

Impact of Loan Loss Provisions on Earning Management and Capital Management

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Abstract

This study explores the impact of Loan Loss provision on earning management and capital Management. Earning Management and capital management are used as dependent variables while loan loss provision is used as independent variable. Furthermore control variables are also used in this study which are; natural log of total assets, non-performing loan and total loan. Research utilized panel data and for analysis descriptive statistics, correlation matrix, random and fixed effect models are employed. Twenty commercial banks listed on Pakistan Stock Exchange are used as sample for this study. Period of the study ranges from 2010 to 2017. Furthermore the investigation used secondary data which is collected from annual reports of banks, Pakistan stock exchange web site and state bank of Pakistan Financial statement analysis. Hausman test result directs that fixed effect regression model is favorable model for this examination. Fixed effect regression model result states that independent variable LLP and control variables NPL and TL have positive impact, while LnTA has negative influence on earning management. Furthermore dependent variable capital management is negatively influenced by independent variable LLP, and control variable NPL, whereas LnTA and TL have positive influence on capital management.

Keywords: Earning Management, Capital Management, Loan Loss Provision, Non- Performing Loan, Commercial Bank.

Introduction

Banks plays a vital role in the development of a country's economy through credit provisions and accepting deposits. Banking sector provides employments, helping the GDP to grow and this contributes to the economy of a country. Banks simply take deposits from those who have excess of funds and later on lend

those deposits via various approaches to the borrowers (customers) which are in needs of funds, they might be household or corporate sector. Sometimes the customers are not able to repay the loan or fail to pay the schedule payment known as Non-performing Loan. Thus the bank may loss the lent money. So for securing the NPL (Non-performing Loan), the bank keeps some amount against those lending money. A loan loss provision is a basic tool for securing banks against the loss which can affect the bank's profitability.

When the losses of principal amount seem probable and estimable than LLP is recorded to increases the loan loss allowances and reduces current income (as per FAS 5). Banks managers have private information about default risks that is inherent in the Loan portfolio; thus their judgment is important for estimating the LLP in each period. It is very expensive for investors and monitors toward obtain all the data about loan portfolio each year. Subsequently, managers of banks might exercise discretion on timing of provisions for certain loan losses (Wahlen, 2014). The authors maintain that each dollar of loan loss provision increased the allowance by a dollar and reduce retained earnings by a dollar decline in the associated tax savings. The net effect is that regulatory capital increased by the accrued amount of tax savings from provisions.

According to Ashour (2011) that loan loss provisions are reported by banks to estimate uncollectable loans. At end of each financial year, uncollectable loans about that year are projected and compared to the existing allowance. Therefore an expense is recorded in the income statement as a charge against revenues and allowance is increased. This practice is according to the accrual basis principles of accounting (matching principle) which ensures reliability, relevance, and comparability of financial statements. However, this procedure entails the use of accounting carefulness which may be utilized by managers to manage earnings and capital.

Many researchers have tried to define the earning management; but there is no uniform definition as each author has a different perspective. Beneish (2001) examined two kinds of perspectives; one is opportunistic which suggests the intention of misleading investors. Whereas second is about information perspective which suggests that managerial discretion might be used to signal private expectation about the company's future cash flows to investors.

Schipper (1989) defines the earning management as "disclosure management in the sense of a purposeful intervention in the external financial reporting process with the intention of obtaining some private gain, as opposed toward merely facilitating the neutral operation of the process. This definition covers real earning managements, achieved by timing investment or financing decisions to alter reported earnings. According to the meaning of Healy and Wahlen (1999) earning management occurrence "when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers." This definition only considers the opportunistic approach and ignores the information approach of earning management. It does not distinguish between earning management and normal activities whose output is earning (Ronen & Yaari, 2008). According to the definition of Ronnen and Yari (2008) earnings management is "a collection of managerial decisions that result in not reporting the true short-term, value-maximizing earning as known to management. Earnings management can be beneficial (signals long term true value), pernicious (conceals short or long-term value), neutral (reveals the short-term true performance). They managed earning result from taking production/investment actions before earnings are realized, or making accounting choices that affect the earning numbers and their interpretation after the true earnings are realized".

