KASBIT Business Journal, 14(3), 120-141, September 2021

Banking Sector of Pakistan: Impact of Board of Directors' Size on Performance

Ghalib Ayub Hassan
Ph.D. Scholar at Bahria University Karachi Campus

Dr. Mubashir Ali Khan
Senior Assistant Professor at Department of Management Sciences,
Bahria Business School, Bahria University, Karachi Campus

Abstract
The main objective of this study is to examine the relationship between the Board of Directors' size and the bank's performance. Independent variables like Board ownership, Board size, Yearly Board Meetings, Yearly Audit Committee meetings, CEO Ownership, CEO Tenure, Executive Ownership, and Role Duality whereas Return on Assets as a dependent variable are used to measure this relationship. This study uses the data of 32 banks listed in the Pakistan Stock Exchange between the period 2002-2018. To examine the impact statistically, PLS Regression Random Effect Model is used due to higher significance and t-statistics values after exploring both Fixed and random effect models through the Housman test. Results show that board meetings and shares held by the CEO have a negative but significant association with banks' performance. Audit committee meetings and a total number of board of directors have a significant and positive association with the performance of the bank. CEO Tenure, duality, shares held by the executive director, and shares held by the board of directors have a positive but non-significant association with banks' performance. Study variables explain variation in performance by 55.34%.

Keywords: Pakistan Stock Exchange, Board of Directors' Size, Performance, Executive Factors, Random Effect Model, ROA

Introduction

Banks play an important role within an economy because of their depositing and lending operations. As they act as an intermediary between loan takers (borrowers) and loan specialists (creditors), so banks (particularly commercial banks) can also contribute positively to a country's economic growth. Therefore, several economies in the world, including Pakistan, emphasize improving and stabilizing their banking sectors.

Background of Banking in Pakistan

The banking sector of Pakistan has gone through numerous changes during the last 74 years

---

since independence. Due to uncertain economic conditions and a not fully formed political system, it faced severe scarcity of resources. Untrained employees and lack of experts lead to poor quality of services and inferior products. On July 1, 1948, as a reserve bank, the State Bank of Pakistan (SBP) was set to monitor the financial sector of the economy. Through the SBP act of 1956 different changes were made to enhance the control and operations of SBP. Different banks and financial institutions were established to encourage the private sector. But due to the corruption during the 1950s and 1960s, unethical practices and competition resulted. So it was stated that restructuring of the financial sector and governance modifications, over the period has improved the banking sector's performance in Pakistan (Burki and Niazi, 2003). In 1974, the Nationalization process of different industries started and banks were also nationalized during that period. Due to the Government intervention and safety of employee rights, the performance of banks decreased and led to the delivery of poor quality services and products. Eventually, it decreased the interest of foreign investors in our financial sector. So all this became the reason for the denationalization of the banking sector of Pakistan again in 1992 (Ahmed et al. 2010). As steps for Islamization were taken in different regions of the world and Egypt established its first Islamic bank in 1963. Pakistan also took different initiatives during 1979-1992 to introduce Islamic banking. National Investment Trust (NIT) was the first financial institution in this regard. After the issuance of detailed criteria for private sector Islamic banks in 2001 by SBP, Al Meezan Investment Bank started its operations in Pakistan in 2002.

During the 1990s, the relaxation in previous Government restrictions and reducing state regulations attracted foreign and local investors to start banking operations in Pakistan. Efforts brought the fruit and a large number of investors started their banking operations and tried hard to increase their customer database. It is stated that due to the slow financial growth, state proprietorship could be discouraged (La Porta et al. 2002). Likewise, banks with state ownership due to the ambiguous objectives and responsibilities are incapable to observe their growth (Clark et al. 2003). Though it is seen that due to the different constraints and limited boundaries in an economy denationalization may not be fruitful. It is stated that due to the excessive staff and heavy debt, denationalization of banks did not generate improvement in low and medium-income countries (Otchere, 2003).

According to the economic survey of Pakistan, (2007-2008), the private banking sector of Pakistan with 80% of the banking sector's assets is playing a major role in changing the overall banking environment. It is also stated that clients of the Islamic banking system are more satisfied than the clients of conventional banks due to the delivery of better services (Ahmad et al., 2010).

At present clients of banks are more concerned with the provision of services due to greater knowledge and awareness. They keep them associated with their existent banks if they provide superior services otherwise they do not hesitate to move their funds to other banks.

Performance, Board of Directors, and Corporate Governance

To determine success and growth, banks mostly focus on a competitive marketing strategy. The practices and working environment of the banking industry have seen major changes in the new century as compared to the past (Hussain and Bhatti, 2010). The significance of effectively determining the performance of the banking industry has been accepted and acknowledged for a long time. To gauge the performance of banks primarily research work used different ratios such as internal growth of equity, return on assets, return on equity, return on investment, equity to total assets, etc. Although said ratios are still in use in the financial industry but should be considered as a partial indicator of measuring efficiency. Different indicators should be used collectively to measure holistic performance (Ramakrishnan Ramanathan, 2007).

At the present board of directors, especially their role, which is an essential and crucial aspect of corporate governance, has become a debatable topic among individuals, regulatory authorities, top management, operations of industry, and different stakeholders like shareholders, educational and multinational organizations. It is seen in recent years that disclosure of financial statements, independence of the board, board of directors' size, the composition of the board, diversity, and committees in boards and organization transparency are known as foundation stones of a good corporate governance system. All these variables are at the top of the agenda of many gatherings and meetings all over the world including the main economic plat farms like Organization of Economic Co-Operation, International Monetary Fund (IMF), Development (OECD), and The World Bank (Inyanga, 2009).

Therefore, for any society, the role of efficient and effective corporate governance is of practical importance. First, it helps the organization and economy to efficiently use scarce resources. Secondly, it helps them to move their scarce resources towards efficient departments and sectors. Thirdly, it encourages top managers to concentrate on performance enhancement. Fourthly, it gives a way of picking the best official to use scarce resources, and finally, it helps top management, associations, and organizations to conform to the guidelines, controls, and prospects of society set by the regulatory authorities. The current study represents an attempt to analyze the impact of corporate governance on the performance of listed commercial banks in the Pakistan Stock Exchange.

This research work is structured as follows; the review of literature on the banking system and corporate governance setup and issues. We shall discuss the development of hypotheses based on the relationship of corporate governance's variables and their impact on the performance of said banking sector. Then in the third section, we will explain research methodology and information related to data collection. We shall also describe the results and conclude our findings to fulfill the objective of this study.

