

Earnings management and firm performance: an insight into Indian commercial banks

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Abstract: The purpose of this study is to examine the impact of firm performance on the quality of reported earnings of publically and privately owned commercial banks listed in Indian stock exchange. A bank specific model has been used to measure the earnings management practices existing in such banks. Banks' specific performance ratios and profit number have been used as performance indicators. The results indicate substantial difference existing among the significant factors influencing earnings quality of public sector and private sector Indian commercial banks. This study also shows that profit before tax and appropriation, profit after tax and market ratio, PE ratio and Yield have significant impact on earnings quality of Indian banking firms.

Key words: Earnings management; Discretionary accruals; Performance indicators

1. Introduction

The recent global financial crises have emphasised the need of transparency in accounting process of financial firm. The last few decades have witnessed sudden collapse of large business firms due to misleading financial reporting practices intensely hiding the actual facts regarding the business with a purpose of bluffing its stakeholders (Huizinga and Laeven, 2012; Taylor, 2009). The reason for these global financial crisis can be attributed to audit failure by the banking and financial institutions in practice of transparent financial reporting and maintaining the financial risk ratio, viz. the case of Bank of Credit and Commerce International (UK) and Subprime Mortgage (USA). For banks, a long period of compressed return, lack of liquidity and low interest rate lead to underpricing of risk and increased leverage contributing to bubbles in corporate assets prices and commodities (LARRDIS, 2009). Such conditions negatively affect financial health of firm and lead to its collapse. The integrated macroeconomic nature of financial institution and banks make them highly influential factor of an economy. The nature of banking business makes them open to get affected by national and international market fluctuations. The accounting and financial reporting process of banks and other financial institutions are different from non-financial firms since they trade in money and monetary instruments. Mostly banks are governed by separate specific Banking acts and laws in order to regulate the distinguished nature of banking business. An efficient and effective financial system of an economy channelizes the financial resources in a manner to reduce risk and increase return and

contribute to the overall development and growth of the economy.

The process of manipulating financial reporting of a firm is termed as earnings management. Schipper et al. (1989) defined earnings management as a purposeful intervention in the external financial reporting process with the intent of obtaining some private gain by the managers. The process of earnings management practice can be constructed as planning and controlling of the financial reporting system to meet the management objective of misleading investors, meeting analysts' expectations, maintaining the economic growth projector or arriving at the predetermined target income for their incentive pay (Healy and Wahlen 1999, Giroox et al., 2004, Leuz et al. 2003). The available alternative accounting practices provide discretionary power to the management for making a choice among the available alternative practices and such discretion often lead to manipulated financial facts. Any kind of manipulative practice in financial reporting process will create a shadow view of actual facts and encourage the practice of earnings management in business (Beatty et al. 2002). It has been identified by various researchers that there exists a positive relationship between available discretionary accruals and earnings management practices. Earnings management is a term identified by the presence of discretionary accrual that cannot be directly identified from firms' financial statements, researchers developed various models for calculating discretionary accruals viz. Healey model, 1985; DeAngelo, 1986; Jones, 1991 and Modified Jones model; 1995. Jones model and modified Jones model are highly recommended models for calculating discretionary accrual. The early research

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on earnings management and models developed for calculating discretionary accruals are based on specific firm performance different from financial institutions and the factors contributing to the model are common accrual items leading to earnings management. However, operation of financial institutions especially the banks are different from other businesses and thus the factors leading to earnings management practices in banks also vary from other non-financial firms. Therefore, the model required for calculating discretionary accrual for banks must be designed to consider banks specific parameters. In order to bridge this gap Beatty et al. (2002) developed a bank specific model for calculating discretionary accruals of banks using loan loss provision and realised gain and losses from sale of securities as specific parameters (Kilic et al., 2014; Iannotta and Kwan, 2013; Abaoub et al., 2013). The present study has been undertaken in consonance with the model prescribed by Beatty et al. (2002) for computing the discretionary accruals indicating the involvement in earnings management practices by Indian commercial banks.

