



DETERMINANTS OF PROFITABILITY OF PRIVATE SECTOR BANKS IN INDIA, A COMPARATIVE ANALYSIS.

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Abstract

Indian banking sector has undergone major change after the advent of Liberalization, Privatization and Globalization policies of Government of India, during early nineties. This has resulted in banking sector reforms recommended by the Narsimham committee on financial sector reforms in India. Reforms has rationalized banking system by opening of new generation commercial banks, entry of foreign banks, prudential norms for quality of asset, deregulation of interest rates. Major players in Indian banking sector are public sector banks (more than 75% market share in business), with their majority ownership held by Government of India, having business of government and government promoted institutions. As compared to public sector banks, private sector banks are depending on market for business. Private sector banks, not having any privileged government business, generate business from individuals, households and corporate. Hence the study is focused on private sector banks to find out their profitability, performance and determinants of profitability to make suggestions for improvement of performance of commercial banks in India. Study has analysed performance of select private sector bank group, old and new, with Bank wise comparison. The study has focused on select eight banks private sector (4 new, 4old) scheduled commercial banks in India for fifteen years, 2000- 2001 to 2014- 2015. The Global banking profitability measure of ROA, is considered as dependent variable and Bank specific five Independent variables are analyzed in the data analysis covering descriptive statistics and ANOVA to find out the significant difference in profitability and determinants of profitability among private commercial banks India.

Key Words: Profitability, Scheduled commercial Private Sector Bank.

Introduction

Scheduled Commercial private sector banks.

Scheduled bank means a bank included in the second schedule as per Reserve Bank of India act 1934. RBI is empowered to include in the schedule, the name of bank which carries banking business in India which satisfies conditions stipulated in the RBI Act. Present study covers select banks in private sector (new and old) group in Indian scheduled commercial Banking sector. Before independence private sector banks in India have played a key role in the development of Indian banking sector. The first half of the 20th century witnessed phenomenal growth of private sector banks. After Independence in the year 1951, there were 566 private banks of which 474 were non-scheduled and 92 were scheduled banks. The share of private sector banks in India later reduced when the Government taken over imperial bank to establish State Bank of India in 1955 and by nationalization of private banks in July 1969 (14 major banks), in April 1980 (6 banks). The share of public sector banks subsequently increased substantially in number of branch and business.

At present, there are 32 private banks comprising of 24 old banks, which existed prior to 1993-94 and eight new private banks, which were established 1993-94 onwards after the RBI Guidelines in January 1993. At present compared to New private sector banks, the old banks are smaller in size. The number of branches of the NPB at the end of March 2014 was 11455 while those of OPBs 5727. The banking reforms Committee 1991, made recommendation to allow private and foreign banks into the banking sector. On the basis of recommendations, the RBI issued guidelines for the establishment of the new private sector banks on January 1993. Accordingly, Nine banks were set-up in private sector including some by development financial institutions. ICICI Bank, GTB, HDFC and IDBI bank are the few banks started then. Over a period of time NPSB had improved their market share in business to 5.3 per cent by 1999-2000 at the cost of Public Sector Banks.

The share of private sector banks in India in number of branches in 1992-93 was only 8.33 percent. In 2002-03, this share has increased to 8.75 percent. As on 31 March 2014, the share of branches of private sector banks in India increased to 18% of which new private banks 12% and old private banks is 6%.

Profitability

Pandya (2014) explains the distinction between 'Profit' and 'Profitability' which is commonly used in the language of business. But there is clear difference between the two terms. Profit is an absolute measure, whereas, the profitability is a relative indicator as profit earned against the utilization of resources available in the business, as profit per employee, per total assets, per unit of sale price/output, etc. However, they are closely related in the sense that they are interdependent and complimentary to each other. Profit refers to the amount of gain earned by the enterprise during the period while profitability is the efficiency and productivity of the business. It is the capacity of the business to make profit by the utilization of available resources. It is the ability of enterprise to generate return on the capital and employees used in the business.

