Pre-Submission Seminar

On

APPLICATION OF BALANCED SCORECARD IN PERFORMANCE EVALUATION –A COMPARATIVE STUDY OF STATE BANK OF INDIA AND ICICI BANK

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Introduction

Long term survival of an organization depends upon its growth and development. For this purpose, there should a performance evaluation system that encompasses all aspects of an organization. Such a system should be capable of bringing out the strengths and weaknesses of the organization for the purpose of further improvement. There are number of performance measurement tools which could be grouped into two broad categories like i) Traditional measures and ii) Non-traditional measures. Traditional measures which indicate the financial strengths, weaknesses, opportunities and threats are: Return on Investment (ROI), Residual Income (RI), Earnings per Share (EPS), Dividend Yield, Price Earnings Ratio, Growth in Sales, Market Capitalisation etc. But users of financial statements are interested on non-financial performances of corporate bodies, besides financial performances in such case non-traditional measurement tools like Economic Value Added (EVA), Market Value Added (MVA), CAMELS model, Altman Z-Score model, Balanced Scorecard (BSC) are used for measuring the performance. EVA is the most successful performance metric used by companies. This measure was devised by Stern Stewart & Company.

Economic value added attempts to capture the true economic profit of a company. Such a metric is useful for investors who wish to determine how well a company has produced value for its investors. MVA is a measure of company's financial performance that shows the difference between the market value of a company and the capital contributed by investors. The higher the MVA, better the performance. A high MVA indicates the company has created substantial wealth for the shareholders. A negative MVA means that the value of management's actions and investments are less than the value of the capital contributed to the company by the capital market. The **Z-**score formula for predicting bankruptcy was published in 1968 by Edward I. Altman, The formula may be used to predict the probability that a firm will go into bankruptcy in foreseeable future. The purpose of the Z Score Model is to measure a company's financial health and to predict the probability that a company will collapse in near future. CAMELS rating system is another bank-rating system where bank supervisory authorities rate institutions according to six factors i,e Capital Adequacy, Asset Quality, Management Quality Earnings, Liquidity, Sensitivity to Market Risk.

The concept of Balanced Scorecard is strongly relevant in the present era of emerging intense global competition where the organizations are facing knowledgeable and demanding customers and active share holders which has changed the competitive environment from competition based on ability to invest in and manage physical assets to competition based on knowledge and the ability to exploit intangible and soft assets**.** The Balanced Scorecard throws insight into an organization's performance by integrating financial measures with other key performance indicators around customer perspectives, internal business processes and organizational growth, learning and innovation, and enables organizations to track short-term financial and operating results while monitoring progress for future growth, development and success.

Balanced Scorecard

The Balanced scorecard approach was first set out by Robert Kaplan and David Norton in a Harvard Business Review article in 1992. It was designed as an alternate to traditional ways of measuring corporate performance. The Balanced Scorecard is a strategic performance management framework that has been designed to help an organisation monitor its performance and manage the execution of its strategy. In a world-wide study by Brain & Co[1] on management tool usage, the Balanced Scorecard was found to be the sixth most widely used management tool across the globe. When it was first introduced the Balanced Scorecard perspectives were presented in a four-box model. Early adopters created Balanced Scorecards that were primarily used as improved performance measurement systems with key performance indicators in four perspectives. However, this four box model has now been superseded by a Strategy Map which is at the heart of modern Balanced Scorecards. A Strategy Map places the four perspectives in relation to each other to show that the objectives support each other. The four perspectives of Balanced Scorecard are explained as follows:

Financial Perspective: This is a strategy for growth, profitability, and risk from the perspective of the shareholder. Hence, under this perspective managers are obligated to produce measures

[1] Management Tools & Trends 2015-Bain Breif-Bain&Co.

that answer the subsequent question: To succeed financially, how should we appear to our shareholders? Under this perspective the common performance measures included are: ROI, Return on Assets, Cash Flow, Net Operating Income, capital adequacy, Revenue Growth, etc.