In India the accelerated rate of corporate fraud and capital market scams in late 90s and early 21st century viz. Harshad mahta, 1992; Cobble scam, 1995; Ketan parekh, 2001 and Satyam, 2009; reveals the governance loopholes in Indian corporate laws and structure. Initiative for a better governance environment and corporate transparency have been introduced to the securities and exchange board of India (SEBI) Act 1992 with major amendment in 2002 introducing clause (49). SEBI rules and regulations are amended for introducing standardised corporate governance structure to Indian business entity with an objective of promoting independent and fair business decision making process to safe guard the interest of stakeholders and common investors. Even though Indian statutory rules and regulations are amended and improved from time to time to match the complexity of ever changing competitive global business environment it has been noticed that in grip of global financial crisis. Developing economy like India faces many corporate setbacks in times and it is important to study and develop tools for restricting any sort of capital market scandal which results in monetary crisis in the economy.

Several research studies have been undertaken on earnings management practices and these studies generate a number of empirical evidence to support the earnings management theory (Kilic et al., 2014; Ardekani et al., 2012; Joshua and Rohen, 2008; Neffati et al., 2011; Al- Fayoumi et al., 2010; Agarwals et al., 2002; Dharan, 2003). It has been find that significant part of such studies have been undertaken in the late 20th century and most of the studies have been performed in developed nations but very few in context to developing countries. This study is undertaken to fill this research gap and identify the relationship existing between earnings management practice and firm performance in case of public and private sector commercial banks listed

in Indian stock exchange. With this backdrop, the present study has been organised in seven sections. The second section deals with detailed literature review, while the third section discusses the methodology adopted for undertaking this study. The fourth section analyses the results and fifth provide an elaborated discussion on the results. The sixth section concludes the study and the seventh section identifies the future implications and the limitation of the present study.

2. Literature review

Earnings management as a practice was first identified by Schipper in 1989 as management of purposeful intervention in the external financial reporting process with the intent of obtaining some private gains. Early researches on earnings management practices were mostly concentrated on the idea of representing the outcome of a situation, as a result of agency problem. Healey and Wahlen (1999) define earnings management as practice where managers use their discretionary powers in financial reporting process to manipulate financial reports to either mislead some stakeholders about the underlie economic performance of the company or to influence contractual outcomes that depend on produced financial information and accounting numbers. Various accounting laws and standards worldwide such as IFRS and GAAP provide alternative methods of book keeping and such provisions provide managers some discretionary powers to make a choice between the alternative techniques and also create room for earnings management. According to the accrual accounting approach, earnings management is practiced by managers using discretionary power of managing accruals (Dechow et al., 1995; Peasnell, 1999; Dharan, 2003; Ayers et al., 2006; Sarkar et al., 2008; Al- Fayoumi et al., 2010). Research studies' confirming such practices indicate that it is difficult to identify earnings management and quantify amount of discretionary accrual used for practicing earnings management. Since discretionary accruals cannot be identified directly, researchers in due course, have developed various models for calculating discretionary accruals viz., Healy model by Holthausen (1995), DeAngelo model by DeAngelo (1986), Jones model by Jones, J. (1991), Modified Jones model by Dechow et al. (1995) and growth model by Kothari et al. (2005). Empirical evidence suggests that since investor's preference and response towards firms depends upon consistency of firms' income, managers practice earnings management to give an income smoothing earnings figure (De Angelo et al., 1996; Barth et al., 1999). The rationale behind the earnings management practices is that the losing market share and falling stock price of firm will adversely affect managers' wealth (Core et al., 2000). Among the prescribed models, studies show that modified Jones model is the most suitable model for identifying accrual based earnings management practices (Myers and Skinner, 2000;

