Impact Of Corpoprate Governance On Firm Value: Evidence From Banking Sector Of Pakistan

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ABSTRACT

The purpose of this study was to examine how corporate governance analysts influence the firm value. Corporate governance offers analysts through which firm are being controlled and guided to achieve their objectives and sustain performance to meet the shareholder expectations effectively. The contextual setting of the study was provided by banking industry of Pakistan. The study adopted quantitative approach and deductive strategy to examine the nexus of corporate governance and value in the context of banking sector of Pakistan. The convenience sampling technique was used to determine sample size. The size of the sample remains 34 banks while the data range from 2010-2020. Secondary data was collected through annual reports which contain 374 annual observations. Secondary data was statistically analyzed through adopted econometric techniques. The descriptive statistics was conducted to estimate the properties of data while correlation matrix was estimated to ascertain the intensity of correlation between variables. Likewise, the correlation matrix also used to detect the issue of autocorrelation. The matrix state no issue of autocorrelation. Accordingly, the key result of the study was estimated through panel data model. Random and fixed effective model through Hausman specification test was estimated to explain the linkage between proposed explanatory variable and dependent variable. The Hausman specification test indicates that random effect model best explains the relationship between explanatory variable and dependent. The study offers managerial and practical implications. The banks board should be more independent and increase the ratio of gender diversity to improve their overall operating and market performance. Currently, the ratio of female on board is minimal which needs to be increased and for this purpose legislation is being required by regulators. Accordingly, the regulators such as SECP should enforce firms particularly, banks to adopt robust governance analysts to sustain superior firm value.

Keywords: Audit quality, CEO duality Board Independence; Board Gender Diversity; Board Effectiveness; Firm value.

INTRODUCTION

Overview of Corporate Governance

From the late 1980s to the late 1990s, the emergence of corporate governance as an academic discipline could be linked to the same three decades. A steep rise in controversies and the collapse of powerful corporations in the United States have provided increased shareholder awareness and the abundance of infrastructural investment managers over the last couple of decades. From the early 1990s, the idea of corporations has been accomplished through acquisition. The collision in Asia as a result of such Asia pacific Crisis also contributed to method producing capital markets. While CG has taken on a greater meaning due to the depth of knowledge in this subject, it has also evolved into a discipline that includes aspects such as the legal system, corporate and public ethics, accountancy, organizational behavior, business management, the global economy, and more.

The SBP is accountable for creation of the monetary policy and have control over the activities going on in the Pakistan to make the economic situation stable. The commercial banks always concerned in creating the great profit the commercial banks create central role in society through performing as the intermediary. The commercial banks also gives expert advice on great variety of savings solutions and also the financing suggestions (Sheikh & Kareem, n.d.).

Unfortunately, the dimensions of corporate governance are measured separately and measured the relationship of two are three dimensions. But no single study has been conducted in banking sector on all of these dimensions' effect on firm value in Pakistan. Dimensions of CG (corporate governance) like board size has been widely discuss all over the world and in Pakistan in each sector and each area. However, the relationship among board effectiveness ad audit quality has already been examined but in limited studies. These discussed dimensions are not enough to completely implement the rules and practices of CG (corporate governance) in banking sector in Pakistan. So, we are going to examine these dimensions in our study.

Audit quality is very important dimension and very limited research has been conducted on this variable. On the basis of this study, we cannot grab the benefits of audit quality along with other dimensions of Corporate Governance (CG) in banking sector to heighten the firm value. This study investigates the relationship of audit quality with firm value. Board effectiveness is also discussed in previous studies but few studies has discussed this dimension. There is no empirical evidence exist in any study regarding board effectiveness in banking sector in Pakistan. We are trying to discover the empirical evidence of this dimension to validate the relationship between board effectiveness on firm value.

So, this research will be conducted to identify whether board effectiveness and audit quality enhance the firm value in banking sector of Pakistan or not. Same as board effectiveness and audit quality CEO duality, board independence and gender diversity are also very much important but there exists limited discussion on the impact of these variables on firm value in banking sector of Pakistan. Past researchers have studied these dimensions in different sectors but there is need to study the impact in banking sector of Pakistan. In these few studies the empirical evidence to validate their relationship with firm value does not exist.

Summing up, audit quality, board effectiveness CEO duality is very important to clarify the positions goals in banking sector which actually create mismanagement and slow down the corporate governance procedure. When corporate governance procedures are in effected and slow then CG (corporate governance) practices are slow and ineffective in result firm value decline. Past studies have examined CEO duality very limited, however the studies on CEO duality unable to provide the empirical evidence and this concept is still rare in literature. The CEO duality refers to "the CEO is also holding a position as a chairman of the board of directors. The CEO post separation and chairman board are one of the highly controversial CG (corporate governance) problem in recent years. The BOD will have identified the chairman and CEO duties either same or separate. The relationship among CEO duality and firm value have been investigated in multiple studies and in lot of situation but their results are always confusing, diverse and unsatisfying.