Customer Perspective: This is a strategy for creating value and differentiation from the perspective of the customer. The managers are obligated to produce measures to respond to the following question: To achieve our vision, how should we appear to our customers? Distinctive measures used under this perspective are: Growth of Credit Granted to customer, Growth of priority sector, growth of transactions outside India, Growth of volume of business, etc.

Internal Process Perspective: This is a strategy for producing goods and services in the most efficient and effective methods. Consequently, managers are obligated to offer measures that answer the following question: To satisfy our customers and shareholders, what business processes must we excel at? The essential idea of this perspective is the consequences of the internal business processes which lead to financial success and satisfied customers. Commonly used measures for this perspective are: Business per employee, Profit per employee, Ratio of wage bill to Income, Ratio of wage bill to total expenses etc.

Learning and Growth Perspective: This is a strategy to create a climate that supports organizational change, innovation and growth. Under this perspective managers should recognize measures to answer the subsequent question: To achieve our vision, how will we sustain our ability to change and improve? This perspective is related to the employees of the organization, and it measures the extent to which the organization exerts efforts to provide its employees with opportunities to grow and learn in their domain. The commonly used measures for this perspective are Number of ATMs, Debit Cards, Credit Cards, Expenditure on training of employees, Growth in skilled employees, etc.,

Application of Balanced Scorecard in Banking Sector

In contemporary economic environment, factors like employee knowledge, relation with customers and the culture of innovation and changes define success for an organization. Thus, the intangible assets are the key for the long-term success in today’s world. For the banks studying the financial indicators in isolation does not yield a very effective strategy since their performance interlinks financial indicators with other invisible indicators. In fact financial performance is the translation of many intangible business processes and performance indicators.

Subsequently bank finds it difficult to design a comprehensive strategy for long-term growth. This is where the more comprehensive techniques such as BSC can be incorporated. Indian banking can also adopt such a technique to overcome the limitation of the existing valuation methods. The first step towards this is to recognize appropriate performance drivers. Alignment of these drivers ensures effectiveness of strategy.

For organization like a bank, the customer behavior is a major indicator of the bank performance. The more is the value creation by a bank among the customers, the better the performance of the bank. This can be realized by the bank's efforts to understand the customer's requirements, offer that product that satisfy customer's requirements, help the customers in the choice of alternative solutions, and effective differentiate one's own services from the competitors. However banks tend to focus upon financial aspects alone and concentrate on Return on Equity (ROE) or marketing of products with the volume and growth of credit and deposits as the central objective. The risk-adjusted capital adequacy guidelines, poor profitability over long-term, conceptual and practical failure of measures such as asset growth, often lead bank management to focus on ROE as the ultimate performance measure. Such framework brings about many changes in performance measurement as well as in the management processes used to plan, operate and control the bank, but it does not present the entire picture of bank performance measurement and evaluation. A comprehensive alternative is application of Balanced Scorecard which measures the performance of organization in four perspectives i.e. financial, customer, internal business process and learning & growth. The Balanced Scorecard approach, which emphasizes all the four perspectives, can be an efficient technique for long-term strategic planning. This is also the case for service organizations like banks.

Need for the Study

Banking industry plays a critical role in channelizing the savings into investment avenues. In an economy where capital market is not yet developed to its maximum potential, banking companies play instrumental role in capital formation. In countries like India where public sector banks have occupied predominant share in the banking industry, it is quite essential to evaluate the functioning of public sector banks. libralisation and privatization has provided impetus for the private sector to play critical role in the industry, both public and private sector banks are functioning competitively in the present scenario. In the light of this, the present study provides insights into the performance of banking companies which is useful in identifying the issues, challenges, opportunities and threats for future growth of banking industry in India.

Application of non-performance measurement along with financial metrics helps in comprehensive evaluation of performance of banking companies. Quantitative measures of performance like key financial ratios throw light on the past performance of a company where qualitative measures like customer satisfaction, employee performance etc., brings to light the future prospects of a company. In order to make an integrated measurement of performance in terms of qualitative and quantitative aspects, Balanced Scorecard is proposed to be applied for the present study, after measurement of performance under four different dimensions i.e., financial, customer, internal process and learning and growth, the study extends to evaluate inter-relationship among the four perspectives of performance. Analysis of inter-relationship between the four perspectives help in identifying the key drivers of future growth prospects of banking company. Establishing the inter-relationship between these four perspectives is useful in developing competitive advantage to the company. Hence, the findings of the present study are useful in evaluating the longterm performance of the banking companies.

