

Corporate Governance Ownership Structure and Firm Performance: Evidence from Commercial Banks

JHSS
107-133
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Vol. 32 (1), 2024

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Abstract

This study examines the impact of corporate governance and risk management processes on the firm performance. The data has been taken from 23 leading commercial banks in Pakistan from 2010 to 2017. The performance, ownership, governance, and credit risk variables are taken to measure the firm performance. The multiple regression results show that board size, Audit committee independence, director ownership, institutional ownership, foreign ownership, associate ownership, and NPL are positively associated with Return on Equity (ROE), while block holding, capital adequacy ratio, and board independence are negatively correlated with the ROE. Further, the board size, audit committee independence, director ownership, associate ownership, board independence, and NPL have a positive association with the Earning per Share (EPS), and the institutional ownership, foreign ownership, block holding, and capital adequacy ratio have a negative association. Lastly, the audit committee independence, foreign ownership, associate ownership, and capital adequacy ratio are related positively to Return on Assets (ROA), while the rest of the variables like board size, director ownership, institutional ownership, block holding, board independence, and NPL are negatively correlated.

Keywords: Corporate Governance, Risk management, Firm performance, Ownership structure, Commercial Banks

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Introduction

The concept of corporate governance arises from the agency problem, where two parties, like shareholders and managers, used to have a conflict with one another in multiple denotations. An intermediary who can listen to and understand the parties and their interests in being a part of the firm is always needed. Gradually, the concept of corporate governance came into being and proved itself as a problem solver to the most impulsive issue of the agency problem. Jensen and Meckling (1976) exemplified the model and argued that shareholders can't observe management activities without having a proper system for reviewing and supervising managerial activities. Further, a need is felt by the corporate sector to balance the ownership power among the different shareholders in order to protect the smaller shareholders from expropriation and also abide by the interest of large shareholders in the best possible way without harming the interest of other stakeholders, especially small shareholders. These two problems led the corporate sector towards a solution, which exactly resulted in the rise of corporate governance.

Corporate governance is a mechanism used to align the interests of executives with those of shareholders and other stakeholders and explore the market for corporate control (Nambiro, 2007). Corporate Governance is the charter of rules, regulations, and processes by which corporations use and control authority. Good corporate governance encourages companies to create value through entrepreneurialism, innovation, development, and exploration. It provides accountability and ensures a proper control system with the best risk management policies (Council, 2007).

Organizations have been practicing risk management. Having insurance for the company's financial products is a way of transferring risk (CAS, 2003; Nocco & Stulz, 2006). Gradually, corporate governance expanded risk management beyond insurance policies and hedging and focused on all kinds of risks, including strategic, reputational, and operational risks (Nocco & Stulz, 2006).

Risk management is essential to increase value for shareholders. The better the risk is managed, the better the firm's productivity is (Sobel & Reding, 2004; Lajili & Zeghal, 2005). This can be done by bringing capital efficiency. When firms are effectively managing resources, capital efficiency is achieved. Also, the risk management process identifies the areas that can cause risk for

the enterprise and then suggests corrective actions to overcome that. Moreover, better risk management policies make the investors more confident to invest in that firm, and it also communicates to the stakeholders that the organization is sound in managing risks in order to create better value for all concerned.

Tandelilin, Kaaro, and Mahadwartha (2007) developed a model which covers all three aspects. It states that corporate governance can positively impact banks' performance by adopting effective management policies. When the mechanism of corporate governance is active and implementable, it then enhances the credibility of the market, enabling the stakeholders to do so. It also proves helpful in raising capital at a lower rate and associated risks. Good corporate governance with effective risk management policies strengthens the financial performance of the banks.

A good system of managing risk helps in improving financial performance. Indeed, it will help banks to have a good reputation in the market to have an edge over others in terms of risk capital cost and other sources of funds. The study by Jiang, Feng, and Zhang (2012) shows that the financial performance of banks and corporate governance are positively associated. A proper Enterprise Risk Management (ERM) system must be installed in the firms. A study has found a positive relationship between the presence of a chief risk officer, board independence, the CEO, and the CFO's apparent support for ERM.

A study by Aebi, Sabato, and Schmid (2012) investigated the relationship between risk management and financial performance in the banking sector in the United States. The study found that risk management and bank financial performance are significantly associated; therefore, the banking sector should ensure the reliability of Enterprise Risk Management to gain confidence among various stakeholders and improve the financial flow.