This study is taking CEO duality, audit quality, and board effectiveness, gender diversity and board independence in single study to discover does the dimensions of CG (corporate governance) leads to improve firm value and help to bank to perform well?

Research Objectives

Following are the research objectives of this study.

- To determine the impact between Board effectiveness and firm value in Pakistani banking sector.
- To analyze the impact of Audit quality on firm value in Pakistani banking sector.
- To investigate the effect between Board gender diversity and firm value in the banking sector of Pakistan.
- To examine the impact of board independence on firm value in banking sector of Pakistan
- To determine the impact of CEO duality on firm value in banking sector of Pakistan

RESEARCH QUESTION

There are some research questions based on research objectives.

- Does board independence have any impact on the firm value in Pakistani banking sector?
- Does audit quality effect have any impact on firm value in Pakistani banking sector?
- Does board gender diversity have any impact on firm value?

- Does CEO duality have any impact on the firm value in Pakistani banking sector?
- Does board effectiveness have any impact on the firm value in Pakistani banking sector?
- There are some research objectives of our study which are as follows.

Significance of the Study

The role of banking sector in the growth of country's economy may not overlook. The banking sector firm value has great significance for not only the growth of banks but also the growth of overall economy of the country if the banking sector perform very well than it contributes in the growth of the overall economy of the country. However, its failure carries the dangerous outcomes and has very harmful for progress of the economy of the country. Consequently the banking sector governance has too much significant, the BOD plays critical role regarding the perfection of governance in banks (Yar & Ahmed, 2020). CEO duality, board effectiveness and audit quality are the most important dimensions of corporate governance but limited discuss in some rare studies. Most importantly they are globally accepted as the important indicators of firm value but unfortunately limited discussed in literature. In this study we are going to not only discuss these dimensions but also try to provide their empirical evidence to validate the results and direction to their relationships with firm value. This study is also helpful for banking sector to not only grab the benefits of corporate governance practices in banking. It is also helpful to recognize the importance of existence corporate governance practices to fostering the firm value.

We have discussed the research problems, research objectives, purpose and advantages of this study in the previous section. In the chapter two we are going to discuss the literature review, hypothesis development, underpinning theory. In the chapter three we are going to discuss the research methodology, findings and discussion. Finally we are going to discuss the conclusion and recommendations for future studies.

LITERATURE REVIEW

CORPORATE GOVERNANCE

"Corporate governance is the combination of rules, processes or laws by which businesses are operated, regulated or controlled. The term encompasses the internal and external factors that affect the interests of a Company's stakeholders, including shareholders, customers, suppliers, government regulators and management." In last decades corporate governance is the most highlighted topic in world of finance. Lot of researches has been conducted on its measurements and analysis of these measure. Many researchers considered the broad set of only governance measures employed in the finance law and accounting. If we focus on the governance only then it may guide us regarding the sales by commercial vendors.

"Value of a firm is basically the sum of claims of its creditors and shareholders. Therefore, one of the simplest ways to measure the value of a firm is by adding the market value of its debt, equity, and minority interest." The managers mostly make decisions mainly depend upon the freely or easily available public or private information. The information is not easily accessible to every person it is assess able only to definite subjects within specific or definite conditions. Information is not only important for companies during decision making but also play a critical role in choosing the investment choices(Harjoto & Laksmana, 2018). The discovery of policies plays critical role for firm to enhance the level of clearness towards depositors and stakeholder. What is reason behind taking such as decision by companies using specific information?

The reason behind the decision taking by companies by using the specific information is to reveal the deliberated information which is the main theme of many studies and thousands of theories. Signaling theory was first purposed by rose and Spence in 1973 which is mostly valuable for clarifying the inclination to move toward or beyond the required information(Buallay, 2019). The signaling theory depends upon the specific concept of single which may be defined as "any action by competitors that provides or direct or indirect indication of its intention motive goals, or internal situations(Ruiz-Mallorquí & Santana-Martín, 2011).

Corporate governance and firm value:

Corporate governance and firm value we always focus on the corporate governance and firm performance. But corporate governance and firm value got limited attention from researchers. There are bundle of studies has been conducted on the corporate governance measurement levels in finance law and accounting literature. But they could not identify the strong relationship among corporate governance and firm value. The academic literature showed that the corporate governance and future fir performance are not strongly related to each other. The core of good governance is the set of procedures that confirms the external investors a good return on their investment.

The public and private level policy makers should find and understand the importance of corporate governance and firm value relationship when taking important decision of short tern or long-term investment. The relationship between corporate governance and firm value is not helpful for investors but also important to consider for firms to making consistent and long-term corporate performance. Regarding corporate governance researchers should consider the firm value as important factor when taking any form of financial decisions. The economic agents and the directors are most probably trying to focus on both on firm value and corporate governance equally. According to the past literature there is positive relationship between corporate governance and firm value.

