., and Weaver, S.C., (2009). Corporate Governance and Firm Value: Evidence From Canadian Capital Markets. *Corporate Ownership and Control* 6, 293-307.

Hafeez, D., & Muhammad, M. (2013). An Analysis of Corporate Governance in Islamic and Western Perspectives. *International Journal of Business, Economics and Law*, 2(3).

Haider, N., Khan, N., & Iqbal, N. (2015). Impact of Corporate Governance on Firm Financial Performance in Islamic Financial Institutions. *SciPress Ltd., Switzerland, 51*, 106-110.

Haini, H. (2020). Examining the relationship between finance, institutions and economic growth: Evidence from the ASEAN economies. *Economic Change and Restructuring*, 53, 519-542

Hall, P. A. and Soskice, D. (2001). Varieties of Capitalism. The Institutional Foundations of Comparative Advantage. (eds.), *Oxford: Oxford University Pres.*

Hall, R. and Jones, C. (1999). Why do some countries produce so much more output per worker than others? *Quarterly Journal of Economics, 114*(1). 83-116.

Hamidi, M. Luthfi. (2006). The Theory and Practice of Islamic Management Style: The Experience of Bank Muamalat Indonesia. *Review of Islamic Economics*, *10*(2), 115–131.

Hamza H., (2013). *Sharia* Governance in Islamic Banks: Effectiveness and Supervision Model. *International Journal of Islamic and Middle Eastern Finance Management, 6*(3), 226-237.

Hamza, H. (2016). Does investment deposit return in Islamic banks reflect PLS principle? *Borsa Istanbul Review, 16* (1), 32-42.

Han, S. H., Kim, M., & Lee, D. H. (2014). Information Asymmetry, Corporate Governance, and Shareholder Wealth: Evidence from Unfaithful Disclosures of Korean Listed Firms. *Asia-Pacific Journal of Financial Studies*, 43(5), 690-720.

Hannan., T.H., Hanweck, G.A., (1988). Bank insolvency Risk and the market for large certificate of deposit. *Journal of Money, Credit and Banking 20*, 203-211.

Hansen, L. (1982). Large sample properties of generalized method of moments estimators. *Econometrica 50*(3): 1029–1054.

Haqqi, A. R. A. (2014). *Shari'ah* governance in Islamic financial institution: An appraisal. *US-China L. Rev.*, 11, 112.

Haris, M., Yao, H., Tariq, G., Javaid, H. M., & Ain, Q. U. (2019). Corporate Governance, political connections, and bank performance. *International Journal of Financial Studies, 7*(4), 62.

Harris, M., and A. Raviv, (2008), A Theory of Board Control and Size, *Review of Financial Studies* 21(4), 1797–1832.

Hasan, M. and Dridi, J. (2010). The effects of the global crisis on Islamic and conventional banks: a comparative study. *Journal of International Commerce, Economics and Policy,* 2(2). 163-200,

Hassan, M. K., (2012). A disclosure index to measure the extent of Corporate Governance reporting by UAE listed corporations, *Journal of Financial Reporting Accounting, 10*, 3-44.

Hassanein, Medhat. And Wahsh, Rehab. (2012). CEO duality and bank performance the consistent null. *Banks and Banks Systems*, 7(1), 14-23.

Haty, S. N. (2009). The Impact of Corporate Governance on Performance, risk and disclosure: Empirical Evidence of Malaysian Listeed Banks Malaysia: *International Islamic University Malaysia.*

Hausman, Jerry A. (1978). 'Specification Tests in Econometrics'.*Econometrica* 46 (6):1251–71.

Hayat, N. (2018). Eco-Labeling, Sustainability and Trade: Evidence from Pakistan (Doctoral dissertation, Pakistan Institute of Development Economics (PIDE), Islamabad).

Hayes, S. K., Hodge, K. A., & Hughes, L. W. (2010). A Study of the Efficacy of Altman's Z To Predict Bankruptcy of Specialty Retail Firms Doing Business in

Contemporary Firms Doing Business in Contemporary . *Economics & Business Journal: Inquiries & Perspectives* ,3(1), 122-134.

Helwege, J. and N. Liang (1996). Is There A Pecking Order? Evidence from a Panel of IPO Firms. *Journal of Financial Economics 40*: 429 – 458.

Hermalin, B.E., and Weisbach, M.S., (2003). Boards of directors as an endogenously determined institution: A Survey of the Economic Literature. *FRBNY Economic Policy Review* 9, 7-26

Hilary, G. and Hui, K., (2009). Does religion matter in corporate decision making in America? *Journal of Financial Economics 93*, 455–473

Hillman, A. J., Cannella, A. A., Jr. and Paetzold, R. L. (2000) The Resource Dependence Role of Corporate Directors: Strategic Adaptation of Board Composition in Response to Environmental Change, *Journal of Management Studies, 37*, 235–255.

Himaj, S. (2014). Corporate Governance in Banks and its Impact on Risk and Performance: Review of Literature on the Selected Governance Mechanisms. *Journal of Central Banking Theory and Practice,* 3(3), 53-85.

Hitt, M. A., Tihanyi, L., Miller, T., & Connelly, B. (2006). International Diversification: Antecedents, Outcomes, and Moderators. *Journal of Management 32*(6): 831-867.

Holtz-Eakin, D., Newey, W., Rosen, H.S., (1988). Estimating vector auto regressions with panel data. *Econometrica 56*, 1371–1395.

Hooper, V., & Uppal, A. B. (2009). Governance and stock market performance. *Economic Systems*,33(2), 93-116.

Hossain, M., Tan, M., & Adams, M. (1994). Voluntary disclosure in an emerging capital market: some empirical evidence from companies listed on the KLSE. *The International Journal of Accounting, 29*(4), 334-351.

Hotten, R. (2015). Volkswagen: the scandal explained", available at: www.bbc.com/news/business-34324772 (accessed 31 May 2018).

Hou, W., Priem, R.L. & Goranova, M. (2014). Does one size fit all? Investigating pay-future performance relationships over the "Seasons" of CEO tenure. *Journal of Management, 43*(3), 864-891.

Htay, S. N. N., MOHD & Salman, S. A. (2013). Impact of Corporate Governance on Disclosure Quality: Empirical Evidence from Listed Banks in Malaysia. *International Journal of Economics & Management*, 7(2).

Hutchinson, M., (2002). An analysis of the association between firms' investment opportunities, board composition, and firm performance. *Asia Pacific Journal of Accounting and Economics* 9, 17–39.

Hutchinson, M., and Gul, F. A., (2004). Investment opportunity set, Corporate Governance practices and firm Performance. *Journal of Corporate Finance* 10, 595-614.

Huther, J. (1997). An Empirical Test of the Effect of Board Size on Firm Efficiency, *Economics Letter, 54*, 259-264.

IAIS. (2004). Insurance Core Principles on Corporate. *International Association of Insurance.*

Ibn Ashur, Muhammad al-Tahir (2006). Ibn _Ashur Treatise on *Maqasid al Shari'ah.* (Translated by Tahir el-Mesawi). *Virgina: International Institute of Islamic Thought (IIIT).*

Ibn Taimiyyah, Ahmad A Halim (1985). Public Duties in Islam (al-Hisbah fi alIslaam). (Translated by Muhtar Holland). *Leicester: The Islamic Foundation.*

Ilyas, Muhammad. And Rafiq Muhammad (2012). Impact of Corporate Governance on Perceived Organizational Success, Empirical Study on Consumer Banks in Lahore, Pakistan. *International Journal of Business and Social Science*, 3(13),178-187.

Imam Muslim bin Al-Hajjaj (261H), *Al-Sahih Al-Muslim*, (Berut: Dar Ihya al Turath al-Arabi), 1: 99.

Imam, M. O., & Malik, M. (2007). Firm Performance and Corporate Governance Through Ownership Structure: Evidence from Bangladesh Stock Market . *International Review of Business Research Papers*,3(4), 88-110.

Imane, Y. (2014). Risk Management Practices and Financial Performance in Jordan: Empirical Evidence from Islamic Banks. *International Shari'ah Research Academy for Islamic Finance* ,1-23.

IMF (International Monetary Fund) (2003). "Building Institutions", *World Economic Outlook, Washington* DC, USA.

Inam, Hifza. And Mukhtar Aqeel. (2014). Corporate Governance and its Impact on performance of banking sector in Pakistan. *International Journal of Academic Research in Applied Science,* 3(2), 26 -36.