The objective of the Study

The key objective of the present study is to statistically examine and logically find evidence from extant literature of the impact of board of directors' size on banks' performance operating in Pakistan. By narrow downing it further, the study explores in what way the components of the board of directors such as, independence of the board, ownership of the board, and also the size of the board could influence the performance of banks as measured by ROA of the banks registered in Pakistan Stock Exchange over the period 2002-2018. Furthermore, the study aims to use robust statistical tools to analyze the significance of independent factors associated with the board of directors on the dependent variable ROA.

Problem Statement

To study the Impact of the board of directors' size on the performance of Pakistani banks by using secondary data and applying the regression analysis technique.

Outline of the study

The paper has been synchronized as follows. Section I presents an introduction to the banking sector of Pakistan. Section II talks about theoretical considerations to format the empirical analysis and literature review. Research methodology is discussed in section III. Section IV deals with the critical examination and section V discusses the conclusions.

Definitions

Return on Assets (ROA):	The net income divided by total assets (Adams and Santos, 2005)
Board size:	Total number of directors sitting at the annual meeting of shareholders (Fanta A. B. et al., 2013)
Board ownership:	The percentage of shares held by all directors. (Belkhir, 2009)
Executive Ownership:	The percentage of shares held by all executives
CEO's ownership:	The percentage of shares held by the CEO. (Belkhir, 2009)
Role Duality:	A Dummy Variable, 1 for CEO and 2 if a CEO is also a chairman
Audit Committee Size:	Total number of members serving in audit committee
Board Meetings:	Total number of board meetings held in a financial year
Audit Committee Meetings:	Total number of audit committee meetings held in a financial year

Research Significance and Contribution:

While focusing on the effecting of the banking sector of Pakistan this research would mainly help know the impact of board of directors' size on the performance of the banking sector of Pakistan. As this research paper would be a value able addition to the banking literature so, in the long run, this would help the top management to structure their management in a well-organized manner. Secondly, this would help the investors to access the performance of this sector while investing or purchasing the stocks of these listed banks and making a value able addition to their portfolio. This would also help management to make a wise investment decision in the interest of their organization. Thirdly, it would assist management, investors, and research scholars in increasing the boundary of existing knowledge by identifying the elements that explain the performance of Pakistan's banking sector.

Literature Review

Several research papers have been written and a lot of research work is done to know the performance of banks doing commercial business on the globe but unfortunately, Pakistan's banking sector has not been focused that much. Still there exist a couple of investigations to assess the performance of these financial institutions of Pakistan. The banking sector of Pakistan has an important and huge command of the economy. Therefore, a lot of research work is needed to be done upon the different factors which influence the performance of the banks. Such types of studies are done in a few economies, generally in those which are developed economies rather than those which underdeveloped. Following is the abstract of such studies: Kobeissi and Sun (2010) did a lot of study on the banks of groomed countries such as North Africa and the Middle East and examined the relationship between the performance and banks ownership pattern. They took the stock holding pattern details of 221 banks of 17 countries of North Africa. Their study showed the number of effects of structural changes on the performance of these banks of North Africa. Their results show that private banks' performance is better than their local banks. Especially those banks that perform much better which are owned by the foreign public.

Awdeh and El Moussawi (2009) evaluated the performance of the banks operating in Lebanon during 1996-2005 by comparing the ownership structure like banks which are owned by domestic investors, foreign investors, and subsidiaries of foreign banks. By using the DEA technique, they took the yearly data of cost efficiency, allocation, and technical. The results showed large-scale dissimilarities among these sets. Foreign-owned banks showed better performance with continuous improvement whereas other group banks were declining in their performance. Their results also showed that effectiveness is dependent on the ownership structure of banks.

Opkara (2009) found out different aspects which can affect the Nigerian financial institutions especially the banks. He used the methods of factor analysis and analyzed that the factors like political issues, low capitalization, deceiving practices, and unnecessary influence of board of directors can affect the banking systems in Nigeria, and hence the performance of banks is disturbed. Azad (2006) determined the important factors and their effect on the performance of Japanese banks. From his analysis, he identified several macro factors as quantitative and several micro factors as qualitative.

Delis and Papanikolaou (2009) analyzed the factors which can affect the bank's performance. The investigation showed that all the banks used in the sample improved their performance with time. Through the use of statistical techniques, they analyzed that factors like investment opportunities, awareness of the market, and the size of the bank are very useful and show the affirmative effect on the performance. Aysana and Ceyhanb (2007) analyzed the performance of the banking industry of Turkey through the regression technique by using the panel data. According to their findings, several branches affects negatively on the performance of banks whereas loan ratio and bank capitalization have an affirmative effect on performance. Amusingly, ROE was insignificant in explaining the efficiency. Similarly, the link concerning overseas ownership and bank performance was also weak.

While summing up we can say that there are many variables like current assets to total assets, equity to assets, a borrowed fund to assets, fixed assets to total assets, loans to deposits, reserve for loans to assets, the concentration of the market, bank's age, capitalization level, gross development product per capita, satisfaction level of customers, the cost to income ratio, portfolio of the bank, size of the market, return on equity, the efficiency of labor and return on assets which are used to measure the bank's performance, however, following two return on equity (ROE) and return on assets (ROA) are the main indicators which are often used to analyze the performance of these banks as well as different financial and economic institutions.

Agency Theory

Different theories related to the mechanism of corporate governance and its issues can be seen in the existing research literature which includes the theory agency, theory of stewardship, and resource-based theory. (Jensen and Meckling, 1976; Donaldson and Davis, 1991; Conner and Prahalad, 1996; Davis et al., 1997) , however, this study mainly focuses on the elements of Agency theory. According to (Berle and Means, 1932; Jensen and Meckling, 1976; Fama, 1980; Fama and Jensen, 1983) agency theory discusses interest conflict between two main stakeholders of the firms i.e. managers and owners. Conferring to (Fama and Jensen, 1983), for better corporate governance, to reduce the clashes of interest between management and other stakeholders related to firms, especially equity and debt holders, the enforcement of a systematic mechanism is necessary otherwise this will raise companies' agency costs. (Cadbury Committee, 1992; Jensen, 1993; OECD, 2004) also concluded the actions recommended by agency theory, firstly, the board of directors should have more percentage of independent directors, secondly, different people should hold top positions like Chief Executive Officer and Chairman and thirdly, corporate governance is mainly reflected by board size as it is a vital part of an organization.