More-than hundred largest financial institutions of United States during the crises of 2008 keenly focus on the corporate governance and corporate performance, but unfortunately, they skip the firm value. The relationship between corporate governance and firm value can also take place through lot of channels like managerial ownership, structure behavior and compensation. The review on the past literature suggests that there is strong impact of corporate governance on firm overall performance. One of the major opinions regarding direct effect of corporate governance on firm value is the role of corporate governance in decreasing the agency clash by removing fears regarding upcoming cash flow and discouraging the cost of capital also. The better protection option of shareholder is value improving. The better corporate governance may shrink the level of upcoming cash flow uncertainties, discourage the auditing cost.

Hypothesis Development

Based on past literature we are going to develop some hypothesis, for this purpose we will assume the relationship among respected variables one by one and test their effects on each other.

Board independence on firm value:

In fulfillment of requirements of good CG and CG code in Pakistan it is important for every bank to must have one third independent directors. Simultaneously the executive director also should not exceed the limit of board size's 75 % (Yasser, et al., 2014). The easiest approach to develop the board independence in the firm discover the existence of non-executive directors on the board. (Gallo, 2005). There are few studies which have vision that the independence of board and firm value have insignificant relationship among them. The same result were frond in the past studies conducted by Bhagat and Bolton (2008),which demonstrate that the independent director would create things more accomplished and in many cases with result in postponement of decision making and consequently will insignificant on firm value(Nawaz Khan et al., 2019).

The nonexecutive director has critical role in the creation of value for the firm. Several studies have been conducted in multiple sectors across the world as Choi et al. (2006), Chan and li (2008), Nazir et al. (2009), Dunstan et al. (2011), Roof (2011), Ventil and Georgina A. Khan et al. / Accounting 3 (2017) 123 (2013) also has been found in past decade there was a significant relationship among and independent board directors.

The existence of independent director will assure the active well timed and effective monitoring and this is also protecting the welfare of shareholder and usually leads to the CEO selection on the merit basis to run the firm. (Khan & Awan 2012). From the above discussion we can hypnotized that,

H1*: Boar independence is significantly affected on firm value:*

Audit Quality and Firm Value:

The main objective of the auditor and audit is to overwhelmed and screen the uneven information. That may raise questions on the consistency of issued financial information. When auditor accomplish to thoroughly complete the audit in given time period it may result the possible cost saving and when audit time period beat or exceed the allocated time period it may result addition in cost (Levant's et al., 2005). Cho and Wu (2014) investigated the event of using the brilliant auditor and having a view with the view that it depends on the corporate governance and its indicators following to monitoring and alternative agency conflicts level. On the basis of literature, we hypnotized that

***H2**: audit quality will be significant effect on firm value:*

CEO Duality and Firm Value:

The CEO duality refers to "the CEO is also holding a position as a Chairman of the board of directors. According to Yang and Zhao (2014) proposed that the CEO post separation and chairman board is one of the highly controversial cg problems in recent years. The BOD will have identified the chairman and CEO duties either same or separate. THE relationship among CEO duality and firm value have been investigated in multiple studies and in lot of situation but their results are always confusing, diverse and unsatisfying.

The few researchers are in CEO duality favors and assumed that here is positive association among CEO duality and firm value. In this highly fast era the worse dynamics are evolving vigorously, it is significant to have transparent authority and control and which is possible without CEO duality(Ashfaq & Rui, 2019). The similar results are confirmed by Rout 2011 which discovered that there was positive relationship between CEO duality and firm value. However the past researchers also confirmed that when the CEO and chairman position are separated then it would be more beneficial for firms(Malik et al., 2014).

The combination of power is not good for today work environment and it will have bad effect on firm value particularly in long run scenario. Practically similar results were driven by Agrawal and Chadha (2005) that CEO and chairman should not be occupied by same person. We hypnotized that,

***H3**: CEO duality is insignificantly affected on firm value.*

Board Effectiveness and Firm Value:

Lot of studies recommends the association among well governed organization and firm value for e.g. (, Boychuk, Cohen, & Ferrell, 2009; Gompers, Ishii, & Metric, 2003) according unable to specify confidently that good governance rarely effects positively on firm value. Consequently, there is no empirical evidence regarding relationship among corporate governance and firm evaluation. They recommend that the necessity for more empirical evidence to validate the link among governance and firm evaluation. Arco and Bruno (2007) employ the explanation quality as alternative for choice of CG for firm. They examined the influence of CG on firm value in different geographical areas.

They found that "measure which accounts for different choices by companies of corporate governance is significantly associated with performance". These researchers found that the firm that never aligned their best practices with corporate governance practices for effective reasons may perform exceptionally well but their performance is not satisfying from perspective of shareholders. The company's which associate their practices with corporate governance may perform exactly according to the code of corporate governance and perform better.