Beasley and Salterio, 2000; Peasnell et al., 2000; Klein, 2002, Nelson, 2002; Xie et al., 2003; Evans, 2004; Sarkar et al., 2008; Osmar et al., 2007) for different business units. Concentrating on the case of banking industry it is inferred that banks are the central processing units of financial system of an economy. Banks facilitate flow of financial capital and aim to support every sector of economy through judicious allocation of financial resources. It has been identified that even a small change in banking setup will have an impact on performance of other sectors of economy (Burgstahler and Dechow's, 1997). Identification and quantification of earnings management practices in banking sector are different from firms belonging to other industry and such a process is still at a very initial stage (Macey and O'hara, 2003). Though Modified Jones model is one of the highly considered models for calculating discretionary accruals it is said that this model needs to be modified for banks and other financial institution which do not involve sales based business activities (Beaver and Engel, 1996; Ahmed et al., 1999; Beatty et al., 2002). Models have been developed for calculating discretionary accruals in banking sector which mostly take into account loan loss provision (LLP) and realised gain and loss from sale of securities and investment (Collins et al., 1995; Wahlen, 1994; Beaver and Engel, 1996; Beatty et al., 2002). Gunther and Moore (2003) in their studies used loan loss provision as a tool for income smoothing practice where managers used their discretionary powers to manipulate the LLP amount and there by showing a favourable financial result to the stake holders. Studies show that LLP and realised gain and loss from sale of securities and investment have a consistent relationship with earnings management practice in banks (Beatty and Liao 2011; Bushman and Williams, 2012). In 2002 Beatty et al. conducted a study of publicly and privately held US banks by considering different bank specific factors related to loans and short term gains. In that study, they have identified that banks uses discretionary loan loss provision for smoothing their income figure for maintain its market position. Based on the research findings Beatty et al. (2002) has advocated the bank specific model for identify earnings management practices through computing discretionary accruals in banks. Some researchers have also identified that in banks managers mostly use their discretionary power to influence reported banks earnings through alternative use of loan loss provision and realised gain and loss from sale of securities and investment, and tend to manage their earnings downward by increasing loan loss provision and vice versa (Abaoub et al., 2013; Iannotta and Kwan, 2013). In Indian context Sarkar et al. (2014) in his study of Indian banks identified presence of earnings management practice through the periodical fluctuation in banks provisioning with trend analysis without using any specific model. It is evident from prior research that in case of banking industry it is important to take in to account banking provisions and securities gain and losses for

identifying earnings management. Modified Jones model is best suited model for sales based industry where revenue and net assets have accruals at managers discretion where in banking and financial service sector there is need for model which consider the difference in the nature of business and takes into consideration accruals such as provisions for anticipated loss, non-performing assets and sale of securities and investment. Therefore, in the present study we are using the model provided by Beatty et al. (2002) to identify the earnings management practices in Indian commercial banks through discretionary accruals.

Healy (1995) points out that earnings management practice is significantly related to compensation and rewards given to firm's senior executives and managers. Dechow, Patel and Zeckhauser (1999) add that employees' incentives depending on firms' performance contributes in determining the financial reports for any particular period. Thus executives have both the incentive and ability to manage earnings. Guay, et al. (1996) state that managers' motivation for earnings management was an important subject in accounting research and so as the earnings thresholds". In 1997, Burgstahler and Dechow in their study have identified that earnings management practice is basically driven by reported positive profits and sustainable firm performance. Thus, there is sufficient evidence of earnings manipulations to avoid reporting losses. Previous research suggests that firms whose earnings are expected to fall and tend to be negative are likely to engage in earnings manipulations to provide positive earnings figure in financial reports. Barth et al. (1999) found that firms with a consistent pattern of meeting prior period earnings have higher possibilities of engaging in income smoothing earnings management practices. Dechow et al. (2000) found that firms with zero annual earnings have significantly higher discretionary accruals in comparison to other firms. A number of studies focus on the opportunistic use of accruals to window-dressing and mislead users of financial statements suggesting that managerial intent affects the incident and magnitude of accrual. Agarwals et al. (2002) in their study of Japanese banks identified that managers use accruals (loan loss provision and securities gain in case of banks) for maintaining their financial reports for providing a sustainable financial status. Gong et al. (2008) in a study of US firms have also identified that there is trend of downward earnings management before a firm go for open market repurchase. Fang (2009) in his research state that there is a direct relationship between earnings management and firm performance. Furthermore, in 2012 Ardekani et al. identified that there is a significant negative relationship between magnitude of earnings management and measures of firm performance. Thus, there is enough evidence that earnings management practice is related to firm's performance.

