Assessing the Impact of Corporate Governance on Non-Performing Loans: Empirical Analysis of the Listed Commercial Banks of Pakistan

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Abstract   *The financial crisis shows the ambiguous role of the corporate governance system. Hence, the main purpose of this paper is to assess the impact of corporate governance on on non-performing loans of the banking industry of Pakistan. The time period selected is from 2006 to 2016 and the source of data is annual reports of respective banks and the World Bank. In order to explain the relationship between the governance system and non-performing loans we used descriptive, correlational and panel data analyses. The results revealed a negative and significant effect of corporate governance on non-performing loans on the sample firms of the study. Therefore, it is suggested that the banking industry of Pakistan implement and make sure their reports according to corporate governance code are compliant with control of non-performing loans.*

Key Words
Business Collapses,
Corporate Governance,
Non-Performing Loans.

Introduction

A large number of businesses collapsed in various countries in the early 21st century. Finally, it has been revealed that the poor governance system is the main factor responsible for these failures. In addition, it is reported that poor governance not only affects the non-financial sectors but also affects the financial sector's listed firms, especially the banking industry.

Similarly, Hail and Luez (2006) revealed that growth of some economies is based on banking industry because it helps to finance businesses. However, reported that the banking sector and financial institutions are disclosed limited firm fundamentals information. Therefore, strong investor protection system is required to increase information disclosures and in turn, the protection system controls large corporate collapses. Therefore, Craig (2004) demonstrated that the importance of corporate governance (CG) initially attracted the authorities in the US due to accounting scandals in firms such as Enron and WorldCom, etc., furthermore, demonstrated that weak CG system creates a conflict of interest and issues of self-appraisal. Therefore, management indulges in window dressing practices of financial reports. In addition, the Sarbanes Oxley Act (2002) was initiated in the US to take corrective measures against business failure. In addition, the regulatory authorities of Pakistan developed and implemented CG code 2002 to ensure investor protection (Javed & Iqbal, 2010). Moreover, to strengthen the governance system of Pakistan the existing code was amended in 2012 and further modified in 2017.

In addition, Levine (2004) demonstrated that the financial system of an economy is either based on banking or market-based financing systems. Moreover, it is reported that in a banking-based financing system with improved information practices about business sectors and their quality, creditors can achieve control of corporations, risk provision, capital acquisition and ease of transactions. However, the market based financial system has not provided such benefits. Furthermore, it is concluded that the market-based system can hinder resources' efficient utilization and the performance of the economy on a large scale. Moreover, Athanasoglou et al. (2008) find that in developing economies a banking based system is more prominent because it is the only prominent source of financing at a large scale.

Hence, it is reported that CG plays its important role to attract capital flows into the banking industry. Moreover, it is reported that CGimplementation in the banking sector of Pakistan are only recently scratching implementation. Hence, the Central Bank of Pakistan is reforming its prudential regulations in light of the CG code and is also focusing on its effective implementations.

Among the number of indicators, Non-Performing Loans (NPLs) act as an indicator of the credit risk of an economy as well as business failures (Williamson, 1987). Moreover, other studies reported that a comparison of a country's net charge off rate to losses of loans represents the instability of the banking system (Keeton & Morris, (1987). Similarly, it is found that NPLs may act as a determinant of economic performance. However, it cannot directly affect economic performance (Drees & Pazrbasioglu, 1998). Moreover, it is demonstrated that NPLs not only affect a single economy adversely but it also create a warning situation for the world capital markets. Therefore, each economy takes initiatives to identify distinct factors on their behalf which are responsible for NPLs (Adebola, Yousaff, & Dahalan, 2011). Moreover, the research on NPLs emerged after the financial crisis (Saba et al., 2012). Hence, it is concluded that CG acts as a mechanism tool to reduce NPLs and in the perspective of Pakistan as a developing economy in this paper its role is empirically investigated.

The Securities and Exchange Commission of Pakistan is one of the major regulatory bodies to regulate and implement the good CG practices at the corporate level. Moreover, the CG code of Pakistan is assisted through guidelines of the Asian Development and World Banks. In addition, the Pakistan Stock Exchange (PSX) established a board committee to monitor the CG practices at the corporate level. Moreover, a section was established at the company affairs division and was assigned the responsibility to monitor firms' reports to ensure compliance with the CG code. According to the CG code of Pakistan, shareholders have many rights and listed firms are responsible to protect their rights. Companies are responsible to disclose transparent information. Similarly, regulatory authorities have the power to ensure the implementation of good CG practices such as transparency.