These board will also in plant the bigger deal of confidence of shareholder. Consequently, it may be claim that the effective board may beat to higher capital market firm valuation as an outcome of confidence that market participant in the BOD's. Thus, we can have hypnotized that,

H4*: There is positive and significant relationship among board effectiveness and firm value:*

Gender Diversity on Firm Value:

From agency perspectives the "resource dependence and human capital theories" are the well-known theories employed to support the opinion that the "board gender diversity" is associated with the firm value in banking sectors. The basic views derived by the both theories claim that the board diversity containing the gender influences the functions of the board in turn has great influence on firm value. (Isidro 5 & Soral 2015; Carter et al. 2010; Campbell & Mingles-Vera, 2008).

Usually, women in the great cultures observed as have less efficient human capital for the position of boards (Burke 2000). The practical evidence regarding women human capital disapproves this statement. Singh et al. (2008) employ the corporate boards in different countries and found that the women are more professionals having more professional degrees and certificates and lot of international experiences.

H5*: There is significant effect of gender diversity on firm value.*

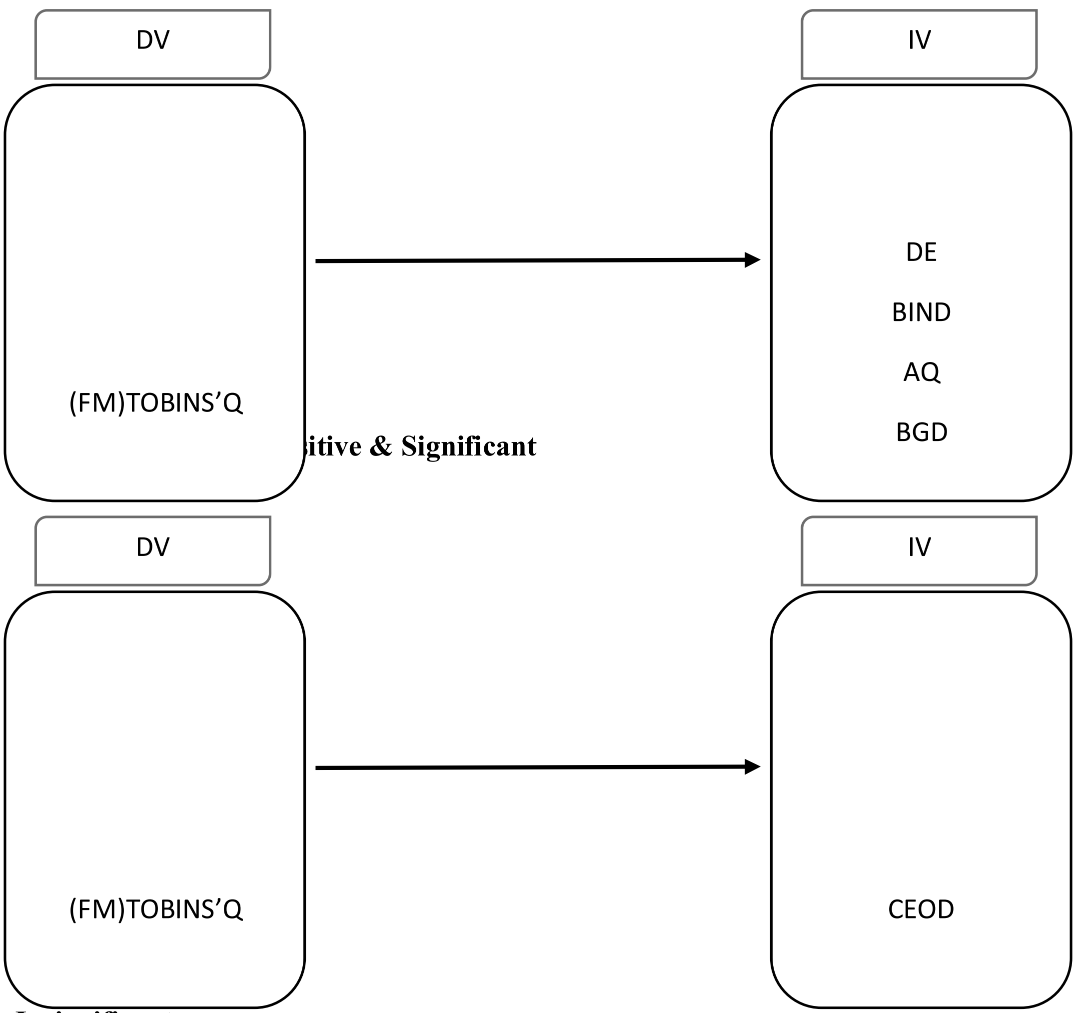
FRAMEWORK OF HYPOTHESIS:

HYPOTHESIS	ACCEPTANCE/REJECTION	REFRENCE
BI →FM	Accepted	(Shahid et al., 2020).
AQ →FM	Accepted	Cho and Wu (2014)

CEOD →FM	Rejected	(Lucas Pérez et al. 2015)
BE →FM	Accepted	(Lucas Pérez et al. 2015)
BGD →FM	Accepted	(Li & Zhang in 2019)

Conceptual framework:

Following conceptual model has been assembled on the basis of the objectives of the study showing the relationship between variables.