As banks are considered the main part of an economy hence their account holders are the important stakeholders, and ultimately banks' goal is not only to protect shareholders' wealth but also to protect account holders' interest. The structure of banking firms is considered very composite and misty, hence, agency problems may arise due to information irregularities (Morgan, 2002; Grove *et al.*, 2011). Banks also have dissimilar governance mechanisms as compared to organizations with non-financial backgrounds (Adams and Mehran, 2012). Moreover, mortgage multinational crises clearly showed our little knowledge about the governance of banks.

The main focus of the present literature related to board characteristics as a governance mechanism is on the board's size, its ownership, and also its formation to impact on the financial performance of the bank from an agency theory perspective.

Independent Variables:

Board size and Performance

Past research studies have contended that BS is related to a firm's performance and is also a significant component of compelling corporate administration (Jensen, 1986; Zahra and Pearce, 1989). In monitoring, controlling and decision making, according to Agency Theory board size plays a vital role. Pathan et al. (2007) and AlManaseer et al. (2012) concluded the results by stating that communication and coordination gaps create problems in decision making and also cause some extra risks. Coordination issues make the larger board ineffective. As indicated by Liang et al. (2013) smaller boards positively affect the firm's performance as they are more efficient, easily monitor the company's performance, and are also strongly connected which leads them to make the right decisions. In continuity with these findings, while working on the Gulf banking industry, Naushad and Abdul (2015) also found that a larger board could put an adverse effect on the performance of banks whereas reduced boards are effective to improve the performance.

On the other hand, Haniffa and Hudaib (2006) and Pearce and Zahra (1992) contended that as compared to a smaller board, larger boards perform better for companies as they help to keep eye on managers and provide support to safe company's important resources. Adams and Mehran (2003) and Coles et al. (2008) also concluded in the support of larger board size to enhance the performance of the organization and according to them, a larger board helps save guard shareholder's interest by reducing the dominance of Chief Executive in the executive board. To safeguard the interest especially the return of shareholders they play a vital role in managing resources, decreasing the associated agency cost, and increasing the involvement of different mindsets.

Al-Saidi (2010) on the other hand found different results and concluded no relationship amid the board size and performance.

Hence, there are different and conflicting evaluations on the said relationship of firms' performance and their boards' size.

H1: There is a significant and positive relationship between the performance and size of the board

Ownership structures and firm performance

Like other variables related to board structure, ownership also acts significantly to impact the performance of banks. According to (Berger and Bouwman, 2013; Cull and Peria, 2013; Lim et al., 2014; Shahwan, 2015; Su et al., 2010) directors, pinnacle executives, and other decision-makers are selected and hired by the shareholders which are the primary owners of the company. Hence, it is believed that they directly affect management and therefore, the performance of the organization. Mangena and Tauringana (2008) concluded positive affiliation among shareholding and performance of the companies primarily based on 72 Zimbabwean registered corporations from 2002 to 2004. According to the theory of Agency, the percentage of managerial ownership might be anticipated to enhance the performance of the bank. Organizational performance is impacted by managerial characteristics like board structure and its ownership (Alias et al., 2017).

Rowe, Shi & Wang (2011) took the data of 41 Chinese Banks and found a significant but inverse association amongst performance and percentage of executive directors in the board whereas positive and significant association amongst performance and shareholding percentage of the board of directors.

As much the shares are held by the directors, they will take a personal interest in the decision-making process which will ultimately result in better performance

H2: Bank's performance is significantly related to the number of shares held by the directors.

H3: Bank's performance is significantly related to the percentage of shares held by the CEO.

Board of Directors' Meetings and Performance

It is seen that the board meetings exhibit a crucial role in improving the performance of banks as it is a measure of attentiveness of the directors and defined as the time spent in checking or observing management activities.

Results confirm that the overall performance improves when the number of the meeting are more frequent in a year (Rizzotti & Greco, 2013; Vafeas, 1999). Francis, Hasan, & Wu (2012) found that during financial crises all those companies performed well whose directors participated in meetings whereas those whose directors' attendance was less, they did not perform well. In continuation to positive and significant impact, Al-Baidhani (2013) also found that banks' performance has a positive and significant relationship with the frequency of board meetings. As meetings are the source of monitoring so directors' attendance is important to perform their duties (Johl et al., 2015). Arora (2012) found that meetings of the board don't play a positive role in measuring performance. However, Arora & Sharma (2016) again argued and found the board of directors' positive influence on the performance of the firm.

Contrary to the above, Johl et al (2015) concluded an inverse relationship between firms' performance and board meetings. Supporting this perspective, results confirmed that performance which was quantified through Return on Equity (ROE) and Return on Assets (ROA) has a significant but negative relationship with the annual general meeting (Hassan *et al.*, 2015).

Different findings have been seen associated with the connection of board meetings and the performance of the firms.

H4: "There is a significant relationship between the performance of the bank and the number of board meetings held in a fiscal year".

CEO Tenure and Performance

The tenure of a CEO is well-defined as the period a CEO has held his office, the main feature of corporate governance literature and its effect on performance is discussed in many studies by multidisciplinary scholars.

Hrebiniak and Alutto (1975) set up a positive association between the tenure of CEOs and their promise towards better performance, which prompts higher temptation for better achievements. Adams et al. (2005) contended that more years of working ordinarily shows higher force prompting higher stock returns however simultaneously higher unpredictability as well, showing that CEOs who are more experienced generally like higher returns as opposed to more protected plans with lower returns. The study of Mohamed Belkhir, (2009) concluded a significant and positive connection between the performance of banks and CEOs' ownership and tenure. Like many others, Peni (2014); Baysinger and Hoskisson (1990) have also concluded a positive association between CEO's tenure and the firm's performance.

However, contradictions to the above-stated outcomes can also be seen as Bantel and Jackson (1989) concluded that newly hired CEOs are more adaptive to change and try to do better with different techniques. Long service CEO's as compared to new ones are usually resistant to strategic planning (Finkelstein and Hambrick, 1990). Miller and Shamsie (2001) also concluded the results in the same way and stated that newcomers are more risk-takers and keen towards achieving better. Similarly, some other results also confirmed the same claim that the CEO's tenure is not positively related to the performance of the firm (Finkelstein et al., 2009; Al-Matari et al., 2012; Nguyen et al., 2018; Kaur and Singh, 2019).

Contradictory results may be seen in the existent literature; however, my thought is in the favor of positive association between this relationship as more years of experience in the same organization gives a CEO more courage to take bold decisions, strong problem-solving ability, and confidence to work in the interest of that organization.

H5: There is a significant and positive association between CEO's tenure and the bank's performance.