Literature review

Bodla (2007) tried to identify determinants of profitability of Indian banks and found that non-interest income, operating expenses, provisions & contingencies and spread having significant relationship with net profit. Though there is phenomenal growth in number of foreign and private banks operating in India 1991 to 2004, the public sector banks continue to dominate the banking industry in terms of branch expansion, market share in business. The study focused on the determinants of profitability of the public sector commercial banks in India covering a period of 13 years from 1991-92 to 2003-04. Ketkar & Ketkar (2008) analysed profitability of Indian banks in the post liberalization period late 90s. The study examined the long run impact of reforms on individual bank's efficiency and profitability. The study used data envelopment analysis on bank-specific data from 1997 to 2004. The results shows that the relative efficiency of banks by ownership does not critically depend upon whether deposits are treated as an input (intermediation approach) or output (production approach). Dangwal and Kapoor (2010) evaluated the performance of nationalized banks in India and assessed the growth index value of various parameters through overall profitability indices. The data for 19 nationalized banks, for the post-reform period from 2002-03 to 2006-07, was used to calculate the index of spread ratios, burden ratios, and profitability ratios. Study found that while four banks had excellent performance, five achieved good performance, four attained fair performance, and six had poor performance. Kheechee (2011) made an attempt to compare profitability of different categories of commercial banks in India and causes of difference in their profitability. The study concluded that return on funds and return on advances are high in the case of private sector as well as foreign banks and very low in the case of public sector banks. Uppal and Juneja (2012) made study to measure the performance of major bank groups in India on the basis of determining factors like deposits, borrowings, advances and investments on different periods and study revealed that foreign banks are performing much better than all other groups, whereas the performance of old private banks is disappointing among all but the performance of new private banks and public banks are satisfactory. Thota.R.(2013) analysed the performance of Indian public sector banks and private sector banks. The study revealed that Indian public and private banks under performed in terms of marketability and profitability. The performance of banks on profitability is relatively better than marketability. Inefficiency is explained by ownership than size. Dani (2014) identified determinants of profitability, and found that the most critical determinant variable is yield on advance. Also Ratio of term deposit to term liability and employee cost to total expenses are identified as other key determinants. Capital adequacy ratio, Growth in net profit, cash to deposit, debt to equity are found to be irrelevant to profitability of banks. Saini (2014) examined to find out whether any significant difference exists in profitability of public and private sector banks in India and the study concludes that there is significant difference in profitability of public and private sector banks. The study reveals that public sector banks are coming up with high productivity and low profitability compared with private sector banks which shows high profitability and productivity. Priya S (2014) evaluated profitability ratios of different private sector banks in India. The study revealed that there is no significant relationship between the interest spread, net profit margin, and return on net worth, adjusted cash margin of private sector banks in India. The study concluded that there is significant relationship between return on long term funds and ROA of private sector banks in India. Garg and Kumari (2015) assessed the performance of private sector banks in India and reveal that private banks in India performed well and HDFC bank remains as an outperformer among private sector banks in India out of five banks selected for the study. Singh A. K. (2015) analysed overall profitability of different private sector banks in India based on their performance of profitability ratios and concluded that profitability ratio factors are different among various banks selected for the study.

Objectives of the study

The present study evaluating the fundamental determinants of profitability of Private sector banks in India. The objectives of the study are as follows:

1. To compare bank wise trend in profitability determinants of select Private sector banks, old and new, in India.
2. To identify group wise key profitability determinants of private sector bank whole (PSB), Old group (OPSB) and New group (NPSB) in India.
3. To analyze group wise difference in profitability and determinants profitability among Private sector bank (PSB), old group (OPSB) and new group (NPSB) in India.

Research Hypotheses

1H0: $\mu_1 = \mu_2 = \mu_3$, There is no significant variation in ROA between PSB whole, OPSB and NPSB in India.

1H1: $\mu_1 \neq \mu_2 \neq \mu_3$, There is significant variation in ROA between PSB whole, OPSB and NPSB in India.

2H0: $\mu_1 = \mu_2 = \mu_3$, There is no significant variation in NIM between PSB whole, OPSB and NPSB in India

2H1: $\mu_1 \neq \mu_2 \neq \mu_3$, There is significant variation in NIM between PSB whole, OPSB and NPSB in India.