Inchausti, B.G. (1997), "The influence of company characteristics and accounting regulation on information disclosed by Spanish firms", *The European Accounting Review*, 6(1), 45-68.

Insurance Association of Pakistan, (2015); http://www.iap.net.pk/

Iqbal, J., Strobl, S., & Vähämaa, S. (2015). Corporate Governance and the systemic risk of financial institutions. *Journal of Economics and Business*, *82*, 42-61. .2015.06.00

Iqbal, Z., & Mirakhor, A. (2011). An introduction to Islamic finance: Theory and practice (Vol. 687). *John Wiley & Sons.*

Isik, O., & Ince, A. R. (2016). Board size, board composition and performance: An investigation on Turkish banks. *International Business Research*, 9(2), 74-84.

Islamic Banking Bulletin (IBB), (2016)

Islamic Finance Qualification (IFQ) (2007) Securities and Investment Institute and Ecole Supérieure des Affaires.

Islamic Financial Services Board. (2005). Guiding Principles of Risk Management for Institutions (Other than Insurance Institutions) Offering Only Islamic Financial Services.

Izhar, H. (2011). Identifying operational risk exposures in Islamic banking. *Kyoto Bulletin of Islamic Area Studies*, 3(2). 17–53

Jamalinesari, S., & Soheili, H. (2015). The Relationship between Information Asymmetry and Mechanisms of Corporate Governance of Companies in Tehran Stock Exchange. *Procedia-Social and Behavioral Sciences*, *205*, 505-509.

Jan, A., & Marimuthu, M. (2015). Altman Model and Bankruptcy Profile of Islamic Banking Industry: A comparative analysis on Financial Performance. *International Journal of Business and Management*, *10*(7), 110-119.

Jarrett, U., Mohaddes, K., & Mohtadi, H. (2019). Oil price volatility, financial institutions and economic growth. *Energy Policy*, *126*, 131-144.

Javid, A. and R. Iqbal, (2008). Does Corporate Governance affect firm performance? A case study pakistani market. *Nust journal of business and Economics*, 1(1): 11-23.

Jegede, C.A., Akinlabi, H.B., Soyebo, Y.A. (2013). Corporate Governance Efficiency and Bank Performance in Nigeria. *World Journal of Social Sciences*, 3(1),178-192.

Jensen, M. C., & Meckling, W. H. (1976) Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.

Jensen, M. C. (1993). The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems. *Journal of Finance*, 48(3), 831-880.

Jensen, M. C., & Murphy, K. J. (1990). Performance pay and top-management incentives. *Journal of political economy,* 98(2), 225-264.

Joh, S. W. (2003). Corporate Governance and Firm Profitability: Evidence from Korea Before the Economic Crisis. *Journal of Financial Economics*, *69*, 287–322.

Johan, B. (2015). Does Institutional Quality Impact Firm Performance? Evidence From Emerging and Transition Economies. For the Fulfilment of a Bachelor's Degree, Department of Economics, Lund University, Sweden.

John, K., Litov, L., Yeung, B., (2008). Corporate Governance and risk-taking. *Journal of Finance*. 63, 1679–1728.

Jones, E. L. (1987) The European Miracle: Environments, Economies, and Geopolitics in the History of Europe and Asia. *Cambridge University Press*.

Joudi, S., Mansourfar, G. H. O. L. A. M. R. E. Z. A., & Didar, H. A. M. Z. E. H. (2019). Internal and External Corporate Governance Quality, Information Asymmetry and Cash Holdings: Increase or Decrease in the Firm Value. *Journal of Accounting and Auditing Review*, *26*(1), 39-64.

Jung, K., Y. Kim and R. Stulz, (1996). Timing, Investment Opportunities, Managerial Discretion, and the Security Issue Decision. *Journal of Financial Economics*, *42*: 159 – 185

Kabir, M.N., Worthington, A., Gupta, R., (2015). Comparative credit risk in Islamic and conventional bank. *Pac. Basin Financ.J 34*, 327–353.

Kachouri, M. and Jarboui, A. (2017). Exploring the relation between corporate reporting and Corporate Governance effectiveness. *Journal of Financial Reporting and Accounting*, 15(3), 347-366..

Kairuthi, L. (2010). Factors influencing the growth of financial institutions in Kenya: a case study of Equity Bank Ltd (Doctoral dissertation, University of Nairobi, Kenya).

Kane, E., (1985). The Gathering Crisis in Federal Deposit Insurance. *MIT Press, Cambridge, MA.*

Kang, D. L. and Sorensen, A. B. (1999) Ownership Organization and Firm Performance, *Annual Review*, *25*, 121-44.

Kang, S. P. Kumar, and H. Lee (2006). "Agency and corporate investment: the role of executive compensation and Corporate Governance." *Journal of Business*, *79*(3), 1127-1147.

Kathuria, V., & Dash, S. (1999). Board Size and Corporate Financial Performance: An Investigation. *Vikalpa*, *24*, 11-18

Kaur, J. (2014). Corporate Governance and financial performance: A Case of Indian banking industry. *Asian Journal of Multidisciplinary Studies*, 2(2), 91-96.

Kennedy, P. (2003) A Guide to Econometrics, 5th ed. *Cambridge, MA: MIT Press Klein*

Khaleequzzaman, M., Mansoori, M. T. and Rashid, A. (2016). *Shariah* Legitimacy of Islamic Banking Practices in Pakistan - An Evaluation. *Journal of Islamic Business and Management*. 6(1). 77-96.

Khalid, A.M. and M.N. Hanif, (2005). Corporate Governance for Banks in Pakistan: Recent Developments and Regional Comparisons. *CMER Working Paper* No. 05-42. LUMS, Lahore,

Khalifa, A. S. (2003). The multidimensional nature and purpose of business in Islam, accounting, commerce & finance. *The Islamic Perspective Journal*, 7(1/2), 1-25.

Khan, M. A., Kong, D., Xiang, J., & Zhang, J. (2020). Impact of institutional quality on financial development: cross-country evidence based on emerging and growth-leading economies. *Emerging Markets Finance and Trade*, *56*(15), 3829-3845.

Khan, M. A., Kong, D., Xiang, J., & Zhang, J. (2020). Impact of institutional quality on financial development: cross-country evidence based on emerging and growth-leading economies. *Emerging Markets Finance and Trade*, *56*(15), 3829-3845.

Khan, S. D. (2013). Impact of Corporate Governance on Risk: Empirical Evidence from Insurance and Takaful Operations in Malaysia. kuala lumpur: *International Islamic University Malaysia*.

Khanchel, I., (2007). Corporate Governance: Measurement and Determinate Analysis. *Managerial Auditing Journal 22*, 740-760.

Kim, W. S., & Lyn, E. 0. (1991). Going Private: Corporate Restructuring Under Information Asymmetry And Agency Problems. *Journal of Business Finance and Accounting*, 18(5) 637-648.

Kirch, G. and Terra, P.R. (2012). Determinants of corporate debt maturity in South America: do institutional quality and financial development matter? *Journal of Corporate Finance*, *18*(4), 980-993.

Kirch, G., & Terra, P. R. S. (2012). Determinants of corporate debt maturity in South America: Do institutional quality and financial development matter?. *Journal of Corporate Finance*, *18*(4), 980-993.

Kirch, G., & Terra, P. R. S. (2012). Determinants of corporate debt maturity in South America: Do institutional quality and financial development matter?. *Journal of Corporate Finance*, *18*(4), 980-993.

Kirch, G., Batista Nast de Lima, J., & Soares Terra, P. R. (2012). Determinants of Disclosure Timing for Financial Statements of Brazilian Public Companies. *Revista Contabilidade & Finanças*-USP, *23*(60).

Kirchhoff, B. A. (1994).Entrepreneurship and dynamic capitalism: The economics of business firm formation and growth. *Westport: Praeger.*

Kirkpatrick, G. (2009). The Corporate Governance lessons from the financial crisis. *OECD Journal: Financial Market Trends*, 2009(1), 61-87.

Knack, S. and Keefer, P. (1995),"Institutions and economic performance: cross-country tests using alternative institutional measures", *Economics and Politics*, 7(3) 207-227.

Knack, S., & Keefer, P. (1995). Institutions and economic performance: cross-country tests using alternative institutional measures. *Economics & Politics*, *7*(3), 207-227.