Financial statement frauds as defined by Rezaee (2005) as "it is a deliberate attempt by corporations to deceive or mislead users of published financial statements by preparing and disseminating materially misstated financial statements". Perols and Lougee (2010) found that firms who have managed earnings in prior years will commit fraud if they have the incentives for it. This finding is expected as a result of accruals reverse, "accruals originating from transactions made in previous periods" (Ronen & Yaari, 2008). It means that reported revenues over the lifetime of the firm must equal to total cash inflows and total

accruals must be equal to zero. Consequently, any act of earning management will have consequence on future years. Then management has the choice of accepting these consequence or engaging in more earning management to further postpone these consequences, again engaging in more earning management, until it engages in fraud (Beneish, 1997; Scott, 2003; Dechow, Sloan & Sweeney, 1996; Perols & Lougee, 2010).

The banking sectors have been characterized as more inclined to earning manipulation when compared to other industries (Greenawalt & Sinkey 1988). Scheiner (1981) examined a sample of U.S commercial banks and concluded that LLPs are an important tool which is used by bank managers to manage earnings. Greenawalt and Sinkey (1988) and Ma (1988) provide evidence that bank managers tend to raise LLPs in periods of high operating income in order to lower validity of reported earnings. Many studies support the findings which focus on U.S banks (Ahmed et al, 1997; Liu and Ryan, 1995; Scholes et al, 1990). All these studies concluded that, especially in US, LLPs are used by banks as a mechanism for aggressive earning management, mainly for stock market purposes.

This study examines bank managers' incentives to use loan loss provisions (LLP) to manage earnings and capital. Earning management occurs when managers make use of their Judgment in financial reporting or in structuring transactions to change financial report in order to mislead some stakeholders about the underlying economic performance of the company or to influence contractual results depending on reported accounting numbers (Healy & Wahlen, 2008). Meanwhile LLP is a significant amount of financial statements in the banking industry, therefore manipulating the LLP affect the expenses section of an income statement affecting the earnings. It will also affect the assets and the capital sections of the balance sheet.

Generally, banks set their loan loss provisions to reflect expected future losses on loan in their existing portfolios. Since these future losses cannot be projected with certainty, bank managers have discretion to set the provision. In the theory, managers are supposed to use this discretion to provide best approximations of their portfolios expected losses. But in practice, nevertheless managers may face substantial incentives to manipulate their loan loss provisions (Anandarajan, Hasan & Vivas, 2014).

This study examines the role of LLPs in the Pakistani environment, using the same methodology; however, testing different hypothesis complying to Pakistani environment. Capital adequacy regulations were imposed during the late 1980s and early 1990s. The Pakistani depository institutions consist of commercial and savings bank, i.e. mutual banks, on the other hand are owned by the depositors. These differences in organizational structures may have implications for earnings and capital management behavior patterns through the use of loan loss provisions (LLPs) after the imposition of the new regulation and deregulation.

In this study researcher replicate the research of Ahmed, Takeda and Thomas (1998), and Anandarajan et al. (2003) who examined the role of loan loss provision in capital management, earning management, and as a tool for signaling in the U.S, and Spanish banking industry.

As LLP is a tool for securing bank's loans losses that can affect the bank's profitability. This research hence efforts to determine whether Pakistani commercial banks practice LLPs as a tool for capital management and earnings management.

The problem statement of this research is that how loss provision loan affects the capital management and earning management.

This paper will answer the following two questions.

1. What is the effect of loan loss provision on earning management?
 2. What is the effect of loan loss provision on capital management?
- Objectives of this paper as follows.

1. To investigate the impact of loan loss provision on earning management.
2. To investigate the impact of loan loss provision on capital management

Significance of the study

Loan loss provisions are a cost of engaging in the business of lending for banks. It constitutes the basis for establishing a bank's capacity for observing losses. LLPs are important in their own way as it is an indicator of a bank's ability not only to manage its credit costs but also as a way to avoid problem assets/uncollectable loans. Therefore, LLPs, shows the ability of a bank to manage its funding costs, apart from its ability to manage other expenses.

