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Governance Indicators and Firm Value: Evidence of Non-Sharia Compliant firms from Pakistan

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The underpinning objective of current study is to test the indicators of corporate governance on the firm value of non-Shariah compliant firms on listed firms on Pakistan Stock Exchange. The current study considered the corporate governance indicators ownership structure (family ownership, concentrated ownership, and foreign ownership), business structure (pyramidal group), board structure (board independence, board size, and CEO duality). Total 526 companies were listed on the Pakistan stock exchange out of which 196 companies were categorized as non-Shariah compliant firms and considered under study for the period of 2009-2018. The findings of current study reveal that ownership structure significantly linked with firm value (family ownership (-), concentrated ownership (+), and foreign ownership (+)). The business structure indicates a positive and significant relationship with pyramidal group (+). However, in case of board structure board independence indicate an insignificant but positive relationship, board size indicates a negative and significant, and CEO duality indicates a positive and significant relationship with firm value. The findings of current the findings of current study were aligned with the literature however, literature reveals that Shariah compliant firms have different results.

Keywords**:** Corporate governance, ownership structure, business structure, board structure, family ownership, concentrated ownership, foreign ownership, pyramidal group, board independence, board size, CEO duality.

INTRODUCTION

Corporate governance is a set of rules and regulations to monitor and control the state and affairs of the corporate sectors (Tricker & Tricker, 2015). In the corporate finance literature, the code of corporate governance is studied as the solution to traditional agency conflict (Kostova, Nell, & Hoenen, 2018). Emerging and transaction economies are known among the countries whose corporate sectors are characterized by highly concentrated ownership and weak institutional support. In the absence of effective corporate governance and strong institutions, ownership concentration seems like a proxy of internal control. However, this highly concentrated ownership coupled with cross holding, has led to another issue of expropriation of minority shareholders by controllers. According to Jiang and Peng (2011), in contrast to developed economies where ownership is dispersed, and legal institution are strong, emerging economies offer no incentives to controllers to monitor the firms. They further argued that weak external governance mechanism (e.g., ineffective laws and regulations) and ineffective internal control mechanism (e.g., the divergence of control and cash flow rights) provide private benefits and control to major shareholders and exacerbates minority's wealth. It indicates that ownership concentration fueled by pyramidal structure makes benefit of control to be lesser than the benefits of expropriation.

In the recent decade, numerous researches, i.e., Lozano et al., 2016; Renders & Gaeremynck 2012; Young et al., 2008 have realized that Principal-Agent (PA) conflict is only helpful in mitigating the conflict between owner and manager in economies with diffused ownership structure and active legal institutions. However, in developing economies, the weak legal institutions and poor enforcement of property rights have caused major conflict between majority shareholder and minority shareholder. According to Globerman et al., (2011), Principal-Principal (PP), conflict is characterized in firms whose ownership and control are through powerful controllers. They further argued that in such firms, the controllers' excessive powers act as the solution to PA (Principal Agent) conflicts. But low incentive associated with monitoring of managers leads to another conflict between majority and minority shareholders.

Various prior researches (Lozano et al., 2016; Mitton, 2002; Faccio et al., 2001; Claessens et al., 2000) considered expropriation of minority shareholders as an antecedent of PP conflict. According to Mustafa et al. (2011), expropriation is a process of gaining self-interest or maximizing self-welfare by misusing power or control one has in the company. Earlier researchers (Lei & Song, 2012; Berkman et al., 2009) concluded expropriation as a value destruction activity, and they further argued that it would lead the companies to poor financial management. Expropriation happens in many forms, but the two most prevalent are tunneling and propping in the earlier transfer of resources that occurs in the case of a smaller firm to a larger firm, while later, it would happen from a larger to a smaller firm in pyramidal ownership structure (Hamid et al., 2016). Related party transaction is also another mechanism that is seen through self-dealings, in which the insiders try to expropriate the interests of outside shareholders (Wahab et al., 2011; Gordon, Henry & Palia 2004).

Poor governance issues were reported in Public and private owned corporate sector of Pakistan, including are Crescent Commercial Bank, Mehran Bank, Taj Company, Khanani & Kalia Exchange Company, and Pakistan Telecommunication Privatization. Most of these cases are associated with irregularities and malpractices by management, i.e., minority shareholders' exploitation, non-compliance of law, nepotism, and fraudulent activities in company accounts (Siddique & Fahim 2013).