Kogan, N., & Wallach, M. A. (1964). Risk taking: A study in cognition and personality.

Krause, R., Samadeni, M., Candella, A., (2014). CEO duality: a review and research agenda. *Journal of Management 40*(1), 256-286.

Kuncic, A. (2013). Institutional Quality Dataset. (pp. 1-21). Dubrovnik: Young Economists' Seminar.

Kutan, A. M., N. Samargandi, and K. Sohag. (2017). Does institutional quality matter for financial development and growth? Further evidence from MENA countries. *Australian Economic Papers* 56 (3):228–48.

Kyereboah-Coleman, A., Adjasi, K.D.C. and Abor, J. (2006). Corporate Governance and firm performance. Evidence from Ghana listed firms. *Corporate Ownership and Control Journal*, 4(2), 123-132.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny. (2000). Investor Protection and CORPORATE GOVERNANCE. *Journal of Financial Economics, 58*, 3–27.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2000). Government ownership of banks. The *Journal of Finance, 57*(1), 265-301.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1998). Law and finance. *Journal of Political Economy, 106*, 1113–1155.

Laeven, L., & Levine, R. (2009). Bank governance, regulation and risk taking. *Journal of Financial Economics,* 93, 259–275.

Laeven, L., (2013). Corporate Governance: what's special about banks? Annual Review of Financial Economics 5, 63–92.

LaFond and Ashbaugh-Skaife, Collins, (2006). The Effect of Corporate Governance on Firms' Credits Rating. *Journal of Accounting and Economics*, *42*: 203-243.

Larcker, D.F., Richardson, A.A. and Tuna, I., (2007). Corporate governance, accounting outcomes, and organizational performance. *The Accounting Review 82*, 963-1008.

Lasfer, M.A., (2006). The interrelationship between managerial ownership and board structure. *J. Bus. Finance Account. 33*, 1006–1033.

Law, S. H., and M. S. Habibullah (2006). Financial development, institutional quality and economic performance in East Asian Economies. *Review of Applied Economics 2*(2):201–2016.

Le, T.-H., J. Kim, and M. Lee. (2016). Institutional quality, trade openness, and financial sector development in Asia: An empirical investigation. *Emerging Markets Finance and Trade 52* (5):1047–59.

Lechner, M., & Pfeiffer, F. (1993). Planning for self-employment at the beginning of a market economy: Evidence from individual data of East German workers. *Small Business Economics*, 5, 111–128

Lee, C., Rosenstein, S., Rangan, N., and Davidson III,W. N., (1992). Board composition and shareholder wealth: The case of management buyouts. *Financial Management 21*, 58–72.

Lee, L. F., & Yu, J. (2014). Efficient GMM estimation of spatial dynamic panel data models with fixed effects. *Journal of Econometrics, 180*(2), 174-197.

Leng, J. and Ding, Y. (2011). Internal control disclosure and Corporate Governance: empirical research from Chinese listed companies. *Technology and Investment*, 2(4), 286-294.

Lepetit, L., & Strobel, F. (2015). Bank Insolvency Risk and Z-Score Measures: A Refinement. *Finance Research Letters*, 13, 213-224.

Levine R (1997). Financial development and economic growth: views and agenda. J Econ Lit *35*(2):688–726

Lewis, M. K. (2005). Islamic Corporate Governance. *Review of Islamic Economics*, 9(1), 5-29.

Li, Q., Luo, W., Wang, Y., & Wu, L. (2013). Firms performance, corporate ownership, and corporate social responsibility disclosure in China. Business Ethics: *A European Review*, *22*(2), 159–173.

Lin, T. J., Chen, Y. P., & Tsai, H. F. (2017). The relationship among information asymmetry, dividend policy and ownership structure. *Finance Research Letters*, *20*, 1-12.

Linck, J.S., Netter, J.M., Yang, T., (2008). A large sample study on board changes and determinants of board structure. *Journal of Financial Economics 87*, 308-328

Lipton, M., & Lorsch, J. (1992). A Modest Proposal for Improved CORPORATE GOVERNANCE. *Business Lawyer*, 48, 59-77.

Lu, J., Xu, B., & Liu, X. (2009). The effects of Corporate Governance and institutional environments on export behaviour in emerging economies. *Management International Review,* 49(4), 455-478.

Lubatkin, M., Lane, P. J., Collin, S., & Very, P. (2007). An embeddedness framing of governance and opportunism: towards a cross-nationally accommodating theory of agency. *Journal of Organizational Behavior, 28*(1), 43-58.

Lybashaheen, S. R., & Shahid, M. A, (2018). Relationship of KIBOR With Banking Sector In Pakistan. *International Journal of Accounting and Financial Management Research* (IJAFMR) 8(1), 1-10.

Maali Kachouri, Anis Jarboui, (2017). Exploring the relation between corporate reporting and CORPORATE GOVERNANCE effectiveness. *Journal of Financial Reporting and Accounting*, 15(3), 347-366,

Macey, J.R. and M. O'Hara, (2003). The Corporate Governance of banks. *Economic Policy Review*, (Apr), 91-107.

Maher, M., & Andersson, T. (2002). Corporate Governance: effects on firm performance and economic growth. Convergence and Diversity in Corporate Governance Regimes and Capital Markets, *Oxford University Press, Oxford*, 386-420.

Malik, M. (2011). Constructing the architectonics and formulating the articulation of Islamic governance: a discursive attempt in Islamic epistemology *(Doctoral dissertation, Durham University)*.

Malik, M. (2016). *Foundations of Islamic Governance: A Southeast Asian Perspective (Vol. 1). Taylor & Francis.*

MALIK, M. (2019). Constructing an Alternative Concept of Islamic Governance: A Maqāṣidic Approach. *KEMANUSIAAN: The Asian Journal of Humanities*, 26.

Malik, M., Wan, D., Ahmad, M. I., Naseem, M. A., & Rehman, R. U. (2014). Role of board size in Corporate Governance and firm performance applying pareto

approach, is it cultural phenomena?. *Journal of Applied Business Research (JABR), 30* (5), 1395-1406.

Mansoori M. T. (2011). *Shariah* Maxim Modern Applications in Islamic Finance. *Shariah Academy, International Islamic University*, Islamabad.

Mardan, M. (2017). Why countries differ in thin capitalization rules: The role of financial development. *European Economic Review 91*:1–14.

Matoussi, H., & Grassa, R. (2012). Is Corporate Governance different for Islamic banks? A comparative analysis between the Gulf Cooperation Council context and the Southeast Asia context. *In The Economic Research Forum, 734* (1),2-28).

Matoussi, R. G. (2014). Corporate Governance of Islamic banks A comparative study between GCC and Southeast Asia countries. *International Journal of Islamic and Middle Eastern Finance and Management,* 7(3), 346 - 362.

Mauro, P. (1995). Corruption and growth. *Quarterly Journal of Economics, 110*(3), 681-712

Maxwell, S., C. Prosper and S. Roy, (2014). An Assessment of the relationship between board of directors' characteristics and the performance of Zimbabwe stock exchange listed banks. *International Journal of Economics, Commerce and Management*, 2(10), 1-16.

McLaughlin, R., A. Sa¯eddine, and G. K. Vasudevan, (1998), The Information Content of Corporate Offerings of Seasoned Securities: An Empirical Analysis, *Financial Management 27*(2), 31–45.

McNulty, T., Florackis, C., & Ormrod, P. (2012). Corporate Governance and Risk: A Study of Board Structure and Process. *University of Liverpool Management School.*

Meek, G.K., Roberts, C.B., & Gray, S.J. (1995),"Factors influencing voluntary annual report disclosures by U.S, U.K, and continental European Multinational Corporation", *Journal of International Business Studies. 26*(3), 555- 572.

Merhebi, R., Pattenden, K., Swan, P. L., & Zhou, X. (2006). Australian chief executive officer remuneration: pay and performance. *Accounting & Finance, 46*(3), 481-497.

Merton, R. (1987). Presidential address: a simple model of capital market equilibrium with incomplete information. *Journal of Finance, 42*, 483-510.

Mervyn K. Lewis (2005), 'Islamic Corporate Governance. Review of Islamic Economics, 9(1) 5-29.

Mileva, E. (2007). Using Arellano- Bond dynamic panel GMM estimators in Stata. Economics Department, Fordham University, 1- 10.