Insignificant

There is positive and significant relationship of board effectiveness, board gender diversity and audit quality with Tobin's Q. However it is surprisingly results gained from tests that there is insignificant relationship of Tobin's Q with CEO duality.

RESEARCH METHODOLOGY/MODEL

This chapter will provide an overview of population, sample, but also schedule that would be used to conduct a view of the determinants of Digital effects on the value of Banks in Pakistan from 2010 to 2020, as seen in the example in the latter half of the chapter. Section 3.1 presents the detailed data on the data and sample companies, while section 3.2 gives details about the cells to be investigated, such as the impact of CG on the value of the firm, after data analysis has been completed at multiple, such as effect of CG on value of a company.

DATA AND SAMPLE DESCRIPTION

This study, which only examines banks in Pakistan, A number of filtering techniques were used to identify a subset of the foundational study data. Those banks that have ceased operations but continue to trade on the capital market were excluded from the study. This is to fulfil the goal of this research, which is to evaluate the business value of discontinued businesses. In order to assess banks with full market and resolute information, we use a screening process that screens firms to find those that possess complete information on both the supply chain and properly accounted, such as BE but instead accounting numbers. A secondary analysis was performed to get a larger sample of the immediate population of companies to be reviewed. From that, it was determined that out of the entire sample population, approximately 34 banks, the data set used is referred to as firm year cross-sectional data.

Table shows the relevant information on the mass screening and the study that will be used in the study. After the conclusion of the final section of this study, the completed study sample is utilized to assist with the route of the next phase of the study. In this research, we collected data from 34 banks (all banks) In order to achieve the study objectives that were mentioned in this first section of the chapter, the study utilized two research methodologies to begin,

RESEARCH MODEL

$$\mathbf{Q=\alpha_0+ \alpha_1 AQ_{it} + \alpha_2 CD_{it} + \alpha_3 BI_{it} + \alpha_4 BGD_{it} + \alpha_5 BE_{it} + \alpha_6\ (control\ variables) + \varepsilon}$$

Where;

AQ = Audit quality

CD = CEO duality

BI = Board Independence

BGD = Board Gender Diversity

BE = Board Effectiveness

LV = Leverage (Used as control variable)

FS = Firm Size (Used as control variable)

B: regression coefficient α = intercept Ɛ = Error term

Corporate governance analysts and firm value; variables and measurements:

Variables	**Measurements**	**References**
Dependent variable		
Firm Value	Tobin's Q: (The market value of equity + book value of liabilities/total assets) Leverage: ratio of total debt/total assets Firm age: years, including year of incorporation Firm size: natural log	(Afza & Sajid Nazir, 2014)
Independent variable	**Measurements**	**References**

CEO Duality	Consists of a dummy variable comprised of sameness (1) And duality (0) of the CEO and chairman roles.	(Elewa & El-Haddad, 2019)
Board Independence	Ratio of independent directors to total number of directors on board.	(Bansal & Sharma, 2016)
Audit Quality	Audit Quality (Big 4 Auditors) of the itch company for the time period t measured by the value of "1" if audited by Big 4 and "0" otherwise	(Afza & Sajid Nazir, 2014)
Board Effectiveness	A bank board with ideal size and optimal combination of inside (full-time executive) and outside (nonexecutive affiliated and non-affiliated).	(Gulati, Kattumuri, & Kumar, 2020)
Board gender diversity	Percentage of female directors to the total number of directors on the firm's board BI ¼ 1 − ∑ n i¼1 Pi 2; where BI represents Belau's index, P is the proportion of board members in each category, I represents category	(Lagos-Cortés & Dávila-Velásquez, 2020)

RESULTS AND DISCUSSION

Overall descriptive statistics for scale variables are reported in Table 1.1 whereas particulars of dichotomous variables are presented in Table. The data used for the whole analysis is about 34 banks for eleven year period of 2010-2020. With respect of corporate governance and firms are managing their earnings upward with (2.53%) mean value. The sample banks are relatively highly leveraged.