Privatization of Pakistan Telecommunication Corporation Limited (PTCL) can be considered the biggest corporate governance issue. A senior vice president has reported this scandal as the highest level of financial fraud (Mangi & Siddiqui, 2013). Similarly, internal and external auditors in Crescent Investment Bank have projected Rs. 6 Billion as the missing amount. Consequently, the offices of Crescent Bank's CEO and the entire board of directors were seized due to shreds of evidence of fraudulent practices and accounting irregularities. Moreover, Taj Corporate Company has also involved in poor governance practices through religious affiliation as a label with its name. An illegal deposit scheme was introduced to the general public, and a huge amount was received by the company illegally. Despite closing its business from the last 15 years, Taj Company still owes liabilities of 25,000 customers due to fraudulent practices by top management. These examples evidently signify the ownership and board malpractices in the corporate sector of Pakistan, and these problems are essential to be addressed.

Research Questions

Based on the problem statement of the current study, research questions are:

1. Does ownership structure (family ownership, ownership concentration, foreign ownership) has a significant impact on the firm value of non-sharia compliant listed companies on Pakistan stock exchange?
2. Does the business structure (shareholders with cash flow rights, controlling rights, and cross holding shares) has a significant impact on the firm value of non-sharia compliant listed companies on Pakistan stock exchange?
3. Does the board structure (board independence, board size, CEO duality) has significant impact on the firm value of non-sharia compliant listed companies on Pakistan stock exchange?

Research Objectives

Based on above mentioned research questions, research objectives of this study are:

- To examine the relationship between ownership structure (family ownership, ownership concentration, foreign ownership) on firm value of non-sharia compliant listed companies on Pakistan stock exchange.
- To examine the relationship between business structure (shareholders with Cash flow rights, controlling rights and cross holding shares) on firm value of non-sharia compliant listed companies on Pakistan stock exchange.
- To examine the relationship between board structure (board independence, board size, and CEO duality) on firm value of non-sharia compliant listed companies on Pakistan stock exchange.

Corporate governance and developed economies

Only in early 1970 started taking shape in the form of government till oversight and regularity policies in developed countries like corporate governance agenda drive the corporate governance dialogue with the focus on the agency's problem, identified almost two centuries ago. The prevalence of leveraged buyouts and similarly aggressive takeover strategies for the 1980 and 1990ies. In the 1990 corporate stakeholders recognize the need for good corporate management and management guidelines and in 1999 the OECD released its main corporate governance principles.

The principles were detailed and included guidelines on shareholder rights fair treatment of employees' stakeholder position in corporate governance public disclosure and accountability and the boards' obligations. The Enron scandal then 2001. The Enron Corporation was forced to bankrupt in the world then was America's biggest chapter 11 filing, falling Revelations from its board of directors and other officials that it had used debts accounting practices to conceal billions of dollars from failed deals and projects. In 2002 the US government responded by passing the Sarbanes-Oxley Act acquiring senior management of publicly listed companies to testify to the integrity of corporate financial statements in the light of criminal prosecution the passage of the Sarbanes-Oxley Act was deemed a hotbed case in which corporations and shareholders' management principles took center stage. The "old ways" of corporate management have been over and greater accountability and transparency have now been required and needed. the cutting-edge corporate governance philosophy today has focused on increasing engagement by shareholders and democratizing corporate decision-making issues such as executive compensation board restructuring and shareholder decisions are addressed in management board meetings School classrooms and courtrooms around developed economies in cases which have traditionally been reserved for executive action. The implementation of corporate governance progress will likely be made the strong resistance of managers in the past, but no matter which consensus exists a strong and robust corporate governance system will undoubtedly make good economic sense.

Agency Theory

There are many ways to define the concept of the agency problem. A study by Ross et al. (2008) defines "the relationship between stockholders and management is called as an agency relationship that exists whenever someone (the principal) hires another (the agent) to represent his or her interests which possibility of a conflict of interest between the principal and the agent occurred, and such a conflict is called agency problem." The author assumes that both the agent and the principal share the same subjective beliefs about the occurrence fee as a function of the payoff only. The agent (or the principal) might have different information about the current situations of the world than the principal (agent), which would be the reason of the agency problem. Thus, the author concludes the class of payoff structures simultaneously solves the principal's problem that leads to pareto efficiency for agents and principals. The Pareto's (1971) manual defined "Pareto efficiency" as a state of allocation of resources in which it is impossible to make anyone individual better off without making at least one individual worse off. Armour et al. (2009) define that most of the agency problems arise from the conflict between insiders (controlling owners and top managers) and outsiders (minority shareholders or creditors), instead of between ownership and management.