The present study analyse the relationship between discretionary accruals as proxy for earnings

management practices and bank capital market performance indicators (viz. PE ratio, yield, return on assets, return on capital employed, profit before depreciation, interest, tax and appropriation and profit after tax) in case public sector and private sector commercial banks listed in Indian stock exchange.

3. Data and research methodology

For the purpose of study, data are collected for 32 commercial banks over a period 11 years (2003 to 2013) from the Prowess 4.14 database developed by Centre for Monitoring Indian Economy (CMIE) based on the data availability for a total period of 11 years. We have considered 7 private sector commercial banks and 25 public sector commercial banks listed in Indian stock exchange. We studied annual reports and corporate governance reports of all the 32 commercial banks over a period of 374 banking years. For the purpose of quantifying earnings management through discretionary accrual we followed the methodology used by Beatty et al. (2002) using DLLP (discretionary loan loss provision) and DRSG (realised security gain and loss) and run OLS regressions for times (eleven years x number of sample firms).

For calculating discretionary accruals (DA) the following formula has been used in consonance with the study undertaken by Beatty et al. (2002):

$$DLLP_{it} = LOSS_{it} - (\alpha + \beta_1 LASET_{it} + \beta_2 NPL_{it} + \beta_3 LLR_{it} + \beta_4 LOANR_{it} + \beta_5 LOANC_{it} + \beta_6 LOAND_{it} + \beta_7 LOANA_{it} + \beta_8 LOANI_{it} + \beta_9 LOANF_{it} + \epsilon_{it})$$

However, considering the banking scenario and the reporting practices of Indian commercial banks, we have modified the above model to cover the requisite criteria to calculate DLLP in Indian context. The model used in this study hence is modified as below. In this model, we have incorporated bad debt written off, long term loan, short term loan, secured loan, unsecured loan, and loan to priority sector and advance to public sector in modification to the original model to capture the overall effect of items specific to Indian banking sector. Thus the revised model can be identified as (Eq. 1):

$$DLLP_{it} = LOSS_{it} - (\alpha + \beta_1 LASET_{it} + \beta_2 NPL_{it} + BDW + \beta_4 LLR_{it} + \beta_5 TLOAN_{it} + \beta_6 STLOAN_{it} + \beta_7 SLOAN_{it} + UNSLOAN_{it} + \beta_9 LOANPS_{it} + \beta_{10} ADVPS_{it} + \beta_{11} LOANF_{it} + \epsilon_{it}) \quad (1)$$

Where:

i = bank holding company identifier;

t = year (2003 to 2013);

DLLP = discretionary loan loss provision as a percentage of total loans;

LOSS = loan loss provisions as a percentage of total loans;

LASET = the natural log of total assets;

NPL = nonperforming loans (includes loans past due 90 days or more and still accruing interest and loans in nonaccrual status) as a percentage of total loans;

BDW = bad debt written off as a percentage of total loan and advances;

LLR = loan loss allowance as a percentage of total loans;

TLOAN = term loan as a percentage of total loans;

STLOAN = short term loan as a percentage of total loans;

SLOAN = secured loan as a percentage of total loans;

UNSLOAN = unsecured loan as a percentage of total loans;

LOANPS = loan to priority sector as a percentage of total loans;

ADVPS = advance to public sector as a percentage of total loans;

LOANF = loan to foreign country as a percentage of total loans;

ϵ = error term

We have also used the following formula to ascertain the realized security gain and losses (RSGL) in consonance with the formula used by Beatty et al. (2002) in their study (Eq. 2):

$$RSGL_{it} = \alpha + \beta_1 LASET_{it} + \beta_2 UNGL_{it} + \epsilon_{it} \quad (2)$$

Where:

i = bank holding company identifier;

t = year (2003 to 2013);

RSGL = realized security gains and losses as a percentage of total assets (includes

Realized gains and losses from available-for-sale securities and held-to-maturity

Securities);

LASET = the natural log of total assets;

UNRSGL = unrealized security gains and losses (includes only unrealized gains and losses

From available-for-sale securities) as a percentage of total assets;

ϵ = error term.