Table # 1

DESCRIPTIVE STATISTICS:

Table 1.1: Descriptive Statistics

	tbq	lev	coed	be	bind	aq	bgd	profit	size
Mean	0.731	2.536	0.003	9.335	0.445	0.978	0.247	0.101	3.014
Median	0.707	2.008	0.012	3.600	0.000	1.000	0.125	0.103	3.026
Maximum	2.381	32.45	1.732	4.700	1.000	1.000	1.000	0.249	4.595
Minimum	0.109	53.90	3.850	10941.0	0.000	0.000	0.000	0.049	1.577
Std. Dev.	0.284	12.40	0.219	605.45	0.497	0.144	0.323	0.087	0.503
Skewness	1.940	12.70	10.26	8.8631	0.221	6.616	1.158	0.025	0.051
Kurtosis	9.717	240.95	201.92	242.96	1.048	44.77	2.954	1.783	3.258
Jarque-Bera	1253.765	193.113	833029.2	1206.66	62.203	29919.62	83.66	23.090	1.614
Observations	374	374	374	374	373	374	374	374	374

Table 1 represents the properties of data.

Secondary data of 34 banks have been accessed through annual reports of the respective banks. Eleven-year data ranging from (2010-2020) have collected and total three hundred and seventy-four observations have been analyzed to statistically examine the causal association between explanatory variable and depended variable. Descriptive table 1, shows the means of all the variables incorporated which are Tobin's Q CEO Duality, board independence, board effectiveness, audit quality, board gender diversity, profitability, LEV and size of the banks.

Mean is the arithmetic mean across the observations, a common measure of central tendency. It is commonly called the average. The arithmetic mean varies from small to large valued accordingly. The mean values for Tobin's Q are (0.731), LEV (2.536679), CEO duality is (0.003), Board effectiveness is (9.33) board independence is (0.445), audit quality is (0.978), board gender diversity is (0.247), profitability is (0.101) and for size is (3.014). Similarly, the median value of all the variables is accorded within given range.

Descriptive statistics are brief descriptive coefficients that summarize a given data set, which can be either a representation of the entire or a sample of a population. Descriptive statistics are broken down into measures of central tendency and measures of variability (spread).

The median values for Tobin's Q are (0.707), LEV1 (2.008), CEO duality is (0.012), Board effectiveness is (3.600) board independence is (0.000), audit quality is (1.000), board gender diversity is (0.125), profitability is (0.103) and for size is (3.206). The maximum values for Tobin's Q are (2.381), LEV (232.45), CEO duality is (3.600), Board effectiveness is (0.000) board independence is (0.000), audit quality is (1.000), board gender diversity is (0.125), profitability is (0.103) and for size is (3.026).

Likewise, the minimum value of Tobin's Q is (0.109), for lev value is (232.45), CEO duality is (3.600), Board effectiveness is (0.000), Board independence is (1.000), audit quality is (0.000), board gender diversity is (0.000) profitability is (0.049), and for size is (1.577492). The standard deviation or the standard dispersion range from Tobin's Q is (0.284184), for lev value is (12.401), CEO duality is (0.219), Board effectiveness is (605.45), Board independence is (0.497), audit quality is (0.144) Board gender diversity (0.323), profitability is (0.087), and maximum value of size is (0.503). Accordingly, the skewness value of Tobin's Q is (1.940), for lev value is (12.70), CEO duality is (10.267), Board effectiveness is (8.863110), Board independence is (0.221), audit quality is (6.616) Board gender diversity (1.158), profitability is (0.025), and for size is (0.051).

The kurtosis value of Tobin's Q is (9.717) LEV (240.95), CEO duality is (201.90), board Effectiveness is (242.96), board independence is (1.048), audit quality is (44.77186), board gender diversity is (2.954871), and profitability is (1.783) and for size is (3.258). Conclusively, the other data properties i.e. Jarque-bara, probability and sum reflect the data normality and indicate the need for further statistical examination to determine the causal relationship between corporate governance measure and firm value. The leverage of the firm largely determines the underlying business risk and its long-term sustainability and financial prospect.

TABLE#2

CORRELATION METRIX:

A correlation matrix is a table showing correlation coefficients between variables. Each cell in the table shows the correlation between two variables. A correlation matrix is used to summarize data, as and input into a more advanced analysis, and as a diagnostic for advanced analyses.

Variable	**Tobin's Q**	**LEV**	**COED**	**BE**	**BIND**	**AQ**	**BGD**	**Prof**	**Size**
Tobin's q	1								
LEV	0.575	1							
CEOD	0.212	0.234	1						
BE	0.618	0.742	0.333	1					
BIND	0.417	0.668	0.341	0.239	1				
AQ	0.497	0.573	0.244	0.265	0.322	1			
BGD	0.172	0.500	0.332	0.313	0.241	0.448	1		
PROF	0.457	0.307	0.416	0.47	0.238	0.304	0.041	1	
SIZE	0.528	0.654	0.523	0.051	0.058	0.059	0.546	0.513	1

