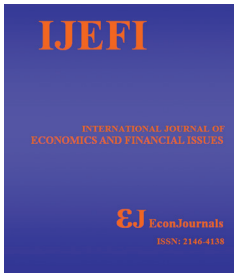

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# An Investigation into the Determinants of Risk Disclosure in Banks: Evidence from Financial Sector of Pakistan

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**ABSTRACT**

The purpose of this paper is to find the determinants of quantity as well as quality of the risk disclosures in annual reports of banking sector of Pakistan. The paper employs the word count approach to measure the quantity of risk disclosures in annual reports whereas to measure the risk disclosure quality (RDQ), RDQ index is adapted from the study by Barakat and Hussainey in 2013 after making some changes. The researcher selected a data sample on desired variables for a period of 7-year (2008-2014) through 31 scheduled banks (excluding 7 Foreign Banks) and run generalized least square as the researcher supposed there was an effect of endogeneity in the model. The researcher found confirmation that, banks with a higher proportion of independent non-executive board directors, lower ownership proportion of executive management, banks with a high asset value and banks having non-governmental ownership tend to present to their stakeholders a higher degree of risk disclosure in terms of volume of information as well as quality of the disclosure. Practically, the results recommend that there should be strict regulations by the supervisory body to enhance the quantity and quality of risk disclosure by banks in their annual reports. Further, audit committees of the banking institutions should positively play their vital role in this regard. As another practical suggestion, the findings demonstrate that banking institutions operating in Pakistan may improve their own RDQ and quantity by appointing independent outside board directors and ensuring the audit committee activities as effective monitors of risk disclosure and advisors for risk disclosure management at bank level.

**Keywords:** Risk Disclosure Quality, Agency Theory, Corporate Governance, Risk Management
**JEL Classification:** M40

## 1. INTRODUCTION

Banks are the essential institutions confronting a number of risks in response to do their normal business. What's more, how admirably these risks are taken care of is an element behind profitability and catching public trust. Moreover, banks are called "risk-situated institutions;" henceforth, the disclosures of the banks should be concentrated on independently from those of non-financial institutions (Bessis, 2002), risks are commonly characterized by the unfavorable effect on profitability of various distinctive sources of vagueness. It is comprehended that for the most part the banking institutions face market, credit, operational, and liquidity, compliance/regulatory/legal and reputation risks.

### 1.1. Risk Management

It is a piece of the matter of the banks to manage risks. As opposed to diminishing the risks confronted by the banks or not taking the risk by any stretch of the imagination, risk management means to balance off between the risk taken and return generated by the risk. Reason for the risk management is to additionally guarantee that institutions ought to abstain from presenting themselves to pointless risks and ought not to go for broke which can be exchanged to another person. Procedure of risk management is being caught up at all levels in the financial institutions. At a country level, an efficient and advanced banking system is a need for healthy economic growth of the country. In this regard, effective risk management and control enable the banking industry to retain public trust and confidence which is vital to mobilize individual as well as organizational savings for investment to ensure economic growth. Therefore, an effective risk management system is required for banks to achieve their own business goals as well as play their role in the overall economic growth.

The educated depositors, creditors, investors, and different counterparties may offer a bank with a lot of preferences to

guarantee better risk management frameworks (Basel Committee on Banking Supervision, 1998b), further, advanced portfolio theory depicts that corporate disclosure on risk is major in settling on investment choices to the utility amplifying choice model of financial theory (Abraham and Cox, 2007), The better the quality of risk disclosure, the stronger the risk management system is. Risk disclosures ensure the legitimacy of the institution and good reputation; hence, maintain the trust of all the stakeholders of the institution (Oliveira et al., 2013). To be compelling, the stress and tone for risk management must start at the top. While the general commitment of risk management rests with the board of directors (BOD), it is the commitment of senior management to change imperative heading set by board alive and well of methodologies and procedure and to set up an intense dynamic system to execute and realize those game plans.

## 2. RISK MANAGEMENT AND DISCLOSURE - CURRENT STATUS IN PAKISTAN

In Pakistan, State Bank of Pakistan (SBP), being the sole supervisor of the banking channel and the central bank of the country, provides detailed guidelines, from time to time, keeping in view the importance of risk management and disclosure for banks regarding risk management, internal controls, country risk, internal credit rating systems, general policies framework (which included guidelines to formulate polices for major risks), stress testing and fraud risk management reporting. In addition, SBP Implemented Basel II capital framework from January 01, 2008 which, not only required banks for credit and market risks, but also required banks to allocate and disclose capital for operational risk. Recently, SBP has implemented operational risk management framework which is the enhancement of the risk management guidelines provided in 2003. According to the operational risk management framework, banks/Development Finance Institutions (DFIs) are required to prepare a comprehensive plan for the identification, management, monitoring and reporting of the operational risk as well as the key risk indicators, Moreover, in respect of Pillar 2 of Basel capital accord, risk management framework is dealt under the internal capital adequacy assessment process (ICAAP) of banks. So in continuation to make the ICAAP exercise successful, SBP has provided a standardized reporting format for ICAAP in 2012. Further, SBP has given instructions regarding the implementation of Basel III Capital Accord from December 31, 2013. As a regulator, SBP has established a comprehensive well balanced regulatory and supervisory set up to ensure that sound risk management and disclosure practices are being followed within the banking sector (Welcome Address by Governor SBP SAARC FINANCE Regional Seminar on Risk Management Framework in Banks March 17, 2014, Islamabad).

Banks in Pakistan are using Basic Indicator Approach or the institutionalized methodologies for the figuring of capital charge for their operational risk as per Basel II bearings. Under these systems, either gross income or a combination of gross income and outstanding advances is thought to be the presentation marker in light of which operational risk capital charge is processed. Then again, the institution of any operational risk management or capital task under development philosophies of Basel II is the chronicled time game plan of operational loss information.

### 2.1. Risk Evaluation/Measurement

Until and unless risks are not assessed and measured it won't be possible to control risks. Further an authentic assessment of risk gives management a sensible point of view of foundation's standing and associates in picking future action game plan. To the most compelling possible degree, institutions should develop framework which assess their risk profile because in some cases for instance, operational risk; evaluation is exceptionally troublesome and complex. Wherever it is unfeasible to assess risks, subjective measures should be gotten to get those risks. Whilst quantitative estimation system underpins decision making, better estimation does not deflect the prerequisite for all that much instructed, qualitative judgment. Finally any risk estimation framework, especially those which use quantitative strategies, is just comparable to its hidden suspicions, the fastidiousness and quality of its diagnostic methodology, the controls incorporating information inputs and its fitting application.