Literature Review

This chapter includes discussions of the theories and empirical work on corporate governance, ownership structure, and firm performance.

Corporate Governance

The Banking Act (Cap. 488) states that corporate governance deals with the affairs and business of institutions that are controlled by the board and the

senior management. It provides the company's structure through which the goals and objectives are being set and also defines the ways to obtain them. Corporate governance ensures the performance while the management performs on it. The act further explains that corporate governance should outline proper incentives and reward systems for both the board and management to follow the agenda to accomplish the objectives for the interests of the shareholders. It brings an effective system for setting objectives, a good monitoring system that also defines operations on a day-to-day basis, the generation of economic returns for the shareholders, and protection for the interests of the law and regulations and other stakeholders.

Council (2007) has defined corporate governance as the charter of rules and regulations and processes by which authority is used and controlled in corporations. Good corporate governance encourages companies to create value through entrepreneurialism, innovation, development, and exploration. It provides accountability and ensures a proper control system with the best risk management policies. Nambiro (2007) defines corporate governance as a mechanism used for bringing the interests of the executives into line with those of the shareholders and other stakeholders and also exploring the market for corporate control.

Corporate Board

La Porta et al. (1999) have examined the impact of concentrated ownership on the performance of the company all over the world, even in developed capital markets. Erickson et al., 2005 have expressed the importance of the board structure. A board has been studied with three important elements.

Size of the Board of Directors

It has been suggested that a bigger board has more capacity to make links with the external environment in order to get more effective ideas and information regarding corporate policies like investing, risk management, and day-to-day operations to improve the firm's performance. Goodstein et al. (1994) prove that a larger board proves more effective when the company's shareholdings have been extensively dispersed among different shareholders or when the large shareholdings have no commitment to the expropriation of the minority shareholders. Two other studies support the existence of bigger. The larger the number of the board, the maximum performance efficiency is possible (Dalton et al., 1998; & Bozec & Dia, 2007). According to Brown and Caylor (2004),

a board of fifteen members is fit for larger firms because firms can't afford to establish the board again and again (*adinfinitum*), and also, increasing number would become a free riding if some of the directors may not perform efficiently and neglect their duties. External investors with significant shares would prefer the smaller board to increase efficiency.

The study of Eisenberg et al. (1998) and Mak and Yuanto (2002) have found a negative relationship between the size of the board and performance. When the number increases, the performance will go down and vice versa. Accordingly, a smaller board will bring efficiency to the firm and give importance to worthy and strategic discussions and coordination. When the board gets bigger, there is a chance of people having more conflicts in decision-making and not performing their duties to the best of their potential. (Jensen, 1993).

Board Insiders

The agency theory proponents have found that board insiders have a negative relationship with efficiency because of their increasing self-interest (Fama & Jensen, 1983). Other studies have found a positive relationship between board outsiders and the company's performance (Hossain et al., 2001; Dahya et al., 2008; Aggarwal et al., 2009).

The empirical study of De Jong et al. (2005) reports an example of the Dutch supervisory board (which is comprised of outsiders totally) having a negative relationship with overall performance. Also, Baysinger and Hoskisson (1990) argued against the board comprised of outsiders. The corporation hires the outsiders for a specific period, and they work with them on a part-time basis. Therefore, it is difficult for outsider directors to understand the complications that are associated with the firm to tickle them better and make the decision-making process more efficient and satisfactory. Such directors only have to complete their period and will leave the corporation without taking extra steps for the betterment of the firm decision-making process and resource arrangement.

The outsiders' board can be proven dangerous due to the full-time hold of the concentrated owners over the managerial activities and then somehow conniving with the insiders to prevent the minority investors from influencing the decision-making. Similarly, when the external owners can monitor the

activities of the management along with the support of the minority investors, then the outsiders' board gets terminated because the insiders have enough information about the day-to-day dealings, and they can better be in a fair deal with the outside owners to mislead all the stakeholders, especially the outside directors.

In a similar manner, Tanna et al. (2008) and Lin et al. (2009) have found empirical support for a board dominated by insider directors rather than outsiders. A board with insider-dominated directors makes a positive impact on performance. It proves more fruitful when the board insiders use their expertise to serve firms in the best interest of the owners.