3H0: $\mu_1 = \mu_2 = \mu_3$ There is no significant variation in Noninterest income between PSB whole, OPSB and NPSB in India.

3H1: $\mu_1 \neq \mu_2 \neq \mu_3$ There is significant variation in Noninterest income between PSB whole, OPSB and NPSB in India.

4H0: $\mu_1 = \mu_2 = \mu_3$ There is no significant variation in Wage Bill to expense between PSB whole, OPSB and NPSB in India.

4H1: $\mu_1 \neq \mu_2 \neq \mu_3$ There is significant variation in Wage Bill to between PSB whole, OPSB and NPSB in India.

5H0: $\mu_1 = \mu_2 = \mu_3$ There is no significant variation in Intermediation cost between PSB whole, OPSB and NPSB in India.
5H1: $\mu_1 \neq \mu_2 \neq \mu_3$ There is significant variation in Intermediation between PSB whole, OPSB and NPSB in India.
6H0: $\mu_1 = \mu_2 = \mu_3$ There is no significant variation in NNPA between PSB whole, OPSB and NPSB in India.
6H1: $\mu_1 \neq \mu_2 \neq \mu_3$ There is significant variation in NNPA between PSB whole, OPSB and NPSB in India.

Methodology of study

Data Analysis used ratio technique and various statistical tools like Mean, standard deviation and for testing the hypotheses used 'single factor ANOVA F test. The study is basically analytical research and population targeted are Private Sector Bank PSB (whole), PSB Old, PSB New banks in India.

Data Collection

Present study is an attempt to identify and analyse the key determinants of profitability of selected Private Sector Banks in India. Sample selected for the study is 4 major banks each from old traditional group and new generation group, of private sector banks in India.

Private Sector Banks (new): ICICI Bank, HDFC Bank, Axis Bank, Indus Ind Bank.

Private Sector Banks (old): Federal Bank, Jammu and Kashmir Bank, South Indian Bank and Karur Vysya Bank.

These Banks are selected considering their key position the list of private commercial banks in India in terms Assets, number of Branches and ATM networks. The study has been conducted on the basis of secondary data, on selected Banks, using time series data for last 15years from 2000-01 to2014-15 collected from IBA and RBI Website.

Data Analysis Techniques and Variables

Bank wise analysis is done using descriptive statistics and ANOVA test on the selected variables under study, to identify the prominent factors responsible for the profitability of the select banks and to measure the extent of difference among the group of banks on the variables of profitability.

Variables: The following variables (ratios) are analyzed to examine the performance of the selected banks:

Return on Assets (ROA) being the profitability measure explains the profit generated by a firm by utilising asset resources of the firm over a period of time. ROA of a firm is the profit earning capacity of a firm based on its asset utilisation. $ROA = \text{Net Profit} / \text{Total Assets}$ is shown as a percentage. ROA global bench mark is ">1%"

Net interest margin ratio (NIM) is the difference Between Interest earned and interest paid by a bank indicates earnings made by the bank on intermediation process. NIM global bench mark is ">3%"

$NIM \text{ to total assets} = (\text{Interest earned} - \text{Interest paid}) / \text{Total assets}$.

Noninterest income to total assets ratio (NII) is earned by bank by way of fee income, charges, commission and exchanges. $NII = \text{Noninterest income} / \text{Total assets}$

Operating expenses to total assets ratio (IC) Intermediation cost includes operating expenses consisting of general expenses on staff, premises, computer, electricity etc., $\text{Intermediation cost ratio} = \text{Operating exp} / \text{total assets}$. The global benchmark for IC is "<1%"

Wages as % to total expenses (WBE) is the staff cost of banks by way of expenditure on salary, perks and other terminal benefits of the employees. $WBE \text{ ratio, wage bill to total expenses} = \text{Wage bill} / \text{Total expenses}$.

Net NPA to net advances ratio (NNPA) is the index of quality of advances of banks. Net NPA higher will compress the interest income and then reduces profitability. $\text{Net NPA ratio} = \text{Net NPA} / \text{net advances}$ - NNPA global bench mark is "<3%"

Data Analysis

- a) Comparison of Descriptive statistics of Private Bank NPSB, OPSB variables
- b) ANOVAS test group wise private sector bank Whole, New and Old group in India significance at 1%.