### 2.2. Independent Review

A standout amongst the most imperative viewpoints in risk management rationality is to verify that the individuals who take or acknowledge risk in the interest of the institution are not the ones who measure, screen and assess the risks. Again the regulatory structure and dynamic system of risk audit limit may change transversely over banks depending on their size and nature of the business, the key is opportunity. To be fruitful the survey limits should have sufficient force, capacity and corporate stature so that the Identification and reporting of their disclosures could be master with no hindrance. The revelations of their surveys should be accounted for to specialty units, Senior Management and, where suitable, the Board.

### 2.3. Risk Disclosure

Disclosure of financial and risk information identifies with a basic instrument for improving business sector capability through distinctive channels. To start with, it serves as an outside system for checking the conduct of senior management (Eng and Mak, 2003), Second, it brings down investors' un-conviction about company's normal future money streams and empowers public firms to get to outer account at a sensible cost of capital. Third, it reinforces the company's authenticity and reputation thus keeping up the trust of stakeholders (Oliveira et al., 2011b), In the banking industry, one standard of disclosure is risk reporting. The Basel Committee on Banking Supervision (BCBS), in the Basel II Capital Accord (Pillar 3), emphasizes the noteworthiness of useful risk disclosures in banks for redesigning business sector discipline (Basel Committee on Banking Supervision, 2006b), Writing in like manner demonstrated that banks uncovering more far reaching risk information pick a higher capital cushion and lower default risk. Also, banks are risk organized establishments whose disclosures should be thought about autonomously of those of non-financial firms (Bessis, 2002; Linsley and Shrives, 2005),

besides, after the global financial crisis, risk disclosures in banks have been underlined as a suitable contraption for abstaining from banking emergencies.

## 3. PRIOR RESEARCH AND DEVELOPMENT OF HYPOTHESIS

Information on banks' credit risk portfolios, which include the capital exposures quality and the sufficiency of the risk management practices, is vital for the market participants and the supervisor of the banks to assess the performance, overall condition and their ability to survive in the market in the long-run (Basel Committee on Banking Supervision, 1999), such information is also significant to assess the overall safety and soundness in financial sector of a country. Research has been done on the mechanical effects of the factors such as size of the bank, board structure, leverage, governance, riskiness, ownership, supervision, capital adequacy and profitability on risk disclosure quality (RDQ) (Linsley and Shrives, 2005; Abraham and Cox, 2007; Bischof, 2009; Barakat and Hussainey, 2013), A few of the researchers have also tried to observe the direct as well as joint effects of bank regulation, supervision and governance on risk reporting quality. Antti Miihkinen (2012) made a research on the National Disclosure Standard as an important factor behind RDQ and found that it improved the firms' quality of risk disclosure across several dimensions. Yong et al. (2005) filed tremendous assortments in the level of risk management disclosures (barring operational risk) by Asia Pacific banks across over ranges and levels of financial improvement. Helbok and Wagner (2005) researched the characteristics and determinants of organization risk disclosures (ORD) in the yearly reports of 59 banks in North America, Asia, and Europe in the period 1998-2001. They reported an augmentation in ORD with respect to degree (measured by word and page numbers) and substance (measured by an ORD record), What's more, they found that banks with a lower quality to assets extent or efficiency extent are more inclined to disclose quick and dirty information about operational risk in their yearly reports. Linsley et al. (2006) dismembered the substance of the yearly reports of 9 UK and 9 Canadian banks in 2001 and found that the level of risk disclosure is positively associated with bank measure yet arbitrary to profitability and risk introduction. Using the necessities of the Basel II Capital Accord line (Pillar 3) as a benchmark for ORD quality in 65 generally dynamic fiscal associations in the period 2004-2006, Ford et al. (2009) observed that an extensive segment of their example firms were not meeting the base disclosure requirements of the Basel II Capital Accord (Pillar 3), In addition the study found inconsistency in ORD. A couple of studies demonstrated that the choice of IAS/IFRS has incited an augmentation in the level of risk disclosures in banks (Bischof, 2009 Oliveira et al., 2011a), Using an illustration of Portuguese banks, Oliveira et al. (2011b) demonstrated that stakeholders checking and corporate reputation are the essential drivers of deliberate risk reporting. Nevertheless, Oliveira et al. (2011b) did not consider the impact of time course of action instabilities, country level regulations, or bank level governance systems on the way of risk disclosures in the banking business.

Some researchers tried to investigate how firm-level corporate governance (CG) quality as proprietorship systems (i.e., government possession, piece proprietorship and institutional proprietorship) and board attributes (i.e., board differing qualities, board size, autonomous non-official chiefs, and board administration structure) drive risk disclosures. The researchers additionally explore how broad firm characteristics, including audit firm size, capital use, the vicinity of corporate governance and corporate social responsibility councils, cross posting, firm size, influence, industry, benefit capacity, deals development and year impact risk disclosures.

Past studies suggest that the more critical the level of such conflicts amongst skilled stakeholders (stakeholder theory, for instance, government and private proprietors, the higher the prerequisite for determination through extended disclosure, including risk disclosures (Eng and Mak, 2003), The major shareholding, governmental shareholding, institutional shareholding and management shareholding affect differently the risk reporting behavior of the management. The non-managing, nongovernmental shareholder, holding the greatest share of voting rights, so called the "first shareholder" is straightforwardly able to influence the strategic decisions of the management as well as the investment projects selected by managers (Laeven Levine,2009). Motivated by the commitment to protection of the rights of their own people, governments may prove to be more careful to constantly pursue and assess the legitimacy of the banks which are substantially owned by them (Barakat and Hussainey, 2013). Therefore, as per organization-society theories, management must rely greatly on risk disclosures as a tool to maintain the authenticity of the bank for the government as a shareholder. In the literature, two contradictory theories namely agency theory and management entrenchment theory relate the executive management ownership (EOWN) and disclosure quality in two different dimensions. The agency theory put forward a positive relationship between EOWN and quality risk disclosure as the level of EOWN may provide to align the interests of shareholders and the management (Jensen Meckling, 1976), On contrary, the management entrenchment theory suggests that concentrated EOWN can be counterproductive to the institution's long term value, since management can more efficiently exert outside monitoring. Thus, managers are expected to take full advantage of their personal benefits by reducing disclosure levels (Barakat and Hussainey, 2013), Agency theory state further different impacts of institutional ownership (IOWN) and block ownership on RDQ. Institutional shareholders, due to larger ownership, have extra special incentive to intimately monitor the firm's disclosures (Abraham and Cox, 2007; Elzahar and Hussainey, 2012). Hence, managers are more likely to make extra disclosures, to meet up the informational requirements of institutional shareholders being the influential stakeholders (Abraham et al., 2012; Amran et al., 2009), on the other hand, theory suggest that management of firms having concentrated ownership structure (block ownership) may not likely to take on disclosure practices because the costs of risk disclosure i.e., cost of competition, cost of litigation, and cost of regulation are most probably greater than its possible benefit i.e., information symmetry (Ntim et al., 2013).