Research Methodology

This chapter begins with the discussion of the research framework extracted from the essence of previous literature and theory, hypotheses development, and research design followed by the measurements of variables used in current research. Besides, this chapter also deals with the sampling process followed by elaborations of data collection. Finally, explanations of the types of panel data analyses are discussed.

Research Framework

The research framework of this study is based on the integration of agency theory. The research framework of the current study is grounded on the previous literature of similar work, as explained in Chapter Two. The dependent variable of the present study is firm value. This study used critical factors that affect the firm value as repressors on firm value. These variables were taken after critical literature review and supported by the theory, and their relationship has been described in the previous chapter 2. The independent variables are ownership structure, business structure, and board structure. Additionally, the direct relationship between independent and dependent variables of the present study is widely discussed in past research.

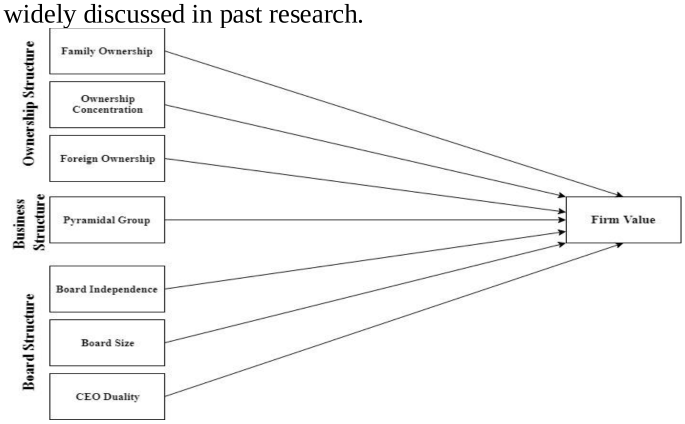

Figure 1: Research Framework

Hypotheses Development

A hypothesis is defined as "a tentative yet testable statement, which predicts what you expect to find in your empirical study" (Sekaran & Bougie, 2009, p. 87). Therefore, once hypotheses have been developed to delineate the relationship between two or more variables, testing can be carried out to confirm the relationship so that a solution can be found to overcome identified problems (Sekaran & Bougie, 2009). This section consists of four main hypotheses. These hypotheses are explained below:

H_{1a}. Family ownership has a significant relationship with firm value.

H_{1b}. Concentrated ownership has a significant relationship with firm value.

H_{1c}. Foreign ownership has a significant relationship with firm value

H2a. Pyramidal business groups have a significant relationship with firm value.

H3a. Board size has a significant relationship with firm value.

H_{3b}. The proportionate of independent directors on the board has a significant relationship with
firm value.

H_{3c}. CEO duality has a significant relationship with firm value.

Firm Value

The dependent variable of the current study is firm value. There are several measurements of performance, and each one has its own pros and cons. Due to the limitations of accounting-based measurements for models, which included intangibles, this study used the market-to-book ratio to gauge firm value.

Market-to-Book Ratio

Market-to-book ratio is measured by following Ahmed Sheikh et al. (2013) as this proxy is more appropriate to measure the firm value.

Ownership Structure

Family Ownership

Family ownership denotes the percentage of shares owned by the family members. It can be calculated by dividing the common shares owned by the family members with total outstanding shares (Filatotchev et al. (2005; Lodh et al., Choi et al., 2015).

Ownership Concentration

Ownership concentration refers to the total shares owned by large companies which can be determined by percentage of shares held by largest shareholders that owned minimum 5% or greater number of the company's shares divided by total firm's shares (Javid & Iqbal, 2008; Prommin *et al.*, 2016;Yasser & Mamun, 2017).

Foreign Ownership

Foreign ownership refers to the states when any individual or a company hold a share in local company which can be determined based on the percentage of total number of shares by the individual or foreign company divided by the total number of shares (Lee & Chung, 2018).

Pyramidal Business Structure

Pyramidal business structure refers to the sum of cross-held shares owned by more than one firm in the same business group. It is determined through the separation of cash flow rights and voting rights of shareholders (Chung & Chan, 2012; Ratnawati et al., 2016)

Board Structure

Board Size

Board size refers to the total number of directors on the board. The proxy to measure board size is mentioned in the below table by following (Chen, 2012; Fauzi & Locke, 2012; Vo and Phan, 2013).

Board Independence

Different proxies have been used to measure board independence, such as the percentage of non-executive directors on the board as well as the percentage of outside directors (Basheer, 2014; Yasser & Mamon 2017). However, this study measures board independence as several independent directors (outside directors) divided by the total number of directors or board size.