The model measures non- discretionary realised security gains and losses (NDRSGL) for calculating DRSG (discretionary realised security gains and losses). We have calculated the error term i.e. discretionary realised securities gains/losses (DRSG) as follows (Eq. 3):

$$DRSG_{it} = RSGL_{it} - NDRSG_{it} \quad (3)$$

Finally, for calculating discretionary accruals (DA) we have added DLLP and DRSG, the formula can be state as follows (Eq. 4):

$$DA_{it} = DLLP_{it} + DRSG_{it} \quad (4)$$

The result of equations 1, 3 and 4 are presented in the table 1. High levels of DA account to income decreasing earnings management practices through over-reporting of loan loss provisions and/or realized securities gains and losses. Whereas, low levels of DA (often negative) suggest income increasing earnings management practice through under-reporting of loan loss provisions and/or realized security gains and losses. For the purpose of analysing the relationship between corporate governance factors and reported earnings management we have used the below common effect regression model (Eq. 5):

$$DA_{it} = \alpha + \beta_1 ROA_{it} + \beta_2 ROCE_{it} + \beta_3 PE_{it} + \beta_4 YIELD + \beta_5 PAT_{it} + \beta_6 PBDIT_{it} + \epsilon_{it} \quad (5)$$

Where,

DA = discretionary accruals;

ROA = return on assets in the financial year;

ROCE = return on capital employed in the financial year;

PE = PE ratio of the firm for the financial year;

YIELD = yield of the firm for the financial year;

PAT = profit after tax in the financial year;;

PBDITA = profit before depreciation, interest, tax and appropriation in the financial year.

Result of regression equation 5 is given in Table 2 and 3. The relationship is checked based on the significance level ($P < 0.05$).

4. Results and analysis

The results of equation 1, 3 and 4 (table 1) shows the presence of earnings management practices in Indian banking industry. The results of the given equation show how the loan loss provision and realised securities gain and loss affect the reported earnings of private and public sector commercial banks. It is identified through the results that in case of both private and public sector banks there is a trend of income increasing earnings management practice since the discretionary accruals amounts

negative for most of the banks from both the sectors. It is also evident that in case of private sector commercial banks loan loss provision is less in comparison to realised securities gain and loss, which contributes as discretionary accruals for earnings management practices i.e., an average of (-176.96) DLLP and (-2282.69) DRSGI for industry average DA of -2443.94. Whereas in case of public sector commercial banks the contribution of realised securities gain and loss is less in comparison to loan loss provision as discretionary accruals for earnings management purposes i.e., (6378.06) DLLP and (-127.113) DRSGI for industry average DA of -6505.17. This difference reflects the variance in business transactions of the private and public sector commercial banks operating in India. Since Indian public sector banks deals with many of the statutory non-profitable loan schemes and credit facilities, there is more scope for managers of such banks to use discretion in LLP. Whereas Indian private sector banks follow a standard credit facility and mostly facilitates high rate loan schemes, therefore their chances for discretionary choice in LLP is comparatively less

Table 1: Amount of DLLP, DRSGI and DA practiced by Private sector and Public sector Indian commercial banks (as computed by equation 1, 3 and 4)