Effective and efficient systems of governance affect financial system performance. Moreover, indicators of financial performance are measured in different ways (Kaufmann et al., 2008). Hence, among these factors, the most effective factors that affect the quality of asset of financial firms are NPLs. In addition, in developing economies the inefficient judicial systems, bureaucracy and political level corruptions can accelerate NPLs and such practices slow down the loan processing procedures and recovery process (Creane et al., 2004). The level of NPLs can be reduced through an efficient regulations system. NPLs are high because of the weak institutional system. Hence, the level of true information disclosures is low due to corruption in Pakistan. Moreover, it is concluded that both country and corporate level governance systems are needed in the current situation to control the mismanagement of financial systems. Similarly, Vishny and Shleifer (1997) concluded that to create an environment to protect the interests of investors CG mechanisms are necessary to implement. Finally, in light of the above discussion it is concluded that the practices of CG and its implementation to control NPLs in the context of developing economy are required to empirically investigate matters. Thus, in this paper the impact of CG on NPLs of banks listed on PSX is investigated.

Literature Review

The corrupt system on a large scale affects the financial markets and in turn, it can influence the loan offering capacity of banks. In addition, Johnson and Wilson (2000) find that countries of weak civil and democratic systems are largely exposed to pressure groups, hence their decisions and policies are weak. Moreover, we find that in these countries policies of banking sectors loans are directly or indirectly influenced by political system lobbying because on a large scale loans are provided to those companies or individuals whose affiliations are close with political leaders. Therefore, due to the corrupt system, the control of the banking system is relaxed. In addition, political governments are changing due to the democratic system. Hence, Dinc (2005) reported that banks face issues in recovering their credits. Moreover, it is reported that the changing political system affects the speed of ongoing projects and affects economic growth. Such activities increase the default level of banks and the government plays its negative role in higher NPLs. The government actions affect the banking system performances because governments promote certain sectors at the cost of others (Chijoriga, 1997). Moreover, NPLs reduce the profitability of banks (Detraiuche, 1998).

However, Salas and Saurina (2002) find that efficient credit regulations' implementation reduces NPL levels. In addition, it is concluded that in Pakistan a weak institutional environment resulted in weak disclosure of financial information due to corruption. Banks provide loans to businesses whose affiliations are strong with political officials and they borrow more than 45%. Therefore, chances of NPLs are high in such firms because these parties provide loans through soft conditions (Khwaja & Mian, 2005).

In addition, it is concluded that the institutional framework is the combination of country and company levels of institutional frameworks. Petschnigg (2005) demonstrates that organizational practices and financial regulations

procedures and supervision such as the distribution of power and competences are the components of the institutional framework. Moreover, it is reported that this framework explains the basic concepts of country and company level governance systems. The institutional environment is a composition of legal and judicial systems, political stability and control of corruption. Further, it is reported that such factors are highlighted in the Sarbanes-Oxley Act and it helps to strengthen country and company level mechanisms. Similarly, Heffernan (2005) reported that the banking industry of the US is *the* complex banking system around the globe because in the response to repetitive banking failures a number of institutional measures are initiated.

Furthermore, conflict of interests between providers of capital and management of firms initiated an investigation of CG (Wells, 2010). Moreover, it is reported that the companies like East Indian, Levant and Hudson's Bay started CG during the 16th and 17th centuries (Cheffins, 2009). In the US during the mid 1970s CG was included in official reform agendas (Ocasio & Joseph, 2005). Moreover, CG systems provide a platform to secure investments (Vishny & Shleifer, 1997). CG affects the banking industry through the board of directors (BCBS, 2006). However, the characteristics of financial and non-financial firms are different (Morgan, 2002). Moreover, it is reported that the asymmetry of information and agency problems to a great extent have become a challenge in the implementation of CG practices in the banking industry (Levine, 2004).

If the banking system of any economy is strong then there will be financial stability. Moreover, the importance of a strong and efficient banking system is reported in previous literature such as Schumpeter (1934), who demonstrated that the banking sector has the potential to be a huge investor in many economies. However, it is reported that the credit of banks leads to NPLs due to the growth of excessive credit and in turn it generates a situation of high volatility. Moreover, a financial crisis can occur. Similarly, a high credit crisis creates this situation of resource misallocation. Moreover, King and Levine (1993) revealed that the banking industry plays its role as an efficient utilization of capital. Moreover, Levine et al. (2000) reported that financial institutions act as financial intermediaries and their role affects the growth rate. Hasan et al. (2009) conclude that the dependence of businesses on financial sector institutions increases economic growth. Moreover, it is reported that the quality of financial sector performance also affects economic growth.