Role Duality and Performance

Role duality usually denotes the state when a chief executive officer (CEO) whose core responsibility is to watch over the ongoing management operations of the bank, also holds the position of chairman who in general is partly related to the operations of the business and chairs the board meetings.

Donaldson and Davis (1991) claimed that role duality would benefit the bank as the command and authority would be in one person's hand, there would be no conflicting of ideas between two roles and hence strong leadership would result in better performance. Similar to this, AlManaseer et al. (2012) reported the positive influence of role duality on the financial performance of Jordanian banks as the substance of ambiguity in responsibilities reduces due to one person's involvement. According to the recommendations of Cadbury Committee (1992), separation of two roles would be better to improve the performance of the firm as both representatives will work in their domain and will have better control and clear vision to work for, whereas combing the role would result in bad performance.

Similarly, a negative relationship between a bank's performance and role duality was found by Mollah and Zaman (2015) when they took the 7 years data of 172 banks operating in different countries to find out the differences between Islamic and conventional banks. Kouki and Guizani (2015), also concluded that the duality of the role leads to the self-interest of the CEO to increase his wealth and can weaken the power of the board which will ultimately not result in the benefit of the firm.

Nevertheless, a few researchers like Nyamongo and Temesgen (2013); Elbannan and Elbannan (2014); Akshita (2016) have shown an insignificant association between role duality of CEO and bank's performance when this relationship was studied and calculated by the return on equity and return on assets

Consequently, the following hypothesis can be tested:

H6: CEO's role duality is significantly and positively related to bank performance

Audit Committee Meeting and Performance

Financial reporting issues that are most necessary to be addressed by any organization may be reduced if the number of audit committee meetings would be more frequent (Yatim, Kent, & Clarkson, 2006). High frequency in audit committee meeting shows the interaction and coordination between audit committee members which ultimately give them strength to deal with management, internal and auditors, and others stakeholders (Rizzotti & Greco, 2013).

Al-Matari et al. (2014) worked on 81 nonfinancial companies in Muscat during 2011-2012, while analyzing the impact of six independent variables related to the audit committee (audit committee size, its independence, yearly audit committee meetings, the size of executive committee, and meetings of the executive committee) on performance (return on assets) and found an insignificant relationship between all variables. However, Nuhu, Umaru, & Salisu (2017) found a noteworthy and same directional association between firm performance and yearly meetings of the audit committee. The relationship of different audit committee variables was different with performance when the 5 years data of 165 Amman's companies were analyzed and the positive but insignificant association was seen between the performance and yearly audit committee meetings (Alqatamin, 2018).

H7: The frequency of audit committee meetings is significantly related to the bank's financial performance

Dependent Variable

Return on Assets (ROA):

ROA is usually resulted by dividing the Total Net Income by Total Assets and written in the form of a percentage. It shows how efficiently the firm's assets are being utilized to generate the return. There are many variables like current assets to total assets, equity to assets, fixed assets to total assets, capitalization level, satisfaction level of customers, the cost to income ratio, portfolio of the bank, return on equity, and assets which are used to evaluate the bank's performance but return on assets (ROA) is the main indicator and has been used in various research publications to analyze the performance of banks as well as different financial and economic institutions. Said research papers include; Zabri et al., (2016); Yoo and Jung, (2015); Cahaya and Riwayati (2016) and Amato and Burson (2007).

According to Z.A Shah (2009) and Duc Vo & Thuy Phan (2013) size of the board, its independence, its structure, ownership pattern, independence of audit committee as well as the duality of CEO are the main independent elements that can be used to gauge the performance through ROA and ROE.

It is apparent from the above exchange of views that numerous studies exist on the subject and different directions of corporate governance have been explored. Scholars specifically have been exploring the impact of the board of directors, independence of the board, CEO duality, ownership structure, and also the diversity in the board. However, there is no pertinent outcome found on the same issue but a mix and contradictory results (Williamson, 1996; Shleifer & Vishny, 1997; Guo, 2011; Sheikh et al., 2013; Sheikh & Karim, 2015; Das & Dey, 2016).

RESEARCH METHODOLOGY

Research Design

In this research, the universe consists of banks in Pakistan. Further certain criteria, different conditions are set to bring the universe population under researcher's control, the targeted population would be 32 banks listed in Pakistan Stock Exchange to select the sample. In this study I have focused on Return on Assets as a dependent variable to measure the performance of banks whereas on Board ownership, CEO Ownership, CEO Tenure, Board size, Yearly Board Meetings, Yearly Audit Committee meetings, Executive Ownership, and Role Duality as independent variables. The selection of banks has been made on the criteria of listing on the Pakistan Stock Exchange.

Data Source/Collection

The data has been collected through secondary sources which mean through annual reports of listed banks at Pakistan Stock Exchange (PSX) (which was previously known as Karachi Stock Exchange), websites of banks, the website of PSX, and also from the datasheets available on the website of State Bank of Pakistan. Panel data over eighteen years (2002-2018) has been taken.

Data Analysis Strategy

For the analysis of this panel data we have used criteria sampling technique for our convenience and by using panel regression, fixed and random effect model of multivariate analysis in EViews which comprises 32 banks listed at Pakistan Stock Exchange:

Bank's performance (ROA) = C + β 1 (Board Ownership) + β 2 (Board size) + β 3 (Executive Ownership) + β 4 (CEO Tenure) + β 5 (CEO's Ownership) + β 6 (Role Duality) + β 7 (Board Meetings) + β 8 (Audit Committee Meetings) + e

Independent Variables

BM = Board Meeting = Board of Directors meeting during a specific period
CEO TENURE = Total number of years position held by Chief Executive Officer
ACMEETINGS = Number of Audit committee meetings during a specific year
DUALITY = Chairman DUALITY = Chairman as a CEO and Chairman
EXOWP = Executive Ownership%
NOD = Number of Directors (Board Size)

SHBOD = Share Held by BOD Members
SHBYCEO = Share Held by CEO

Dependent Variable
ROA = Return on Assets

Results

The objective of the study was to explore the relationship between the board of directors' size and banks' performance. To test the hypothesis of the study, secondary data was collected and run on E-VIEWS software. The results of the data were drawn through the Random effect model based on Hausman's Test probability value greater than 0.05.