The board composition must be based on the insiders due to having knowledge of the firm and also the outsiders to control and balance the activities of the insider directors. Solely, the insiders or outsiders may affect the performance of the board. Therefore, a board consisting of insiders and outsiders would balance and monitor the work of one another, and the company could embrace a better decision-making process.

CEO Duality

A CEO with duality is a person who holds both the positions of CEO and chairman of the company. The chairman is the one who can control the power of the CEO in an organization. Both the positions are held by two different persons. The CEO is normally accountable to the Chairman, but only when the same person occupies both positions. There must be no accountability for a person alone and a greater chance of power misuse can be expected (Jensen, 1993). This can also happen when the board is dominated by insider directors and widely dispersed external holdings. According to Pi and Timme (1993) and Bozec and Dia (2007), unified leadership adversely affects the firm efficiency. There would be no change in the perspective of decision-making. The same mind is considering and reviewing the situation; therefore, no innovation can be expected to strengthen the decision-making process.

Some other studies have gone in favor of CEO duality. Finklestein and D'Aveni (1994) and Kang and Zardkoohi (2005) have said that why the duties of CEO and chairman are different if there are so many other passageways like the presence of outsiders in the board and external investors to monitor every step and decision taken by the CEO.

Donaldson and Davis (1991:52) say that CEO duality is good because the power is invested in one person, and the same person is accountable for it. Two persons having different positions would create a problem with functions. There may always exist doubts about who has the authority over what matters and who is accountable to whom, so if one person is performing in both positions, then the question of whose responsibility or authority over what matters would never arise.

Ownership Structure

Barley and Means (1932) studied the relationship of agency theory and its association with ownership and the interest of stockholders. The study showed a positive association between high ownership and the firm's performance. Likewise, Jensen and Meckling (1976) found that high managerial ownership can result in lower agency costs by putting the interests of managers and shareholders on the same track. Later on, some of the studies like those of Fama and Jensen (1983), Shleifer and Vishny (1986), and Morck, Shleifer, and Vishny (1988) considered exploring the principal-agent problem and their correlation with the ownership structure, and they all somehow suggested that the principal-agent problem can be resolved by handling the activities of the management professionally by the management while looking at the interest of shareholders as well. La Porta, Lopez de-Silanes, Shleifer, and Robert (2000) determined the element of expropriation in firms. Investors have dominance and hold key roles in management to exploit minor shareholders in a firm. The study concluded that different methods are used for expropriation in organizations and claimed that they have a negative impact on the financial system and management.

Large External Shareholdings

Large or concentrated shareholders are more powerful and considered a means to provide the best support or go against the management's decisions. Such holders support all management decisions if they are maximizing the efficiency of the firm rather than the ones that maximize just the value of the management (Hill & Snell, 1989). The external shareholder depends on the point of view of agency theory and focuses on better monitoring the management's activities to avoid information irregularities (Shleifer & Vishny, 1986 & 1997). Because of the maximum shareholding and voting power there, shareholders can ask for accountability in order to bring

managerial efficiency. La Porta et al. (1999: 500) state that the controlling shareholders need to hold on to major cash flow rights as an obligation to limit the minority shareholders' expropriation.

Some of the studies have found that considerable external shareholdings positively affect the company's performance (Earle et al., 2005; Kapopoulos & Lazaretou, 2007). It says that when the contribution of extensive holdings is more so, there must be a frequent demand for accountability, which may compel the management to perform efficiently.

Some studies have shown that increasing external holdings hurts a firm's performance. (Demsetz & Villalonga, 2001). External holdings may put the management under extra stress of asking for frequent accountability. The management would show fake efficiency to the Audit Committee at the time of inspection. Also, the increasing stress on management can increase the turnover rate of the company's skilled people.

Also, only some studies have shown no direct relationship between the two factors. The relationship is non-linear and has no relationship at all (Pedersen & Thomsen, 1999; De Miguel et al., 2004). The increasing external holdings have no direct impact on the firm's performance. It is a sense of declaring that the nature of the holdings doesn't matter to the board and senior management.

Risk Management

The overall process of defining a business strategy, identifying the risk, quantifying the level of risk, and controlling techniques for the risks. In simple words, it is the identification, analysis, and acceptance or mitigation of doubt in the decision-making for investment (Cumming & Hirtle, 2001). A study by Parreñas (2005) stated that a healthy risk management process is needed in the banking sector for both financial and economic stability. An unsound risk management process leads the banks toward financial disturbances. For banks, a continuous measurement system of risk is essential because banks provide financial support to large enterprises, ultimately supporting a country's economic growth. Another study identified five important elements of risk attached to banking businesses: liquidity, interest, market, credit, and operational risks (Lukic, 2015).

