

Risk Management Governance and Sustainable Financial Performance

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Abstract

Purpose: The paper analyzes the efficacy of risk management governance, which takes the form of a dedicated risk governance committee and the executive board with the CRO. It illustrates which aspects of risk management and governance are crucial for the banks' financial performance. It also emphasizes financial sustainability through risk management and governance. **Design/Methodology/Approach:** A quantitative research approach is employed with secondary data from published and reliable sources. Regression analysis is employed for estimating the impact, and a t-test is performed for estimating the difference. **Findings:** It concludes that the financial performance measured using returns ratio significantly differs among the banks with the executive board having a CRO and the executive board having an absence of a CRO. The financial performance variable taken as a function of the bank's corporate governance variables assumes a positive and significant impact. It infers that risk governance can lead to sustainable financial performance. **Research Limitations and Implications:** This study contributes to the risk governance structure of banks. The future work should consider different samples and extended risk-based variables for more implications. **Originality:** The banks performance with a risk management approach in South Asian economies after the global crisis is a valuable addition to the corporate governance of banks in the studied countries. The comparative analysis of banks with and without the role of the CRO is a unique contribution in the provided setting.

Keywords: Corporate Governance, Risk Governance, Banks Performance, Dedicated Committee, Sustainable Performance.

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INTRODUCTION

The financial crises led to an impact on banking performance across various regions of the world (Olson and Zoubi, 2017). The same impact was observed in the financial markets of emerging countries after the GFC. Corporate governance and the mechanism of governance based on risk management are key to improving and sustaining banking performance (De Haan and Vlahu, 2016). Risk-oriented corporate governance contributes to the capacity building of financial institutions to manage risk in distressing situations and achieve sustainable financial performance (Yilmaz, 2021). Corporate governance serves as the mechanism to ensure the fairness of practices, and it aims to keep stakeholder concerns alive along with effective governance of firms (Davies, 2016). According to Anginer *et al.*, (2017), the risk mechanism in corporate governance provides added

ability to banks for the management of vulnerabilities, which improves financial sustainability.

Extensive literature supports the notion that the performance of firms is linked to the governance mechanisms applied by the decision-makers. Though in emerging markets banks performance in response to corporate governance is studied to some extent, the need to establish a link between risk-based governance and sustainable bank performance in developing economies is still prevalent. Therefore, this study captures the least examined dimensions of corporate governance, which can have an impact on banks' financial performance. An area analysed in this study is the effects on banks evaluations in the post-crisis era through monitoring the role played by factors relating to risk governance, like the presence on the board of a chief risk officer (CRO).

The financial crisis proved challenging for the financial world around the globe as it affected so many individuals, firms, and institutions. Since its occurrence, the GFC's impact on banking performance has been studied in the literature (Guney, Hernandez-Perdomo, and Rocco, 2019). Therefore, with the financial crisis hitting the US, there was a dynamic shift in the way these concepts were approached and emphasized, and better techniques regarding risk management were developed over time to better counter specific risks and situations (Alsayegh, Abdul Rahman, & Homayoun, 2020). So, in this dimension, this paper emphasizes three broad concepts recognized as corporate governance, risk-oriented corporate governance, and sustainable performance.

Along with review of background information as explored in the literature, this paper further examines the critical role of corporate governance and associated risk management in ascertaining the banking performance in emerging economies, especially in the three South Asian countries of India, Pakistan, and Bangladesh, which are geographically linked. The banking performance of banks with established risk mechanisms as part of corporate governance after the financial crisis is empirically analysed in this paper. In this paper, a comparison of banking performance among banks with and without risk management governance is also drawn.

The following sections of the paper contain a literature review with both theoretical perspective and empirical findings, research methodology with data analysis techniques, findings, discussion, and conclusion. The conclusions are drawn from the work and findings obtained after employing regression analysis and a t-test for analysing the impact and difference of impact on financial performance outcome variables.