CEO Duality

CEO duality refers to the situation where CEO also hold the position of chairman. When the CEO and chairman are two different persons will minimize the agency issues. Particularly in family-owned businesses CEO is major shareholder and family member to minimize the PP conflict and agency issue there must be two separate leaders (Singh, Tabassum, Darwish, & Batsakis, 2018).

Population and Sample Selection

The Pakistan Stock Exchange Limited (PSX) has been one of the best performing stock exchanges in Asia in the last few years (Iqbal, 2012). PSX deals with two main sectors, named, the financial sector (Service) and the non-financial sector (industrial). There is a total of 535 companies listed in PSX out of which 426 companies in total registered in the Karachi Meezan Islamic Index (KMI). Out of 426 firms, 230 are listed as sharia-compliant, and 196 are declared as non-sharia compliant firms. For the current study, the target population would be 196 non-sharia complaint non-financial firms in Pakistan. Furthermore, the time span selected for the study is limited to 10 years, starting from 2009 to 2018.

Data Collection Sources

This study will use secondary sources of data. The data will be collected from audited accounts and annual reports of non-Sharia compliant firms in Pakistan. Annual reports can be accessed through the official website of selected companies as well from the PSX website. Further, Thomson Reuter and Bureau Van Dijk OSIRIS data streams will also be explored to access the required data.

Methods of Data Analysis

This study will use descriptive statistics to obtain information on dependent and independent variables, and the correlation between these variables will also be examined through data analysis procedures. The analysis may be followed by different diagnostic tests, and panel data tests will be performed to find out the results. Stata 13.0 will be used for data analysis.

Panel Data Analysis

Panel data has the characteristics of both time series data and cross-sectional data, and it is also known as longitudinal data. There are two types of panel data, namely, balanced panel and unbalanced panel data. Balanced panel data refers to data in which time remains constant over all cross-sectional units while the case is reversed in the unbalanced panel as the time may vary over cross-sectional units. Moreover, scholars argued that panel data account for issues of both time series and cross-sectional data, which is not possible when time series or panel data are used separately (Greene, 1990). In fact, the combined methods of time series and cross-sections can improve data quality and quantity in a manner that would not be possible when using any of the two separately (Gujarati, 2009; Baltagi & Wu, 1999).

Another justification for the use of panel data is its solution to the omitted variable issue (Wooldridge, 2005). Thus, the present study uses ten years and 230 firms, which may make the nature of data unbalanced due to eliminating years or missing data. Moreover, panel data includes some of the invariant variables; some of them are time-invariant that means these variables can vary over subjects or cross-sectional units but remains constant over the time period. While the subject invariant variables indicate that these variables may vary over time but remains constant over the cross-sectional units.

Both types of variables have a significant effect on the dependent variable and need to be handled carefully for unbiased results. Therefore, panel data analysis includes properties of both time-based and cross-sectional analysis with numerous analytic model options, such as the random effect model and the fixed effect model. A fixed-effect model or random effect model can be used to control for heterogeneity effect in panel data regression due to invariant variables (Wooldridge, 2010).

Fixed Effect Model

The fixed effect model is a model that shows the difference in intercepts for different entities with a constant slope across entities and time. It can be a one-way entity fixed effect, and the one-way time fixed effect or two ways fixed effects (entity and time). In a fixed-effect model, each cross-sectional unit considered heterogeneous and the unobserved time-invariant variables of individual cross-sections are considered. Fixed effects examine the relationships between variables within an individual, whether it is a firm or country etc. This means that the fixed effect model takes into consideration the differences between the individual and itself within the period, and this could control for any unobserved unique characteristics or the time-invariant factors which may bias the results. The error term in a fixed effect method is correlated with the independent variables. If F-statistics is below 5 percent, we will accept the null hypothesis and eject otherwise. The insignificant F-statistics value indicates that $\propto$ is not constant.

Random Effect Model

The main advantage of the random effect estimate is its ability to examine time-constant independent variables which are dropped in the fixed effect estimate. This assumes that the unobserved effect is not correlated with the independent variables regardless of the variation over time (Schmidheiny & Basel, 2013). Therefore, the random effects method might be preferable if the main concern of the research is time-constant variables. The model is depicted in equations (5) underneath. Testing the presence of heterogeneity using the Lagrange Multiplier (LM) test will validate the test.

$$H_0 : \delta v^2 = 0$$

$$H_1 : \delta v^2 \neq 0$$

If the null hypothesis is rejected, then random effect exists and vice versa

Random effects might be biased, however, if the appropriate method is fixed effects. Additionally, a Hausman test is used to determine whether a fixed or random effect method is appropriate. Statistically, the fixed-effect model always provides consistent results which many researchers think is the reasonable model to run with panel data, but it might not be the most efficient. Meanwhile, the random-effects model provides better p-values and can be a more efficient estimator, which makes it more appropriate only if it is statistically justifiable (Schmidheiny & Basel, 2013). Therefore, the Hausman test should be applied in any panel data research to determine the appropriate method.