1 a) ROA - On the basis of mean value ROA of group NPSB, it has been noted that the group ROA mean is 1.32% and HDFC has the highest ROA 1.54%. Indusind bank is the lowest with 1.07%. In the case of group OPSB, ROA mean is 1.24% and KVB has the highest 1.62%. SIB is the lowest with 0.90% and the PSB Whole is 1.28%.

1 b) ANOVA test for group wise private sector bank Whole, New and Old					
Summary and ANOVA result of ROA					
SOURCE OF VARIATION	SS	d.f	MS	F.Ratio	F critical

Between Groups	0.04	2	0.020258	0.249186		2.578
Within Groups	3.41	42	0.081298			
Total	3.46					

From the calculations of one way F test (ANOVA) it is seen that F calculated value is 0.249 lesser than F critical 2.578, indicating that there is no significant variation of ROA among the NPSB, OPSB and whole PSB.

2 a) NIM Descriptive statistics

On the basis of mean value of NIM of the group NPSB it has been noted that the group NIM mean is 2.74 and HDFC has the highest 3.89. ICICI bank is the lowest 2.08. In the case of group OPSB, NIM mean is 2.96 and Federal Bank has the highest 3.12 and SIB is the lowest 2.64. PSB whole is 2.85%.

2b) ANOVAs test private sector bank, new and old

Summary and ANOVA result of NIM						
SOURCE OF VARIATION	SS	d.f	MS	F.Ratio		F critical
Between Groups	0.39	2	0.196469963	1.169287		2.578
Within Groups	7.06	42	0.168025468			
Total	7.45	44				

From the calculations of one way F test (ANOVA) it is seen that F calculated value is 1.169 lesser than F critical 2.578, indicating that there is no significant difference in variation of NIM among the NPSB, OPSB and whole PSB.

3 a) NII descriptive statistics On the basis of mean value NII of the group NPSB it has been noted that the group NII mean is 1.90 and Axis having highest 2.09. HDFC bank is the lowest 1.72. In the case of group OPSB, NII mean is 1.22 and Federal having highest 1.40. JK is the lowest 0.90 and PSB whole is 1.55%.

3 b) ANOVA test for private sector bank whole, group new and old

Summary and ANOVA result of NII						
SOURCE OF VARIATION	SS	d.f	MS	F.Ratio		F critical
Between Groups	3.50	2	1.748588847	13.32962		2.578
Within Groups	5.51	42	0.131180745			
Total	9.01					

From the calculations of one way F test (ANOVA) it is seen that F calculated value is 13.32 higher than F critical 2.578, indicating that there is significant difference in variation of NII among the NPSB, OPSB and whole PSB.

4a) Intermediation Cost Descriptive statistics- On the basis of IC mean value of NPSB it has been noted that the NPSB group IC mean is 2.11 and ICICI having lowest 1.84 and highest INDUSIND and AXIS. In the case of group OPSB, IC mean is 1.76 and JK is the lowest 1.47, KVB having highest 1.93 and PSB whole is 1.93%.

4 b) ANOVAs test for private sector bank whole, group new and old

Summary and ANOVA result of IC						
SOURCE OF VARIATION	SS	d.f	MS	F.Ratio		F critical
Between Groups	0.89	2	0.44566479	6.690009		2.578
Within Groups	2.80	42	0.066616467			
Total	3.69					

From the calculations of one way F test (ANOVA) it is seen that F calculated value is 6.690 higher than F critical 2.578, indicating that there is significant difference in variation of IC among the NPSB, OPSB and whole PSB.

5 a) Wage Bill to Total Expenses Descriptive statistics

On the basis of Mean WBE value of NPSB it has been noted that the group WBE mean is 9.27 and Indus is the lowest 7.50 HDFC having highest 12.50. In the case of group OPSB, WBE mean is 13.75 and KYB is the lowest 12.02 and SIB having highest 14.89 and PSB whole is 11.50%.