Correlation matrix state the relationship between two variables or direction of relationship (positive relationship, negative relationship). In other words, it reflects the intensity of relationship between two variables. Its values lie between -1, and 1. The value of Tobin's Q is (0.212) with CEO duality which determine that there is 21% correlation with variable. Tobins'Q is significantly (0.618) correlated with second measure of firm value, and with third measure Board gender diversity, (0.187) with fourth measure (0.024), and (0.004) with fifth measure of firm value. Tobins'Q is also significantly correlated with size of the banks. Accordingly, the next explanatory variable i.e. leverage is positively and significantly (0.102) correlated with CEO duality, (0.217) BGD (0.187) BE, (0.024) AQ with (0.004) BIND

Similarly, leverage is positively and significantly (-0.011211) correlated with profitability. leverage is also significantly correlated with size of the bank. Tobin'Q and Leverage both the value measure is significantly correlated with Tobins'Q and leverage and debt to asset. The explanatory variable tobins'q and leverage remain insignificant to each with other which confirm that there is no such issue of multicollinearity. Multicollinearity, a type of secondary data error happens when explanatory is correlated with each other. In statistics, multicollinearity is a phenomenon in which one predictor variable in a multiple regression model can be linearly predicted from the others with a substantial degree of accuracy.

Regression:

Regression is a statistical method used in finance, investing, and other disciplines that attempts to determine the strength and character of the relationship between one dependent variable (usually denoted by Y) and a series of other variables (known as independent variables).

Table#3

Dependent Variable: TBQ

Method: Panel Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.000	7.190	1.390	0.000
LEV	2.332	1.339	3.123	0.002
CEOD	3.803	3.101	1.223	0.222
BE	0.234	13.821	3.317	0.001
BIND	0.132	13.162	3.087	0.003
AQ	0.212	8.110	2.874	0.005
BGD	1.000	3.620	2.760	0.000
PROFITABILITY	6.240	1.5600	0.401	0.688
SIZE	4.330	3.121	0.613	0.003
Root MSE	2.511	R-squared		0.671
Mean dependent var	4.777	Adjusted R-squared		0.625

S.D. dependent var	20.247	S.E. of regression	2.541
Akaike info criterion	41.327	Sum squared reside	2.321
Schwarz criterion	41.232	Log likelihood	7654.610
Hannan-Quinn critter.	41.289	F-statistic	2.941
Durbin-Watson stat	2.0893	Prob(F-statistic)	0.000

The objective and method of regression a statistical method used in finance, investing, and other disciplines that attempts to determine the strength and character of the relationship between one dependent variable (usually denoted by Y) and a series of other variables (known as independent variables).

In Table 3, the constant (intercept) of the model is (1.53), coefficient of CEO duality consumption is (0.22), coefficient of BE is (0.000), coefficient of BIND is (0.003), coefficient of AQ is (0.005), slope of BGD (0.00), slope of profitability is (0.68) and slope of size is (0.003). Profitability and CEO duality are significant in our model and board effectiveness board independence, audit quality, board gender diversity, leverage and size are insignificant in our model. The value of R-squared (goodness of fit) is (0.671) that means the independent variables in our model are describing 67% of dependent model. Overall model's significance is described by F-statistics that is significant in this case (less than 0.05

HAUSMEAN Specification Test

Table 4 shows a comparison between panel data models and empirically determine that which model best explain the relationship among variable incorporated in the model. The Hausman test empirically determines that cross section random model is more effective in explaining the relationship among variable. The Durbin–Wu–Hausman test is a statistical hypothesis test in econometrics named after James Durbin, De-Min Wu, and Jerry A. Hausman. The test evaluates the consistency of an estimator when compared to an alternative, less efficient estimator which is already known to be consistent. According to confidence interval approach if the P-value i.e., greater than .05 the random effect model is statistically best suited to determine the relationship between variable and if the probability value remain less than .05 which means significant than fixed effect model will be used to empirically examine the relationship between predictor and outcome variable. The Hausman specification test in our context demonstrate that random effect is more significant to explain the behavior of variables projected.

Table 4: Hausman Specification Test(Tobin's)

Hausman Specification Test(Tobin's)

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. def.	Prob.
Cross-section random	7.610305	3	0.0514

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var (Diff.)	Prob.
LEV	0.182958	0.057851	0.002657	0.0406
CEOD	0.000000	0.000000	0.000000	0.4631
BE	0.127432	0.146123	0.071243	0.0381
BIND	0.117435	0.001929	0.008231	0.0175
AQ	0.208656	0.085132	0.112312	0.0468
BGD	1.000000	1.000000	0.000000	0.6107
PROFITABILITY	0.000000	0.000000	0.000000	0.2800
SIZE	0.066701	0.014670	0.003343	0.1188

Hausman specification test and the probability value is significant (0.0514). The result reflects that fixed effect model is best suited to describe the association between explanatory variable and dependent variable. Accorded with confidence interval approach if the P-value i.e., greater than .05 the random effect model is statistically best suited to determine the relationship between variable and if the probability value remain less than .05 which means significant than fixed effect model will be used. Therefore, to examine the connection between corporate governance and firm value the fixed model is being used. The model explains the dependency of corporate governance on firm value ratios. The random effect model is being annexed in appendix while the main result and hypothesis are being assessed based on fixed effect model.