This study will highlight the issue of loan loss provision in case of bank loss and its impact on capital management and earning management in the context of Pakistan. The amount kept as loan loss provision will be utilized if losses occur to the bank in future. The loan loss provision affords protection for the partners from the joint liability created by another partner that includes misconduct and fraudulent activities but also adverse decisions taken on unilateral basis. The LLP tools are also very important for banking sectors, as the level of profit in banking sectors is improved by it.

Literature Review

The Agency Theory

The agency theory was initiated first time by Ross (1973) and developed by Jensen and Meckling (1976). It deals with the relationship between an officer and a principal. This theory is founded on the divergence of interests and information asymmetry between these two parties. In fact, the agent or manger acts in egocentric manner in order to maximize his wealth even to incur the detriment of the principal (shareholder). Thus there is a transfer of wealth from the company to the manager (Jensen & Meckling, 1976).

According to the agency theory, managers pursue to maximize their personal utility to the detriment of other stakeholders. In order to reduce this behavior and motivate them, managers are paid according to the achieved result. This creates an incentive for managers to manage earnings to maximize their personal wealth. This argument is supported by Jensen and Meckling (1976). They argue that the greater the percentage of capital held by the manger, the greater will be the deviation from the traditional objective of maximizing the value will be low and the company be performing consequently well. Nevertheless, focusing on their own interests, of other internal and shareholders rather than mitigate it. Certainly, the deviation of interests between shareholders and managers encourages the creation of compensation contracts based on income of the company. Thus to increase their salary and benefit from these contracts executives tend to manage their result upward and maximize their well-being by presenting to shareholders the results they were expecting. In addition, in order to limit expenditure and unnecessary spending of managers, shareholders continue to allocate charges. This distribution causes pressure on the managers and stimulates them to reduce their costs. Hereafter, managers can use earnings management to defer some of these charges and show their good management.

Large amount of literature regarding the topic of loan loss provision impact on capital management and earning management is found in developed countries but as far as Pakistan is concerned, it is very rare. Earlier studies utilize the LLPs as on the principle tool for smoothing pay by routine pay in routine banks following their business action depends on credits (Fonseca & Gonzalez,2008; Hasan & wall,2004; Bhat,1996).Since mangers have private data about the default hazard, they can control these procurements upward, when the outcome is lower (high) than fancied (Wahlen,1994).This practice is particularly declared before the banking changes of 1990, when the procurements were incorporated into full among the

administrative capital (Collins et al.,1995; Moyer,1990). Most of studies are by and large, interested to recognize such practices in banks of developing countries.

According to Grey and Clarke (2004) substantial speculation about the provision of large loan losses to influence earnings jumped in the early 1980s when it was exposed that U.S banks provided in adequate loan losses to understate net assets and profits. Preceding to that, Hepworth (1953) recognized that firms are managing income for tax purposes, shareholders confidence and expectations which are likely to accompany the report of high earnings. Nevertheless the attention on use of discretion on manages earnings received global stimulus after the Enron and many other similar cases. The central theme among the companies that was affected both in the U.S and other parts of the world was financial irregularities, which restated the need for better grasp of earnings management among practitioners, regulators and those in the academia. Previous studies have proven loan losses to be one of the major cause of these financial crises and it provisions has a direct impact on firms cash flows and, as a result, the reported earnings (Change et al, 2008; Mohammad et al, 2011). Loan loss provision is an expense on the income statement which signifies manager valuation of expected future losses. This means that an increase in loan loss provision reduce net income, while a fall in loan losses increases net income. Since it is the result of managers' assessment of the likely loss that the company would incur if the borrower fails to repay his obligations as and when due, the provision for it is considered to have two portions: non-discretionary and discretionary portions. "Non-discretionary portion is a function of specific quality determinants in the analyses on troubled large credits, usually implying internal grading system" (Grey & Clarke 2004). Thus non-discretionary portion, consequently, is the provision that is based on fair and objective analysis of the firm's economic conditions. While the discretionary portion are those accrual that largely depend on the outcome of the managers' future expectation of uncertain events (Mohammad et al, 2011).