Table 1: Correlated Random Effects - Housman Test

Summary of the Test	Chi-Square Statistic	Chi-Square d.f.	Prob.
Period random	10.398732	8	0.2381

Table 2: Random Effect Model

Dependent Variable: Return on Assets (ROA)
Period: 2002-2018   N = sample = 32 with 386 observation

Variables	Coefficient	Standard Error	t-Statistic	Probability
C	-2.570091	1.454525	-1.766962	0.0781
BM	-0.264395	0.116607	-2.267402	0.024
CEOTENURE	0.078157	0.060708	1.287426	0.1988
ACMEETINGS	0.279918	0.125785	2.225374	0.0267
DUALITY	1.309936	1.166876	1.122601	0.2624
EXOWP	0.411037	0.695411	0.591071	0.5548
NOD	0.331096	0.148524	2.229245	0.0264
SHBOD	1.36E-09	2.48E-09	0.550561	0.5823
SHBYCEO	-0.559054	0.162251	-3.445619	0.0006

R-squared	0.74973
Adjusted R-squared	0.55344
F-statistic	3.819485
Prob (F-statistic)	0.000247
Durbin-Watson statistics	1.995484

Model equation:
ROA = -2.57 - 0.264*BM + 0.078*CEOTENURE + 0.279*ACMEETINGS + 1.309*DUALITY + 0.412*EXOWP + 0.3319*NOD + 1.364e-09*SHBOD - 0.559*SHBYCEO+ e

Studied data results indicate that audit committee meetings and board size have a significant and positive association with banks' performance. Board meetings and shares held by CEOs have a significant but negative association with banks' performance. Whereas, CEO Tenure, role duality, shares held by executives, and shares held by the board of directors have a positive but non-significant association with banks' performance. Similar to our findings Aanu et al. (2014), and Alqatamin (2018) also found positive and significant results regarding audit committee meetings. Whereas, Lin and Wang (2010) noted a negative association between the performance of banks and the frequency of audit committee meetings.

Regarding board size, Adams and Mehran (2012) found similar positive results with performance when they took a random sample of 32 listed Bank Holding Companies (BHCs) operating in the U.S. during the period 1986-1999. Whereas, Zabri et al. (2016) found contrary results i.e. an inverse and weak association between board size and ROA when they collected the data of public listed top 100 Malaysian companies.

The results of Salim et al. (2016) were found contrary to our findings regarding board meetings as we concluded an inverse relationship between performance and annual board meetings, whereas, they found a positive relationship by using Data Envelopment Analysis.

According to results CEO's shareholding is significant but negatively related to the performance of banks, however, these results are contradictory to the earlier studies carried out by Tan et al. (2001) and Li et al. (2007) which conclude the positive relationship.

Regarding the CEO's tenure, a few studies have also shown similar results to us with positive association (Peni, 2014; Baysinger and Hoskisson, 1990). On the other hand, a few have shown dissimilar results by confirming the negative association between CEO's tenure and performance (Finkelstein et al., 2009; Al-Matari et al., 2012; Nguyen et al., 2018; Kaur and Singh, 2019).

Our result regarding role duality confirm the positive association of the following scholars earlier studies (Kaur and Singh, 2019, Gao et al. 2017, Pham et al. 2015 and Peni, 2014)

Results of the Ownership structure of the board are also found positive but insignificant which is contrary to the findings of (Berger and Bouwman, 2013; Cull and Peria, 2013; Lim et al., 2014; Shahwan, 2015; Su et al., 2010) who found this relationship significant but positive in direction as ours.

R-Square value = 0.74 is showing a strong positive association between return on assets, the dependent, and all independent variables included in this study.
Adjusted R-Square value = 0.5534 = 55.34% shows that independent variables explain 55.34% variation in the banks' performance and the remaining 44.66% variation is unexplained due to other reasons not measured in the study.

F-Statistics value 3.819 with probability or P-value = 0.0002 which is less than 0.05 shows that the model is a good fit and dependent and independent variables have a relationship.

Table 3: Hypothesis Summary

Hypotheses	**Independent Variables**	**Dependent Variable**	Coefficient Value	P value	Hypothesis
BM	Board Meetings	Return on Assets	-0.264395	0.024	Accepted/ Rejected
CEOTENURE	CEO TENURE	Return on Assets	0.078157	0.1988	Accepted/ Rejected
ACMEETINGS	Audit Committee MEETINGS	Return on Assets	0.279918	0.0267	Accepted/ Rejected
DUALITY	CEO's Role DUALITY	Return on Assets	1.309936	0.2624	Accepted/ Rejected
EXOWP	Executive Ownership%	Return on Assets	0.411037	0.5548	Accepted/ Rejected
NOD	Number of Directors	Return on Assets	0.331096	0.0264	Accepted/ Rejected
SHBOD	Share Held by BOD	Return on Assets	1.36E-09	0.5823	Accepted/ Rejected
SHBYCEO	Share Held by CEO	Return on Assets	-0.559054	0.0006	Accepted/ Rejected

Conclusion

As the core objective of this study was to explore the relationship between the board of directors' size and performance of banks using the data of 32 listed banks in the Pakistan stock exchange (PSX) during the period of 17 years i.e. (2002-2018) in the regression model. The facts of this study illustrate a positive connection between the board of directors' size and the financial performance of banks. However, the findings of this study also contradict with a few findings of corporate governance literature according to which banks with the reduced board of directors' size perform well as compared to bigger board of director's size whereas corresponds to other results in which positive relationship was seen. Outcomes point out that yearly audit committee meetings and several boards of directors have a significant and positive relationship with banks' performance. Board meetings and shares held by CEOs have a significant but negative association with banks' performance. Whereas, CEO Tenure, role duality, shares held by executives, and shares held by the board of directors have a positive but non-significant association with banks' performance.

R-Square value = 0.74 indicates a strong and positive association between return on assets, the dependent variable, and all independent variables included in this study. Adjusted R-Square value = 0.5534 = 55.34% shows that independent variables explain 55.34% variation in the banks' performance and the remaining 44.66% variation is unexplained due to other reasons not measured in the study. F-Statistics value 3.819 with probability or P-value = 0.0002 which is less than 0.05 indicates that this model is a good fit and dependent and independent variables have a relationship.

One of the limitations of this study is that it has not included the non-listed banks of Pakistan so the results for those banks may differ from ours. Secondly, there are numerous factors other than included in this study such as Board independence, shareholding individual, and block holders' ownership which can also affect the performance of a bank.

Future Research

This research work is a constructive addition to the existing banking sector's literature and findings; however, there are also various dimensions yet to be explored for the performance of the banking sector and results may vary due to the inclusion of different variables.

Other factors like ROE and Return on Capital Employed as dependent with similar and different independent variables like Capital, Deposits, Loan, GDP, Inflation, Market Capitalization, Shareholding Individual and Block Holders Ownership may be included for future studies related to banking performance.