Moreover, it is demonstrated that the development of the financial sector takes a number of years. However, the role of financial intermediaries may create such an environment that pushes financial sectors to failure (Rajan, 2005). Such failure decreases the trust of stakeholders in the financial sector. Moreover, such failures are also responsible for the failure of economies on a large scales, such as the Asian financial crisis (1997) and the financial crisis of 2008.

Moreover, it is found that the majority of Pakistani firms have concentrated ownership and such firms are owned and controlled through families of the upper-class. In addition, it is observed that businesses whose are controlled by families that have poor governance implementation practices and expropriated minority shareholders. Similarly, Gani and Ashraf (2005) demonstrated that Pakistani businesses are managed in a group form to a great extent such as 22 families own and control them. Moreover, Rias and Saeed (2005) examined the effect of the CG code on the performance of the capital market and reveal that postcode implantation affect performances of corporations and markets are improved.

Theoretical Framework
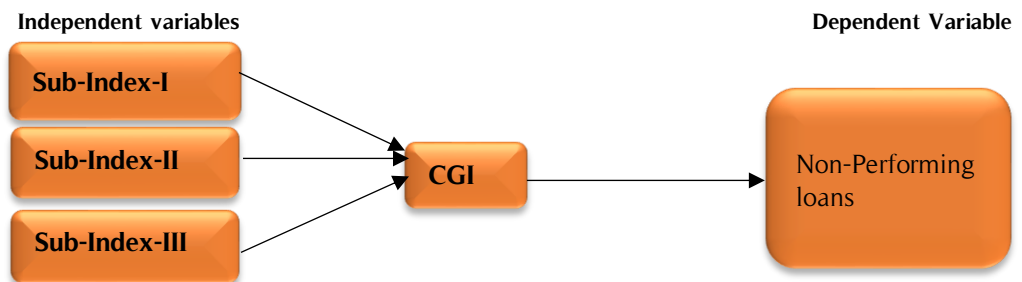
The theoretical framework shows NPLs as a dependent variable while CGI is used as a proxy for CG and CGI is subdivided into sub-indices.

Methodology

In this paper, the impact of company level CG on NPLs is examined during 2006-2016 in a sample of 20 firms of PSX. Moreover, deductive and quantitative approaches are used.

Models of the Study

Four regression models are used to regress the impact of CG on NPLs in Banks listed on PSX. CGI as an independent variable is regressed on NPLs. In order to evaluate ,sub-indexes are regressed separately to examine impact on NPLs.

Model-I shows CGI Independent and NPL as dependent variable respectively.

Non-PL$_{it-1}$ = α + β$_0$CG$_{it}$ + ε$_{it}$……………………………………………………………………… (I)

Model-II presents board of director as independent and NPL as dependent variable respectively.

Non-PL$_{it-1}$ = α + β$_0$BoD$_{it}$ + ε$_{it}$………………………………………………………………… (II)

Model-III is used for transparency, disclosure and accountability TransDisAacc as independent and NPL as dependent variable respectively.

Non-PL$_{it-1}$ = α + β$_0$TransDisAacc it + εit…………………………………………………... (III)

Mode-IV is used for ownership structure and shareholding OSS regressed with NPL.

Non-PL$_{it-1}$ = α + β$_0$OSS$_{it}$ + ε$_{it}$…………………………………………………………………… (IV)

Table 1. Variables Explanation

Variables	Definition	Sources
NPL	It is the ratio of NPLS to total loans	Klein (2013).
CGI	Adopted from Javid and Iqbal (2010). The individual factor score is 0-100.	
Sub-Index-I	Shows board characteristics.	
Sub-Index-II	Covers disclosure of information.	Javid and Iqbal (2010)
Sub-Index-III	Reports ownership structure, policies of dividend and pattern of shareholdings.	