DISCUSSION AND CONCLUSIONS

DISCUSSION

The statistical results of the study suggest that firm value measured through accounting base measure of TBQ and LEV are determined by dimensions (BGD, BE, BIND, AQ, CEOD). Moreover, the size of the firm measured as log of total asset also remain significant to influence the firm value of the respective banks. The size remains significant to affect the value because the firms with huge resources and fixed asset are more robust to exploit the investment opportunities and have more ease to access the large pool of assets. The following section discuss the hypothesis of the study and provide a detail discussion how corporate governance analysts are robust to determine the fish value of the banks in the context of Pakistan.

H1: *Boar independence have significant effect on firm value.*

H2: *Audit quality will be significant effect on firm value.*

The panel data model was tested to determine the dependency of board independence and audit quality on firm value. The result of fixed effected model reflects that there is a significant effect of board independence and audit quality ratio and firm value. The result of the study confirms the notion that board independence ratio and audit quality is a vital determinant of firm value and firms should pay attention to manage their operating ratios more proactively and strategically to protect the interest of shareholder effectively. The findings of the study are best aligned with previous studies expounded in past literature. The study of Detthamrong, & Vithessonthi, (2017), also advocate that board independence and audit quality is a potential component of firm's value. The study use generalized least square (GLS) to estimate the proposed model of firm value by using cross sectional time series data of banks. Similarly, the findings of the study Ghosh, (2017), suggest that beside board independence and audit quality is also very influential to affect the firm value.

H13: *CEO duality insignificantly affected on firm value.*

The next hypothesis of the study deduced from substantive literature holds that view that CEO duality is affected insignificantly to firm value. The result of this study suggests that beside TBQ and LEV is also being influenced by corporate governance analysts. The random effect model was estimated by using a total of 371 observations and the statistical result of the study suggest that CEO duality operationalized as firm value has been insignificantly influenced by corporate governance measured as their respective formulas. The studies expounded in past literature confirms this claim and advocate that CEO duality potentially affect firm value measured as TBQ. The study of Thi, (2018). advocate that corporate governance decision affects the market and firm value. The study infers that both TBQ and LEV are potential determinant of firm value. Accordingly, the results of the Özcan (2019), also imply that high market TBQ have a cue of high coo duality and both are cohesively not correlated with each other.

H4: *There will be positive and significant relationship among board effectiveness and firm value.*

Based on substantive literature review the study also propose that board effectiveness of a firm is also influential to determine the value of firm. The BE is subject to influenced by the TBQ, LEV. The past studies advocate that firm's value is being affected due to corporate governance decisions. Therefore, the findings of the study also adhere to the past claims and infer that firm value measured as TBQ and LEV have nexus with corporate governance decisions. The study of Pillai & Al-Malkawi, (2018), advocate that bank heavily rely equity and debt financing to meet their investment opportunities. H5: There will be significant effect of gender diversity on firm value.

The studies expounded in past literature also argued that beside BGD widely used measured of firm value is robustly influenced by corporate governance. Therefore, on the basis of substantive literature review the study propose that BGD of Banks is significant to impact the firm value.

Conclusion

The main concern of the study was to empirically determine the relationship between corporate governance and firm value. The contextual setting of the study was provided by banks of Pakistan stock exchange (PSX). The secondary data range from 2010-2020 has been collected from respective annual reports. The philosophy of the proposed research reflects positivism while the paradigm of the study is deductive. Cross sectional research strategy has been employed to carry out this explanatory study. To empirically determine the causal association between explanatory variable and dependent variable panel data model has been used to signify the relationship. The robustness test has been conducted by using Hausman specification test which statistically determine either random or fixed effect model is best suited to explain the relationship between dependent variable and independent variable.

The result of the study based on statistical analysis suggest that corporate capital governance decision is robust to affect the firm value. The corporate governance operationalized as CEO duality BE, BIND, BGD, AQ have a positive significant impact on firm value measured as TBQ and LEV. The panel data model i.e., random effect model and fixed model determine that both TBQ and LEV ratio are cohesive to firm value. Therefore, the banks in the context of Pakistan should consider the significance of corporate governance decision due to its prudential implications for firm value. Besides, CEO duality, BE, BIND, BGD, AQ and the size of the firm also remains significant and potential determinant of firm value. The findings also infer that firms can maximize their value by making sound and optimal corporate governance decision. The study contributes in the context of theory validation in the context of developing economy and offer insight to financial manager to consider the significance of corporate governance decision

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