



PERFORMANCE OF NEW GENERATION PRIVATE SECTOR BANKS IN INDIA: A BALANCED SCORECARD EVALUATION

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Abstract

Banks at present are operating in an environment surrounded by challenges from different angles. Performance management plays an important job in appraising the strategic performance of commercial banks and thus helps in facing the challenges and sustain. Balanced Scorecard (BSC), a strategic performance management tool developed by Kaplan & Norton (1992) envisions the importance of holistic performance evaluation. The study evaluates the performance of select new generation private sector banks namely ICICI bank, HDFC bank and Axis bank based on BSC framework developed for the purpose. Mean and Standard deviation are used to analyze the performance of the banks. Further, the variance in the performance of these banks is analyzed using ANOVA analysis. The results indicated that there is significant difference in the performance of the select private banks in all variables under the four perspectives of the BSC framework except for capital adequacy ratio in the financial perspective and number of ATMs in the learning & growth perspective.

Keywords: Balanced scorecard, Performance Measurement, Private Banks, Variance

Introduction

Banking sector reforms introduced by government of India based on the recommendations of Narasimham committee in the years 1991 and 1998 resulted in substantial changes in the Indian banking sector. These recommendations have turned around the destiny of Indian commercial banking sector. Hence, the

year 1991 is also called as the year of 'Banking Sector Reforms' which opened gates to the private and foreign banks. The private banks which came into operation after 1991 are called "New Generation Private Sector Banks".

The entry of new private sector banks and foreign banks in the Indian banking sector had considerably increased the competition. Hence, performance management of commercial banks has become crucial due to raising competition in the banking sector. To stand in the competition and survive, banks need to follow an approach which is forward looking rather than backward looking. As only measured performance can be managed better, performance measurement of the banks plays a major role in managing the performance. Traditional financial ratios measure past performance and mostly reflect past achievements and have no viewpoint over the future which is aligned with a continuously changing business environment.

Balanced Scorecard (BSC) developed by Kaplan & Norton (1992) is a strategic performance measurement tool that includes the financial measures which are the results of past actions as well as non-financial measures that drive future financial performance. It provides a framework which encourages managers to view business from four different perspectives:

Financial Perspective: Under this perspective managers are required to produce measures that answer the following question: To succeed financially, how should we appear to our shareholders?

Customer Satisfaction Perspective: The managers are obligated to produce measures to

respond to the following question: To achieve our vision, how should we appear to our customers?

Internal business process perspective: Managers are required to offer measures that answer the following question: To satisfy our customers and shareholders, what business processes must we excel at?

Learning & Growth Perspective: Under this perspective managers are obligated to answer the following question: To achieve our vision, how will we sustain our ability to change and improve?

Though public sector banks are not conscious of it, some of the new generation private banks like ICICI bank, HDFC bank, KVB and Axis bank are in the process of reaping the benefits of implementation of BSC which is evidently visible in their performance. Among these banks ICICI, HDFC and Axis banks are selected for the present study. The present paper is an attempt to measure the performance of select banks in different variables under the four perspectives of Balanced Scorecard (BSC) framework developed for the purpose based on the framework proposed by Kaplan & Norton (1992).

Review of Literature

Kaplan and Norton (1992) in their study realized that there is no single measure that can provide a focused attention on critical areas of the business with a clear performance target. Managers need a balanced presentation of both financial and non-financial measures.

Kaplan and Norton (1996) revealed that the balanced score card provides executives with a comprehensive framework that can convert a company's vision and strategy into a coherent and linked set of performance measures. These performance measures should include both outcome measures and performance drivers of those outcome measures.

Research on Balanced scorecard as a strategic tool for performance management by Tapanya (2004) , revealed that many organizations are practicing performance measurement systems that includes financial and non-financial measures. The author also highlighted the need for multiple measures of performance in the current environment for measuring and

managing the performance. The role of both financial and non-financial measures in performance measurement of Thai banks has been highlighted by the author.

Kochhar and Anand (2004), opined that BSC will help the organizations in operationalizing the strategy, bring into line employee's goals to that of organization, confirming a focus across multiple perspectives and allowing flexibility. She also highlighted how BSC has helped ICICI Bank in achieving rapid growth, strategic steadiness in spite of scale and diversity and meticulous and objective performance evaluation.

Performance measurement of Indian commercial banks with special reference to Bank of Baroda is done by Sagar (2008) using Balanced Scorecard. The significance of intangible indicators as a tool for measuring the performance of Bank of Baroda was evaluated for a panel data spread over ten years period i.e, 1997-2006. The author concluded that execution of the BSC is difficult due to the problems in measurement of the features related with the intangible assets.