As far as the board structure is concerned, a higher ratio of outside independent directors on the board is more expected to result in better monitoring and a greater level of transparency in the firm (Frankel et al., 2011). Further, Barakat and Hussainey concluded in 2013 that banks may improve the quality of risk disclosures by appointing independent board directors as well as by correcting the audit committees' behavior as these are the effectual bank auditors and monitors of decisions taken by management for risk reporting. In addition, a dual board leadership structure means the roles of the chief executive officer (so called management) and chairperson of the board (as the control) are carried out by two different persons. In this connection, agency theory proposes that by separating the positions of board chairperson and chief executive officer, board's ability to monitor and organize the management by promoting accountability and autonomy can be considerably enhanced (Barako et al., 2006) which may have a positive influence on CRD (Ntim et al., 2013), for the size of the board, stakeholder theory describes that larger boards provide greater access to the management to the external environment, which in return lessens uncertainties and further facilitates to secure the very important resources, such as financial sources as well as business contracts (Jia et al., 2009). In addition, resource dependence theory indicates that boards having large number of member improve the base of the knowledge on which business opinion may be required, that increases managements' aptitude to engage in improved business decisions (Ntim et al., 2013). Further, in respect of board diversity, it is suggested that every institution must consider the extent of the diversity of its board according to the skills and demographics such as ethnicity and gender as it is expected that diverse boards may more probably put pressure (especially female members) on senior managers to employ greater risk disclosure practices (Ntim et al., 2013), Basel Committee on Banking Supervision (2006a) put emphasis on the vital role that is expected to play by the audit committees in respect of the disclosure quality in banks. Audit committees are vital to improve the quality of financial reporting (Anderson et al., 2003), as these fight against the frauds involved in financial statement (Beasley et al., 2000; Klein, 2002), and enhance the quality of voluntary disclosures in public institutions (Li et al., 2008; Kelton and Yang, 2008). The size of a firm is the highest quoted determinant that is related to the firm's disclosure behavior as supported by the accounting literature (Hassan, 2014), Larger business firms are more likely to be informative as paying more attention for the improvement of the quality of its disclosures as compared to small business firms depending upon the financial resources which are necessary for them in expanding the disclosures (Ahmed and Courtis, 1999).

Setiyono and Tarazi (2014) investigated the impact of the correspondence of disclosure and proprietorship structure on bank risk. Using a sample of 209 business banks from Asia in the midst of the 2004-2010 periods, the researcher find that disclosure is oppositely associated with wage instability and that such an impact is more grounded in the vicinity of piece holders and IOWN and weaker with insider or government ownership. The results similarly give demonstrate that better disclosure ensures more noticeable robustness as measured by individual bank default risk. Herghiligiu (2013) meant to assess the genuine operational risk disclosure in Romanian banks. Henceforth the researcher concentrates on the operational risk information that Romanian banks reveal and in case they acclimate to the requirements of the National Bank of Romania. The researcher found affirmation that the Romanian business banks don't uncover basic information on operational risk. Thus the researcher proposes that National Bank of Romania and managers should put pressure on Romanian Commercial Banks to reveal qualitative and quantitative information on operational risk. Each Romanian commercial bank should have a convincing framework set up to recognize measure, screen and control operational risk as a piece of general way to deal with risk management.

The point of the study conducted by Lipunga (2014) was to assess the level of risk disclosure level in yearly reports expressed by the Malawian commercial banks; the study additionally researched the impact of profitability on level of risk disclosed. The necessities of the Basel II framework were made as base to compute risk disclosure index, alongside that different records, the corporate governance rules for banks issued by the Reserve Bank of Malawi and IFRS 7 was likewise included to see the disclosure index. The structure of disclosure index took six classifications and 34 disclosure viewpoints were incorporated to compute disclosure index. The outcomes uncovered a high risk disclosure level among the sampled banks. The score range individual bank was somewhere around 0.76 and 0.88. Besides regression analysis suggested that profitability does not impact the level of risk disclosure. The study by Domínguez et al., (2014) investigated that in the current corporate scenario, information on corporate risks played a vital role in the decision-making process and in satisfactory evaluation of diverse organizations. The current study examined the major risks disclosed by the largest Spanish companies and analyzed the factors fundamental to this disclosure, mainly those connected to corporate governance. The content analysis performed showed that Spanish companies disclose moderately little information on risks. Froiov in 2006 reviewed the disclosure practices of Japanese banking organizations. The objective of the study was to analyses the quality of disclosed information about the lending assets. The study suggested the need of transparency in enhancing the risk disclosure of the bank. Conclusion also arrives at the formation of policy leveraging Japan's experience with bank disclosure. The analysis revealed two aspects of Japanese banking industry one is risk disclosure practice and the other is disclosure regime improvement. Among various other facts revealed for the Japanese banking industry the research pointed out need for several break downs in the financial information as a way to improve usefulness of the information.

Barakat and Hussainey in 2013 explored impacts of the bank governance, regulation, and supervision on the quality of risk reporting in the banking industry. The analyst utilized these components as intermediaries for ORD in test of European banks. The primary prudent step was to control of the endogeniety between bank security and risk reporting quality in the specimen in the wake of watching that examination was led for banks. The results conclude that the enhancement of ORD quality depends on the contribution of bank supervisors. For the sole purpose of enhancing risk reporting quality in banks, discoveries of this

examination prescribed freedom of board, enhanced part of audit advisory group and loose passage obstructions to the industry and profoundly dynamic part of bank directors.

Keeping in view of the above studies, the researcher develops, hereby, the hypotheses of the research model as under:

$H_1$: There is an empirically positive association between the proportion of ordinary shares held by the first shareholder and the RDQ.

$H_2$: There is an empirically positive association between government ownership and the RDQ.

$H_3$: There is an empirically negative association between the proportion of ordinary shares held by executive managers and the RDQ.

$H_4$: There is an empirically positive association between IOWN and the RDQ.

$H_5$: There is an empirically positive association between the presence of independent non-executive directors (INEDs) in the board and the RDQ.

$H_6$: There is an empirically positive association between dual leadership board structure (DLBS) and the RDQ.

$H_7$: There is an empirically positive association between the frequency of audit committee meetings and the RDQ.