The Nature of Enterprise Risk Management

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Risk management is essential to increase value for shareholders. The better the risk is managed, the better the productivity of the firm will be (Sobel & Reding, 2004; Lajili & Zeghal, 2005). This can be done by bringing capital efficiency when the firms are effectively managing resources then, which brings capital efficiency. Also, the process of risk management identifies the areas that can cause risk for the enterprise and then suggests corrective actions to overcome that. Moreover, better risk management policies make the investors more confident to invest in that firm, and it also communicates to the stakeholders that the organization is sound in managing risks in order to create better value for all concerned.

Corporate Governance & Risk Management in Relation to Performance

Tandelilin, Kaaro, and Mahadwartha (2007) developed a model which covers all three aspects. It states that corporate governance can have a positive impact on the performance of banks by adopting effective management policies. When the mechanism of corporate governance is active and implementable, it then enhances the credibility of the market, enabling the stakeholders to do so. It also proves helpful in raising capital at a lower rate and associated risks. Good corporate governance with effective risk management policies strengthens the financial performance of the banks.

A good system of managing risk helps in improving financial performance. Certainly, it will help banks to have a good reputation in the market in order to have an edge over others in terms of risk capital cost and other sources of funds. The study conducted by Jiang, Feng, and Zhang (2012) shows that the financial performance of banks and corporate governance are positively associated. Similarly, Black, Jang, and Kim (2006) show a positive association between banks' financial performance and corporate governance in Korea.

Clune and Hermanson (2005) conducted exploratory research on all the factors. The study has found a positive relationship between the presence of a chief risk officer, board independence, CEO, and CFO apparent support for ERM, a big four auditor, entity size, entities in the banking, education, and insurance industries with the Enterprise Risk Management.

Aebi, Sabato, and Schmid (2012) studied the direct reporting of CROs to the board of directors rather than the CEO, showing significantly higher stock returns and ROE. On the other hand, the corporate governance variables have shown a mostly negative relationship with the bank performance. The study found that risk management and bank financial performance are significantly associated. At the same time, corporate governance somehow negatively affected the financial performance of the banks during the financial crisis in 2007. Similarly, Adeusi, Akeke, Adebisi, and Oladunjoye (2014) examined the relationship between bank financial performance and risk management practices in Nigerian banks. An inverse relationship was concluded by examining the financial performance, doubt loans, and capital assets ratio. The study found a significant relationship between Financial Performance and Risk management.

Ndung'u (2013) conducted a study which found that risk management practices positively correlate with financial performance in the case of oil companies in Kenya.

Research Design & Methodology

This section includes data collection sampling methods and models.

a. Data collection and sample framework:

The data has been collected from the Bank's annual reports, where a sample of 23 leading Pakistani commercial banks is being taken. The data was chosen from six years, from 2010 to 2017.

b. Model

The following regression model is used to test the different hypotheses which have already been used by different studies discussed in the literature section of the study.

$$\text{Firm Performance} = \alpha + \beta_{BS} + \beta_{BI} + \beta_{ACI} + \beta_{BH} + \beta_{DO} + \beta_{IO} + \beta_{FO} + \beta_{AS} + \beta_{CAR} + \beta_{NPL} + \mu$$

The firm performance is measured in terms of Earnings per Share (EPS), Return on Assets (ROA), and Return on Equity (ROE). And the rest of the variables are explained below:

- BS stands for Board size; board size is an important element of the corporate governance structure. We all might have heard about the significance of large and small boards. This study also checks the impact of board size on firm performance. Another study regarding board size has been conducted by Badu, L. A., & Appiah, K. O. (2017).
- BI stands for Board independence; a board typically consists of executive and non-executive directors. The question arises about what sort of board proves healthier and beneficial to improve the firm performance. A study by Fuzi, S. F. S., Halim, S. A. A., & Julizaerma, M. K. (2016) has also been conducted to examine the importance of board independence.
- ACI stands for Audit Committee Independence. The audit committee is one of the important governance committees that can help the organization assure financial soundness. The independence of the audit committee has been taken as a matter of subject. Amer, M., Ragab, A. A., & Shehata, S. E. (2014) have also worked on the relationship of the Audit Committee's independence with firm performance.
- BH stands for block holding; block holding is an ownership variable where the impact of larger shareholders is checked in relation to firm performance. This can be proven positive in some of the firms as well as negative in others. Block holding, being an important factor, has also attracted Earle, J. S., Kucsera, C., & Telegdy, Á. (2005) to conduct a study on it.
- DO stands for Directors' ownership; directors' ownership is also picked up to investigate the firm performance from this dimension. Also, the study of Khan, F., & Nouman, M. (2017) explains the directors' ownership.
- IO stands for Institutional ownership; institutional ownership is important because most institutions are normally the larger shareholders in the corporate sectors. Is it fine for the firm's performance to have institutional ownership or not? An answer to

this question is being provided in the study. Also, institutional ownership is reflected in another study by Bjuggren, P. O., Eklund, J. E., & Wiberg, D. (2007).

- FO stands for foreign ownership; foreign ownership is good for diversifying ownership. What impact this sort of ownership has on the performance of the firm is a matter of subject. Jusoh, M. A. (2016) has also conducted a study on it.
- AS stands for Associate ownership; does associate ownership prove healthy for the performance or not? This study has found an answer to this. Another study by Ahmed, N., & Hadi, O. A. (2017) examined the impact of ownership structure on firm performance.
- CAR stands for Capital Adequacy Ratio; capital is like a backbone for all firms, especially financial institutions. The study explains an answer to ‘how important it is for the firms to have enough capital against the risk’? Also, Nzioki, S. J. (2011) has worked on the capital requirements for the firms.
- NPL stands for a non-performing loan; this shows the impact of NPL on the firm’s performance. It has explained whether to keep the NPL or not, and if yes or no, what consequences a firm can face. Also, another study has been conducted by (Adebisi, J. F., & Matthew, O. B. 2015) in this regard.

Results and Discussions

This section covers the results of the descriptive statistics, correlation, and regression and discusses the results of these models.

Descriptive Statistics

Table 4.1 shows the descriptive statistics of the performance, credit risk, governance, and ownership variables. First, the performance variables are discussed, followed by the Credit Risk, governance, and ownership variables.

The mean value of the ROE is 0.173, while its standard deviation is 0.095. The minimum value is -0.29, while the maximum value is 0.3. Another performance variable is ROA, which has a mean of 0.015, a standard deviation of 0.016, a minimum value of -0.07, and a maximum of 0.06. Earnings per share (EPS) has a mean of 7.406, a standard deviation of 7.709, a minimum value of -7.62, and a maximum of 24.

The mean Capital adequacy (CADR) value is 0.154, with a standard deviation of 0.047, a minimum value of 0.01, and a maximum value of 0.25. The mean non-performing loan (NPL) value is 0.18, with a standard deviation of 0.237, a minimum value of 0.008, and a maximum value of 0.762.

The governance variables are board size, board independence, and audit committee independence, with mean values of 8.85, 0.851, and 0.967, standard deviations of 1.867, 0.063, and 0.181, minimum values of 6, 0.667, and 0, and maximum values of 13, 0.923, and 1, respectively.

Here come the ownership variables: Director ownership, Institutional ownership, Foreign ownership, and Associate ownership. The mean value of the director ownership is 0.1, its standard deviation is 0.173, its minimum value is 0, and the maximum value is 0.67. The institutional ownership has a mean of 0.155, a standard deviation of 0.217, a minimum value of 0, and a maximum value of 0.75. another variable is foreign ownership, which has a mean of 0.11, a standard deviation of 0.168, a minimum value of 0, and a maximum value of 0.56. At last, the associate ownership variable has a mean of 0.177, a standard deviation of 0.218, a minimum value of 0, and a maximum value of 0.72.

Pearson Correlation

Board size, Director ownership, foreign ownership, Associate ownership, and Capital Adequacy are positively correlated with the ROE, which shows that an increase in any variable positively impacts the ROE. In contrast, Audit committee independence, Institutional ownership, Block-holding, Boar Independence, and NPL have a negative association with the ROE, where an increase would hurt the ROE.