LITERATURE REVIEW

Theoretical Perspective

Agency theory, due to its relevance with corporate governance, is very relevant to the scope of this paper (Jensen and Meckling, 1979). Fama and Jensen (1983) also contributed to the development of agency problems that may arise in the corporate governance of firms. This paper captures the perspective of agency problems (conflict) that may arise due to the dual roles and self-interest of management in firms, which is acting on behalf of the shareholders. The agency problem prevails when management protects its own interests instead of favoring shareholders. So, these problems can hamper firms' performance, which therefore requires extensive research efforts to study the potential impacts of corporate governance.

Corporate Governance and Sustainable Banks Performance

Switzer, Tu, and Wang (2018) analysed the impact of corporate governance variables on the default risk of the banks. They concluded from their findings that different governance variables had a strong impact on the financial institutions default risk. Asian firms were found to be significantly affected by corporate governance variables in a specific analysis of Asia. Beltratti and Stulz (2012) conducted a comparative empirical analysis of banks with and without shareholder-friendly boards during the crisis phase. They analysed the impact of banks having shareholder-friendly boards on banking performance and compared it with the performance of banks without shareholder-friendly boards. Bringing together the determinants that measure the performance of large banks, Beltratti and Stulz (2012) explained why banks responded so poorly in the crisis phase. Their findings concluded that large banks with greater Tier 1 capital, along with a large level of deposits and a minimum level of exposure to United States real estate and less 'funding fragility, responded safer in contrast. They also endorsed the idea that there was no relationship between regulation and better performance for banks during the crisis. There were findings that identified better performance of the banking sector in a few of the countries with restrictions through governance structures at the time of the crisis.

A study by Gupta, Krishnamurti, and Tourani-Rad (2013) measured corporate governance with various exogenous variables for its impact on banks performance in the phase of the financial crisis, with certain controlled elements like growth opportunities, risk, firm size, institutional trading effects, and stock market liquidity. They found out that firms with good governance were not able to perform better in contrast to firms with poor governance. Investors tended to reallocate their assets away from risky stocks to safer options, and such speedy liquidation occurred despite the benefits offered by good corporate governance.

Beasley, Clune, and Hermanson (2005) addressed in their paper the growing use of ERM to counter the risks posed to organizations and how the growth of these mechanisms contributed to significant improvements in governance and risk management. In their paper, they evaluated 123 organizations to determine the point of implementing ERM that holds a positive, direct relation to the presence of a CRO, an independent board, and other factors that support its success. Their findings showed that ERM efficiency is dependent upon the board and senior management's leadership concerning ERM; therefore, the senior management should include a risk management leader as well.

The variations in the implementation of ERM are revealed in several research studies; Baxter, Beadard, Hoitash, and Yezegel (2013) addressed a

similar research question by sampling 165 firms in the banking and insurance sectors and derived the conclusion that the lack of ERM in some higher-risk firms was due to resource constraints. Ojo (2016) too investigated the role of risk-oriented governance and corporate governance as a whole and analysed both elements in the prior era and the aftermaths of crises in order to determine their impact on the financial industry. The study measured the profitability of the firms through ROA and included elements like board size and independence as factors in risk management. They found risk-oriented governance and corporate governance as contributing factors to the firm's profitability in times of crisis as well as after the crisis. Lastly, this study showed the changes that came to corporate governance and risk management in the duration of the crisis and after it, and how companies started to incorporate more CROs in their firms along with creating independent boards and risk committees. Therefore, elements of risk-oriented governance and corporate governance are extremely important and helpful in minimizing potential risk. The following hypotheses are developed from a review of the literature:

H1: The performance of banks with a CRO on their board significantly differs from that of banks without a CRO on their board.

H2: Corporate governance variables are expected to have a significant impact on bank performance.

METHODOLOGY

This paper employs a quantitative research approach to investigate the effects of risk management governance and corporate governance on bank performance. The study takes an explanatory stance and aims to elucidate the influence of risk management governance and corporate governance on banks' post-2008 financial crisis performance.