Sunita & Vinitha (2013) developed and applied BSC for evaluating the performance of Standard Chartered Bank (SCB), a foreign bank in India. Using the concepts of Kaplan and Norton a BSC was developed for the bank to measure the performance during 2009-2012. The study revealed that the performance of Standard Chartered Bank was average in the study period.

Balanced Scorecard practices from different regions of the world were studied by Elif & Ali (2014) and the findings showed that Balanced Scorecard is a strategic performance management system that brought a holistic approach to the performance measurement. The study also revealed that it is more advantageous to report the non-financial performance along with the financial performance of the bank in terms of evaluating performance with an all-inclusive approach.

Mohammad Ibrahim (2015) explored the use of Balanced Score card as technique for assessing the performance of the Nigerian bank industry. The author finally concluded that Nigerian banks largely rely on financial measures followed by

customer measures to assess the performance of their banks.

The above literature review indicated that very less studies have been done using balanced score card in the private banking sector in India and the present study is a modest attempt in this direction.

Objectives of the study

- To measure the performance of the selected private banks ICICI, HDFC and Axis banks using BSC framework developed.
- To understand the difference between the performance of the select banks.

Hypotheses: To fulfil the above objectives, the study examined the following hypotheses:

- H0: $\mu_1 = \mu_2 = \mu_3$ (There is no significant difference between the performance of ICICI, HDFC and Axis banks in the BSC framework).
- H1: $\mu_1 \neq \mu_2 \neq \mu_3$ (There is significant difference between the performance of ICICI, HDFC and Axis banks in the BSC framework).

Research Methodology:

Data Collection: Information from secondary sources is collected for the present study.

Sources of data: Information required for the present study has been collected from the annual reports of ICICI, HDFC and Axis banks, 'Statistical tables relating to banks in India' from Reserve Bank of India (RBI) for the period 2006-2015 and from different books and journals.

Statistical Tools: In this study statistical tools like Mean, Standard deviation and ANOVA test have been used.

Period of Study: The period chosen for assessing the performance of select private sector banks for the study is ten years i.e 2005-2006 to 2014-2015.

Sample Size: Top three new generation private banks is the sample which is based on assets and deposits of the banking sector during 2006-2015.

Scope of Study: The study is about the performance analysis of selected three new generation private sectors banks in India during the period 2006-2015. BSC framework developed for the purpose is used to analyze the performance of the select banks

Methodology: Selected private banks performance is measured using the variables of the four perspectives of the BSC framework. The relative performance is studied using mean values and standard deviation. Variance in the performance is analyzed using ANOVA analysis.

ANOVA analysis is a statistical tool that tests the hypothesis that the means of three or more populations are equal. The one-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences between the means of three or more independent (unrelated) groups.

Limitations of the study:

- a) The study is related to a period of 10 years.
- b) The information based on the secondary data may suffer from all the limitations inherent with the secondary data.
- c) Data availability is one of the factors influencing the selection of variables for the study.
- d) The present study is confined only to the select banks from commercial banking sector of Indian banking industry. Hence, the generalization of the findings of current research should be considered very carefully

Variables Selected: Variables in the four perspectives of the BSC are selected based on the literature review and interviews with the banking personnel. The following are the variables considered in the four perspectives of the BSC framework:

Financial Perspective: Credit-Deposit Ratio (CDR), Net Interest Margin (NIM), Capital Adequacy Ratio (CAR) and Net Non-Performing Assets ratio (NNPAR).

Customer Satisfaction Perspective: Market Share in Deposits (MSD), Ratio of Marketing Expenses to Volume of Business (RMEVB) and Ratio of Priority Sector Advances to Total Advances (PSATA).

Internal Business Process Perspective: Cost-to-Income ratio (CIR), Business per Employee (BPE) and Profit per Employee (PPE).

Learning & Growth Perspective: Number of Automated Teller Machines (LNATMs),

Number of Skilled Employees (LNSKE) and Ratio of Wage Bills to Total Income (RWBTI). Log natural of ATMs and Skilled Employees is used in the study.