$H_8$: There is an empirically positive association between board size and the RDQ.

# 4. RESEARCH DESIGN AND METHODOLOGY

## 4.1. Data and Sample

At present there are 41 scheduled banks, 6 DFIs, and 2 Microfinance Banks (MFBs) operating in Pakistan under the sole supervision of SBP, The details regarding the sample are shown in the Table 1. The year 2008 is used as base because the author aimed to study the risk reporting behavior after the implementation of Basel II capital framework in Pakistan. The author has excluded 7 Foreign Banks operating in Pakistan from the list of 38 Scheduled banks working since 2008-2014, as the data was not available for these banks originated in other countries. Moreover the author did not included MFBs to the sample data because most of the M.F. banks have incorporated after 2009 and data was not available to the satisfaction of the model. Resultantly, 31 Scheduled banks were selected for the sample which includes 5 Government Banks, 5 specialized banks and 21 Private scheduled Banks including 5 Islamic Banks. Data regarding all the variables included in the model has been collected through annual financial statements duly audited by the independent auditors, financial statements analyses compiled by SBP, and relevant websites.

## 4.2. Variable Definitions

### *4.2.1. Dependent variables*

RDQ is measured in two different aspects i.e., quantitative and qualitative. To capture the quantitative aspect of RDQ, the researcher has used the word-count approach for the total risk reporting in the annual financial statements. While, for measuring the risk disclosure qualitatively, the researcher have finalized a RDQ index (RDQI) based on the disclosure dimensions on credit, market, liquidity and operational risk. For this purpose, the researcher have adopted, the operational RDQI used by Barakat and Hussainey in 2013, after some amendments in its format. RDQ and RDQI are used as dependent variables in the second stage regression.

RDQ = Risk disclosure quantity (natural log of the total number of words used in risk disclosures in annual financial reports by banks).

RDQI = RDQI (the total points provided for the various dimensions of risk disclosure according to the proposed format).

### *4.2.2. Endogenous variables*

Z-score is included as endogenous variables representing the risk factor. This factor represents the level of stability of bank.

Z-score = Z-score ([capital asset ratio + return on assets]/standard deviation of return on assets for last 3 years).

**Table 1: Descriptive statistics**

| Variables | Mean | Median | Maximum | Minimum | SD | CV (%) | P | Sum | Sum squared deviation | Number of Obs. |
|---|---|---|---|---|---|---|---|---|---|---|
| RDQ | 8.5378 | 8.5403 | 9.0387 | 8.0414 | 0.2426 | 2.84 | 0.0165 | 1852.6970 | 12.7112 | 217 |
| RDQI | 12.2949 | 12.0000 | 15.0000 | 10.0000 | 0.9553 | 7.77 | 0.7780 | 2668.0000 | 197.1244 | 217 |
| Z-score | 72.2613 | 55.2581 | 302.7495 | 28.0212 | 51.6250 | 71.44 | 0.0000 | 15680.7100 | 575670.0000 | 217 |
| EZSCORE | 72.2613 | 73.1076 | 101.0361 | 39.8769 | 13.0456 | 18.05 | 0.1445 | 15680.7100 | 36760.4400 | 217 |
| CIR | 0.6556 | 0.6561 | 0.7981 | 0.5034 | 0.0825 | 12.58 | 0.0083 | 142.2735 | 1.4696 | 217 |
| CDR | 0.1391 | 0.1400 | 0.1798 | 0.0903 | 0.0254 | 18.28 | 0.0014 | 30.1882 | 0.1397 | 217 |
| FOWN | 0.4884 | 0.6100 | 0.8500 | 0.0000 | 0.3220 | 65.92 | 0.0000 | 105.9800 | 22.3903 | 217 |
| GOWN | 0.2903 | 0.0000 | 1.0000 | 0.0000 | 0.4550 | 156.71 | 0.0000 | 63.0000 | 44.7097 | 217 |
| EOWN | 0.0060 | 0.0060 | 0.0140 | 0.0000 | 0.0051 | 83.72 | 0.0000 | 1.3090 | 0.0055 | 217 |
| IOWN | 0.1881 | 0.2100 | 0.3900 | 0.0000 | 0.1355 | 72.07 | 0.0000 | 40.8100 | 3.9682 | 217 |
| DLBS | 0.9677 | 1.0000 | 1.0000 | 0.0000 | 0.1771 | 18.30 | 0.0000 | 210.0000 | 6.7742 | 217 |
| BNUM | 9.1935 | 9.0000 | 12.0000 | 7.0000 | 1.8607 | 20.24 | 0.0001 | 1995.0000 | 747.8710 | 217 |
| NACM | 5.9585 | 6.0000 | 8.0000 | 4.0000 | 1.3585 | 22.80 | 0.0014 | 1293.0000 | 398.6267 | 217 |
| INED | 0.8387 | 1.0000 | 1.0000 | 0.0000 | 0.3686 | 43.95 | 0.0000 | 182.0000 | 29.3548 | 217 |
| B4AF | 0.8387 | 1.0000 | 1.0000 | 0.0000 | 0.3686 | 43.95 | 0.0000 | 182.0000 | 29.3548 | 217 |
| BSIZE | 24.1080 | 24.0228 | 26.9985 | 21.0129 | 1.7561 | 7.28 | 0.0008 | 5231.4410 | 666.1201 | 217 |

GOWN: Government ownership, EOWN: Executive management ownership, IOWN: Institutional ownership, DLBS: Dual leadership board structure, BNUM: Number of board members, NACM: Number of audit committee meetings, INED: Independent nonexecutive directors on board, BSIZE: Bank size, B4AF: Big 4 audit firms, RDQ: Risk disclosure quality, RDQI: Risk disclosure quality index, CIR: Cost income ratio, CDR: Cash deposit ratio

#### *4.2.3. Instrumental variables*

Cost income ratio (CIR) and cash deposit ratio (CDR) will represent the instrumental variables determining risk factor i.e., Z-score in addition to the explanatory and control variables.

CIR = Cost income ratio (total interest and non-interest expenses/ total interest and non-interest income).

CDR = Cash deposit ratio ((total cash and equivalents + short term investment)/total deposits).

#### *4.2.4. Explanatory variables*

A list is provided below for all other explanatory as well as control variables which is the part of the research model.

FOWN = First shareholding (the proportion of the largest, nongovernmental, non institutional, non-managing shareholding).

GOWN = Government ownership (1, if domestic government holds at least 10% of total shareholding; 0 otherwise).

EOWN = Executive management ownership (the proportion of shareholding by Executive Managers).

IOWN = Institutional ownership (proportion of shareholding by institutional investors).