| Sl. No | Private Banks | DLLP | DRSGI | DA |
|--------|--------------------------------|-------------|--------------|-----------|
| 1 | Axis Bank Ltd. | -1183.74 | 157.3036 | -1026.44 |
| 2 | D C B Bank Ltd. | -26.1889 | -4.66919 | 21.51971 |
| 3 | Federal Bank Ltd. | -47.4386 | -48.8742 | -1.43563 |
| 4 | H D F C Bank Ltd. | -32.2214 | 39.67758 | 71.89898 |
| 5 | I C I C I Bank Ltd. | 40.17646 | -16061 | -16101.1 |
| 6 | I N G Vysya Bank Ltd. [Merged] | -22.8697 | -23.1651 | -0.29541 |
| 7 | Kotak Mahindra Bank Ltd. | 33.56312 | -38.1496 | -71.7127 |
| | Public Banks | DLLP | DRSGI | DA |
| 1 | Allahabad Bank | 80.74886 | -29.5918 | -110.341 |
| 2 | Andhra Bank | -32.347 | -207.757 | -175.41 |
| 3 | Bank Of Baroda | -2.60806 | -127.669 | -125.06 |
| 4 | Bank Of India | -27.4759 | -263.821 | -236.345 |
| 5 | Bank Of Maharashtra | 12.85743 | -51.9139 | -64.7714 |
| 6 | Canara Bank | 22565.82 | -247.2 | -22813 |
| 7 | Central Bank Of India | 143.5522 | -31.1542 | -174.706 |
| 8 | Corporation Bank | -96.2418 | 16.32309 | 112.5649 |
| 9 | Dena Bank | -54.8601 | -175.069 | -120.209 |
| 10 | I D B I Bank Ltd. | -15.3172 | -61.4104 | -46.0932 |
| 11 | Indian Bank | -11.851 | -166.648 | -154.797 |
| 12 | Indusind Bank Ltd. | -14.239 | -21.3359 | -7.09692 |
| 13 | Jammu & Kashmir Bank Ltd. | 3.33541 | -1.67118 | -5.00659 |
| 14 | Karnataka Bank Ltd. | 23.06558 | -41.6699 | -64.7354 |
| 15 | Karur Vysya Bank Ltd. | -7.79221 | -30.055 | -22.2628 |
| 16 | Lakshmi Vilas Bank Ltd. | 16.86774 | -10.9564 | -27.8242 |
| 17 | Oriental Bank Of Commerce | -37.3852 | -52.3211 | -14.9359 |
| 18 | Punjab & Sind Bank | 90725.71 | -48.1991 | -90773.9 |
| 19 | Punjab National Bank | 184.6443 | -246.408 | -431.052 |
| 20 | State Bank Of Bikaner & Jaipur | 9.227972 | -3.99528 | -13.2233 |
| 21 | State Bank Of India | 1123.861 | -993.899 | -2117.76 |
| 22 | State Bank Of Travancore | -3030.21 | -26.7969 | 3003.417 |
| 23 | Uco Bank | 13.45167 | -95.7348 | -109.186 |
| 24 | United Bank | 47876.46 | -186.486 | -48062.9 |
| 25 | Vijaya Bank | 2.24944 | -72.3801 | -74.6296 |

For RSGL, the case of Indian public sector banks is different from their private sector counter parts. Indian public sector banks deal only with government specified securities and investment whereas private sector banks have the liberty over this issue. This difference allows the private sector banks in using more RSGL for discretionary purpose in comparison to public sector banks in India

In Table 2, shows the result of individual bank common effect regression. The beta value reflects the degree of interdependence between firm

performance factors and DA for the purpose of earnings management practice. The result highlights that in case of private banks, mostly there is a significant negative relationship of DA with PAT and PBDITA, whereas in case of public sector banks the results shows that YIELD and PE ratio are most common significant firm performance factors affecting earnings management through DA. However in some cases it was found that ROA and ROCE are also significantly related to DA used for earnings management practice.