5 a) ANOVAs test for private sector bank whole, group new and old

Summary and ANOVA result of WBE						
SOURCE OF VARIATION	SS	d.f	MS	F.Ratio		F critical
Between Groups	150.79	2	75.39501913	17.38189		2.578
Within Groups	182.18	42	4.337561697			
Total	332.97					

From the calculations of one way F test (ANOVA) it is seen that F calculated value is 17.38 higher than F critical 2.578, indicating that there is significant difference in variation of WBE among the NPSB, OPSB and whole PSB.

6 a) NNPA descriptive statistics- On the basis of Mean value of NNPA the group NPSB it has been noted that the group NNPA mean is 1.36 and HDFC having lowest 0.34 and Indus bank is the highest 2.10. In the case of group OPSB, NNPA mean is 1.84 and JK having lowest 1.14. SIB is the highest 2.39 and PSB whole has shown 1.60%.

6 b) ANOVAs test for private sector bank, group new and old

Summary and ANOVA result of NNPA					
SOURCE OF VARIATION	SS	d.f	MS	F.Ratio	F critical
Between Groups	1.72	2	0.858608438	0.348069	2.578
Within Groups	103.60	42	2.466773631		
Total	105.32				

From the calculations of one way F test (ANOVAs) it is seen that F calculated value is 0.348 lesser than F critical 2.578, indicating that there is no significant difference in variation of NNPA among the NPSB, OPSB and whole PSB.

Findings and Suggestions

1. Group wise, profitability performance of private sector bank whole, group old and new in India (ANOVA) Test results

Single factor ANOVA technique helps in analyzing the significance of empirical study by comparing variables over a period of time which provides a real feed back to the banks as well as to the all stakeholders. The ANOVA results of the empirical study reveal that the group wise-PSB whole, OPSB and NPSB of private sector banks in India showing mixed Significance with the selected 6 profitability variables.

Results of Hypotheses - ANOVA Test

- 1. Null hypothesis H01 accepted** since in the case of ROA, there is no significant difference in variation among the three select groups.
- 2. Null hypothesis H02 accepted** since in case of NIM there is no significant difference in variation among the three select groups.
- 3. Null hypothesis H03 rejected** since in the case of IC, there is significant difference in variation among the three groups.
- 4. Null hypothesis H04 rejected** since in the case of WBE, there is significant difference in variation among the three groups.
- 5. Null hypothesis H05 rejected** since in the case of NII there is significant difference in variation among the three groups.
- 6. Null hypothesis H06 accepted**, in the case of NNPA there is no significant difference in variation among the three groups.

Hence ANOVA test reveal that in the case of ROA, NIM and NNPA there is no significant difference in variation among the three select groups for the study. In the case of IC, WBE and NII there is significant difference among the three groups. This substantiates that the

Difference in variation among NPSB and OPSB in Variables IC, WBE and NII is the reason behind the good performance of NPSB than OPSB during the last 15 years. NPSB with low ratio of IC and WBE was able to generate good profit. Also with high ratio of NII, NPSB was able to show good income.

2. Bank Wise Profitability Performance

Four Leading Select Banks each in NPSB and OPSB have been evaluated for their Profitability performance as to six selected profitability variables and it is seen that:

1. HDFC having highest ROA in NPSB and KVB in OPSB
2. HDFC having highest NIM in NPSB and Federal in OPSB
3. AXIS having highest NII in NPSB and Federal in OPSB
4. ICICI having Lowest IC in NPSB and JK in OPSB
5. Indus having Lowest WBE in NPSB and KVB in OPSB
6. HDFC having Lowest NNPA in NPSB and JK in OPSB.

Those banks having lower ROA, NIM and NII are suggested to draw strategies to improve the same to become profitable banks in India. Those banks having higher IC, WBE, NNPA have to closely monitor the same for cost reduction and improve productivity and efficiency.

3 Bank group Wise, Profitability Variable Wise, Performances Of Private Bank Groups in India

1. ROA, Highest Mean is NPSB and lowest is OPSB
2. NIM, Highest mean is OPSB and lowest is NPSB
3. NII, Highest mean is NPSB and lowest is OPSB
4. IC, Lowest mean is NPSB and lowest is OPSB
5. WBE, lowest mean is NPSB and

Highest is OPSB 6. NNPA, lowest mean is NPSB and Highest is OPSB. OPSB having lower ROA, NII is suggested to draw strategies to improve the same to become profitable banks in India. Also OPSB having higher IC, WBE, NNPA have to closely monitor the same for cost reduction and improve productivity and efficiency.