DLBS = Dual leadership board structure (1, if the chairman of the board and chief executive officer are two different persons; 0 otherwise).

BNUM = Number of board members (total number of members of the BOD).

INEDB = Independent non-executive directors on board (1, if there are non-executive members sitting in the board; 0 otherwise).

NACM = Number of audit committee meetings (number of audit committee meetings held during a year).

#### *4.2.5. Control variables*

BSIZE = Bank Size (natural logarithm of total assets).

B4AF = Big 4 Audit Firms (1, if the bank is audited by any one of the big four audit firms (associated) i.e., PricewaterhouseCoopers, Deloitte Touche, Ernst Young and KPMG; 0 otherwise).

### 4.3. Econometric Model

#### *4.3.1. Univariate analysis*

For this purpose Pearson's correlation is used for analyzing the data. Pearson's correlation coefficient is a factual measure of the quality of a direct relationship between matched information.

#### *4.3.2. Multivariate analysis*

For this purpose, the economic model was based on generalized least square (GLS) as the researcher found some endogenous variables determining the risk factor in the banking channel. Among GLS models two stage random effect model is used. The model consists of two stages; in first stage, the researcher finds the risk factor of the banking channel through all the possible factors and, in second stage regression, the researcher uses the risk factor as explanatory variable to regress the quality of risk disclosure.

#### *4.3.3. First stage regression*

For Z-score as dependent variable:

$$= \alpha_0 + \alpha_1 CIR + \alpha_2 CDR + \alpha_3 BSIZE + \alpha_4 B4AF + \alpha_5 NACM + \alpha_6 FOWN + \alpha_7 GOWN + \alpha_8 EOWN + \alpha_9 IOWN + \alpha_{10} DLBS + \alpha_{11} INEDB + \alpha_{12} BNUM + \mu$$

#### *4.3.4. Second stage regression*

a. For RDQ as dependent variable

$$= \beta_0 + \beta_1 + \beta_2 BSIZE + \beta_3 B4AF + \beta_4 NACM + \beta_5 FOWN + \beta_6 GOWN + \beta_7 EOWN + \beta_8 IOWN + \beta_9 DLBS + \beta_{10} INEDB + \beta_{11} BNUM + E$$

b. For RDQI as dependent variable

$$= \beta_0 + \beta_1 + \beta_2 BSIZE + \beta_3 B4AF + \beta_4 NACM + \beta_5 FOWN + \beta_6 GOWN + \beta_7 EOWN + \beta_8 IOWN + \beta_9 DLBS + \beta_{10} INEDB + \beta_{11} BNUM + \varepsilon$$

## 5. RESULTS AND DISCUSSION

### 5.1. Descriptive Statistics

Descriptive statistics are demonstrated in Table 1. There is almost four times higher variation in RDQI than RDQ, RDQ ranges from 8.04141 Minimum to 9.03872 Maximum While the RDQI falls between 10 to 15 points. Based on 16 points quality index there is an average of 12.29 points which results in leaving considerable potential for further improvement in RDQ in the overall financial sector of Pakistan. The significant co-efficient of variation in RDQI as compared to RDQ also reflect that the volume of Risk Disclosure does not vary between all the banking sectors but the quality level varies. The result, thus demonstrating much inconsistency in RDQ in the sample, enlightens a notable discretion level in the bank management's decisions about RDQ in the annual financial statements or other channels. Further, similarity is found for the estimated Z-score as demonstrated in Table 1. There is also a huge variation in the estimated risk factor i.e., Z-score. The Z-score ranging from 39.87 to 101.03 depict a high variation of 18.05%. It represents the variation of risk factor prevailing all over the banking sector over a considerable period of time. Moreover, all other explanatory variables possess a reasonable variation but the EOWN, IOWN and governmental ownership (GOWN) results in a notable variation of 72%, 84% and 157%, respectively, which demonstrate the inconsistent ownership structure of banking sector in Pakistan.

### 5.2. Univariate Analysis

Table 2 presents the correlation matrix for all the variables included in the model. The co-efficient of correlation between both the

**Table 2: Correlation matrix**

| Variables | RDQ | RDQI | Z-score | EZSCORE | CIR | CDR | FOWN | GOWN | EOWN | IOWN | DLBS | BNUM | NACM | INED | B4AF | BSIZE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RDQ | 1.00000 | 0.49 | −0.01 | −0.12 | −0.06 | 0.03 | −0.11 | 0.05 | 0.010 | 0.05 | 0.06 | 0.12 | −0.03 | 0.06 | 0.015 | 0.59 |
| RDQI | 0.49 | 1.00 | 0.045 | −0.11 | −0.14 | 0.010 | −0.005 | 0.004 | −0.04 | −0.022 | 0.0017 | 0.1240 | −0.065 | 0.069 | 0.201 | 0.562 |
| Z-score | −0.013 | 0.045 | 1.000 | 0.252 | 0.037 | −0.036 | 0.201 | −0.188 | 0.128 | 0.196 | 0.006 | −0.042 | −0.07 | 0.088 | −0.019 | −0.003 |
| EZSCORE | −0.125 | −0.112 | 0.252 | 1.000 | 0.149 | −0.14 | 0.79 | −0.74 | 0.509 | 0.7768 | 0.0236 | −0.168 | −0.278 | 0.347 | −0.076 | −0.011 |
| CIR | −0.064 | −0.141 | 0.037 | 0.149 | 1.000 | 0.0127 | −0.104 | 0.105 | −0.124 | −0.039 | 0.065 | −0.038 | 0.010 | −0.043 | −0.11 | −0.137 |
| CDR | 0.034 | 0.010 | −0.036 | −0.144 | 0.012 | 1.000 | −0.046 | 0.023 | 0.095 | −0.041 | −0.080 | −0.019 | −0.002 | −0.056 | 0.090 | −0.063 |
| FOWN | −0.114 | −0.005 | 0.201 | 0.7968 | −0.10 | −0.046 | 1.00 | −0.97 | 0.72 | 0.85 | −0.154 | 0.162 | 0.030 | 0.508 | 0.32 | 0.049 |
| GOWN | 0.055 | 0.004 | −0.188 | −0.747 | 0.105 | 0.0232 | −0.972 | 1.000 | −0.765 | −0.889 | 0.116 | −0.219 | −0.055 | −0.492 | −0.29 | −0.042 |
| EOWN | 0.010 | −0.039 | 0.128 | 0.509 | −0.123 | 0.095 | 0.720 | −0.765 | 1.000 | 0.756 | −0.180 | 0.213 | 0.057 | 0.420 | 0.316 | −0.021 |
| IOWN | 0.053 | −0.022 | 0.1963 | 0.776 | −0.038 | −0.041 | 0.856 | −0.889 | 0.756 | 1.000 | 0.024 | 0.200 | 0.055 | 0.402 | 0.220 | 0.035 |
| DLBS | 0.066 | 0.001 | 0.0059 | 0.023 | 0.065 | −0.080 | −0.154 | 0.116 | −0.180 | 0.024 | 1.000 | 0.215 | −0.044 | −0.080 | −0.080 | −0.018 |
| BNUM | 0.125 | 0.124 | −0.042 | −0.168 | −0.038 | −0.019 | 0.162 | −0.219 | 0.213 | 0.200 | 0.215 | 1.000 | 0.072 | −0.001 | 0.329 | 0.005 |
| NACM | −0.036 | −0.065 | −0.070 | −0.278 | 0.010 | −0.002 | 0.030 | −0.055 | 0.057 | 0.055 | −0.044 | 0.072 | 1.000 | −0.050 | −0.022 | −0.074 |
| INED | 0.066 | 0.069 | 0.0879 | 0.347 | −0.043 | −0.056 | 0.508 | −0.492 | 0.420 | 0.402 | −0.080 | −0.001 | −0.050 | 1.000 | 0.284 | −0.053 |
| B4AF | 0.015 | 0.201 | −0.019 | −0.076 | −0.111 | 0.090 | 0.325 | −0.299 | 0.316 | 0.220 | −0.080 | 0.329 | −0.022 | 0.284 | 1.000 | 0.080 |
| BSIZE | 0.597 | 0.562 | −0.002 | −0.011 | −0.138 | −0.063 | 0.049 | −0.042 | −0.021 | 0.035 | −0.018 | 0.005 | −0.074 | −0.053 | 0.080 | 1.000 |