The banking industry has been characterized as more inclined toward earnings management than other (Greenawalt & Sinkey 1988). The seminal paper by Scheiner (1981) studies a sample of US commercial banks and concluded that LLPs are an important tool used by bank managers for managing earnings. Ma (1988) and Greenawalt and Sinkey (1988) provide evidence that bank managers tend to raise LLPs in periods of high operating income in order to lower volatility of reported earning .These findings are supported by many studies focusing on U.S bank. (Ahmed et al.1999; Beaver & Engel 1996; Collins et al.1995; Healy & Wahlen 1999; Liu et al.1997; Liu & Ryan 1995; Scholes et al.1990).

Kanagaretnam et al. (2004) propose that the need for external financing, complying with regulatory capital requirement will act as motives for earnings management. Moyer (1990), Beatty et al. (2002), Beaver, Ryan and Wahlen (1997), Support the view of managers smooth income to meet regulatory capital requirement. But DeGeorge, Patel and Zeckhauser (1999), Lamout (1998), Healy and Wahlen (1999) support the view that managers smooth their income due to financial reporting incentive. Also Greenwalt and Sinkey (1988) stated that earning variability is a measure of risk and therefore managers could use earning management as a way of reducing the risk.

Large and small firms engage in earnings management with different objectives. Kim, Liu and Rhee (2003) conducted a study to explore the relationship between earnings management and size of the firm. In their researchers they exclude banks, financial institutions and highly regulated firms due to their capital structure and intensity of government regulations and detected that small firms' main objective of smoothing income is to avoid reporting earning losses while large and medium sized firms engage in more aggressively than the small firms with the objective of avoiding earning decreases. This is confirmed through a parametric analysis using a multivariate probit analysis.

Two studies that examined the association of loan loss provisions with capital management after the new regulation came into effect are Kim and Kross (1998) and Ahmed et al (1999). Kim and Kross (1998) found no relationship, whereas Ahmed et al (1999) found a negative relationship between loan loss provision and ratio of actual regulatory capital before loan loss reserves to the minimum required

regulatory capital and unexpectedly found no change in this association after the change in U.S. capital regulations. Generally, the results on the association of LLPs and earning management are conflicting.

Following are the hypothesis of this paper.

H1: There is significant relationship between LLP and earning management.

H2: There is significant relationship between LLP and capital management

Research Methodology

Secondary data are used in this research and is obtained from the financial report investigation published by state bank of Pakistan, as well as Annual Reports of banks. Population consists of all registered banks working in Pakistan. Sample of this research contains the banks which are registered on Pakistan stock Exchange and whose data remains available. Data is collected in the period of 2010- 2017. Sample of the study contains 20 commercial banks listed in Pakistan stock exchange, excluding banks whose data are not available.

Following regression models has been used:

$$EM = \alpha_0 + \beta_1 LLP + \beta_2 \ln TA + \beta_3 NPL + \beta_4 TL + \varepsilon$$

$$CM = \alpha_0 + \beta_1 LLP + \beta_2 \ln TA + \beta_3 NPL + \beta_4 TL + \varepsilon$$

Where

EM= Earning Management

LLP = Specific and general LLP of bank

LNTA = Total Assets Logarithm

NPL= Nonperforming loans normalized by the total assets

TL= Total Loans

CM= Capital Management

Earning Management and Capital Management are used as dependent variables. Capital management simply means to maintain satisfactory level of working capital, current Assets and liabilities. Capital management is proxies by capital adequacy ratio.

$$CAR = \text{Total Eligible Capital} / \text{Credit RWA} + \text{Market RWA} + \text{Operational RWA}$$

As per Healy and Wahlen (1999) earning management appear when managers use judgment in financial Reporting in order to alter financial reports to either misguide certain stakeholders or to influence contractual outcomes. There are two proxies used for the assessment of earning management.