Data Analysis: The collected data related to ICICI, HDFC and Axis banks is analyzed as under:

Table 1: Performance of select Private Banks in Financial Perspective of BSC

(percentages)												
	CDR			NIM			CAR			NNPAR		
YEAR	ICICI	HDFC	AXIS	ICICI	HDFC	AXIS	ICICI	HDFC	AXIS	ICICI	HDFC	AXIS
2006	88.54	62.84	55.63	2.25	4.08	2.47	13.35	11.41	11.08	0.72	0.44	0.98
2007	84.97	68.74	62.73	1.89	4.21	2.39	11.69	13.08	11.57	1.02	0.43	0.72
2008	92.3	62.94	68.09	1.96	4.66	2.83	13.96	13.6	13.73	1.55	0.47	0.42
2009	99.98	69.24	69.48	2.15	4.69	2.87	15.53	15.69	13.69	2.09	0.63	0.4
2010	89.7	75.17	73.84	2.19	4.13	3.05	19.41	17.44	15.8	2.12	0.31	0.4
2011	95.91	76.7	75.25	2.64	4.22	3.1	19.54	16.22	12.65	1.11	0.19	0.29
2012	99.31	79.21	77.13	2.73	4.19	3.04	18.52	16.52	13.66	0.73	0.18	0.27
2013	99.19	80.92	77.97	3.11	4.28	3.09	18.74	16.8	17	0.77	0.2	0.36
2014	102.05	82.49	81.89	3.33	4.14	3.3	17.7	16.07	16.07	0.82	0.27	0.44
2015	107.18	81.07	87.17	3.48	4.14	3.37	17.02	16.79	15.09	1.4	0.25	0.4
Mean	95.91	73.93	72.92	2.57	4.27	2.95	16.55	15.36	14.03	1.23	0.34	0.47
Std.dev	6.91	7.47	9.26	0.58	0.22	0.32	2.77	1.97	1.95	0.54	0.15	0.22
df	2,27			2,27			2,27			2,27		
ANOVA F-Value	26.765			49.634			3.085			19.835		
p	0.000			0.000			0.062			0.000		

Source: Annual reports of banks and statistical tables relating to banks in India during 2006-15.

CDR indicates how much of a bank's deposits are being used for lending i.e the main banking activity. A higher ratio indicates more dependence on deposits for lending and vice-versa. As per table 1 it has been found that among the banks ICICI, HDFC and Axis the mean score of Axis bank (72.92) is the lowest and exhibiting less dependence on deposits for lending purpose and the mean score of ICICI bank is the highest (95.91) and has the lowest standard deviation (7.47). At the same time, Axis bank has the highest standard deviation during the study period. HDFC bank is exhibiting the highest performance with highest mean value (4.27) in the variable NIM and lowest standard deviation (0.22). ICICI bank has the lowest mean value (2.57) and the highest standard deviation (0.58). CAR of the all the three banks is above the prudential norm of 9 percent. Among the banks ICICI has the highest mean value of CAR

(16.57) with highest deviation (2.77) and Axis bank has the lowest mean value (14.03) and lowest standard deviation (1.95). In the last variable NNPAR, HDFC bank is having the lowest mean value (0.34) and lowest standard deviation (0.15) and ICICI bank has the highest mean value (1.23) and standard deviation (0.54). Higher ratio replicates rising bad quality of loans of the bank.

ANOVA analysis reveals that the p value in three out of four variables of the financial perspective is less than 5 percent significance level and hence, null hypothesis is rejected and alternate hypothesis is accepted. Hence, it can be concluded that there is significant difference between the performance of ICICI, HDFC and Axis banks in financial perspective of the Balance Scorecard.

Table 2: Performance of select Private Banks in Customer Satisfaction perspective of BSC

	(percentages)								
	MSD			RMEVB			PSATA		
YEAR	ICICI	HDFC	AXIS	ICICI	HDFC	AXIS	ICICI	HDFC	AXIS
2006	7.63	2.58	1.85	0.0596	0.089	0.0273	29.2	30.99	28.22
2007	8.55	2.53	2.18	0.0511	0.065	0.031	28.22	37.67	34.64
2008	7.36	3.04	2.64	0.0442	0.0699	0.0314	26.48	27.47	35.79
2009	5.37	3.51	2.89	0.0321	0.045	0.0374	28.42	30.12	27.78
2010	4.26	3.53	2.98	0.0289	0.0283	0.0192	29.79	35.09	28.14
2011	4.02	3.71	3.37	0.0337	0.0431	0.0238	24.68	34.24	28.69
2012	3.96	3.82	3.41	0.026	0.0345	0.0226	23.37	32.68	28.99
2013	3.94	3.99	3.4	0.0325	0.0344	0.0266	20.6	32.01	28.56
2014	3.89	4.3	3.29	0.0273	0.0214	0.0188	19.06	29.58	24.62
2015	3.83	4.78	3.42	0.0216	0.023	0.015	19.67	29.03	27.28
Mean	5.28	3.58	2.94	0.04	0.05	0.03	24.95	31.89	29.27
Std.dev	1.85	0.72	0.56	0.01	0.02	0.01	4.09	3.11	3.37
df	2,27			2,27			2,27		
ANOVA F-Value	10.333			4.354			9.755		
p	0.000			0.023			0.001		