GOWN: Government ownership, EOWN: Executive management ownership, IOWN: Institutional ownership, DLBS: Dual leadership board structure, BNUM: Number of board members, NACM: Number of audit committee meetings, INED: Independent nonexecutive directors on board, BSIZE: Bank size, B4AF: Big 4 audit firms, RDQ: Risk disclosure quality, RDQI: Risk disclosure quality index, CIR: Cost income ratio, CDR: Cash deposit ratio

dependent variables i.e., RDQ and RDQI demonstrate the positive relation as supposed in the research model. Further, RDQI, RDQ and all explanatory as well as control variables correlate as per the previous literature and as per the expectations except FOWN and NACM which contradict with the expectations. Thus, the overall results support the soundness of the research model.

## 5.3. Multivariate Analysis

### *5.3.1. First stage regression*

The results of the basic regression equation are presented in Table 3. For estimating the direct impacts of bank ownership, size, governance, and board structure on RDQ in financial sector of Pakistan as per research model. Table provides an outlook on the results of the first stage regression. Z-score is the dependent variable in the first stage regression, which represent the risk factor faced by the banking institutions. CIR and CDR (Cash Deposit Ratio) are the instrumental variables for the risk factor i.e., ZSORE. CIR Represent the stability of bank on basis of efficiency while CDR depicts the stability of bank based on liquidity. For the first stage regression, the researcher try to find that endogenous variable Z-score have any impact on RDQ or RDQI. Further, the researcher test the exogeneity of the instrumental variables CDR and CIR, that these variables solely do not affect the Risk Disclosure i.e. RDQ and RDQI. They should affect the Risk Disclosure only through casting impact on Z-score. Which is the risk factor used as endogenous variable. It can be seen that CDR and CIR define the Z-score as demonstrated by earlier research and discussion. The results show that both the

**Table 3: First stage regression**

| Sample: 2008-2014 | | | |
|---|---|---|---|
| Periods included: 7 | | | |
| Cross-sections included: 31 | | | |
| Total panel (balanced) observations: 217 | | | |
| **Variable** | **Coefficient** | **SE** | **t-Statistic** |
| C | 97.71727 | 87.17356 | 1.12095 |
| CIR | 21.88199 | 43.73140 | 0.50037 |
| CDR | −27.11609 | 142.82140 | −0.18986 |
| FOWN | 53.13510 | 51.29577 | 1.03586 |
| GOWN | 21.57814 | 40.78081 | 0.52913 |
| EOWN | −120.47340 | 1228.73000 | −0.09805 |
| IOWN | 48.40371 | 64.04658 | 0.75576 |
| DLBS | 9.49871 | 22.63174 | 0.41971 |
| BNUM | −1.59680 | 2.20561 | −0.72397 |
| NACM | −2.83203 | 2.61734 | −1.08203 |
| INED | −2.46418 | 11.54553 | −0.21343 |
| B4AF | −9.91015 | 11.24620 | −0.88120 |
| BSIZE | −0.62997 | 2.04856 | −0.30752 |
| R-squared | 0.63857 | Mean dependent variables | 72.26133 |
| Adjusted R-squared | 0.58790 | SD dependent variables | 51.62498 |
| SE of regression | 51.3976 | Akaike info criterion | 10.7751 |
| Sum squared residual | 538909.6 | Schwarz criterion | 10.97758 |
| Log likelihood | −1156.098 | Hannan-Quinn criter | 10.85689 |
| F-statistic | 1.159615 | Durbin-Watson stat | 1.348507 |
| P (F-statistic) | 0.031447 | | |

GOWN: Government ownership, EOWN: Executive management ownership, IOWN: Institutional ownership, DLBS: Dual leadership board structure, BNUM: Number of board members, NACM: Number of audit committee meetings, INED: Independent nonexecutive directors on board, BSIZE: Bank size, B4AF: Big 4 audit firms, SE: Standard error, CIR: Cost income ratio, CDR: Cash deposit ratio

instrumental variables are accordingly related to the endogenous variable as expected.

### *5.3.2. Second stage regression*

The researcher continued to discuss the outcomes of the second stage regression as provided in Tables 4 and 5 for the purpose of statistically examination of the hypotheses. As per expectations, the Z-score negatively relates to the Risk Disclosure in both the dimension i.e., qualitative or quantitative disclosure; in support the point of view that instable financial institutions do not involve in better quality risk disclosures. This means that, while deciding for risk disclosures, the banking management should think about profitability and capital adequacy to be powerful as a factor of stability of the bank.