Miller, A. S., (2000). Going to Hell in Asia: The relationship between risk and religion in a cross cultural setting, *Review of Religious Research 42*, 5-18

Miller, A., and Hoffman, J., (1995). Risk and religion: An explanation of gender differences in religiosity. *Journal for the Scientific Study of Religion 34*(1), 63-75.

Mirakhor, A. (2000). General characteristics of an Islamic economic system. Anthology of Islamic banking, *Institute Of Islamic Banking And Insurance*, London, 11-31.

Mirzadzhanzade, A. K., & Stepanova, G. S. (1977). Mathematical theory of the experiment in oil and gas production. *Moscow, Nedra, 239.*

Mizruchi, M. S. and Stearns, L. B. (1988) A Longitudinal Study of the Formation of Interlocking Directorates, *Administrative Science Quarterly, 33*, 194–210.

Mohammad, Fatimoh. (2012) Impact of Corporate Governance on Bank Performance in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)*, 3(3), 257-260.

Mohsin., H., Murugian and A. Binti, (2016). The effect of board characteristics on Iraqi banks performance. *International, Journal of Academic Research in Accounting, Finance and Management Sciences,* 6(4): 205–214.

Mollah, S., & Karim, O. A. (2012). Ownership structure, Corporate Governance and firm performance Evidence from an African emerging market. *Studies in Economics and Finance, 29*(4), 301-319.

Mollah, S., Hassan, M. K., Al Farooque, O., & Mobarek, A. (2017). The governance, risk-taking, and performance of Islamic banks. *Journal of financial services research, 51*(2), 195-219.

Mollah, S., Skully, M. T., & Liljeblom, E. (2017). Strong Board and Risk-taking in Islamic Banks. Available at SSRN 2905179.

Morck, R., & Steier, L. (2005). The global history of Corporate Governance: An introduction. In A history of Corporate Governance around the world: Family business groups to professional managers (1-64). *University of Chicago Press.*

Morris, R. D. (1987) Signalling, agency theory and accounting policy choice. *Accounting and business Research, 18*(69), 47-56.

Mounira, B. A., & Anas, E. L. M. E. L. K. I. (2009). Managing risks and liquidity in an interest free banking framework: the case of the Islamic banks. *International Journal of Business and Management*, 3(9), 80.

Mubaraq, S. (2012). Corporate Governance, Risk Management and Corporate Performance: An Investigation of the Nigerian Banking Sector. Malaysia: *International Islamic University Malaysia.*

Muhammad, M., Khan, A., & Abdur Rehman, H. (2019). Islamic finance and economic growth: The case of Pakistan's economy. *Islamic Banking and Finance Review*, 6, 23–38

Mukherjee, R. (2015). Institutions, Corporate Governance and capital flows. *Journal of International Economics*, 96(2), 338-359.

Muljawan, Dadang. (2005). A Design for Islamic Banking Rating System: An Integrated Approach. Paper presented at the 6th International Conference at Islamic Economics, Banking and Finance, organized by Islamic Research and Training

Institute-Islamic Development Bank, Bank Indonesia, and Ministry of Finance Republic of Indonesia.

Muneeza, A. and Hassan, R. (2014). *Shari'ah* Corporate Governance: the need for a special governance code. Corporate Governance, 14(1), 120-129.

Murphy, K. J. (1985). Corporate performance and managerial remuneration: An empirical analysis. *Journal of accounting and economics*, 7(1-3), 11-42.

Murray, J.E. (2008). Identifying, Separating, and Managing Asymmetric Information in Early 20c HealthInsurance", http://www.gmu.edu/departments/economics/pboettke/workshop/

Musibah, A. S., & Alfattani, W. S. B. W. Y. (2014). The mediating effect of financial performance on the relationship between *Shariah* supervisory board effectiveness, intellectual capital and corporate social responsibility, of Islamic banks in Gulf Cooperation Council countries. *Asian Social Science*, *10*(17), 139.

Musovaa, Z., Musa, H., & Debnarovac, L. (2017). The impact of Corporate Governance on information asymmetry in Slovakia. *New Trends and Issues Proceedings on Humanities and Social Sciences*, *3*(4), 35-42.

NACD (1996) A Practical Guide for Corporate Directors. Washington: National Association of Corporate Directors.

Naji Mansour Nomran, Razali Haron, Rusni Hassan, (2018). *Shari'ah* supervisory board characteristics effects on Islamic banks' performance: Evidence from Malaysia. International *Journal of Bank Marketing*, 36(2), 290-304,

Nasir, N. A. M., et al. (2014). Comparative Study on Risk: Conventional Insurance Vs Takaful in Malaysia, *Institute of Islamic Banking and Finance*, International Islamic University Malaysia.

Naushad, M. and M.S. Abdul, (2015). Corporate governance and bank performance: A study of selected banks in GCC region. *Asian Social Science*, *11*(9): 226-234.

Navarro, M.C.A. and Urquiza, F.B. (2015), "Board of directors' characteristics and forward-looking information disclosure strategies", paper presented at the *EAA Annual Congress, Glasgow*, 28-30 April,

Nawal Kasim, Sheila Nu NuHtay, and Syed Ahmed Salman (2013). Comparative Analysis on AAOIFI, IFSB and BNM *Shariah* Governance Guidelines. *International Journal of Business and Social Science* 4(15)]

Nawaz, S., Iqbal, N., & Khan, M. A. (2014). The Impact of Institutional Quality on Economic Growth: Panel Evidence. *The Pakistan Development Review*, 15-31.

Nawaz, T. (2019). Exploring the nexus between human capital, Corporate Governance and performance: Evidence from Islamic Banks. *Journal of Business Ethics, 157*(2), 567-587.

Ndulu, B., (2006). Infrastructure, Regional Integration and Growth in subSaharan Africa: Dealing with the Disadvantages of Geography and Sovereign Fragmentation. *Journal of African Economies, 15*, 212-244.

Nelson, R. R. and B. N. Sampat (2001). Making sense of institutions as a factor shaping economic performance. *Journal of Economic Behaviour and Organisation, 44*(1), 31-54.

Nicholson, G. J., & Kiel, G. C. (2007). Can directors impact performance? A case-based test of three theories of Corporate Governance. Corporate Governance: *An International Review, 15*(4), 585-608.

Nickell, S. (1981). Biases in dynamic models with fixed effects. *Econometrica: Journal of the Econometric Society, 49*(6), 1417-1426.

Nienhaus, V. (2007). Governance of Islamic banks", in Kabir-Hassan, M. and Lewis, M.K. (Eds), *Handbook of Islamic Banking, Edward Elgar, Cheltenham*, 128-43.

Nomran, N.M. and Haron, R. (2019). Dual board governance structure and multi-bank performance: a comparative analysis between Islamic banks in Southeast Asia and GCC countries", *Corporate Governance*, 19(6), 1377-1402.

Nomran, N. M., Haron, R., & Hassan, R. (2017). Bank Performance and *Shari'ah* Supervisory Board Attributes on Islamic banks: Does Bank Size Matter?. *Journal of Islamic Finance*, 6, 174-187.

Nomran, N.M., Haron, R. and Hassan, R. (2018). *Shari'ah* supervisory board characteristics effects on Islamic banks' performance: Evidence from Malaysia. International Journal of Bank Marketing, 36(2), 290-304 North D (1994). Economic performance through time. *Am. Econ. Rev. 84*:359-368.

North, D. C. (1981) Structure and Change in Economic History. *Norton.*

Nosheen & Abdul Rashid. (2020). Financial soundness of single versus dual banking system: explaining the role of Islamic banks. *Portuguese Economic Journal*, 20, 99-127.

Nosheen, S., & Sajjad, M. F. (2018). Corporate Governance, disclosure quality, and cost of equity: evidence from Pakistan. *The Lahore Journal of Business 6*(2), 63-91.

Ntow-Gyamfi, M., Bokpin, G. A., & Gemegah, A. (2015). Corporate Governance and transparency: evidence from stock return synchronicity. *Journal of Financial Economic Policy*, 7(2), 157-179.

Olson, D., and Zoubi, T. A., (2008). Using accounting ratios to distinguish between Islamic and conventional banks in the GCC region. *The International Journal of Accounting 43*, 45-65.

Olson, M. (1982) The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities. *Yale University Press.*

Oluba, Martin (2008). Nigeria: The Equity Market Crisis - Causes, Solutions" http://allafrica.com/stories/200811040483.html (Downloaded 23/03/20009)

Omoniyi, O.B., C.F, Ajayi. and I.O., Kekereowo. (2013). An Exploration of the Impact of Corporate Governance on Bank Performance In Nigeria 2006-2010. *International Journal of Business and Management Invention*, 2(7), 12 -16.