The ROA has a positive association with the Boar size, Director ownership, Institutional ownership, Foreign ownership, Associate ownership, Block-holding, and Capital adequacy while having a negative correlation with the Audit committee independence, board independence, and NPL are negatively linked. The increase in positively associated variables would positively impact the ROA, whereas the negatively associated variables would negatively impact it with an increase.

Finally, the EPS positively correlated with Board size, Director, foreign, and Associate ownership, Capital adequacy, Board independence, and NPL and

negatively with Audit committee independence, Institutional ownership, and Block-holding.

Linear Regression of the ROE

The ROE is positively associated with the board size and is highly significant. Larger boards consist of more people, and decision-making comes from more and different perspectives. Larger boards should have a better monitoring system and more time and experience than smaller boards (Monks & Minow, 1995; Uadiale, 2010).

The ROE is positively related to the Audit committee and is not significant. The independence characteristic is important for the audit committee to supervise the firm effectively because the external members are more deliberate in decision-making and least interested in needless negotiations to protect their ownership or employment interest. The audit committee's independence is important for the firm's financial and non-financial performance. Financial performance is the fruit of truly checking, understanding, and taking corrective actions regarding financial matters (Chang & Li, 2008; Aldamen et al., 2012; Al-Matari et al., 2012), while non-financial performance is the result of quality monitoring and adequate supervision of the audit committee members in a firm (Neuvoet al., 2001; Zhang et al., 2011).

Director Ownership, Institutional ownership, and Associate ownership are all positively associated with the ROE and are highly significant, while foreign ownership is positively associated but not significant. Different types of ownership structures, including associated ownership, institutional ownership, and foreign ownership, successfully connect with a firm's agency problems. (Jensen & Meckling, 1976). Tarzijan (1999) highlighted the positive impact of the different types of group ownership by saying that such ownership aids firms in diminishing various costs, which further helps avoid market failures.

Block holding is negatively linked with ROE and is more significant. Blocking holding expropriates the smaller investors by dominating them (Shleifer & Vishny, 1997). Also, block holdings hold/stifle managerial activities because they are concentrated owners, and managers are very intensely controlled by the concentrated shareholders (Burkart, Gromb, & Panunzi, 1997).

Capital adequacy has a negative relationship with the ROE, which is insignificant; therefore, it has no greater impact. The NPL is positively linked with ROE, and it's just significant. The NPL has a slight impact on the firm's performance; thus, it is not considered negative by investors.

Linear Regression of the EPS

The EPS is positively associated with the board size and is a highly significant variable. Reddy et al. (2010) suggested that board monitoring in the firm is directly linked to the larger size of the board. When some directors have formed a board, there is a greater opportunity to share the workload among the directors, which would bring effectiveness and efficiency to the firm.

Also, the Audit committee is positively related to the EPS and is considered highly significant. The audit committee is formed for the purpose of properly checking upon and supervising the internal and external audit events of the organization. A positive association between the audit committee independence and firm performance is found because of the monitoring and supervision in a true sense. This is how the quality of generating revenue and the reliability of financial statements can be ensured Bouaziz (2012).

Here comes the director's and associate's ownership, which have the same position of highly significant plus positive association as the board size and audit committee. And the literature has supported the positive association by saying that it would install such a mechanism that may reduce different market failures.

In contrast, institutional ownership has a negative relation with the EPS and is fairly significant, while foreign ownership is negatively associated but insignificant. Such large institutions and foreign shareholding formulate a privately controlled company holding system (Angblad *et al.* 2001).

Block holding is negatively and insignificantly linked with the EPS as an ownership variable. Various studies have supported the negative association of the blocking explained previously in the study.

Like block holding, even if the board's independence is insignificant, it's positively associated with the EPS. The existence of outside directors on the board is considered board independence and the most significant characteristic of effective governance. The outside directors have no attachment to the firm;

therefore, they might take the decision cordially and represent the stakeholders' and shareholders' interests (Dobrzynski, 1991).

Capital adequacy is negatively associated, and the relationship is fairly significant. The relationship is negative because higher capital requirements in banks result in the shrinkage of bank credit, which, in fact, cuts down the source of earnings for banks through credit (Majnoni (2001).

The NPL is positively associated but insignificant; therefore, it has no greater impact on the performance.