References

Adams, R. and Mehran, H. (2003), "Is corporate governance different for bank holding companies"? *Economic Policy Review, 9*(1), 123-142.

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

Adams, R.B., Almeida, H. and Ferreira, D. (2005), "Powerful CEOs and their impact on corporate performance", *Review of Financial Studies, 18*(4), 1403-1432.

Ahmad, A., Rehman, K. & Saif, M. I. (2010). "Islamic Banking Experience of Pakistan: Comparison of Islamic and Conventional Banks", *International Journal of Business and Management, 5*(2), 137-144.

Ahmad, A., Rehman, K., Saif, M. I. & Safwan, M.N.(2010). "An Empirical Investigation of Islamic Banking in Pakistan based on Perception of Service Quality", *African Journal of Business Management, 4* (6), 1185-1193.

Ahmed Sheikh, N., Wang, Z., & Khan, S. (2013). The impact of internal attributes of corporate governance on firm performance: evidence from Pakistan. *International Journal of Commerce and Management*, *23*(1), 38-55.

Akshita, A.C.S., 2016. "Corporate governance and firm performance in developing countries: Evidence from India". *Corporate Governance, 16*(2): 420 – 436.

Al-Baidhani, A.M. (2013), "The effects of corporate governance on bank performance: evidence from the Arabian Peninsula".

AlManaseer, M., Al-Hindawi, R., Al-Dahiyat, M. and Sartawi, I. (2012), "The impact of corporate governance on the performance of Jordanian banks", *European Journal of Scientific Research, 67*(3), pp. 349-359.

Al-Matari, E. M., Al-Swidi, A. K., & Fadzil, F. B. (2014). Audit committee characteristics and executive committee characteristics and firm performance in Oman: *Empirical study. Asian Social Science*, *10*(12), 98-113.

Al-Matari, Y.A., Al-Swidi, A.K. and Fadzil, F.H. (2012), "Corporate governance and performance of Saudi Arabia listed companies", *British Journal of Arts and Social Sciences, 9* (1), pp. 1-30.

Al-Matari, E.M., Al-Swidi, A.K., Fadzil, F.H., and Al-Matari, Y.A. (2012), "The impact of board characteristics on firm performance: evidence from non-financial listed companies in Kuwaiti stock exchange", *International Journal of Accounting and Financial Reporting, 2* (2), 310-332.

Al-Saidi, M. (2010), "Corporate governance and firm performance: the case of Kuwait", unpublished doctoral thesis, University of Portsmouth, Portsmouth.

Alias N., Yaacob M.H., Jaffar N., 2017, Governance structure, corporate restructuring and performance, "*Polish Journal of Management Studies", 15*(1).

Alqatamin, R. M. (2018). "Audit committee effectiveness and company performance", *Accounting and Finance Research, 7*(2), 48-60.

Amato L.H., Burson T.E. (2007), "The effects of firm size on profit rates in the financial services", *Journal of Economics and Economic Education Research, 8*(1).

Aanu, O. S., Odianonsen, I. F., & Foyeke, O. I. (2014). Effectiveness of audit committee and firm financial performance in Nigeria: An empirical analysis. *Journal of Accounting and*

Auditing: Research and Practice, 1-12. [Online Journal] Retrieved from http://eprints.covenantuniversity.edu.ng/id/eprint/7208

Arora, A. (2012). Corporate governance and firm performance in the Indian pharmaceutical sector. *An International Journal*, *40*(6), 537–550.

Arora, A. (2012). Corporate governance and firm performance in the Indian pharmaceutical sector. *An International Journal*, *40*(6), 537–550.

Arora, A., & Sharma, C. (2016). Corporate governance and firm performance in developing countries: evidence India. *Corporate Governance (Bingley), 16*(2), 420–436. https://doi.org/10.1108/CG-01-2016-0018

Aysan, Ahmet Faruk & Ceyhan, Şanli Pinar, 2008. "What determines the banking sector performance in globalized financial markets? The case of Turkey," Physica A: Statistical Mechanics and its Applications, *Elsevier, vol. 387*(7), pages 1593-1602.

Baysinger, B. and Hoskisson, R.E. (1990), "The composition of boards of directors and strategic control: effects on corporate strategy", *Academy of Management Review, 15*(1), 72-87.

Berger, A. and Bouwman, C. (2013), "How does capital affect bank performance during financial crisis", *Journal of Financial Economics, 109*(1), 146-176.

Burki, A.A., and Niazi, G.S.K. (2003). The Effects of Privatization, Competition, and Regulation on Banking Efficiency in Pakistan 1991 – 2000. In the proceeding of CRC Conference on "Regulatory Impact Assessment: Strengthening regulation Policy and Practice" Chancellors Conference Center, held on 26-27 November. University of Manchester, UK.

Cadbury Committee (1992), Report of the Committee on the Financial Aspects of Corporate characteristics and firm performance in Oman: Empirical study. *Asian Social Science, 10*(12), 98-113.

Cahaya Y.F., Riwayati H.E.(2016), The effect of banking company performance toward good corporate governance listed in Indonesia Stock Exchange", Procedia-Social and Behavioral Sciences, 219.

Clarke, R.G., Robert, C. & Mary, S. (2003). Empirical Studies of Bank Privatization: An Overview. Presented at World Bank Conference on Bank Privatization, 20-21.

Coles, J.L., Daniel, N.D. and Naveen, L. (2008), "Boards: does one size fit all?", *Journal of Financial Economics, 87*(3), 329-356.

Conner, K.R. and Prahalad, C.K. (1996), "A resource-based theory of the firm: knowledge versus opportunism", *Organization Science, 7*(5), 447-501.

Cull, R. and Peria, M. (2013), "Bank ownership and lending patterns during the 2008-2009 financial crisis: evidence from Latin America and Eastern Europe", *Journal of Banking and Finance, 37*(12), pp. 4861-4878.

Dar, L., Naseem, M.A., Niazi, G.S.K. and Rehman, R.U. (2011), "Corporate governance and firm performance: a case study of Pakistan oil and gas companies listed in Karachi stock exchange", *Global Journal of Management and Business Research, 11(*8), 1-10.

Das, A., & Dey, S. (2016). Role of corporate governance on firm performance: a study on large Indian corporations after implementation of Companies' Act 2013. *Asian Journal of Business Ethics*, 1-16.

Davis, J.H., Schoorman, F.D. and Donaldson, L. (1997), "Towards a stewardship theory of management", Academy of Management Review, Vol. 22 No. 1, pp. 20-47.