Conclusion

Private sector banks in India recorded very long history in Indian banking sector since inception of Presidency Banks (Imperial Bank) in the beginning of 19 century. Later on new private banks are opened in various parts of the country. Banking sector reforms in India (1991) has given way to many foreign and new private banks to set up business in India. New private sector bank with high quality standards opened in India since 1994. Banking reforms increased competition and on account of this efficiency of the Indian commercial banking sector substantially improved.

Analysis of banks' financial performance would be helpful to all stakeholders including Investors, creditors, and regulator, Government and those who are concerned with the performance of the banks. Under the present study four leading banks from each group, NPSB and OPSB have been evaluated for their Profitability performance on six selected profitability variables. ANOVA test revealed that in the case of ROA, NIM and NNPA there is no significant difference in variation among the three select groups for the study. In the case of IC, WBE and NII there is significant difference in variation among the three groups.

Overall profitability bankwise 1st ranking goes to HDFC bank (out of select 8 banks) since it has the highest profitability ROA (>1%), NIM (>3%) and Lowest NNPA (<1%) showing good asset quality.

The overall performance of Mean values of NPSB, all select variables is higher except in the case of NIM of which OPSB is higher. OPSB may gradually improve their lower position in all the 5 variables to emerge as efficient commercial banks in India. The study also highlights that NPSB with low ratio of IC and WBE was able to generate good profit. Also with high ratio of NII, NPSB was able to show good income which is very low in the case of OPSB. Hence OPSB has to gradually reduce the IC and WBE ratio and to improve the NII there by to improve the overall profit position in the coming days.

Limitations of the Study

The study is limited to a period of fifteen years 2. Secondary data only is considered for the study 3. The study covers only private sector banks in India 4. Bank specific factors only considered for study and external factors not considered 5. Secondary data only is considered for the study.

References

1. Bodla (2007): "determinants of Profitability of Banks in India: A multivariate Analysis" *Journal of services research* Vol. 6 No. 2 Page No.75-89.
2. Rakhe, P.B. (2010): "Profitability of foreign Banks vis-à-vis Other Bank Groups in India,-A Panel data Analysis, *RBI Occasional Papers* Vol.31 No.2 Page No. 49-67.
3. Kheechee, (2011): "A Comparative study of Profitability of Different Groups of SCB in India" *IJMT*, Vol. 19, No. 1 Page 62-74.
4. Uppal&Juneja, (2012): "Determining Factors of Profitability and Banks Performance – An Empirical study" *Journal of Economics and Management* Vol. 1 Issue 3, Page No. 56-68.
5. Dangwal& Kapoor, (2012): "Productivity of commercial Banks after the reforms a study of selected banks" *NICE JB* Vol.7 No. 1 Page -31-41.
6. Brindadevi, V. (2013): "A study on profitability Analysis of Private sector banks in India" *IOSR-JBM* Vol. 13 Issue 4 Page no. 45-50.
7. Thota, (2014): "An Analysis of Profitability and Marketability Efficiencies of Indian Public and Private Banks" *Indian Journal of Finance*. January 2014 Page No. 15-28.
8. Dani, (2014): "Profitability determinants of Indian Banks – An Empirical study" *IJARMSS* Vol. 3 No. 5, Page No. 174-198.
9. Priya,S.(2014): "An Analysis of Profitability Position of private sector banks in India" *IJBMI* Vol. 3 Issue 2 Page No.45-53.
10. Pandya,(2014): "Identifying major determinants of profitability of selected nationalised Banks in India" *IJBARR* Vo. 2 issue 4 Page No. 105-112.
11. Singh, (2015): "An Analysis of Profitability Position of Private bank In India" *IJSRP*, Vol. 5 Issue 5 Page No. 1-11.
12. Garg & Kumari (2015): "An empirical Analysis of Profitability Position of Selected Private bank In India" *JMST* Vol.2 No.3 Page No.22-28.