Table 2: Result of common effect model for private sectors Indian commercial banks and public sector Indian commercial banks

(* is used for significance factor with sig. level less than .05)

| Sl. No | Private Banks | ROA | ROCE | PE | YIELD | PAT | PBDITA |
|--------|--------------------------------|---------|--------|---------|---------|---------|---------|
| 1 | Axis Bank Ltd. | 1.972* | -.487 | .365 | .473 | -3.364* | 1.314 |
| 2 | D C B Bank Ltd. | 9.282 | -5.625 | .222 | - | -3.407* | -.717 |
| 3 | Federal Bank Ltd. | -1.3868 | .078 | -.858 | .008 | 6.310 | -4.754* |
| 4 | H D F C Bank Ltd. | -.922 | -.587 | .331 | .747 | -.618 | 1.859* |
| 5 | I C I C I Bank Ltd. | -.443 | .607 | -.523 | .286 | -1.151* | 1.240 |
| 6 | I N G Vysya Bank Ltd. [Merged] | 2.221 | -1.034 | -.914 | -.503 | -1.261* | -.140 |
| 7 | Kotak Mahindra Bank Ltd. | .527 | .298 | .957 | 1.022 | -3.378 | 3.891* |
| | Public Banks | | | | | | |
| 1 | Allahabad Bank | -2.559 | -.039 | -.824 | -.639* | 15.267 | .530 |
| 2 | Andhra Bank | .784 | .505 | -2.85 | -1.507* | -1.327 | 2.026* |
| 3 | Bank Of Baroda | 1.045 | 0 | -.512 | -1.337* | -3.136 | 2.374 |
| 4 | Bank Of India | .371 | .391 | -.399 | .781* | .380* | .241 |
| 5 | Bank Of Maharashtra | -.797 | 1.741 | .205 | .637* | .455 | .089 |
| 6 | Canara Bank | .451 | .583 | -.961* | -.242 | -.891* | -.201 |
| 7 | Central Bank Of India | -1.650 | 1.329 | -.869 | -.073 | 1.862* | -.227 |
| 8 | Corporation Bank | -.332 | .962 | -.414 | -.026 | .619 | .051 |
| 9 | Dena Bank | .872 | .889 | -.903* | -.646 | -2.750* | 2.919* |
| 10 | I D B I Bank Ltd. | .683 | 2.346 | -.006 | -1.80* | -6.207 | 3.752 |
| 11 | Indian Bank | 1.047 | 1.028* | -.297 | -.858* | -3.230 | 3.233 |
| 12 | Indusind Bank Ltd. | -1.112 | 1.698* | .259 | .043 | .213 | .143 |
| 13 | Jammu & Kashmir Bank Ltd. | -3.434 | -.543 | -.922* | -.729 | 1.123 | 3.999 |
| 14 | Karnataka Bank Ltd. | -3.287* | 3.006 | .021 | .261 | 1.096 | -1.184 |
| 15 | Karur Vysya Bank Ltd. | -.817 | -.128 | -1.143* | .229 | .729 | .728 |
| 16 | Lakshmi Vilas Bank Ltd. | -3.657 | 4.113* | -.052 | -.819* | -.140 | .488 |
| 17 | Oriental Bank Of Commerce | .624 | .341 | .006 | 1.412* | -.921 | 1.611 |
| 18 | Punjab & Sind Bank | .942* | -.047 | -.353* | -.537* | -2.276* | 1.353* |
| 19 | Punjab National Bank | -.977 | .376 | .046* | .717 | 3.344 | -3.043 |
| 20 | State Bank Of Bikaner & Jaipur | -.449 | 1.66 | -.077 | -1.934* | -5.286 | 5.846 |
| 21 | State Bank Of India | -.859 | -.210 | -.873 | -.079 | 2.919 | -2.957 |
| 22 | State Bank Of Travancore | -1.063 | .455 | -1.173* | -.301 | .757 | .303 |
| 23 | Uco Bank | 1.714 | -1.517 | -.935* | -.988 | -1.626 | .975 |
| 24 | United Bank | 1.576* | -.535 | .157 | .225 | -1.345* | .483 |
| 25 | Vijaya Bank | 1.737 | -1.429 | -1.134* | -.897 | -1.379 | .656 |

Table 3 illustrates category-wise results of private sector and public sector commercial banks. The result indicates that in case of private sector banks PBDITA (-2.899) is significant and negatively correlated to DA whereas, PAT (2.086) is significant but positively related to DA. In case of public sector banks we found that YIELD and PE ratio are significantly related to DA though a weak positive

relationship as is illustrated with beta value (.582) and (.37) respectively.