The banking sector of South Asian countries is being analysed for corporate risk governance. The three South Asian countries with a developed banking sector are taken as the final sample for the study using the convenience technique. The three countries include Pakistan, India, and Bangladesh. For the purpose of analysis and drawing inferences, panel data for the period between 2009 and 2018 is collected for the 40 listed banks in the stated countries. For empirical analysis and descriptive analysis, the t-test is used to examine the equality of the mean, and OLS regression analysis is performed in this study. The explanatory variables' impact on ROA and ROE as criterion variables is analysed using the following models:

$$ROA = \alpha + \beta (CRO) + \beta (RC) + \beta (BS) + \beta (BI) + \beta (PDE) + \beta (MBR) + \beta (TA) + \beta (TICR) + \beta (DA) + \beta (LA) + \beta (ID) + \epsilon \dots \dots \dots \text{Equation-1}$$

$$ROE = \alpha + \beta (CRO) + \beta (RC) + \beta (BS) + \beta (BI) + \beta (PDE) + \beta (MBR) + \beta (TA) + \beta (TICR) + \beta (DA) + \beta (LA) + \beta (ID) + \epsilon \dots \dots \dots \text{Equation-2}$$

The models used in this study include several variables, each denoted by an abbreviation. ROA represents return on assets, while ROE stands for return on equity. CRO and RC respectively refer to the chief risk officer and the risk committee. Additionally, BS stands for board size, BI for board independence, PDE for the percentage of directors with finance background or experience, MBR for the market-to-book ratio, TA for total assets, TICR for tier 1 capital ratio, DA for deposit-to-asset ratio, LA for loan-to-asset ratio, and ID for income diversity.

Variables and Measures

Corporate governance variables

Corporate governance variables play a vital role in increasing investor perception when it comes to the reputation of a firm, its integrity, and trustworthiness, and these are known intangible assets that build firms social capital and prove to be valuable in times of financial crisis (Da Silva, 2019). In contrast, the managers are more risk-averse as they do not possess a diverse stock portfolio and have more at stake (Anginer, Demirguc-Kunt, Huizinga, & Ma 2018).

Board size

The first independent variable for the underlying paper is board size. The underlying idea stresses the importance of prioritizing the caliber of the board over its size. Some believe that a larger board may be beneficial as it consists of a range of expertise that will assist in better decision making; however, there are many issues associated, starting from difficulty in coordination and a lack of quick processing of problems (Kyereboah-Coleman and Biekpe, 2007). Since the emergence of corporate governance, a few landmark studies like one by Oh, Hyun, and Park (2016) support this approach by positing that a large portion of US industrial corporations with smaller boards contain higher market value. In a similar vein, Ntim, Opong, and Danbolt (2015) demonstrated a negative association between board size and profitability in their research.

Board independence

The second variable examined in this paper is board independence, which pertains to the proportion of board members who are independent, meaning they have no affiliation with the company beyond their role as board members. According to Erkens, Hung, and Matos (2012), greater independence in the board leads toward worse off stock returns, and they extended their study to justify these findings and posited that a greater independent director body may have encouraged management to take more risks for added returns or they may have pressurized to raise equity capital to meet the adequate capital needed and avoid chances of bankruptcy.

Percentage of directors with financial background

The third independent variable relating to corporate governance is the percentage of directors

possessing financial expertise or experience. In the post-crisis era, the emphasis on having financial experts on the board has significantly increased. Studies suggest that once a board includes financial experts, they are in a better position to comprehend the accepted principles and will be able to oversee the board and help serve the shareholders better (Aebi et al., 2012). Furthermore, Güner, Malmendier, and Tate (2008) suggested that having greater financial expertise on the board will significantly impact the finance and investment policies of organizations.

Risk management governance variables

CRO

Risk management has grown substantially since the financial crisis as the array of risks being handled has flourished over time. This led to the concept of the reduction of risk resulting in the decrease in owner investment required to tackle the risk of operations; therefore, CRO analyses this trade-off through the risk management and handling of large chunks of stock (Nocco & Stulz, 2006).