O'Neill, M. and J. Swisher (2003). Institutional investors and information asymmetry: an event study of self-tender offers. *Financial Review, 38*(2), 197-211

Oz, E., Ali, M.M., Khokher, Z. u., & Rosman, D.R. (2016). *Shariah* Non-compliance Risk in the Banking Sector: Impact on Capital Adequacy Framework of Islamic Banks. Malaysia: *IFSB Working Paper Series & ISRA.*

Palmer, D. and Barber, B. M. (2001) Challengers, Elites, and Owning Families: A Social Class Theory of Corporate Acquisitions in the 1960s, *Administrative Science Quarterly, 46*, 87–120.

Panicos, D. and Law, H.S. (2006). Finance, institutions and economic development", *International Journal of Finance and Economics, 11*(3), 245-260.

Parigi, B. M., & Parigi, B. M. (2014). Stock Market Returns, Corporate Governance and Capital Market Equilibrium. *EC GI - Finance Working Paper* No. 362: 1-54.

Pathan, S. (2009). Strong boards, CEO power, and bank risk-taking. *Journal of Banking and Finance, 33*(7), 1340-1350.

Pathan, S., and Faff, R., (2013). Does board structure in banks really affect their performance? *Journal of Banking and Finance 37*, 1573-1589.

Pawlina, G. and L. Renneboog (2005). Is investment-cash flow sensitivity caused by agency costs or asymmetric information? Evidence from the UK." *European Financial Management, 11*(4), 483-513.

Pearce, J. A., & Zahra, S. A. (1992). Board Composition from a Strategic Contingency Perspective. *Journal of Management Studies*, 29(4), 411-438.

Pearl-Kumah, S., Sare, Y. A., & Bernard, B. (2014). Corporate Governance And Risk Management In The Banking Sector Of Ghana. *European Journal of Accounting Auditing and Finance Research,* 2(2), 1-17.

Peasnell, K.V., Pope, P.F., Young, S., (2003). Managerial equity ownership and the demand for outside directors. *Eur. Financial Manage.* 9, 231–250.

Permatasari, I. (2020). Does Corporate Governance affect bank risk management? Case study of Indonesian banks. *International Trade, Politics and Development.*

Perotti, E. and E. Ludwig von Thadden (2003). Strategic transparency and informed trading: will capital market integrati on force convergence of Corporate Governance? *Journal of Financial and Quantitative Analysis, 38*(1), 61-85.

Perry, F.V. (2011). The Corporate Governance of Islamic banks: a better way of doing business? *Michigan State Journal of International Law, 19*(2), 251-277.

Pettigrew, A. M. (1992) On Studying Managerial Elites, *Strategic Management Journal, 13*, 163–182.

Pfeer, Jerey, and Gerald R. Salancik. (1978). The External Control of Organizations: A Resource Dependence Perspective. New York: *Harper and Row.*

Pfeffer, J. (1973). Size, Composition, and Function of Hospital Boards of Directors: A Study of Organization-Environment Linkage, *Administrative Science Quarterly*, 18, 349–364.

Platt, H., & Platt, M (2012). Corporate Board Attributes and Bankruptcy. *Journal of Business Research Paper, 65*, 1139-1143.

Poitevin, M. (1990) Strategic Financial Signalling. *Internal Journal of Industrial Organisation*, 8(4), 499-518.

Poudel, Sharman.,Parkash., Ravi. And Hovey, Martin. (2013). Corporate Governance and Efficiency in Nepalese Commercial Banks. *International Review of Business Research Papers*, 9(4), 53-64

Pound J. (1993) Proxy Contest and the Efficiency of Shareholder Oversight. *American Economic Review, 63*(2), 134-139.

Purnamasari, K., & Fitdiarini, N. (2016). Corporate diversification and cash holding. *Journal of Administrative and Business Studies, 1*(1): 21-27.

Qadorah, A. A. M., & Fadzil, F. H. B. (2018). The relationship between board size and CEO duality and firm performance: Evidence from Jordan. *International Journal of Accounting, Finance and Risk Management,* 3(3), 16-20.

Quttainah, M. A., Song, L., & Wu, Q. (2013). Do Islamic banks employ less earnings management?. *Journal of International Financial Management & Accounting*, 24(3), 203-233.

Rahman, A. A. (2010). Financing structure and insolvency risk exposure. *Financ Mark Portf Manag, 24*, 419-440.

Rahman, A. A., Ibrahim, M., Kameel, A., & Meera, M. (2009). Lending Structure and Bank Insolvency Risk: A Comparative Study Between Islamic and Conventional Banks. *Journal of Business & Policy Research*, 4(2), 189-211.

Rahman, A. R. A. (1998). Issues in corporate accountability and governance: An Islamic perspective. *American Journal of Islamic Social Sciences, 15*(1), 55.

Rahman, A. S. A., & Haron, R. (2019). The effect of Corporate Governance on Islamic banking performance: *A Maqasid Shari'ah* index approach on Indonesian Islamic banks. *Journal of Islamic Finance*, 8, 001-018.

Rahman, A.A. and Bukair, A.A. (2013). The influence of the *Shariah* supervision board on corporate social responsibility disclosure by Islamic banks of Gulf co-operation council countries", *Asian Journal of Business and Accounting*, 6(2), 65-104.

Rajan, R.G., (2005). Has financial development made the world riskier?, viewed 10 March 2018, from http://www.nber.org/papers/w11728

Rammal, H.G. (2006). The importance of *shariah* supervision in Islamic financial institutions", *Corporate Ownership and Control*, 3(3), 204-208.

Rasheed, F. (2014). Moderating Effect of Firm Size on the Relationship between Corporate Governance and Corporate Bankruptcy. *Islamabad: Interantional Islamic University.*

Rashid, A and Nosheen. (2020). Financial soundness of single versus dual banking system: explaining the role of Islamic banks. *Portuguese Economic Journal, 20,* 99-127.

Rashid, A., & Intartaglia, M. (2017). Financial development–does it lessen poverty?. *Journal of Economic Studies. 44*(1), 69-84.

Rashid, A., Hassan, M. K., & Shah, M. A. R. (2020). On the role of Islamic and conventional banks in the monetary policy transmission in Malaysia: Do size and liquidity matter?. *Research in International Business and Finance, 52,* 101123.

Rashid, A., Yousaf, S. and Khaleequzzaman, M. (2017). Does Islamic banking really strengthen financial stability? Empirical evidence from Pakistan. International Journal of Islamic and Middle Eastern Finance and Management, 10(2),130-148

Rashid, A., Yousaf, S., & Khaleequzzaman, M. (2017). Does Islamic banking really strengthen financial stability? Empirical evidence from Pakistan. *International Journal of Islamic and Middle Eastern Finance and Management, 10*(2), 2, 1-22

Ravid, S. A., & Sarig, O. H. (1991). Financial signalling by committing to cash outflows. *Journal of Financial and Quantitative Analysis, 26*(02), 165-180.

Razali, M. W. M., Yee, N. S., Hwang, J. Y. T., Tak, A. H. B., & Kadri, N. (2018). Directors' Remuneration and Firm's Performance: A Study on Malaysian Listed Firm under Consumer *Product industry. International Business Research, 11*(5), 102-109.

Rehmans, R., & Mangla, I. U. (2010). Corporate Governance and performance of financial institutions in Pakistan: A comparison between conventional and Islamic banks in Pakistan. *The Pakistan Development Review,49(4),* 461-475.

Reinert, E.S. (1999). The role of the state in economic growth", *Journal of Economic Studies, 26* (4/5), 268-326.

Rhoades, D. L., Rechner, P. L. and Sundaramurthy, C. (2000). Board Composition and Financial Performance: A Meta-analysis of the Influence of Outside Directors,*Journal of Managerial Issues, 12,* 76–91.

Riahi-Belkaoui A., (2002) Accounting Theory. *Fourth Edition, Thomson,* London.

Ries, T.E., Bersoff, D.M., Adkins, S., Armstrong, C. and Bruening, J. (2018). *Edelman trust barometer global report.* Washington, DC.