- Balance sheet approach
- Cash flow statement approach

As per the approach of Balance sheet total accruals can be calculated by using the following formula of Healey (1985) and Jones (1991):

$$TA_t = \Delta CA_t - \Delta \text{Cash}_t - \Delta CL_t - \Delta DCL_t - DEP_t$$

Where ΔCA_t is change in current assets in year t

ΔCash_t is the change in cash and cash equivalents in year t

ΔCL_t is the change in current liabilities in year t
 ΔDCL_t is the change in debt included in the current liabilities in year t
 DEP_t is depreciation and amortization expense in year t

While in cash flow approach accruals are calculated through using the following equation;

$$TA_t = N.I_t - CFO_t$$

Where: TA_t is total accruals in year t

$N.I_t$ is the Net Income in year t

CFO_{it} is the cash flow from operation of firm i at time t.

Total accruals are the combination of nondiscretionary accruals and discretionary accruals.

$$(TA_{it}) = (NDA_{it}) + (DA_{it}).$$

In this study earning management is proxy by Dechow et al. (1995) modified jones model, which is given bellow.

$$CA_{it}/ALag = \beta_0(1/ALag) + \beta_1(\Delta R_{it}/ALag) + \epsilon_{it}$$

Here: $CA_{it}/ALag$ is total accruals of firm i at time t.

$ALag$ is lagged value of total assets of firm i.

ΔR_{it} is change in total revenue of firm i at time t.

ϵ_{it} is error term.

Furthermore discretionary accrual is derived as:

$$DA_{it} = (CA_{it}/ALag) - NDA_{it}$$

Whereas; DA_{it} : is the total discretionary accruals of firm i at time t.

$ALag$: is lagged value of total assets of firm i.

NDA_{it} : is non-discretionary component

While non-discretionary side is assessed through the following equation.

$$NDA_{it} = \beta_0(1/ALag) + \beta_1(\Delta R_{it} - \Delta AR_{it}/ALag) + \beta_2(PPE_{it}/ALag)$$

NDA_{it} is non-discretionary component of total accruals of firm i at time t.

$ALag$ is previous value of total assets at t-1.

ΔAR_{it} is change in total account receivables of firm i at time t.

PPE_{it} is property, plant and equipment of firm i at time t.

ϵ_{it} is error term at time t

The residual of regression represents EM.

In this study LLP is use as dependent variables and is proxy by credit risk. According to Radivojevic and Jovic (2017) several measure are used for measuring banks' lending activity, nonetheless the most generally used indicators to recognize credit risk is loan loss provision to total loans (LLP). Furthermore Anandarajan et al. (2007); Mustafa et al. (2012); Henderson (1999); Dugan (2009); also stated that credit risk is a measure of loan loss provisions.

Control variables of this contains Non Performing Loans, Total loans, and Log of total assets, in this study is use as control variables.

Results and Discussion

Descriptive statistics of dependent, independent with control variables are fully presented. Correlation matrix of all variables are also described in order to observe the correlation which exists among variables. Results of regression analysis of panel data for the period 2010 to 2017 are demonstrated and discussed.

Descriptive Statistics

Table 1 shows the summary statistics of the variables that is used in the study. Critical investigation of descriptive statistics for the dependent, independent and control variables discloses several issues. The average EM value for the sample as a whole is 0.01, while disparity in EM ranges from 0.09 (maximum value) to -0.10 (minimum value). The value of skewness and kurtosis are -0.35 and 0.72.

The average CM value for the sample is 0.25, while disparity in CM ranges from 1.33 (maximum value) to 0.19 (minimum value). Values of skewness and kurtosis are -0.51 and 0.39. The average value of independent variable LLP for the sample is 0.29, while disparity in LLP ranges from 1.22 (maximum value) to 0.31 (minimum value). Furthermore skewness and kurtosis values are -0.43 and 2.80.