For the hypothesis, the researcher discusses the outcomes of the second stage regression. As per the model, all the hypotheses are not significantly supported except for $H_5$ when the researcher takes RDQI as dependent variable (second stage regression-B), The results strongly and significantly support the hypothesis $H_5$; the positive relationship between Independent Non Executive Directors sitting in the Board and Quality of risk disclosure in banks at a 5% alpha level. Further, both the control variables do have significant impact on RDQ and Quantity at 1% and 5% alpha levels respectively. The Variables FOWN is significant but not supported as per the hypothesis $H_1$, whereas, IOWN is significant ($H_4$) and supported for the dependent variable RDQ (second stage regression-A), $H_3$ is supported by the results for the second dependent variable only but is still insignificant. Hypotheses $H_2$, and $H_6$, are also supported by the results for both the dependent variables but are not significantly associated. That means GOWN has no material impact on the RDQ of banking institutions. Similarly, the dual leadership (board chairman and chief executive officer being different persons) does not have any significant impact over the RDQ of banks. The results for above hypotheses, as per the opinion, are not supported as significant because of some country level restraints or because of inordinate selection of data sample. Further, there may be some similarity of practice in providing the disclosures among all the scheduled banks over the number of years. $H_7$, NACM and $H_8$, the BNUM are supported by the outcome of second regression but NACM do not support for the dependent variable RDQ.

## 6. CONCLUSION RECOMMENDATIONS

The researcher tried to empirically examine and theoretically justify the affects of bank ownership, governance, size, board structure and behavior of audit committee on the bank management's decision to disclose all type of risks on a certain quantity and quality. For this purpose four major types of risk such as; Credit Risk, Market Risk, Liquidity Risk and Operational Risk were studied. For the purpose of finding the extent of dependence

**Table 4: Second stage regression-A**

| Dependent variable: RDQ | | | |
|---|---|---|---|
| Method: Panel least squares | | | |
| Sample: 2008-2014 | | | |
| Periods included: 7 | | | |
| Cross-sections included: 31 | | | |
| Total panel (balanced) observations: 217 | | | |
| **Variable** | **Coefficient** | **SE** | **t-Statistic** |
| C | 6.76939 | 0.53888 | 12.56203 |
| EZSCORE | −0.00110 | 0.00631 | −0.17369 |
| FOWN | −0.74595 | 0.38437 | −1.94070 |
| GOWN | −0.20378 | 0.19317 | −1.05492 |
| EOWN | 1.23570 | 4.16902 | 0.29640 |
| IOWN | 0.93511 | 0.35661 | 2.62220 |
| DLBS | −0.08197 | 0.09878 | −0.82982 |
| BNUM | 0.01463 | 0.01244 | 1.17624 |
| NACM | −0.00646 | 0.01997 | −0.32366 |
| INED | 0.05891 | 0.04216 | 1.39732 |
| B4AF | −0.03487 | 0.07326 | -0.47599 |
| BSIZE | 0.08507 | 0.00752 | 11.31288 |
| R-squared | 0.501971 | Mean dependent variables | 8.537772 |
| Adjusted R-squared | 0.475247 | SD dependent variables | 0.242586 |
| SE of regression | 0.175729 | Akaike info criterion | −0.586035 |
| Sum squared residual | 6.330546 | Schwarz criterion | −0.399128 |
| Log likelihood | 75.58477 | Hannan-Quinn criter | −0.510532 |
| F-statistic | 18.78387 | Durbin-Watson stat | 0.559539 |
| P (F-statistic) | 0.00000 | | |

GOWN: Government ownership, EOWN: Executive management ownership, IOWN: Institutional ownership, DLBS: Dual leadership board structure, BNUM: Number of board members, NACM: Number of audit committee meetings, INED: Independent nonexecutive directors on board, BSIZE: Bank size, B4AF: Big 4 audit firms, SE: Standard error

**Table 5: Second stage regression-B**

| Dependent variable: RDQI | | | |
|---|---|---|---|
| Method: Panel least squares | | | |
| Sample: 2008-2014 | | | |
| Periods included: 7 | | | |
| Cross-sections included: 31 | | | |
| Total panel (balanced) observations: 217 | | | |
| **Variable** | **Coefficient** | **SE** | **t-Statistic** |
| C | 2.99238 | 2.37545 | 1.25971 |
| EZSCORE | 0.02006 | 0.02781 | 0.72145 |
| FOWN | −1.80492 | 1.69437 | −1.06524 |
| GOWN | −0.68013 | 0.85150 | −0.79874 |
| EOWN | −15.95338 | 18.37767 | −0.86809 |
| IOWN | −0.80358 | 1.57200 | −0.51118 |
| DLBS | −0.35392 | 0.43543 | −0.81280 |
| BNUM | 0.08884 | 0.05482 | 1.62050 |
| NACM | 0.04503 | 0.08801 | 0.51164 |
| INED | 0.44713 | 0.18585 | 2.40583 |
| B4AF | 0.56794 | 0.32294 | 1.75864 |
| BSIZE | 0.31464 | 0.03315 | 9.49175 |
| R-squared | 0.375959 | Mean dependent variables | 12.29493 |
| Adjusted R-squared | 0.342474 | SD dependent variables | 0.955308 |
| SE of regression | 0.77464 | Akaike info criterion | 2.380874 |
| Sum squared residual | −123.0137 | Schwarz criterion | 2.567781 |
| Log likelihood | −246.3249 | Hannan-Quinn criter | 2.456377 |
| F-statistic | 11.22765 | Durbin-Watson stat | 0.608501 |
| P (F-statistic) | 0.00000 | | |

GOWN: Government ownership, EOWN: Executive management ownership, IOWN: Institutional ownership, DLBS: Dual leadership board structure, BNUM: Number of board members, NACM: Number of audit committee meetings, INED: Independent nonexecutive directors on board, BSIZE: Bank size, B4AF: Big 4 audit firms, SE: Standard error

and relationship of various factors with the RDQ and quantity, the researcher first controlled the endogeniety between stability factor of the bank and quality and quantity of risk disclosure, the researcher found confirmation that banks with a higher proportion of independent non executive board directors, lower ownership proportion of executive management, banks with a high asset value and banks having non-GOWN tend to present to their stakeholders a higher degree of risk disclosure in terms of volume of information as well as quality of the disclosure.

These results recommend that there should be a strict regulation by the supervisory body to enhance the quantity and quality of risk disclosure by banks. Further, Audit committees of the banking institutions should positively play their vital role in this regard. Further, research findings provide support for the recommendations that banks should collaborate more effectively with their national supervisor, the SBP, in enhancing the quality of their Pillar 3 disclosures of the BCBS, As practical suggestion, the findings demonstrate that banking institutions operating in Pakistan may improve their own RDQ and quantity by appointing independent outside board directors and ensuring the audit committee activities as effective monitors of risk disclosure and advisors for risk disclosure management at bank level. In this view, the researcher support the outlook of the BCBS providing these traditional governance mechanisms as vital factors of disclosure behavior in banks (Basel Committee on Banking Supervision, 2006a).