Source: Annual reports of banks and statistical tables relating to banks in India during 2006-15.

Table 2 reported that among the three banks, ICICI has the highest market share in private banking sector with mean value (5.28) and highest standard deviation (1.85). At the same time, Axis bank has the lowest market share with mean value (2.94) and lowest standard deviation during the study period. HDFC bank has the highest mean value (0.04) in the variable RMEVB and Axis bank has the lowest mean value (0.03). Further, both Axis and ICICI banks have lowest standard deviation (0.01). The performance of HDFC reported well in PSATA with highest mean value (31.89) and lowest standard deviation (3.11). ICICI has lowest mean value (24.95) and highest standard deviation (4.09). It is also observed all the three banks are above the norm prescribed for priority sector advances by RBI.

ANOVA analysis reveals that the p value in all three variables of the customer satisfaction perspective is less than 5 percent significance level and hence, null hypothesis is rejected and alternate hypothesis is accepted. Hence, it can be concluded that there is significant difference between the performance of ICICI, HDFC and

Axis banks in customer satisfaction perspective of the Balance Scorecard.

The variable CIR is important for determining the profitability of a bank. The lower the ratio the more profitable is the bank and higher efficiency. Table 3 reported that among the banks ICICI, HDFC and Axis the mean score of ICICI bank is the highest (41.22) and indicated that the bank was able to mobilize good volume of low cost CASA deposits and has higher efficiency than other banks. HDFC has the highest mean score (48.5) in CIR and so exhibited less efficiency. The deviation from the mean score is the lowest (2.08) in case of HDFC bank. At the same time, the deviation is highest in ICICI bank and indicated no consistency in the performance. Mean value in BPE of ICICI bank is the highest (0.0862) and also has the low deviation from mean. HDFC had the lowest mean value and Axis bank had the highest deviation from the mean value in the variable BPE. PPE of Axis bank is highest among the three banks and has the highest deviation from mean value. Similarly, PPE of ICICI bank is lowest (0.0015) among the three banks and the deviation is the lowest among the three banks.

Table 3: Performance of select Private Banks in Internal Business Process perspective of BSC (percentages)

YEAR	CIR			BPE			PPE		
	ICICI	HDFC	AXIS	ICICI	HDFC	AXIS	ICICI	HDFC	AXIS
2006	41.2	49.37	45.028	0.0905	0.0083	0.01634	0.00291	0.00849	0.01791
2007	40.2	48.56	49.006	0.1027	0.0053	0.0107	0.00197	0.00537	0.01152
2008	50	49.86	49.19	0.1008	0.0031	0.00758	0.00122	0.00313	0.00783
2009	43.4	51.65	43.417	0.1154	0.0018	0.00533	0.00111	0.00186	0.00551
2010	37	48.01	41.448	0.0765	0.002	0.00452	0.00149	0.00203	0.00283
2011	41.95	48.07	42.69	0.0735	0.0018	0.00412	0.00144	0.00188	0.00273
2012	42.91	49.69	44.702	0.0708	0.0015	0.00327	0.00124	0.00155	0.00225
2013	40.49	49.57	42.635	0.0735	0.0014	0.0027	0.0012	0.00149	0.00241
2014	38.25	45.61	40.816	0.0747	0.0013	0.00241	0.00122	0.00142	0.00211
2015	36.83	44.6	40.744	0.0832	0.0012	0.00227	0.0009	0.00098	0.00208
Mean	41.22	48.5	43.97	0.0862	0.0028	0.0059	0.0015	0.00281	0.00572
Std.dev	3.84	2.08	3.07	0.0155	0.0023	0.0045	0.0006	0.00241	0.00531
df	2,27			2,27			2,27		
ANOVA F- Value	14.212			253.175			4.146		
p	0.000			0.000			0.027		

Source: Annual reports of banks and statistical tables relating to banks in India during 2006-15.