	Mean	Minimum	Maximum	Std. Deviation	Skewness	Kurtosis
EM	0.01	-0.10	0.09	0.03	-0.35	0.72
CM	0.25	0.19	1.33	0.32	-0.51	0.39
LLP	0.29	0.31	1.22	0.05	0.43	2.80
LnTA	60.12	1.36	23.89	4.61	0.56	1.14
NPL	0.19	0.15	0.95	0.31	0.19	1.11
TL	1.89	0.50	19.04	3.17	0.71	-0.42

The average value of control variable LnTA for the sample is 60.12, while disparity in LnTA ranges from 23.89 (maximum value) to 1.36 (minimum value). The values skewness and kurtosis are 0.56 and 1.14. The average value of control variable NPL for the sample is 0.19, while disparity in NPL ranges from 0.95 (maximum value) to 0.15 (minimum value). In Addition to that the values of skewness and kurtosis are 0.19 and 1.11.

Correlation

	EM	CM	LLP	LnTA	NPL	TL
EM	1.00					
CM	-0.12	1.00				
LLP	-0.31	0.22	1.00			
LnTA	0.45	0.37	-0.17	1.00		
NPL	0.21	0.52	0.49	-0.15	1.00	
TL	0.56	0.39	0.45	-0.23	-0.32	1.00

Table 2 portrays correlation matrix of the study. Its results indicates that there is negative correlation amid dependent variable EM and independent variable LLP, whereas positive relation with control variables; LnTA, NPL, TL.

The dependent variable CM is negatively correlated with independent variable LLP, whereas positive relation with control variables; LnTA, NPL, TL.

Furthermore there is also correlation between independent and control variables. The correlation between the variables shows that if there is any changes occur in independent or control variables the dependent variables will change in same direction.

Regression

As the data is panel, therefore random and fixed effects models are employed aimed at analyzing the relation of variables by utilizing the two equations.

Table 3 Random Effect Regression

Variables	EM			CM		
	Coefficient	T-stat	Prob.	Coefficient	T-stat	Prob.
Intercept	1.103	2.615	0.097	1.257	-1.938	0.054
LLP	0.425	0.983	0.042	-0.469	0.514	0.028
LnTA	-0.137	-1.470	0.052	0.316	0.639	0.057
NPL	0.322	-1.359	0.106	-0.952	-1.429	0.190
TL	0.614	2.489	0.005	0.426	3.361	0.004
Adj R Square	0.451			0.563		
P- Value	0.000			0.000		

Table 3 displays impact of dependent variables EM and CM with independent variable LLP and control variables LnTA, NPL as well as TL by utilizing random effect regression model. Right side of Table 4.3 shows the relationship of dependent variable EM with independent variable LLP and control variables LnTA, NPL and TL. The intercept of the model is positive and has value 1.103. Furthermore the model is statistically significant with P value of 0.00. The adjusted R square is 45.1%, which show that 45.1% variation in dependent variable EM is due to LLP, LnTA, NPL and TL. The regression coefficient of LLP, LnTA, NPL and TL are 0.425, 0.137, 0.322 and 0.614 respectively. These values indicates that when there is one unit change in LLP, LnTA, NPL and TL, it will cause 0.425, 0.137, 0.322 and 0.614 changes in dependent variable EM.

The right side of Table 4.3 exhibits relationship of CM with LLP and control variables LnTA, NPL and TL. The intercept value of the model is positive which is 1.257 furthermore the model is statistically significant with P value of 0.00. The adjusted R square of the model is 56.3%, which show that 56.3% variation in dependent variable CM is due to the LLP, LnTA, NPL and TL. The regression coefficient of LLP, LnTA, NPL and TL are -0.469, 0.316, -0.952 and 0.426 correspondingly. These values direct that when there is one unit change in LLP, LnTA, NPL and TL, it will cause -0.469, 0.316, -0.952 and 0.426 changes in dependent variable CM.