Rizk, R. R. (2006) Corporate social and environmental disclosure practices: an international comparison of UK, Indian and Egyptian corporations *(Doctoral dissertation, University of Durham).*

Rizwan, S. (2019). Corporate Frauds, Information Asymmetry and Stock Market Reaction. *Global Regional Review,* 4(2), 126-133.

Rodrik, D., Subramanian, A. and Trebbi, F. (2004). Institutions rule: the primacy of institutions over integration and geography in economic development. *Journal of Economic Growth,* 9(2), 131-165.

Roe, M. J. (1991). A political theory of American corporate finance. *Columbia Law Review*, 91(1), 10-67.

Roe, M.J. (2003). Political Determinants of Corporate Governance: Political Context, Corporate Impact. *Oxford University Press*. Oxford/New York.

Romano, G., Ferretti, P., & Rigolini, A. (2012). Corporate Governance and performance in Italian banking groups. In Paper to be presented at the International conference, 1-35.

Rosenstein, S., and Wyatt, J.G., (1990). Outside directors, board independence, and shareholder wealth. *Journal of Financial Economics 26*, 175-191.

Rosser, J Barkley (2001). Alternative Keynesian and Post Keynesian Perspectives on Uncertainty and Expectations. *Journal of Post Keynesian Economics*: *JPKE*, *23*, 545 – 566

Rostami, S., Z. Rostami, and S. Kohansal (2016). The effect of Corporate Governance components on return on assets and stock return of companies listed in Tehran stock exchange. *Procedia Economics and Finance 36*:137–46.

Ruigrok, W., Peck, S., & Keller, P. (2006). Board Characteristics and Involvement in Strategic Decision Making: Evidence From Swiss Companies. *Journal of Management Studies*, *43*(5), 1201-1226.

Saeed, A. (1996). Islamic banking and interest: A study of the prohibition of riba and its contemporary interpretation (Vol. 2). *Brill*

Safieddine, A. (2009). Islamic financial institutions and Corporate Governance: new insights for agency theory. Corporate Governance: *An International Review*, *17*(2), 142-58.

Safiullah, M., & Shamsuddin, A. (2018). Risk in Islamic banking and Corporate Governance. *Pacific-Basin Finance Journal, 47*, 129-149.

Said Mokhtar, E. and Mellett, H. (2013). Competition, Corporate Governance, ownership structure and risk reporting", Managerial Auditing Journal, 28(9), 838-865.

Mollah, S. and M. Zaman (2015). "Shari'ah supervision, Corporate Governance and performance: Conventional vs. Islamic banks." *Journal of Banking & Finance 58*: 418-435.

Salhi, B., & Boujelbene, Y. (2012). Effect of the Internal Banking Mechanisms of Governance on the Risk-talking by the Tunisian Banks. *International Journal of Economics, Finance and Management,* 1(1), 8-19.

Salti, M., Monto, S., Charles, L., King, J. R., Parkkonen, L., & Dehaene, S. (2015). Distinct cortical codes and temporal dynamics for conscious and unconscious percepts. *Elife*, 4.

Salti, N. (2015),"Income inequality and the composition of public debt", *Journal of Economic Studies*, *42*(5), 821-837.

Samra, E. (2016). Corporate Governance in Islamic financial institutions. University of Chicago Law School, Law School International Immersion Program Papers, No. 2

Sanders, W.G. (2001). Behavioral responses of CEOs to stock ownership and stock option pay. *Academy of Management Journal*, *44*(3), 477-492.

Sardar Abdul Hameed, Y. B. (2013). Corporate Governance in Financial Sector Companies of Pakistan: Current State and Room for Improvement. *World Applied Sciences Journal*,21(1) 79-92.

Sargan, D.(1958). The Estimation of Economic Relationships Using Instrumental Variables. *Econometrica*, *26*, 393-415.

Sarker, M. A. A. (1999). Islamic business contracts, agency problem and the theory of the Islamic firm. *International Journal of Islamic Financial Services*, 1(2), 12-28.

Sayilgan, G. and O. Yildirim (2009). Determinants of profitability in Turkish banking sector: 2002-2007. *International Research Journal of Finance and Economics 28*: 207-214.

Schneider, F., & Lenzelbauer, W. (1993). An inverse relationship between efficiency and profitability according to size of (Upper-) Austrian firms? Some further tentative results. *Small Business Economics*, 5(1), 1-22.

SECP. (2017). Securities and Exchange Commission of Pakistan. Retrieved from SECP website: https://www.secp.gov.pk/corporate-governance/listed-companies/

Seresht, D. J., Eivani, F., & Mohammadi, S. (2015). A study on the Relationship between Information Asymmetry and Earnings Management in Companies Listed in Tehran Stock Exchange. *IPASJ International Journal of Management* , 31-38.

Settlements, B. f. (2015). Guidelines Corporate Governance principles for banks. Guidelines Corporate Governance principles for banks. *Bank for International Settlements*.

Shah, M. A. R. (2019). Monetary Policy Transmission Mechanism: Exploring the Role of Islamic versus Conventional Banks (*Doctoral dissertation, International Islamic University,* Islamabad.)

Shah, M. A. R., Rashid, A., & Farooq, M. U. (2018). An Evaluation of the Distinguish Model of Islamic Banks: Historical Development and Unique Characteristics. *Zia-e-Tahqeeq*, 8(16), 5-21,.

Shah, M. A. R., Rashid, A., & Khaleequzzaman, M. (2017). Capital structure decisions in Islamic banking: empirical evidence from Pakistan. *Journal of Islamic Banking & Finance*, *34*(2), 89-103.

Shahid, H., Rehman, R., Niazi, G. K., & Raoof, A. (2010). Efficiencies comparison of Islamic and conventional banks of Pakistan. International Research *Journal of Finance and Economics*, 49(9), 24-42.

Shahzad, M. A., Ehsan, A., & Saeed, S. K. (2016). *Shari'Ah* Audit and Supervision in *Shari'Ah* Governance Framework: Exploratory Study of Islamic Banks in Pakistan. *Business & Economic Review: 9*(1), 103-118

Shaidullina, R. M., & Ikhsanova, F. A. (2019). Application of mathematical methods in consumer choice theory in tourism sphere. *Revista ESPACIOS*, *40*(13).

Shaikh, M. A. (1988). Ethics of decision making in Islamic and western environments. American *Journal of Islamic Social Sciences*, 5(1), 115-28

Sharfman, B.S. (2009),"Enhancing the efficiency of board decision making: lessons learned from the financial crisis of 2008",*Delaware Journal of Corporate Law, 34*, 813-851.

Shaw, K.W. and Zhang, M.H. (2010). 'Is CEO cash compensation punished for poor firm performance?' *The Accounting Review, 85*(3):1065–1093.

Shehata, E., & Mickaiel, S. (2013). Spregdpd: Stata module to estimate spatial panel Arellano-Bond linear dynamic regression: Lag & Durbin models. *Chestnut Hill*, United States: Boston College Department of Economics.

Shehzad, C.T., de Haan, J., Scholtens, B., (2010). The impact of bank ownership concentration on impaired loans and capital adequacy. *Journal of. Banking and. Finance. 34*, 399–408.

Sheikh, N. A., & Kareem, S. (2015). The Impact of Board Structure, Ownership Concentration, and CEO Remuneration on Performance of Islamic Commercial Banks in Pakistan. *Pakistan Journal of Islamic Research, 15*: 49-59.

Shleifer, A. and R. Vishny (1997). A survey of Corporate Governance." *Journal of Finance, 52*, 737-783.

Shleifer, A., & Vishny, R. W. (1986). Large shareholder and corporate control. *Journal of Political Economy,* 94, 461–488.

Shrader, N. L., & B., J. D. (2003). Board of Director Diversity and Firm Performance. *Blackwell Publishing Ltd, 11*(2), 102-111..

Shungu, P., Ngirande, H., & Ndlovu, G. (2014). Impact of Corporate Governance on the performance of commercial banks in Zimbabwe. *Mediterranean journal of social sciences*, 5(15), 93-93.

Ndlovu, W. Milton.,Bhiri, Thomas., Mutambanadzo, Tendekayivanhu. And Hlahla, P. Blessing (2013) A comparative Analysis of the Corporate Governance practices in Multinational and domestic Banks in Zimbabwe. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)*, 5(5) 473-480

Shungu, P., Ngirande, H., & Ndlovu, G. (2014). Impact of Corporate Governance on the performance of commercial banks in Zimbabwe. *Mediterranean Journal of Social Sciences*, 5(15), 93.15.