Delis, M., & Papanikolaou, N. (2009), "Determinants of bank efficiency: evidence from a semi-parametric methodology", MPRA Working Paper No. 13893.

Donaldson, L. and Davis, J.H. (1991), "Stewardship theory or agency theory: CEO governance and shareholder returns", Australian Journal of Management, Vol. 16 No. 1, pp. 49-64.

Donaldson, L. and J. Davis, 1991. Stewardship theory or agency theory: CEO governance and shareholder returns. Australian Journal of Management, 16(1): 49- 65. View at Google Scholar | View at Publisher Economic Review, Vol. 92 No. 4, pp. 874-888.

Elbannan, M.A. and M.A. Elbannan, 2014. Corporate governance and accounting performance: A balanced scorecard approach. Accounting and Finance Research, 3(2): 60-76.

Fama, E. (1980), "Agency problem and the theory of the business", Journal of Political Economy, (88), 134–145.

Fama, E., & Jensen, M. (1983), "Separation of ownership and control", Journal of Law and Economics, (26), 301–325.

Finkelstein, S., Hambrick, D.C. and Cannella, A.A. (2009), *Strategic Leadership: Theory and Research on Executives, Top Management Teams, and Boards*, Oxford University Press, New York, NY.

Francis, B., Hasan, I., & Wu, Q. (2012). *Professors in the boardroom and their impact on corporate governance and firm performance*. SSRN Working Paper. Governance, Gee Publishing Ltd, London.

Grove, H., Patelli, L., Victoravich, L. and Xu, P. (2011), "Corporate governance and performance in the wake of the financial crisis: evidence from US commercial banks", Corporate Governance: An International Review, Vol. 19 No. 5, pp. 418-436.

Guo, L. (2011). The Moderating Impact of directors' demographic characteristics on the relationship between corporate governance and firm performance in China's listed companies (Doctoral dissertation, Lincoln University).

Gao, W., Li, W. and Huang, Z. (2017), "Do family CEOs benefit investment efficiency when they face uncertainty?", Chinese Management Studies, Vol. 11 No. 2, pp. 248-269.

Hambrick, D.C. and Fukutomi, G.S. (1991), "The seasons of a CEO's tenure", Academy of Management Review, Vol. 16 No. 4, pp. 719-742.

Haniffa, R. and Hudaib, M. (2006), "Corporate governance structure and performance of Malaysian listed companies", Journal of Business, Finance and Accounting, Vol. 33 No. 7, pp. 1034-1062.

Hassan, R., Marimuthu, M. and Johl, S.K. (2015), "Diversity, corporate governance and implication on firm financial performance", Global Business and Management Research: An International Journal, Vol. 7 No. 2, pp. 28-36.

Hrebiniak, L.G., and Alutto, J.A. (1975), "Personal and role-related factors in the development of organizational commitment", Administrative Science Quarterly, Vol. 17 No. 4, pp. 555-572.

Hussain, H., & Bhatti, G.A, (2010), "Evidence on structure conduct performance hypothesis in Pakistani commercial banks", International Journal of Business and Management, 5(9), 174-187.

Inyang, B. (2009). "Nurturing corporate governance system: The Emerging Trends in Nigeria", Journal of Business Systems, Governance, and Ethics, 4(1), 2.

Jensen, M.C. (1986), "Agency costs of free cash flow, corporate finance, and takeovers", American Economic Review,

Jensen, M.C. and Meckling, W. (1976), "Theory of the firm: managerial behavior, agency costs and ownership structure", *Journal of Financial Economics, 3*(3), 305-360.

Johl, S. K., Kaur, S., & Cooper, B. J. (2015). Board characteristics and firm performance: evidence from Malaysian public listed firms. *Journal of Economics, Business, and Management, 3*(2), 239–243. https://doi.org/10.7763/JOEBM.2015.V3.187

Johl, S. K., Kaur, S., & Cooper, B. J. (2015). Board characteristics and firm performance: evidence from Malaysian public listed firms. Journal of Economics, Business, and Management, 3(2), 239–243. https://doi.org/10.7763/JOEBM.2015.V3.187

Kaur, R. and Singh, B. (2019), "Do CEO characteristics explain firm performance in India?", Journal of Strategy and Management, Vol. 12 No. 3, pp. 409-426.

Kouki M., Guizani M., 2015, The moderating effects of ownership and board leadership structure, “International Business Research”, 8(6).

La Porta, R., Florencio, L., & Andrei, S. (2002). Government Ownership of Banks. Journal of Finance, 57, 265-301.

Liang, Q., Xu, P. and Jiraporn, P. (2013), “Board characteristics and Chinese bank performance”, Journal of Banking and Finance, Vol. 37 No. 8, pp. 2953-2968.

Li, D., Moshirian, F., Nguyen, P., and Tan, L.-W. (2007), “Managerial ownership and firm performance: evidence from China’s privatizations”, Research in International Business and Finance, Vol. 21 No. 3, pp. 396-413.

Lim, M., How, J. and Verhoeven, P. (2014), “Corporate ownership, corporate governance reform and timeliness of earnings: Malaysian evidence”, Journal of Contemporary Accounting and Economics, Vol. 10 No. 1, pp. 32-45.

Mangena, M. and Tauringana, V. (2008), “Corporate boards, ownership structure and firm performance in an environment of severe political and economic uncertainty”, Paper Presented at the British Accounting Association Conference, Blackpool, April.

Mohamed Belkhir (2009), “Board of directors’ size and performance in the banking industry” International Journal of Managerial Finance, 5(2), 2009, pp. 201-221.

Mollah S., Zaman M., 2015, Shari’ah supervision, corporate governance, and performance: Conventional vs. Islamic banks, “Journal of Banking & Finance”, 58. MoICT, 2010, Corporate governance code of the Kingdom of Bahrain, [http://cbb.complinet.com/cbb/display/display.html?rbid=3274].

Morgan, D.P. (2002), “Rating banks: risk and uncertainty in an opaque industry”, The American Economic Review, 92 No. 4, pp. 874-888.

Naushad, M. and M.S. Abdul, 2015. Corporate governance and bank performance: A study of selected banks in GCC region. Asian Social Science, 11(9): 226-234.

Nguyen, P., Rahman, N. and Zhao, R. (2018), “CEO characteristics and firm valuation: a quantile regression analysis”, Journal of Management and Governance, Vol. 22 No. 1, pp. 133-151.