Table 4 portrays the relationship of dependent variables EM and CM with independent LLP and control variables LnTA, NPL and TL by means of utilizing fixed effect regression model. Right side of Table 4.4 shows the relationship of dependent variable EM with independent LLP and control variables LnTA, NPL and TL. The intercept of the model is positive and the value is 1.420. Furthermore the model is statistically

significant having P value 0.00. The adjusted R square is 61.4%, which show that 61.4% variation in dependent variable EM is due to LLP, LnTA, NPL and TL. The regression coefficient of LLP, LnTA, NPL and TL are 0.613,-0.298, 0.556 and 0.810 respectively. These values indicates that when there is one unit change in LLP, LnTA, NPL and TL, it will cause 0.613,-0.298, 0.556 and 0.810 changes in dependent variable EM.

Table 4 Fixed Effect Regression

Variables	EM			CM		
	Coefficient	T-stat	Prob.	Coefficient	T-stat	Prob.
Intercept	1.420	3.105	0.081	1.835	-2.590	0.043
LLP	0.613	1.295	0.033	-0.384	-1.224	0.021
LnTA	-0.298	-0.947	0.049	0.402	0.362	0.053
NPL	0.556	-2.359	0.129	-1.130	-1.164	0.260
TL	0.810	3.489	0.004	0.535	4.858	0.002
Adj R Square	0.614			0.702		
P- Value	0.000			0.000		

The right side of Table 4 shows the relationship of CM with independent LLP and control variables LnTA, NPL and TL. The intercept value of the model is positive which 1.835 is furthermore the model remains statistically significant with P value 0.00. The adjusted R square of the model is 70.2%, which show that 70.2% variation in dependent variable CM is due to the LLP, LnTA, NPL and TL. The regression coefficient of LLP, LnTA, NPL and TL are -0.384, 0.402, -1.130 and 0.535 correspondingly. These values direct that when there is one unit change in LLP, LnTA, NPL and TL, it will cause -0.384, 0.402, -1.130 and 0.535 changes in dependent variable CM.

Table 5 Hausman Test

Chi-Sq	52.61
Prob	0.000

In panel data the selection of the model is important, which model best suit your analysis. For that Hausman test is among other tests which are used for selection of model between fixed and random effect. Table 5 shows the result of Hausman test where the P value is below 0.05, that favored fixed effect model for our data analysis, therefore this study use fixed effect analysis.

Recommendation and Discussion

Purpose of loan loss provisions is to adjusted banks' loan loss reserve toward replicate predictable for future losses and their loan portfolio. The manager of banks have incentives to smoothing earning through the part of discretionary the allowance for loan losses for the reason that les volatility is essential stable stock prices is essential for earnings.

This research investigates the impact of loan loss provision on earning management and capital management. Panel data is used in this study which is collected from different sources like; financial statement analysis of financial sector published by SBP, financial statement of banks and PSE. This research use secondary data of 20 listed banks on Pakistan stock exchange and time frame of the study ranges from 2010 to 2017. The data is analyzed through descriptive statistics, correlation and fixed effect regression model.

Result of correlation matrix shows that dependent variable EM and independent variable LLP, whereas positive relation with control variables; LnTA, NPL, TL. Furthermore CM is negatively correlated with independent variable LLP, although positive relation with control variables; LnTA, NPL, TL.

The result of fixed effect regression model states that independent and control variables LLP, LnTA, NPL and TL have values of 0.613,-0.298, 0.556 and 0.810 respectively. These values indicates that when there is one unit change in LLP, LnTA, NPL and TL, it will cause 0.613,-0.298, 0.556 and 0.810 changes in dependent variable EM.

Furthermore LLP, LnTA, NPL and TL have values of -0.384, 0.402, -1.130 and 0.535 correspondingly. These values direct that when there is one unit change in LLP, LnTA, NPL and TL, it will cause -0.384, 0.402, -1.130 and 0.535 changes in dependent variable CM.

Recommendations and Suggestions for Future Research

After the discussion of results following recommendations are made;

- Based on above results, bankers can decide appropriate strategy regarding investment.
- Bankers and academician are required to be aware of impact of loan loss provision on earning management and capital management.
- Shareholders are also required to remain aware about loan loss provision impact on the earning management and capital management.
- Other factor with have impact on earning management and capital management are require to be examine.
- Loan loss provision impact on other financial variable are also needs to be examine

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