Therefore, this is the first dummy variable regarding corporate governance to examine the impact that the CRO, on the executive board, has on profitability through risk management. In the phase of crisis, the CRO role was to recognize the greater risks and produce ways to minimize the exposure; however, in this paper, we view the gravity of corporate governance after the financial crisis, where the emphasis upon the concept has significantly increased.

Dedicated committee

The next variable being part of this paper is the existence of a dedicated committee, often known as a 'risk committee. It serves as an independent body along with the existence of the board of directors, and they are solely formed to oversee the handling of risk policies and help the board adhere to a governance structure in the company.

Performance variables

Return on assets and return on equity

Return on equity and return on assets are the measures that determine the financial performance of any organization in reference to the level of shareholders equity and total assets. In other words, these show the ability of the firm to generate profits on the investment of their shareholders and total assets and are calculated as:

$$ROE = \frac{\text{Net income}}{\text{Shareholder's equity}} \text{ \& } ROA = \frac{\text{Net income}}{\text{Total assets}}$$

Control variables

Market to book ratio

The first control variable is the market-to-book ratio, which intends to capture the company's current market value relative to its book value. It is observed that it might have an impact on banking performance;

the banks with high valuations in relation to the market are more vigilant to protect their interests (Aebi et al., 2012). The bank's performance in response to its market-to-book ratio is therefore controlled in this paper.

$$MBR = \frac{\text{Share price}}{\text{Net book value per share}}$$

Bank size

The bank size is another control variable and is a logarithm of the total assets of the bank. Banks with more resources have a high potential to survive and perform better under different situations (Aebi et al., 2012). Therefore, the bank size is controlled in this paper.

$$\text{Bank Size} = \ln(\text{Assets})$$

Tier 1 capital ratio

The next control variable entails the Tier 1 capital, which is obtained from the core capital, including disclosed reserves and common stock. The Tier 1 capital ratio is the core indicator of a bank's financial strength. It is calculated by analysing equity capital against the total risk-weighted assets of the bank. Banks' financial strength can help them out of financial distress, and they can perform better. It is also controlled for possible implications on banks' performance (Aebi et al., 2012).

$$\text{Tier 1 capital ratio} = \frac{\text{Tier 1 capital}}{\text{Total risk weighted assets}}$$

Deposits to total assets ratio

This ratio of deposits to total assets is also included as a control variable; banks that have greater deposits are believed to perform significantly better during and after the crisis (Aebi et al., 2012).

$$\text{Deposits to total assets ratio} = \frac{\text{Deposits}}{\text{Total assets}}$$

Loans to assets ratio

The last variable used as a control is the loans-to-assets ratio, which characterizes the asset side of banks, as studies have suggested that a bank that holds a bigger ratio of loans to assets is going to have a smaller security portfolio. Also, banks with more credit-risky securities and fewer loans are expected to perform worse in the crisis (Aebi et al., 2012).

$$\text{Loan to total assets ratio} = \frac{\text{Loan}}{\text{Total assets}}$$

Results, Data Analysis & Discussion

Using the collected data for 40 banks from three different economies, the descriptive analysis of all variables is presented below in Table 1. The variables ROA and ROE are criterion variables in the analysis. The mean value for both variables is 0.0167 and 0.0931, respectively, with the same number of observations.

On average, the banks' return on assets and equity, for the analysis period, lies around the obtained

or calculated mean values. Additionally, the independent variables included in the descriptive analysis are listed in the first column of the demonstrated table. Their mean values are 0.1156, 0.0756, 11.5672, 0.6394, and 0.1946, respectively, with

400 observations. Lastly, the control variables in the descriptive analysis are also shown in the first column. Their mean values are 1.6653, 18.333, 0.1024, 0.6987, 0.6734, and 0.5622, respectively, for the selected sample.