The researcher found it difficult to collect data on all the variables initially included in the model. The sample size was also reduced due to non-availability of data for other scheduled banks and financial institutions such as Foreign Banks operating in Pakistan, DFI's and MFBs. Further, the data sample included only 7 years data as compared to 31 cross sections in the research model which caused problems in executing the research model. Future research may be enhanced by including all the other channels of the financial sector i.e., MFBs, DFIs, Insurance Companies, Leasing Companies, Investment Banks, Mutual Funds, Modaraba Companies, Housing Finance, Venture Capital and Exchange Companies of the country.

## REFERENCES


Abraham, S., Cox, P. (2007), Analyzing the determinants of narrative risk information in UK FTSE 100 annual reports. The British Accounting Review, 39, 227-248.

Abraham, S., Marston, C., Darby, P. (2012), Risk Reporting: Clarity, Relevance and Location. Edinburgh: ICAS.

Ahmed, K., Courtis, J.K. (1999), Associations between corporate characteristics and disclosure levels in annual reports: a meta-analysis. The British Accounting Review, 31(1), 35-61.

Amran, A., Bin, A.M.R., Hassan, B.C.H. (2009), An exploratory study of risk management disclosure in Malaysian annual reports. Managerial Auditing Journal, 24(1), 39-57.

Anderson, K.L., Deli, D.N., Gillan, S.L. (2003), Boards of directors, audit committees, and the information content of earnings. Working Paper Weinberg Center for Corporate Governance.

Barakat, A., Hussainey, K. (2013), Bank governance, regulation, supervision, and risk reporting: Evidence from operational risk disclosures in European banks. International Review of Financial, Analysis, 30, 254-273.

Barako, D.G., Hancock, P., Izan, H. (2006), Factors influencing voluntary corporate disclosure by Kenyan companies. Corporate Governance: An International Review, 14(2), 107-125.

Basel Committee on Banking Supervision. (1998b), Operational Risk Management. Basel, Switzerland: Bank for International Settlements.

Basel Committee on Banking Supervision. (2006a), Enhancing Corporate Governance for Banking Organisations. Basel, Switzerland: Bank for International Settlements.

Basel Committee on Banking Supervision. (2006b), Enhancing Corporate Governance for Banking Organizations. Basel, Switzerland: Bank for International Settlements.

Beasley, M.S., Carcello, J.V., Hermanson, D.R., Lapides, P.D. (2000), Fraudulent financial reporting: Consideration of industry traits and corporate governance mechanisms. Accounting Horizons, 14(4), 441-454.

Bessis, J. (2002), Risk Management in Banking. Chichester: Wiley.

Bischof, J. (2009), The effects of IFRS 7 adoption on bank disclosure in Europe. Accounting in Europe, 6(2), 167-194.

Domínguez, L.R., Gámez, L.C.N. (2014), Corporate reporting on risks: Evidence from Spanish companies. Revista de Contabilidad, 17(2), 116-129.

Elzahar, H., Hussainey, K. (2012), Determinants of narrative risk disclosures in UK interim reports. Journal of Risk Finance, 13(2), 133-147.

Eng, L., Mak, Y. (2003), Corporate governance and voluntary disclosure. Journal of Accounting and Public Policy, 22(4), 325-345.

Frankel, R., McVay, S., Soliman, M. (2011), Non-GAAP earnings and board independence. Review of Accounting Studies, 16, 719-744.

Hassan, N.S.M. (2014), Investigating the impact of firm characteristics on the risk disclosure quality. International Journal of Business and Social Science, 5(9), 109-119.

Helbok, G., Wagner, C. (2005), Determinants of operational risk reporting in the banking industry Journal of Risk, 9(1), 49-74.

Herghiligiu, R. (2013), Operational risk disclosure in Romanian commercial banks. Journal of Public Administration, Finance and Law, (4), 171-178.

Implementation of Operational Risk Management Framework, (2014). BPRD, State Bank of Pakistan.

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

Jia, C., Ding, S., Li, Y., Wu, Z. (2009), Fraud, enforcement action, and the role of corporate governance: Evidence from China. Journal of Business Ethics, 90, 561-576.

Kelton, A.S., Yang, Y. (2008), The impact of corporate governance on Internet financial reporting. Journal of Accounting and Public Policy, 27(1), 62-87.

Klein, A. (2002), Audit committee, board of director characteristics, and earnings management. Journal of accounting and economics, 33(3), 375-400.

Laeven, L., Levine, R. (2009), Bank governance, regulation and risk taking. Journal of Financial Economics, 93, 259-275.

Li, J., Pike, R., Haniffa, R. (2008), Intellectual capital disclosure and corporate governance structure in UK firm. Accounting and Business Research, 38(2), 137-159.

Linsley, P.M., Shrives, P.J. (2005), Examining risk reporting in UK public companies. Journal of Risk Finance, 6(4), 292-305.

Linsley, P.M., Shrives, P.J. (2006), Risk reporting: A study of risk disclosures in the annual reports of UK companies. The British Accounting Review, 38(1), 387-404.

Linsley, P.M., Shrives, P.J., Crumpton, M. (2006), Risk disclosure: An

exploratory study of UK and Canadian banks. Journal of Banking Regulation, 7(3-4), 268-282.
Lipunga, A.M. (2014), Risk disclosure practices of Malawian commercial banks. Journal of Contemporary Issues in Business Research, 3(3), 154-167.
Ntim, C.G., Lindop, S., Thomas, D.A. (2013), Corporate governance and risk reporting in South Africa: A study of corporate risk disclosures in the pre-and post-2007/2008 global financial crisis periods. International Review of Financial Analysis, 30, 363-383.
Oliveira, J., Lima, L.R., Craig, R. (2013), Technical note: Company risk-related disclosures in a code law country: A synopsis. Australasian Accounting, Business and Finance Journal, 7(1), 123-130.
Oliveira, J., Rodrigues, L.L., Craig, R. (2011a), Risk-related disclosure practices in the annual reports of Portuguese credit institutions: An exploratory study. Journal of Banking Regulation, 12(2), 100-118.
Oliveira, J., Rodrigues, L.L., Craig, R. (2011b), Voluntary risk reporting to enhance institutional and organizational legitimacy: Evidence from Portuguese banks. Journal of Financial Regulation and Compliance, 19(3), 271-289.
Yong, H.H.A., Chalmers, K., Faff, R. (2005), Asia Pacific Banks' derivative and risk management disclosures. Asian Review of Accounting, 13(1), 15-44.