Siddique, M. Z., & Ahmad, M. M. (2019). Demystifying Riba through the Methodology of Muslim Jurists. *Islamic Studies, 58*(2), 169.

Siddique, M. Z., & Siddique, M. A (2020). Reconciling the irreconcilable (talfeeq): The case of currency salam. *International Journal of Finance & Economics*.1-13.

Siddique, M.Abubakar (2018), An Analytical Study of Modern Economic Theories and Rationales Behind Interest, *Hazara Islamicus*, 7(1), 13-39.

Siddiqui, D. A., & Atique, A. (2020). Boards' Gender Diversity and Information Asymmetry in Stock Market of Pakistan. Available at SSRN 3681298.

Sierra, G.E., Talmor, E., Wallace, J.S., (2006). An examination of multiple governance forces within bank holding companies. *Journal of Financial Services Research 29*, 105–123.

Smirnova, A. S., & Zavertiaeva, M. A. (2017). Which came first, CEO compensation or firm performance? The causality dilemma in European companies. *Research in International Business and Finance, 42*, 658-673.

Smith Jr, C. W., & Watts, R. L. (1992). The investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of financial Economics, 32*(3), 263-292.

Smith, A. (1776). An Inquiry into the Nature and Causes of the Wealth of Nations, 2 vols. *W. Strahan and T. Cadell.[MTG]*.

Smith, C. and Stulz, R. (1985). The determinants offirms' hedging policies. *Journal of Financial and Quantitative Analysis, 20*(4), 391-406.

Song, J. and Windram, B. (2004). Benchmarking audit committee effectiveness in financial reporting. *International Journal of Auditing, 8*, 195-205.

Song, M. I., & Oosthuizen, C. (2014). Islamic banking regulation and supervision: Survey results and challenges (No. 14-220). *International Monetary Fund.*

Sougné, D., Laouti, M., & Ajina, A. (2013). Do board characteristics affect information asymmetry?. *International Journal of Academic Research in Business and Social Sciences*, 3(12), 660-675.

Spence M. (1973) Job market signalling. *The quarterly Journal of Economics*, 355-374.

Sridharan, U. V., & Marsinko, A. (1997). CEO duality in the paper and forest products industry. *Journal of Financial and Strategic Decisions, 10*(1), 59-65.

Stano, M. (1976) Monopoly Power, Ownership Control, and Corporate Performance,*Bell Journal of Economics*, 7, 672–679.

Stanwick, P.A., and Stanwick, S. D., (2010). The relationship between governance and financial performance: an empirical study of Canadian firms. *The Business Review 16*, 35-41.

Stepanova, A., Ivantsova, O., Stepanov, S., Vernikov, A. V., & Bokov, V. A. (2012). Role of Corporate Governance in Banking Sector: Evidence from all over the world. *Electronic Journal of Corporate Finance*, 4(24), 80-86.

Stoeberl, P. A., & Sherony, B. (1985). Board efficiency and effectiveness. *Handbook for corporate directors*, 12.(11),-12.10.

Stulz, R.M., (2005). The limits of financial globalization. *J. Financ. 60*, 1595–1638.

Subramanian, G., (2015). Corporate Governance. *Harvard Business Review.*

Sufian, F. and M. S. Habibullah (2009). "Bank specific and macroeconomic determinants of bank profitability: Empirical evidence from the China banking sector." *Frontiers of Economics in China* 4(2): 274-291

Sulphey, M. M. (2015). Corporate Governance in Islam VIS-A-VIS the modern corporate world. *Management & Accounting Review (MAR), 14*(1), 81-97.

Sun, Y., Yang, Y. and Bin, L. (2012). Board independence, internal information environment and voluntary disclosure of auditors' reports on internal controls. *China Journal of Accounting Research, 5*, 145-161.

Sundaram, A.K. and Inkpen, A.C. (2004). The Corporate Objective Revisited. *Organization Science, 15*(3), 350-363.

Switzer, L. N., and J. Wang, (2013). Default Risk Estimation, Bank Credit Risk, And Corporate Governance, Financial Markets, *Institutions & Instruments* 22(2), 91–112.

Switzer, L. N., J. Wang, and Y. Zhang, (2016). Effect of Corporate Governance on Default Risk in Financial Versus Nonfinancial Firms: Canadian Evidence, *Canadian Journal of Administrative Sciences*,35(2),313-328.

Switzer, L. N., Tu, Q., & Wang, J. (2018). Corporate Governance and default risk in financial firms over the post-financial crisis period: International evidence. *Journal of International Financial Markets, Institutions and Money, 52*, 196-210.

T.Velnampy. (2013). Corporate Governance and Firm Performance: A Study of Sri Lankan Manufacturing Companies. *Journal of Economics and Sustainable Development*, 4(3), 228-235.

Tafri, F. H., Hamid, Z., Meera, A. K. M., & Omar, M. A. (2009). The impact of financial risks on profitability of Malaysian commercial banks: 1996-2005. *International Journal of Social, Human Science and Engineering*, 3(6), 268-282.

Tahir, S., Qamar, M. A. J., Nazir, M. S., & Usman, M. (2019). Does Corporate Governance reduce overinvestment? The mediating role of information asymmetry. *Pakistan Journal of Commerce and Social Sciences (PJCSS), 13*(4), 1068-1084.

Tandelilin, E., Kaaro, H., & Mahadwartha, P. A. (2007). Corporate Governance, Risk Management, and Bank Performance: Does Type of Ownership Matter? *Eadn Working Paper No. 34* (2007) .

Tarchouna, A., Jarraya, B., & Bouri, A. (2017). How to explain non-performing loans by many Corporate Governance variables simultaneously? A Corporate Governance index is built to US commercial banks. *Research in International Business and Finance, 42*, 645-657.

Tariq, W., Ali, I., Ibrahim, M., & Asim, M. &. (2014). Theory and Empirical Evidence on Corporate Governance from Banking Sector of Pakistan. *Business and Economic Research*, 4(1), 163-174.

Taussig, F.W. & Braker, W.S. (1925). American corporations and their executives: A statistical inquiry. *Quarterly Journal of Economics, 40*(1), 1-51

Thomson Reuters, (2016). State of the Global Islamic Economy Report 2016/17. (Accessed from)

https://ceif.iba.edu.pk/pdf/ThomsonReutersstateoftheGlobalIslamicEconomyReport201617.pdf.

Tomar, S., & Bino, A. (2012). Corporate Governance and Bank Performance: Evidence from Jordanian Banking Sector. *Jordan Journal of Business Administration*, 8(2), 353-372.

Tornyeva, K., & Wereko, T. (2012). Corporate Governance and Firm Performance: Evidencefrom the Corporate Governance and Firm Performance: Evidencefrom the. *European Journal of Business and Management*, 95-112.

Trad, N., Trabelsi, M. A., & Goux, J. F. (2017). Risk and profitability of Islamic banks: A religious deception or an alternative solution?. *European Research on Management and Business Economics*, 23(1), 40-45.

Trinh, T. H., Duyen, T. T., & Thao, N. T. (2015). The Impact of Corporate Governance on Financial Risk in Vietnamese Commercial Banks. *International Journal of Economics and Finance*, 7(7), 123-130.

Tsorhe, J. S., Aboagye, A. Q. Q., & Kyereboah-Coleman, A. (2011). Corporate Governance and Bank Risk Management in Ghana. *University of Ghana Business School.*

Tu, Q. (2015). Corporate Governance and Default Risk in Financial Firms over the Post Financial Crisis Period: International Evidence (*Doctoral dissertation, Concordia University*).

Ullah, S., Akhtar, P., & Zaefarian, G. (2018). dealing with endogeneity bias: The generalized method of moments (GMM) for panel data. *Industrial Marketing Management*. 71, 69-78.

Usmani, T. (1998). An Introduction to Islamic Finance. *Idratul Ma'arif.*

Uyar, A. and Kilic, M. (2012). The Influence of firm characteristics on disclosure of financial ratios in annual reports of Turkish listed in the Istanbul Stock Exchange. *International Journal of Accounting, Auditing and Performance Evaluation*, 8(2), 137-156.

Uzun, H., Szewczyk, S.H. and Varma, R. (2004). Board composition and corporate fraud. *Financial Analysts Journal, 60*, 33-43.

Van Den Berghe (2001). Beyond Corporate Governance. *European Business Forum*, 5.