Table-1: Descriptive Analysis

	Mean	Minimum	Median	Maximum	S. D	N
ROA	0.0167	-0.0367	0.0113	0.0432	0.0099	400
ROE	0.0931	0.0121	0.1011	0.3987	0.1987	400
CRO in Executive Board	0.1156	0.0000	0.3475	1.0000	0.4324	400
Risk Committee	0.0756	0.0000	0.4566	1.0000	0.1746	400
Board Size	11.5672	6.0000	10.0000	24.0000	2.4378	400
Board Independence	0.6394	0.3246	0.6900	1.0000	0.1114	400
% directors with finance background	0.1945	0.0000	0.1930	0.7300	0.1033	400
Market-to-Book ratio	1.6653	0.5523	1.6784	33.5736	0.5032	400
Total Assets	18,333	157	1376	1,654,237	112,546	400
Tier 1 capital ratio	0.1024	0.0546	0.1205	0.2465	0.0425	400
Deposits/Assets	0.6987	0.3567	0.7622	0.9023	0.0833	400
Loan/Assets	0.6734	0.3244	0.7254	0.9234	0.0958	400
Income Diversity	0.5622	0.3156	0.5834	0.7342	0.0949	400

After descriptive analysis, to measure the differences between the banks having the presence or absence of a CRO as a member of the board, all variables are compared, and the outputs are shown below in Table 2. The t-test is used to examine the equality of the mean. The financial performance measured using the return ratio significantly differs among the banks having the presence or absence of a CRO as a member of the board.

The p-value for both criterion variables, with known differences, is significant at the 0.01 level ($p = 0.061$ and $p = 0.0012$). The difference in variables for corporate risk management shows that the banks having a CRO as a member of the board are more likely to have risk control in the form of an established dedicated

committee. The other corporate governance variables, which include board size, board independence, and the percentage of directors with finance backgrounds (Table 2), demonstrate that banks with a CRO on their board have an extended board size.

These banks also have a more independent board, and the majority of the directors have finance backgrounds. The outcomes evaluated in this paper are in conformity with the existing work of Leone, Gallucci, and Santulli (2018), who noted that having a CRO on the board leads to better performance for Italian banks. Additionally, they noted that banks with a CRO on their board have a high level of board independence and size. The study by Hutchinson *et al.*, (2015) also supported their findings.

Table-2: t-test Difference

	CRO in Executive Board		Difference	P-value	CRO in Executive Board (Obs)	
	Yes	No			Yes	No
ROA	0.0121	0.0101	0.0020	0.0061***	28	12
ROE	0.2122	0.2013	0.0109	0.0012***	28	12
CRO in Executive Board	0.1511	0.0341	0.1170	0.0023***	28	12
Risk Committee	3.1231	0.7775	2.3456	0.0045***	28	12
Board Size	13.2398	11.2319	2.0079	0.0332**	28	12
Board Independence	0.8762	0.8123	0.0639	0.1503	28	12
% Directors with Finance Background	0.1099	0.2165	-0.1066	0.3209	28	12
Market-to-Book ratio	2.8721	2.0973	0.7748	0.5352	28	12
Total Assets	75622.00	6752.23	68869.77	0.0021***	28	12
Tier 1 Capital Ratio	0.2176	0.2345	-0.0169	0.0017***	28	12
Deposits/Assets	0.6534	0.6917	-0.0383	0.0011***	28	12
Loan/Assets	0.5667	0.3673	0.1994	0.0655*	28	12
Income Diversity	0.3564	0.2638	0.0926	0.0032***	28	12

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The test to quantify the impact of corporate risk management governance and corporate governance on banks performance is OLS regression for both developed econometric models. In the following Table 3, the OLS regression results are presented. In column 1, the coefficients for all independent variables are stated.

The CRO on the executive board and the risk committee have a positive (column 1) and significant (column 2) impact on return on assets for the banks under examination in this study. The rate of change in ROA due to CRO as a member of the board and a separate committee is 0.0450 and 0.0556, respectively.

While analysing the impact of corporate governance variables, the board independence, size, and percentage of directors with finance backgrounds have positive (column 1) and significant (column 2) impacts on return on assets. The change in ROA due to board size, board independence, and the percentage of directors with finance backgrounds is 0.0031, 0.0901, and 0.1560, respectively.