Results and Analysis

Descriptive Statistics

Table 2. Descriptive Statistics

Variables	Mean	Std Dev.	Min	Max	Ske.	Kur...
NPL	10.15	8.48	0	51.56	1.81	3.78
CGI	86.22	6.05	72.61	100	-0.04	2.78
Sub-Index-I	94.54	6.86	75	100	-0.74	2.46
Sub-Index-II	92.04	7.87	64.28	100	-0.26	2.07
Sub-Index-III	72.07	11.88	57.14	100	0.96	3.75

To check the normality, distributions of the variables' skewness is used and it is found that all variables lie between ±1.96 (Bai & Ng, 2005). The range of NPLs is between 0 and 51.56, and skewness is within the prescribed limits. CGI value lies between 72.61 and 100 while skewness is -0.04. Furthermore, sub-index-I values lie between 75 and 100, the mean value is 94.54, while the standard deviation is 6.68. The value of subindex-II lies between 64.28 and 100, while for sub-index-III it is between 57.14 and 100. Moreover, sub-indices II and III having mean values are 92.04 and 72.07 respectively.

Pooled Method

Table 3 presents that CGI is negatively and significantly related to NPLs. It shows that in an increase in CG

Table 3. Results

Dependent variable			NPL's (%)			
	Variables	Symbols	Model 1	Model 2	Model 3	Model4
	CGI	CGI	-0.124			
Institutional Factors	Sub-Index-I	BoD		-0.159		
	Sub-Index-II	TransDisAacc			-0.125	
	Sub-Index-III	OSS				-0.0095
F-Statistics			4.40	9.31	7.67	1.100
Adj R-square			0.0168	0.0401	0.0324	0.0046

implementation the level of NPLs reduces. Moreover, in the second model NPLs is regressed with sub-index-I and shows a negative and significant relationship with NPLs which means that that a stronger board has independent directors according to CG code of Pakistan and such boards control NPLs. Furthermore, sub-index-I negatively and significantly affects NPLs. However, sub-index-III is insignificantly related to NPLs.

Fixed Effect Method

Ordinary least square (OLS) is a weak estimate in terms of panel data analysis. Hence, in this paper we used fixed and random effect analysis techniques. Table 4 shows the relationship of NPLs and CG factors.

Table Error! No text of specified style in document.**.** Results

Dependent Variable			NPL (%)			
	Variables	Symbols	Panel-I	Panel-II	Panel-III	Panel-IV
Institutional Factors	CGI	CGI	-0.204			
	Sub-Index-I	BoD		-0.208		
	Sub-Index-II	TransDisAacc			-0.126	
	Sub-Index-III	OSS				0.516
Prob>F			0.000	0.000	0.000	0.000
Adjusted R-Square			0.022	0.045	0.032	0.005

The first model shows that CGI is used as independent variables with dependent variable NPLs, and we find that their relationship is strongly negative and significant. The second model shows a significant but negative association of NPLs and sub-index-II. The third model shows a significant and negative relation while the sub-index-III shows an insignificant relationship with NPLs.

Hausman Test

This test is used to select a suitable model between fixed and random effect (Ahn & Moon, 2001). In this paper, this test result recommend using random effect.

Random Effect Method

Table 5. Results

Dependent Variable			NPL (%)			
	Variables	Symbols	Panel-I	Panel-II	Panel-III	Panel-IV

	CGI	CGI	-0.124			
Institutional	Sub-Index-I	BoD		-0.21		
Factors	Sub-Index-II	Trans DisAacc			-0.126	
	Sub-Index-III	OSS				0.009
Prob>F			0.000	0.000	0.000	0.000
Adjusted R-Square			0.022	0.045	0.037	0.005

Fourth model results are reported in table 5. A panel-1 show significant and negative relation with NPLs while sub-index-I also shows a significant relationship with NPLs and the nature of the relation is negative. Furthermore, sub-index-II shows a significant while the sub-index-III shows an insignificant relationship with NPLs.

Discussion

In this research, the CGI and all three sub-indices are regressed to examine the relationship of CG and NPLs. The results show that CGI and its sub-indices negatively affect NPLs of banks in Pakistan. However sub-index-III insignificantly affects the level of NPLs. Javid and Iqbal (2010) concluded a positive and significant relationship between firm performance and CGI. As NPLs show the risk factor in banks such as higher NPLs reprints higher risk factor in banks. So, concluded that both show a similar impact in terms of response towards the CG. The sub-index-III shows an insignificant effect on NPLs and it is recommended that efforts must be put on to improve the ownership and shareholding aspect of the CG of Pakistan, thus reducing NPLs. The insignificance of sub-index-III can be due to banks that havee ownership as dominant block-holders or with concentrated ownership.

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