Van der Walt, N., & Ingley, C. (2003). Board Dynamics and the Influence of Professional Background, Gender and Ethnic Diversity of Directors. Corporate Governance: *An International Review, 11*, 218-234.

Van Greening, Hennie and Iqbal Zamir. (2008). Risk Analysis for Islamic Banks. *Washington: World Bank.*

Vateva, T. K. (2014). Corporate Governance and default Risk. *Kent State University.*

Venkatesh, P. C., & Chiang. (1986). Information Asymmetry and the Dealer's Bid-Ask Spread: A Case Study of Earnings and Dividend Announcements. *The Journal of Finance, 41*(5), 1089-1102.

Veprauskaitė, E., Adams, M., (2013). Do powerful chief executives influence the financial performance of UK firms? *Br. Accounti. Rev. 45*, 229–241

Vermaelen, T., (1981), Common Stock Repurchases and Market Signaling: An Empirical Study,*Journal of Financial Economics* 9(2), 139–183.

Wagner, J. A., III, Stimpert, J. L. and Fubara, E. I. (1998) Board Composition and Organizational Performance: Two Studies of Insider/Outsider Effects, *Journal of Management Studies*, *35*, 655–677.

Wan, W. P. and R. E. Hoskisson (2003). Home country environments, corporate diversification strategies, and firm performance. *Academy of Management journal 46*(1): 27-45.

Wang, C. J. (2012). Board size and firm risk-taking. *Review of Quantitative Finance and Accounting*, *38*(4), 519-542.

Wang, H.C. & Barney, J.B. (2006). Employee incentives to make firm-specific investments: Implications for resource-based theories of corporate diversification. *Academy of Management Review, 31*(2), 466-476.

Wang, K., & Shailer, G. (2015). Ownership concentration and firm performance in emerging markets: A meta-analysis. *Journal of Economic Surveys*, *29*(2), 199–229.

Wang, P. E. N. G., & Zhou, L. A. (2006). Auditor's choice by China's listed companies and its governance role. *China Accounting Review*, 2, 88-98.

Wang, Y., L. Cheng, H. Wang, and L. Li. (2014). Institutional quality, financial development and OFDI. *Pacific Science Review 16* (2):127–32.

Wan-Hussin, W. (2009). The impact of family-firm structure and board composition on corporate transparency: evidence based on segment disclosures in Malaysia. *The International Journal of Accounting*, *44*, 313-333.

Warde, I. (2000). Islamic finance in the global economy. *Edinburgh University Press*.

Wasike, C. N. (2017). Financial regulation as moderating, influence of Corporate Governance, institutional quality, human capital and firm size on financial institutions performance in Kenya. *Journal of Administrative and Business Studies*, *3*(6), 292-304.

Weir, C. (1997) Corporate Governance, Performance and Take-overs: An Empirical Analysis of UK Merges, *Applied Economics*, *29*, 1465-1475.

Weir, C., Laing, D., McKnight, P.J., (2002). Internal and external governance mechanisms: their impact on the performance of the UK large public companies. *Journal of Business Finance and Accounting 29*, 579-611.

Welker, M., (1995), Disclosure policy, information asymmetry, and liquidity in equity markets, *Contemporary Accounting Research 11*, 801–827.

Wells, H. (2010). The Birth of Corporate Governance. *Seattle University Law Review*, *33*, 1247-92.

Wheeler, D., Colbert, B. and Freeman, R.E.(2003). Focusing On Value: Reconciling Corporate Social Responsibility, SustanibilityAnd A Stakeholder Approach In A Network World. *Journal of General Management, 28(3)*,1-28.

Whitford, L. M. (1993). Corporate Governance in the Bankruptcy Reorganization of Large, Publicly Held Companies. *University of Pennsylvania Law Review, 141*(36), 69-80.

Whittington G. (1993) Corporate Governance and the regulation of financial reporting. *Accounting and Business Research, 23*(sup1), 311-319.

Wilkinson, M., 2009, 'Sharing the gains', *Charter 80*(3), 38–41

Williamson, O. E. (1989). Transaction cost economics. Handbook of industrial organization, 1, 135-182.

Winful, E. C., Sarpong, D., & Agyei-Ntiamoah, J. (2016). Relationship between institutional quality and stock market performance: Evidence from emerging economies. *African Journal of Business Management, 10*(19), 469-484.

Wintoki, M.B., Linck, J.S., Netter, J.M., (2012). Endogeneity and the dynamics of Corporate Governance, *Journal of Financial Economics 105*, 581–606.

Wooldridge JM (2002). Econometric analysis of cross-section and panel data. *MIT Press, Cambridge*. P286

Wright, P., Kroll, M., Krug, J.A. & Pettus, M. (2007). Influences of top management team incentives on firm risk taking. *Strategic Management Journal, 28*(1), 81-89.

Wu, K., Sorensen, S. and Sun, L. (2019). Board independence and information asymmetry: family firms vs non-family firms. *Asian Review of Accounting*, 27(3), 329-349.

Xiao, Zhongyi, Rui He, Zhangxi Lin, and Hamilton Elkins (2013). CEO compensation in China: Accounting performance, Corporate Governance, and the gender gap. *Nankai Business Review International*, 4(4), 309-328.

Ye W. (2009). Control Chain, Agency Conflicts and Auditor Choice [J].*Accounting Research*, 6, 011.

Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics, 40*(2), 185-211.

Yoshikawa, T. and Phan, P. H. (2003). The Performance Implications of Ownership-driven Governance Reform, *European Management Journal, 21*(6), 698-706.

Young, M. N., Peng, M. W., Ahlstrom, D., Bruton, G. D., & Jiang, Y. (2008). Corporate Governance in emerging economies: A review of the principal–principal perspective. *Journal of management studies 45*(1): 196-220.

Yousop, N. L., Abdullah, N. M., Ramdhan, N., Ahmad, Z., Sipon, Z., Ismail, N., Jaffar, D. H. (2014). A Conceptual Study on Financial Distress of Takaful Firms in Malaysia. *Australian Journal of Basic and Applied Sciences,* 15-21; .

Yusoff, W. F. W., & Alhaji, I. A. (2012). Corporate Governance and firm performance of listed companies in Malaysia. *Trends and Development in Management Studies*, 1(1), 43-65.

Zagorchev, A. and L. Gao, (2015). Corporate governance and performance of financial institutions. *Journal of Economics and Business*, *82*: 17–41.

Zahr al-Din 'Abd ul Rahman, (2009). *Maqasid al-Shariah Fi Ahkam al-Buyu'*, (*Berut: Dar al-Kutub al-'Ilmiyyah*)

Zaman, R., Arslan, M., Sohail, M., & Malik, R. K. (2014). The impact of Monetary policy on financial performance: Evidence from banking sector of Pakistan. *Journal of basic and Applied scientific research*, 4(8), 119-124.

Zaman, S. M. (2015). Corporate Governance and performance: conventional vs. islamic banks. *Journal of Banking & Finance*, 1-42.

Zhang, S. (2011). Asymmetric information and executive compensation contract management. In 2011 2nd International Conference on Artificial Intelligence, Management Science and Electronic Commerce (AIMSEC) (pp. 1959-1962). IEEE.

Zhong, & Gribbin & Zheng, X. (2007). The Effect of Monitoring by Outside Blockholders on Earnings . *Quarterly Journal of Business & Economics*, *46*, 37-60.

Zelenyuk, V., & Zheka, V. (2006). Corporate Governance and firm's efficiency: the case of a transitional country, Ukraine. *Journal of Productivity Analysis*, 25(1), 143-157.

Zhang, D., Cai, J., Dickinson, D.G., Kutan, A.M., (2016). Non-performing loans, moral hazard and regulation of the Chinese commercial banking system. *Journal of Banking and. Finance 63*, 48–60.

Zhuang, J., Dios, E. d., & Lagman-Martin, A. (2010). Governance and Institutional Quality and the Links with Economic Growthand Income Inequality: With Special Reference to Developing Asia. Asian Development Bank Economics *Working Paper Series* No. 193.

Zingales, L. (1998). Corporate Governance. The New Palgrave Dictionary of Economics and the Law, 1998. *Other Sources*, *1*.

Zulfiqar Ali Shah, S. (2009). Corporate Governance and financial performance a comparative study of developing and developed markets (Doctoral dissertation, Mohammad Ali Jinnah University).