Linear Regression of the ROA

Here, this table shows the ROA relationship with all the variables. ROA is negatively associated with the board size, and it is insignificant. Small boards cost more; therefore, a small board is more effective in improving firm performance. Empirical studies by (Mak & Li, 2000 Cheng, 2008; & Guest, 2009) argued that larger board size has a negative impact on performance because it brings inefficiency due to the increasing number of directors on a board where only a few are sufficient to interact with each other in the best possible way, understand each other and share the workload.

The audit committee is positively associated with and significant. The audit committee's independence is important for valid financial performance and disclosure. This has provided support through literature from the previous study.

The director ownership is negatively associated with the ROA but is highly significant. There can be found a negative significant relationship between directors, CEOs, their spouses, and children shareholding. Nishat and Mir (2004), Farooque, Zilj, Dunstan, and Karim (2007), and Shah, Butt, and Saeed (2011) also have the same kind of results regarding it.

Institutional ownership is negatively related but fair because large institutions control the firm and create a monopolistic system.

Foreign ownership has a positive association with the ROA, and it is insignificant. Foreign ownership is positively influencing the firm performance (Mueller and Reardon (1993). It spreads ownership beyond borders, and the firm is monitored and managed through different ownership perspectives, where the interests of every owner and nationality are taken seriously and given importance.

Associate ownership is highly significant and positively associated. This negative relationship was discussed earlier in the study.

Block-holding is negatively related and insignificant. Concentrated ownership controls the firm's activities and expropriates the small investors.

Capital Adequacy is positively associated with bankruptcy, and it is significant. Higher capital requirements reduce the chances of insolvency due to sudden financial shocks. If firms have higher risk-weighted assets, it will lower the probability of their bankruptcy (Mwega, 2005).

The board independence is negatively associated, and it is highly significant. The study in the context of Indian companies showed that board independence doesn't guarantee firm performance due to poor monitoring roles of independent directors. They do not care because they have no ownership or employment interest in the firm (Garg, 2007).

Also, NPL is negatively correlated with the ROA, which is highly significant. The NPL is negatively associated because it indirectly increases the chances of default due to having no funds to operate the financial activities and survive in the financial market by lending further funds and investing in profitable projects. Furthermore, it directly affects the firm credit growth because the firm may not be able to make any profit through interest on the lent funds to the borrowers, and the profitability and sustainability of the financial institutions cannot be ensured without having a proper flow of earning through interest amount on the lending activities.

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
Roe	132	0.173	0.095	-.29	.3
Roa	132	.015	0.016	-.07	0.06
Eps	132	7.406	7.709	-7.62	24
Bsize	132	8.85	1.867	6	13
Acid	132	0.967	0.181	0	1
DOSP	132	0.1	0.173	0	0.67
IOSP	132	0.155	0.217	0	0.75
FOSP	132	0.11	0.168	0	0.56
ASOP	132	0.177	0.218	0	0.72
BLOCK	132	0.068	0.024	.05	0.1
CAdR	132	0.154	0.047	.01	0.25
Bind	132	0.851	0.063	.667	0.923
Npl	132	0.18	0.237	.008	0.762

Table 4.2 Pairwise Correlations

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) roe	1.000												
(2) roa	0.384 *	1.000											
(3) eps	0.633 *	0.396 *	1.000										
(4) bsize	0.042	0.075	0.128	1.000									
(5) acid	-0.235	-0.064	-0.017	0.035	1.000								
(6) DOSP	0.443 *	0.140	0.230	-0.057	-	1.000							
(7) IOSP	-0.098	0.043	-	-0.016	0.026	-0.139	1.000						
(8) FOSP	0.123	0.164	0.240	0.115	0.124	-0.078	-0.081	1.000					
(9) ASOP	0.167	0.051	0.223	0.203	-0.162	0.118	-0.245	-	1.000				
(10) BLOC	-	0.066	-0.162	-	0.172	-	-	-	0.03	1.000			
(11) K	0.620 *			0.447 *		0.430 *	0.451 *	0.15 0	1				

(11) CAAdR	0.304	0.418 *	0.367 *	0.120	0.077	0.143	-0.010	0.31 9	0.00 9	0.076	1.00 0		
(12) Bind	-0.317	-0.023	0.033	0.317	0.421 *	- 0.576 *	0.059	0.30 9	0.07 7	0.131	- 0.14 3	1.00 0	
(13) npl	-0.016	-0.015	0.037	- 0.466 *	0.115	-0.217	- 0.357 *	0.10 3	0.25 5	0.520 *	- 0.02 0	0.13 7	1.00 0