Hausman Test

This study employs panel data so, the analysis to choose the most appropriate panel data model for the study will be conducted using the Hausman test. The Hausman test was proposed by Hausman in 1978. The null hypothesis underlying the Hausman test is that the random effect model is more appropriate. Hence, it is supposed that if the null hypothesis is rejected, the conclusion is that the random effect model is inappropriate and, therefore, the fixed-effect model should be used. In order to decide further between random effect and fixed effect, the Hausman test will be conducted to test whether the regressors are correlated with the unique errors in the model.

H_0 : Random effects are consistent and efficient

H_1 : Random effects are inconsistent and inefficient that, the fixed effect is consistent and efficient.

If the Chi-square χ^2 probability value is significant, the null hypothesis will be rejected, and the fixed effect model will be more consistent and efficient.

Breusch and Pagan Lagrangian Multiplier Test

If the random effect is considered most efficient and appropriate from the above discussed Hausman test, the analysis will be proceeded to decide between the random effect model and pooled OLS model using Breusch and Pagan Lagrangian multiplier test.

H_0 : There are no individual differences that are, no random effect.

H_1 : There is an individual difference between the co-efficient that is, random effect exists.

If the null hypothesis is rejected, random effect exists and if the null hypothesis accepted than the random effect does not exist, thus pooled OLS would be more appropriate.

Data Analysis

Table 9: Final Sample and Observations

	Firms		Observation (Years)
List firms (Pakistan Stock Exchange)	543		5,430
List with PSX-KMI All	426 (312)		4,260 (3,120)
Shariah compliant listed firm	230 (164)		2,300 (1,640)
Non-compliant list firms	**196 (148)**		**1,960 (1,480)**
Total Observations	312		3,120
Missing Values	114		1,140
	Frequency		
Firm Years	**Compliant**	**Non-Compliant**	**Observations**
2009	162	148	3,120
2010	162	148	3,120
2011	162	148	3,120
2012	162	148	3,120
2013	162	148	3,120
2014	162	148	3,120
2015	162	148	3,120
2016	162	148	3,120
2017	162	148	3,120
2018	162	148	3,120
Total	**162**	**148**	**3,120**

Table 10: Descriptive Statistics Non-Shariah Compliant Firms

Variable	Mean	Std. Dev.	Min	Max
MTB	2.273	10.197	-114.62	248.21
FOW	0.722	0.447	0	1
OC	0.752	4.208	0	162.28
FO	0.039	0.145	0	.89
PBS	0.595	8.267	0	300
BS	7.965	1.780	3	17
BI	5.384	2.041	2	15
CD	0.271	0.445	0	1
PPC	0.354	1.107	-4.5	38.27

Correlation Analysis

Pallant (2007) stated that correlation analysis is useful in describing the strength and direction of the linear relationship between two variables. More specifically, the Pearson correlation analysis is employed to evaluate and clarify the strengths of the relationship among the studied variables.

The next part is the correlation analysis, and the relationship between independent directors and market to book ratio is significant, but at 10%, and the correlation is negative and weak, about (-0.034). Moreover, the correlation between foreign directors is positive, but it does not account to be significant as well. Also, the board size has a negative medium relationship (-0.212) with market to book ratio and is highly significant as well. Moving on, the dependent variable, market to book value, indicates that females have negative (-0.018) and insignificant relation with the variable. It can be seen however that educational heterogeneity has a negative (-0.1) and significant relationship with the ratio. Prestigious education on the other hand has positive (0.037) and partially significant relationship with the ratio at 10%. Moreover, there exists two proxies for the capital experience on average for the board, along with the interlocks that happened. This indicates that the interlocks were correlated significantly, and positively. The experience of directors is positive (0.022) and partially significant, the interlocks correlation amounts to 0.054. Additionally, the ownership structure is highly significant, and the correlation with the ratio is positive. The correlation here is 0.165. The family and the foreign ownership are both negative and amount to -0.26 and -0.061 respectively, while the first one being highly significant, whereas the second one being only partially significant.