Nuhu, M. S., Umaru, S. Y., & Salisu, S. (2017). The effect of audit committee's quality on the financial performance of food and beverages industry in Nigeria. International Journal of Business and Management Invention, 6(9), 32- 40.

Nyamongo, E.M. and K. Temesgen, 2013. The effect of governance on the performance of commercial, banks in Kenya: A panel study. Corporate Governance: The International Journal of Business in Society, 13(3): 236-248.

Okpara, G.C. (2009). “A Synthesis of the Critical Factors Affecting Performance of the Nigerian Banking System”, European Journal of Economics, Finance and Administrative Sciences ISSN 1450-2275 Issue 17 (2009) © EuroJournals, Inc. 2009 http://www.eurojournals.com

Otchere, I. (2003). Do Privatized Banks in Middle- and Low-Income Countries Perform better than Rival Banks? An Intra-Industry Analysis of Bank Privatization, Presented at World Bank Conference on Bank Privatization, 20-21.

Pathan, S., Skully, M. and Wickramanayake, J. (2007), “Board size, independence, and performance: an analysis of Thai banks”, Asia-Pacific Financial Markets, Vol. 14 No. 2, pp. 211 227.

Pearce, J.H. and Zahra, S.A. (1992), “Board composition from a strategic contingency perspective”, Journal of Management Studies, Vol. 29 No. 4, pp. 411-438.

Peni, E. (2014), “CEO and chairperson characteristics and firm performance”, Journal of Management and Governance, Vol. 18 No. 1, pp. 185-205.

Pham, N., Oh, K.B. and Pech, R. (2015), “Mergers and acquisitions: CEO duality, operating performance and stock returns in Vietnam”, Pacific-Basin Finance Journal, Vol. 35 No. 1, pp. 298-316.

Ramakrishnan Ramanathan, (2007), “Performance of banks in countries of the Gulf Cooperation Council”, UK International Journal of Productivity and Performance Management. Vol. 56 No. 2, 2007 pp. 137-154.

Rhoades, D. L., Rechner, P. L., & Sundaram, C. (2017). Board composition and financial performance: A meta-analysis of the influence of outside directors. Journal of Managerial ISSUES, 12(1), 76–91.

Rizzotti, D., & Greco, A. M. (2013). Determinants of the board of statutory auditor and internal control committee diligence: A comparison between the audit committee and the corresponding Italian committees. International Journal of Accounting, 48(1), 84–110. https://doi.org/10.1016/j.intacc.2013.01.007

Salim R., Arjomandi A., Seufert J.H., 2016, “Does corporate governance affect Australian banks’ performance?” Journal of International Financial Markets, Institutions, and Money, 43.

Shahwan, T.M. (2015), “The effects of corporate governance on financial performance and financial distress: evidence from Egypt”, Corporate Governance, Vol. 15 No. 5, pp. 641-662.

Sheikh, N. A., & Karim, S. (2015). Effects of Internal Governance Indicators on Performance of Commercial Banks in Pakistan. *Pakistan Journal of Social Sciences*, 35(1), 77-90.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The journal of finance*, 52(2), 737-783.

Sohel Azad, A,(2006) "An empirical analysis of the Factors Affecting Bank Crises in Japan: Learning Pints for Bangladesh", Bank Parikrama, vol.30-31, pp.57-79.

Sun, X., & Kobeissi, N, (2010), "Ownership Structure and bank performance: evidence from the Pakistan and North Africa region", Comparative Economic Studies.

Tan, R.S.K., Chng, P.L. and Tan, T.W. (2001), "CEO share ownership and firm value", Asia Pacific Journal of Management, Vol. 18 No. 3, pp. 355-371.

Vafeas, N. (1999). "Board meeting frequency and firm performance", Journal of Financial Economics, (53), 113–142.

Williamson, O. E. (1996). The mechanisms of governance. Oxford University Press.

Wiwattanakantang, Y. (2001). "Controlling shareholders and corporate value: evidence from Thailand. J. Corp". FinancePac.-Basin Finance, (9), 323–362.

Yoo T., Jung D.K. (2015), "Corporate governance change and performance: the roles of traditional mechanisms in France and South Korea", Scandinavian Journal of Management, 31(1).

Z.A Shah, (2009), "Corporate governance and financial performance. A comparative study of developing and developed markets." Journal of Corporate Governance, 30(1), 142----195.

Zahra, S.A. and Pearce, J.A. (1989), "Boards of directors and corporate financial performance: A review and integrative model", Journal of Management, Vol. 15 No. 2, pp. 291-334.

Zabri S.M., Ahmad K., Wah K.K. (2016), "Corporate governance practices and firm performance: evidence from top 100 public listed companies in Malaysia", Procedia Economics and Finance, 35.

APPENDIX
Variable View

Year	Numeric	8	0	Year	None	None	8	Right	Scale
ROA	Numeric	8	2	Return on assets	None	None	8	Right	Scale

Shbybod	Numeric	8	2	Share held by BOD	None	None	8	Right	Scale
Shbydiff.ins	Numeric	8	2	Share held by different institutions	None	None	8	Right	Scale
LNROA	Numeric	8	2	Log of ROA	None	None	8	Right	Scale
LNODiff.Ins	Numeric	8	2	Log of share held by different institutions	None	None	8	Right	Scale
PRE_2	Numeric	11	5	Unstandardized Predicted Value	None	None	13	Right	Scale
SRE_2	Numeric	11	5	Studentized Residual	None	None	13	Right	Scale

Data Source
Title: Banks in Pakistan
Source: Annual reports of banks listed in KSE through their websites
Released: Annually
Frequency: Annual
Units: percentage
Date of Range: 2002-2018
List of Banks for Data Collection

Allied Bank Limited, Askari Bank Limited, Apna Microfinance Bank Limited, Bank Al-Falah Limited, Bank Al-Habib Limited, Bank Of Khyber Limited, Bank Of Punjab Limited, Bank Islami Pakistan Limited, Escorts Investment Bank Limited, Faysal Bank Limited, First Credit & Invest Bank Limited, First Dawood Investment Bank Limited, Habib Bank Limited, Habib Metropolitan Bank Limited, IGI Investment Bank Limited, Invest Capital Investment Bank Limited, JS Bank Limited, MCB Bank Limited, Meezan Bank Limited, NIB Bank Limited, National Bank Of Pakistan, Prudential Investment Bank Limited, Samba Bank Limited, Security Investment Bank Limited, Silk Bank(Limited), Soneri Bank Limited, Standard Chartered Bank Limited, Summit Bank Limited, Trust Investment Bank Limited and United Bank Limited.