* Shows significance at the .01 level

Table 4.3 Linear Regression Model of ROE

oe	Coef.	St.Err	t-value	p-value	Sig.
Board size	0.010	0.003	3.07	0.006	***
Independent Audit	0.006	0.012	0.50	0.624	
Director ownership	0.108	0.032	3.35	0.003	***
Institutional ownership	0.290	0.067	4.31	0.000	***
Foreign ownership	0.018	0.023	0.78	0.444	
Associated ownership	0.185	0.032	5.70	0.000	***
BLOCKHOLDINGS	-1.189	0.530	-2.24	0.035	**
Capital Adequacy ratio	-0.019	0.192	-0.10	0.920	
Board Independence	-0.118	0.084	-1.40	0.177	
Non-Performing Loan	0.056	0.031	1.78	0.089	*
_cons	0.195	0.078	2.48	0.021	**
Mean dependent var	0.210	SD dependent var			0.064
R-squared	0.507	Number of obs			132
F-test	65.183	Prob > F			0.000
Akaike crit. (AIC)	-145.115	Bayesian crit. (BIC)			-128.653

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

Table 4.4 Linear Regression of EPS

Eps	Coef.	St.Err	t-value	p-value	Sig.
Board size	2.314	0.455	5.09	0.000	***
Independent Audit	6.746	1.363	4.95	0.000	***
Director ownership	11.268	2.811	4.01	0.001	***
Institutional ownership	-21.975	9.833	-2.23	0.036	**
Foreign ownership	-0.557	2.508	-0.22	0.826	
Associated ownership	19.082	6.322	3.02	0.006	***
BLOCKHOLDINGS	-26.328	28.758	-0.92	0.370	
Capital Adequacy ratio	-47.676	22.796	-2.09	0.048	**
Board Independence	12.494	9.349	1.34	0.195	
Non-Performing Loan	1.499	4.535	0.33	0.744	
_cons	-22.187	8.300	-2.67	0.014	**
<hr/>					
Mean dependent var	8.995	SD dependent var		6.858	
R-squared	0.602	Number of obs		132	
F-test	26.378	Prob > F		0.000	
Akaike crit. (AIC)	165.142	Bayesian crit. (BIC)		181.604	

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

Table 4.5 Linear Regression Model ROA

ROA	Coef.	St.Err	t-value	p-value	Sig.
Board size	-0.001	0.001	-0.76	0.458	
Independent Audit	0.004	0.002	1.91	0.070	*
Director ownership	-0.037	0.010	-3.80	0.001	***
Institutional ownership	-0.087	0.032	-2.69	0.013	**
Foreign ownership	0.000	0.009	-0.04	0.967	
Associated ownership	0.036	0.011	3.44	0.002	***
BLOCKHOLDINGS	-0.011	0.087	-0.13	0.900	
Capital Adequacy ratio	0.109	0.060	1.82	0.082	*
Board Independence	-0.065	0.018	-3.54	0.002	***
Non-Performing Loan	-0.049	0.010	-4.77	0.000	***
_cons	0.076	0.022	3.46	0.002	***
Mean dependent var	0.019	SD dependent var			0.012
R-squared	0.519	Number of obs			132
F-test	8.145	Prob > F			0.000
Akaike crit. (AIC)	-231.842	Bayesian crit. (BIC)			-215.380

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

Conclusion

This study examines the impact of corporate governance and risk management processes on the firm performance. The data has been taken from 23 leading commercial banks in Pakistan from 2010 to 2015. The performance, ownership, governance, and credit risk variables are taken to measure the firm performance. The multiple regression results show that board size, Audit committee independence, director ownership, institutional ownership, foreign ownership, associate ownership, and NPL are positively associated with Return on Equity (ROE) while block-holding, capital adequacy ratio and board independence are negatively correlated with the ROE. Further, the board size, audit committee independence, director ownership, associate ownership, board independence, and NPL have a positive association with the Earning per Share (EPS), and the institutional ownership, foreign ownership, block holding, and capital adequacy ratio have a negative association. Lastly, the audit committee independence, foreign ownership, associate ownership, and capital adequacy ratio are related positively to Return on Assets (ROA). In contrast, the rest of the variables, like board size, director ownership, institutional ownership, block holding, board independence, and NPL, are negatively correlated. This study has implications for managers, policymakers, and investors in general.

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