Table 11: Correlation analysis of Non-Shariah Compliant Firms

MTB	1.0000								
FOW	-0.0689	1.0000							
OC	0.0808	0.1604	1.0000						
PBS	0.2968	0.1224	0.0632	1.0000					
BS	0.1152	0.2454	0.3138	0.1026	1.0000				
BI	0.0830	0.0355	0.0210	0.0526	0.1259	1.0000			
CD	0.0137	0.0024	0.0070	0.1258	0.0072	0.4494	1.0000		
FO	-0.031	0.1880	0.0058	-0.085	-0.091	0.0991	0.0903	1.0000	
PPC	0.0163	0.0357	0.0248	0.0095	-0.015	0.0255	-0.013	0.0131	1.0000

Hausman Test

The test for Hausman is to evaluate the optimization of a model, and whether a fixed or a random effects model should be run in a regression. Moreover, the potential difference in both the coefficients of the fixed and random effects, this is passed through the Hausman test. In the test there are two hypotheses, the first one is the null hypothesis. This indicates that the random effects model is more appropriate, while the second is the alternative hypothesis, this indicates the feasibility of the fixed effects model. This is tested at a significance level of 0.05, and the rejection and acceptance of the null hypothesis remain the same (Wooldridge, 2010). Additionally, the F test can also reject or accept null hypothesis to pick a model from fixed and random effects. In this case the F test value should be greater than the critical F value to reject the null hypothesis and move towards the fixed effects model. Otherwise the movement is towards the random effects model.

Table 12: Hausman Test (Non-Shariah Compliant)

	Coefficients			
	(b) **fe**	(B) **re**	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
OC	-0.0497	0.312	-0.361	0.257
PBS	0.442	0.601	-0.159	0.173
BS	0.078	0.179	-0.100	0.075
BI	0.039	-0.059	0.098	0.076
CD	0.171	0.040	0.130	0.348
PPC	0.003	0.005	-0.002	0.003
FO	10.449	12.059	-1.610	0.861
Prob>chi2				**0.094**

b = consistent under Ho and Ha; obtained from xtreg
B= inconsistent under Ha, efficient under Ho; obtained from xtreg
Test: Ho: difference in coefficients not systematic
chi2(7) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 12.20

Multiple Regression Analysis and Hypothesis Testing

The multiple regression methodology has been applied in terms of a direct relationship between independent and dependent variables. This is illustrated in the table 4.17 and 4.18. The results of the above discussed regression are also illustrated there. R square is the key measure in any regression, and it predicts the amount or proportion of the dependent variable that is being predicted by the independent variable. Moreover, this proportion is the key metric in determination whether the model is a good fit or not. Here the R square is 0.275 in case of Shariah compliant firms while 0.207 in case of non-shariah compliant firms. This means that 27.5% of the independent variable is predictable by the independent variables of the said model in case of Shariah compliant firms and 20.7% in case of non-shariah compliant firms. Moreover, there is no absolute rule for this determination, but the amount is considerable for the dependent variable of this model.

Table 13: Random Effect Non-Shariah Compliant

Hypo.	**Market to Book**	**Coef.**	**Std. Err.**	**t-Stat**	**Decision**
H1	Family Ownership	-0.501	0.130	-3.852	Supported
H2	Concentrated Ownership	0.500	0.058	8.684	Supported
H3	Foreign Ownership	1.054	0.150	7.015	Supported
H4	Pyramidal Group	0.567	0.256	2.211	Supported
H5	Board Independence	-0.633	0.386	-1.641	Not Supported
H6	Board Size	-0.493	0.224	-2.200	Supported
H7	CEO Duality	0.149	0.025	5.965	Supported
	cons	0.590	0.051	11.574	
	R-sq:				**0.207**

Hypotheses Testing of Direct Relationships

In current section statistics of direct relationship proposed in hypothesis will be discussed in detail based on the findings of multiple regression analysis revealed in table 4.17 and 4.18.

Ownership Structure

Family-ownership

H1a: Family ownership significantly linked with the firm value.