The columns 3 and 4 represent the coefficients and significance of independent variables while analyzing the possible impact on return on equity. The risk management governance variables CRO in the executive board and risk committee bring positive and significant changes in ROE with a 0.0126 and 0.0331 rate of change, respectively.

The findings of this study are consistent with the findings of the study by Leone, Gallucci, and Santulli (2018). The results of this study also find support in the findings of another study by Buallay, Hamdan, and Zureigat (2017), who noted that corporate governance in financial institutions affects their performance. The study by Hutchinson et al. (2015) also found a positive and significant impact of risk governance and corporate governance on a firm's performance. Dalwai, Basiruddin, and Abdul Rasid (2015) posited in their findings that corporate risk governance and corporate governance positively influence a firm's financial performance.

Table-3: Regression Analysis

	ROA		ROE	
	(1) Coefficient	(2) p-value	(3) Coefficient	(4) p-value
CRO in Executive Board	0.0450	0.0012***	0.0126	0.0198**
Risk Committee	0.0556	0.0142**	0.0331	0.0376**
Board Size	0.0031	0.0001***	0.2012	0.0411**
Board Independence	0.0901	0.0441**	0.0221	0.0652*
% Directors with Finance Background	0.1560	0.0201**	0.0921	0.0591*
Market-to-Book ratio	0.0047	0.2021	0.0776	0.0665*
Total Assets	0.0912	0.0233**	0.0548	0.0234**
Tier 1 Capital Ratio	0.0621	0.0211**	0.0065	0.0123**
Deposits/Assets	0.0074	0.1002	0.0071	0.2197
Loan/Assets	0.0230	0.0004***	0.0613	0.0324**
Income Diversity	0.0023	0.0319**	0.0054	0.0171**

* p < 0.10, ** p < 0.05, *** p < 0.01

The findings presented above for the banking sector of the chosen sample also conform with the findings of financial institutions in the United Kingdom as concluded by the empirical analysis of Elamer and Benyazid (2018). Najwa, Ramly, and Haron (2020) set out to study the same nature of impact that corporate governance variables have on the financial performance of Islamic banks. They also concluded that financial performance has an impact on corporate governance. Erin, Bamigboye, and Arumona (2020) also show that risk governance can improve the financial performance of the banks, and it is an empirically proven stance.

CONCLUSIONS

In conclusion, it implied that it is better to establish risk governance in addition to corporate governance for financial stability. The banks should understand the role of the CRO and dedicated

committee in the sustainability of the bank's profitability. The banks with a CRO on the executive board have outperformed the other banks without a CRO on the executive board. The CRO on the executive board and a dedicated committee can assist banks in managing their risk in a better manner for improved financial performance. Corporate governance, which is a special concern for risk governance in banks, can better manage performance during and after severe downturns. This study contributes to the risk governance structure of corporations, and it also emphasizes the significance of corporate governance as a tool for improving financial performance. The practical implication of the findings suggests that banks focusing on risk governance can earn more with sound financial performance indicators. The risk governance structures can be improved in light of the endorsements made in this work. The future work should consider

extended risk-based variables for more comprehensive insight and a diverse set of implications. A comparative study of different economies affected by the post-financial crisis can also add to this area of investigation. Now, there is another pandemic event for which the risk governance of financial institutions can be tested in the future. Through recent scholarly works, it should be investigated how disassociation from the international financial system can lead to the least impact of the global crisis.

Corporate governance being special concern for risk governance in banks can better manage the performance during and after severe downturns. This study contributes to the risk governance structure of corporations and it also emphasizes the significance of corporate governance as tool for improving financial performance. The practical implication of the findings suggests that banks focusing on the risk governance can earn more with sound financial performance indicators. The risk governance structures can be improved in light of the endorsements made in this work. The future work should consider extended risk-based variables for more comprehensive insight and diverse set of implications. Comparative study of different economies affected during post financial crisis can also add to this area of investigation Now, there is another pandemic event for which the risk governance of financial institutions can be tested in the future. It should be investigated that how disassociation with the international financial system can lead to minimum impact of global crisis through scholarly works in recent times.

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