ANOVA analysis reveals that the p value in all three variables of the internal business process perspective is less than 5 percent significance level and hence, null hypothesis is rejected and alternate hypothesis is accepted. Hence, it can be

concluded that there is significant difference between the performance of ICICI, HDFC and Axis banks in internal business process perspective of the Balance Scorecard.

Table 4: Performance of select Private Banks in Learning & Growth perspective of BSC

YEAR	LNATMs			LNSKE			RWBTI (%)		
	ICICI	HDFC	AXIS	ICICI	HDFC	AXIS	ICICI	HDFC	AXIS
2006	7.7	7.188	7.377	9.32	9.61	8.52	7.728	8.69	9.967
2007	8.112	7.381	7.545	10.41	9.98	8.79	8.04	9.516	9.152
2008	8.264	7.591	7.771	10.61	10.53	9.21	8.564	10.496	9.063
2009	8.458	8.076	7.924	10.45	10.87	9.6	8.635	11.406	10.194
2010	8.56	8.35	8.187	10.47	10.85	9.93	5.803	11.357	9.969
2011	8.731	8.635	8.365	10.2	10.92	9.98	5.095	11.689	12.141
2012	9.129	9.113	8.744	10.15	11.09	10.18	5.25	10.101	12.07
2013	9.268	9.247	9.203	10.24	11.14	10.37	5.59	9.46	10.409
2014	9.334	9.334	9.328	10.38	11.13	10.64	5.854	8.519	9.73
2015	9.442	9.379	9.467	10.26	11.12	10.66	5.749	8.26	9.783
Mean	8.7	8.429	8.391	10.249	10.724	9.788	6.631	9.949	10.248
Std.dev	0.584	0.841	0.761	0.356	0.531	0.746	1.428	1.263	1.064
df	2,27			2,27			2,27		
ANOVA F-Value	0.522			6.805			25.368		
p	0.599			0.000			0.004		

Source: Annual reports of banks and statistical tables relating to banks in India during 2006-15.

It can be revealed from table 4 that ICICI has the highest number of ATMs and Axis bank had the lowest number of ATMs among the select banks. Similarly, the deviation from the mean score of ATMs is lowest in ICICI bank and highest in HDFC. The number of skilled employees is highest in number in case of HDFC and lowest in Axis bank. Axis bank is leading the select banks with highest mean value in RWBTI (10.248) and lowest deviation (1.064). On the other hand, ICICI bank has lowest mean value in RWBTI (6.631) and highest deviation (1.428) ANOVA analysis reveals that the p value in two out of the three variables of the learning & growth perspective of the BSC is less than 5 percent significance level and hence, null hypothesis is rejected and alternate hypothesis is accepted. Hence, it can be concluded that there is significant difference between the performance of ICICI, HDFC and Axis banks in learning & growth perspective of the Balance Scorecard.

Conclusion

Banking Sector Reforms in 1991 opened gates to the private and foreign banks. Since then, performance management of commercial banks is playing a crucial role in facing competition in the banking sector. As only measured performance can be managed better the private sector banks are using the contemporary performance measurement techniques and BSC developed by Kaplan & Norton in 1991 is one among them. The present study performance measurement of the select new generation private sector banks using BSC framework developed for the purpose is an attempt to understand the performance of new generation private banks in the present banking scenario featured by challenges on one hand and competition on the other hand. The top three new private banks ICICI, HDFC and Axis banks are selected for the study and their performance during the period 2006-2015 is measured using BSC framework developed.

The results revealed that HDFC bank performance is good in financial perspective of the BSC. The two banks ICICI and Axis performance is moderate in the variables in customer satisfaction perspective of the BSC. In two out of three variables in internal business

process perspective of the BSC, the performance of the two banks ICICI and Axis is good. ICICI bank exhibited good performance in majority of the variables in learning & growth perspective of the BSC. Finally, it can be concluded that the performance of ICICI bank is best followed by Axis and HDFC banks during the study period in the BSC framework. It is suggested the banks to improve performance in all perspectives of the BSC to improve overall performance.

There is significant difference between the performances of ICICI, HDFC and Axis banks except for the variables CAR in financial perspective and LNATMs in learning & growth perspective. All the three selected banks in the private sector are maintaining CAR above the 9 percent norm prescribed by the RBI. Similarly, all the three private sector banks are expanding their breadth in terms of large number of ATMs to reach the public and compete with public sector banks. It was evident from the increasing trend observed in the number of ATMs of the private banks during the study period.

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