The results of direct relationship between family ownership and firm value indicates that there is positive and significant relationship in case of Shariah compliant firms while, in case of non-shariah compliant firms there is significant but negative relationship indicated statistically in current study. Hence, H1a of current study is accepted at the significant level of 5% with the confidence interval of 95% the results of coefficients are (β = 12.060, t-value = 8.407, p-value = 0.000) and (β = -0.501, t-value = -3.852, p-value = 0.000). The results of current study in case of non-shariah compliant firms is well aligned with the literature which affirms that in family ownership has negative and significant relationship with performance or firm value in developed and developing economies (Khan & Khan, 2011; Li & Ryan, 2015). However, in case of shariah compliant firms the results are quite different as compare to non-shariah compliant firms the results indicate a positive and significant relationship. These results could be the effect of shariah compliance because when firms follow the shariah compliance rules and regulations the effect of family particularly with respect to influence or power (Grassa, 2016).

Concentrated ownership

H1b: Concentrated ownership significantly linked with the firm value.

The concentrated ownership refers to the largest percent of shares held by shareholders that owned minimum 5%. Literature reveals that there is positive and significant relationship between firm value and concentrated ownership. The results of current study in case of shariah compliant and non-shariah compliant firms indicates a positive and significant relationship between concentrated ownership and firm value. Hence, we fail to reject H1a at (β = 0.512, t-value = 2.724, p-value = 0.037) and (β = 0.500, t-value = 8.684, p-value = 0.000). The similar findings have been reported in literature by a number of studies (Yangfan, 2015; Shan & Gong, 2017; Yasser & Mamun, 2017). The results also affirm that the major shareholders have close interest because they have huge investments, so they are more concern about the firm value. The majority shareholders have close interactions with the board of directors and monitor all the activities closely to ensure the higher firm value (Yasser & Mamun, 2017). Moreover, the results reject the arguments of agency theory that major shareholders only working for self-interest as compare to overall performance (Jensen & Meckling, 1976).

Foreign ownership

H1c: Foreign ownership significantly lined with firm value.

Foreign ownership facilitates the firm in acquiring the knowledge and best practices from the other countries. Literature suggested that foreign ownership have positive and significant impact on the firm value. The current study proposed that foreign ownership have significant relationship with the firm value. H1c is accepted at 95% of confidence interval in case of shariah compliance and non-compliance firms with (β = -0.638, t-value = -2.079, p-value = 0.047) and (β = 1.054, t-value =7.150, p-value = 0.000) respectively. However, the findings of current study against the H1c reveals that foreign ownership have significant relationship with firm value but in case of shariah compliance it indicates a negative association while in case of non-shariah compliance it indicates a positive relationship with firm value. The literature supports the finding in case of non-shariah compliance firms (Le & Phung, 2013). However, in case of shariah compliance firms the finding does not indicates the destination of foreign ownership and might be this magnitude is due to religious factors. The same results have been reported in a few recent studies (Grassa, 2016).

Business Structure

Pyramidal group (PG)

H2a: Pyramidal group significantly linked with firm value.

Several studies have been documented on the pyramidal group and firm value. The underpinning objective of considering this factor was testing the effect of separation of ownership and controlling effect. More recent literature indicates that there is positive association between pyramidal group and firm value however, there is ambiguity on the significance of relationship in literature. However, current study consider dataset of Shariah and non-Shariah compliance firms and the findings affirms that there is positive and significant relationship between pyramidal group and firm value with (β = 0.602, t-value = 2.045, p-value = 0.041) and (β = 0. 567, t-value =2.211, p-value = 0.039) respectively and H2a accepted at 5% level of significance.

The findings of current study rejected the second school of thought that there is negative or insignificant effect of pyramidal group on the firm value. The findings affirm that firm having owners with voting right have better firm value (Lin, Ma, Malatesta, & Xuan, 2013).

Board Structure

Board independence

H3a: Board independence significantly associated with firm value.

Independent directors on the board is a measure as proportion of independent directors to board size. Most of studies related to corporate governance considered this as underpinning factor. The literature affirms that board independence has positive or negative association with the firm value. However, major part of literature acknowledged that independence of board of directors has positive relationship with the firm value in non-family owned businesses from the developed economies however, this relationship is not significant and negative association in case of family owned businesses from the developing nation. The findings of current study are well aligned with the literature and indicates a negative and significant relationship in case of Shariah compliant firms with (β = -0.559, t-value = -5.066, p-value = 0.000) while negative but insignificant in case of non-Shariah compliant firm with (β = -0.663 t-value = -1.641, p-value = 0.072). H3a is accepted at the 5% level of significance case of Shariah compliance while rejected in case of non-Shariah compliance respectively.

Board size

H3b: Board size associated significantly with firm value.