The difference in results of private and public sector banks indicates the difference in the nature of business undertaken by banks belong to the two categories. The result shows that private sector commercial banks are more concerned about their profit figures and use earnings management to smoothing their profits. The public sector

commercial banks are more concerned about their market indicators and use earnings management

mostly for meeting the analyst expectations.

Table 3: Result of common regression model for Private sector commercial banks and public sector commercial banks

| Banks | Variable | Beta | t-value | Sig. |
|----------------|----------|--------|---------|------|
| Private sector | PBDITA | -2.899 | -15.994 | .001 |
| | PAT | 2.086 | 11.511 | .001 |
| Public sector | YIELD | .582 | 2.948 | .007 |
| | PE ratio | .37 | 2.268 | .034 |

5. Discussion

This study supports the finding of Sarkar et al. (2014) and state that there is presence of earnings management practice in Indian banking industry. Though the model used for calculating earnings management by Sarkar et al. (2014) is modified Jones model, in this study we have used bank accrual model provided by Beatty et al. 2002. Further, in case of public sector commercial banks a significant relationship was found between some of the market measures for firm performance (Yield and PE ratio) and earnings management practices. Whereas, in case of private sector commercial banks a significant relationship was found between profit after tax and earnings management practices. Also a negative relationship was observed between magnitude of earnings management and profit before depreciation, interest, tax and appropriation in public sector commercial banks. The result of this study is supported by similar results of previous research. In their study of banks operating in Turkey, Kilic et al. (2014) have identified that there exists a direct negative relationship between banks profitability and presence of earnings management practice. In 2012 Ardekani et al identified that firm with consistent high earnings are more likely to engage in earnings management practices. Fang (2009) in his research identified that magnitude of earnings management increases in the beginning and stay stable and then gradually decrease in the end as the firm performance keep on increasing. In their study of US firms, Gang et al. (2008) found that observed firms are engaged in earnings management practices for producing desired financial reports and manipulates performance measures for attaining a pre-defined objective. The results of this study is also supporting the outcome of the study undertaken by Beatty et al. 2002 which provide evidence that private banks are engaged in earnings management practices using loan loss provision and realised securities gain for balancing their profit figure in comparison with public sector banks. Thus, this study contributes to the existing literature and illustrates the trend of earnings management practices and its relation with firm performance in case of Indian public and private sector commercial banks listed in stock exchange.

6. Conclusion

This present confirms the presence of income increasing earnings management practice in both

Indian private sector and public sector commercial banks. It is also evident that the difference in business orientation between private sector and public sector banks influence the pattern of earnings management practices by both categories of banks since we have identified that public sector banks mostly uses loan loss provision for earnings management where as private banks mostly use realised securities gain and loss for earnings management purposes. This study emphases the advantage of bank based model provided by Beatty et al. (2002) since through this study we get specific banking factor influencing bank earnings management practices viz. LLP and RSLG. In this study, we have also identified a significant relationship existing between firm performance indicator (viz. PBDITA, PAT, yield and PE ratio) and earnings management practices. It is identified that banks operating profit influences the magnitude of earnings management and fluctuation in banks performance is a motivation for managers to use earnings management practice to provide the desired financial statement to the stakeholders.

7. Future implication and limitation

This study is considered to be an initial attempt to analyse the presence of earnings management in Indian banking sector using banking accrual based model given by Beatty et al. (2002). It is also the first study to identify the existence of any relationship between firm performance indicators of Indian banking sector and earnings management practices present in Indian banking sector. The results of this study can be further used for identifying the magnitude of earnings management and various factors contributing to earnings management. The findings of the study can be used for identifying the loopholes in Indian banking sector which facilitated earnings management and also for identifying different control measures to restrict earnings management practice from distorting financial reports of the banks.

This study has limitation of considering few banks representing both public and private sector for the purpose of research. A higher number of commercial banks from both the sector may provide a better and conclusive result.

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