Based on the literature review the current study proposed that board size has a significant association with the firm value. The findings of current study indicate that board size has a positive and significant relationship with firm value in case of Shariah compliant firms (β = 0.479, t-value = 3.934, p-value = 0.000). While, there is negative and significant association between board size and firm value in case of non-Shariah compliant firms (β = -0493, t-value = -2.200, p-value = 0.047). However, literature from the developed economies indicates that there is positive and significant association between board size and firm value which is based on the resource dependence theory. However, this is not true in case of Pakistan or like developing economies where the implementation of codes of corporate governance is not that effective as compare to developed economies (Ahmed Sheikh, Wang, & Khan, 2013).

CEO duality

H3c: CEO duality associated significantly with firm value.

CEO duality has been considered as point of discussion since the emergence of codes of corporate governance to dilute the powers in two positions instead of controlling by one person. CEO duality refers to the situation were CEO also holds a position of chairman (Nguyen, Rahman, & Zhao, 2018). Codes of corporate governance emphases that CEO and chairman position must be hold by two separate persons to reduce the agency issue among the majority and minority shareholders. Literature affirms that affirms that there is positive and significant relationship between CEO duality and firm value (Nguyen, Rahman, & Zhao, 2018). The findings of current study are well aligned with literature in case of Shariah compliant (β = 0.341, t-value = 2.423, p-value = 0.039) and non-Shariah compliant (β = 0.149, t-value = 5.965, p-value = 0.000) firms positive and significant respectively.

DISCUSSION AND CONCLUSIONS

The current chapter is about the discussions based on the findings reported in chapter four in the light of research objectives were designed in chapter one. This summary will facilitate for the quick and comprehensive understanding of the current research. The discussion is based on the findings of current research in the light of research objectives and research questions of current study one by one. Second portion of current chapter is based on the practical, methodological, and theoretical implications for the researchers, business community, investors, the most important government, and policymakers. Concluding remarks about the current study has been reported in last portion of the current study along with the limitations and future research directions.

Discussion

This section is based on the findings given in chapter four and discussion will be in the light of research objectives and research questions. The discussion includes on indirect, direct relationship between the dependent and independent variables and the impact of mediating variable. The discussion is based on the research objectives.

Contributions of the Study

The findings of current study contributed theoretical, methodological, empirical, contextual contribution will be discussed in this session.

Theoretical Contributions

The current study contributed in the existing body of literature in the domain of corporate governance, and agency theory. There are number of studies has been documented so far on the corporate governance and agency theory and its impact on the firm value however, a few studies considered the pyramidal group. Moreover, the previous results are inconsistent literature reported no impact, positive impact and negative impact of corporate governance practices on the firm value. However, pyramidal group. The current study considered both factors to test their impact on the firm value.

So far literature documented in the domain of corporate governance considered the direct relationship among with practices and firm value, however, the recent literature shed the light on the intervening factors effect the firm value based on agency theory (Zhen, 2014). Therefore, this study contributed to the existing literature of corporate governance as well as agency theory. Furthermore, the current study considered the comprehensive model based on ownership structure, business structure, and board structure towards the firm value (Preacher et al. 2007).

Furthermore, the current study considered ownership structure (family-ownership, concentrated ownership, and foreign ownership), business structure (pyramidal group), and board structure (board independence, board size, and CEO duality) towards the firm value. Therefore, the current study contributed significantly to the corporate governance and agency theory and firm value by adding the empirical and theoretical support for the relationship being used in the current study.

Conclusion

The underpinning objective of current study was to test the direct and indirect effect of ownership, business, and board structure on the firm value. To achieve the research objective current study, secondary dataset was collected from the annual reports of listed companies based on Shariah compliant and non-Shariah compliant firm. The underpinning scale for the segregation of Shariah compliant and non-Shariah compliant firms we use the KMI (Karachi Meezan Islamic) all index which segregate the companies based on the Shariah compliance and Noncompliance. Total sample of 312 firms including 168 Shariah compliant and 148 non-Shariah compliant has been considered for the period of 2009 to 2018.

The current study considered ownership structure (family-ownership, concentrated ownership, and foreign ownership), business structure (pyramidal group), and board structure (board independence, board size, and CEO duality) and their effect towards the firm value. To test this model three research questions, objectives and seven hypotheses were developed.

To achieve the research objectives of current study, basic regression assumption was tested before moving towards the testing of hypothesis. The findings shown that random effect model is more appropriate based on the Hausman test. The results of panel regression there is significant relationship between ownership, business, and board structure and firm value. Furthermore, structural equation modeling technique was employed to test the mediation relationship. The current study contributes in existing literature and agency theory and its effect on the relationship between ownership, business, board structure and firm value.

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