Review of Literature

A brief review of literature pertaining to the topic is presented here.

Mabwe Kumbirai, et.al., (2010) investigated the performance of South Africa's commercial banking sector. The study found that overall bank performance increased considerably in the first two years of the analysis, a significant change in trend is noticed at the onset of the global financial crisis in 2007, reaching its peak during 2008-2009. This resulted in falling profitability, low liquidity and deteriorating credit quality in the South African banking sector.

Hassan Mobeer Alam, et. al., (2011) the study compared the financial performance of public banks and private banks which were working in Pakistan. The Study concludes that public and private banks have different ranking based on bank size, financial ratios. The findings of the study reveal that based on the bank size return on equity, private banks are first and based on profitability and liquidity public banks are first.

Akram Alkhatib, et.al., (2012) the study empirically examined the financial performance of five Palestinian commercial banks listed on Palestine securities exchange (PEX). The study rejected the hypothesis claiming that there exist statistically insignificant impact of bank size, credit risk, operational efficiency and asset management on financial performance of Palestinian commercial banks.

Anurag. B. Singh and Priyanka Tandon (2012) compared the financial performance of SBI and ICICI bank on the basis of ratios such as credit deposit, net profit margin etc.. The study found that SBI is performing well and financially sound than ICICI bank but in context of deposits and expenditure ICICI bank has better managing efficiency than SBI.

M.Dhanabhakyam et. al., (2012) attempted to see the financial performance of the selected public sector banks. The study concluded that selected public sector banks have performed well on the sources of growth rate and financial efficiency during the study period. The old private sector banks and new private sector banks play a vital role in marketing of new type of deposits and advances schemes.

Sabah M. AL-Najjar (2012) contributed to the understanding of how BSC is developed and applied in evaluating the performance of a large local bank (llb) in Iraq. This study contributed to the knowledge on how banks in Iraq may apply the BSC to evaluate their performance, and how they might turn strategic vision into potential performance.

Sagar R.Dave and Swati R.Dave (2012) evaluated the significance of intangible assets as a tool of performance measurement in the Indian banking sector, The study concluded that performance of bank cannot be evaluated only on the basis of its profits, by using other indicators as defined through the four perspectives of Balanced Scorecard, definitely yields better performance evaluation.

Suvita Jha, et. al., (2012) the results of the study show that public sector banks are significantly less efficient than their counterpart. However domestic private banks are equally efficient to foreign-owned banks. Results revealed that return on assets was significantly influenced by capital adequacy ratio, interest expenses to total loan and net interest margin, while capital adequacy ratio had considerable effect on return on equity.

Virender Koundal (2012) the study concluded that foreign owned banks are on average most efficient and that new banks are more efficient than that of old ones. The public sector banks are not as profitable as other sectors .The study also found that, in terms of size, the smaller banks are globally efficient, but large banks are locally efficient.

Abolfazi and Amer Hosseini (2013) The results of this study indicate that the firm could reach 41.4% of its financial objectives, 87.38% of its customers' requirements, 66.13% of internal processes and 70.94% of its learning necessities according to four major BSC requirements. In summary, the firm could reach 66.45 % of its requirements during the fiscal year of 2011.

Ahamad Valashjerdi Majd Abad Kohnch (2013) The results indicated that learning and development is number one priority with relative importance of 0.491, followed by customer with relative importance of 0.293, internal process with relative importance of 0.173 and financial affairs comes at last with relative weight of 0.043.

Sunita Panicker and Vinita Seshadri (2013) their study has contributed to the understanding of how BSC is developed and applied in evaluating the performance of Standard chartered bank (SCB), a foreign bank in India. The analysis assisted the cause-effect relationships between the non-financial, and the financial dimensions of the BSC.

Sushendra Kumar Misra and Parvesh Kumar Aspal (2013) the study depicted that ranking of ratios is different for different banks in State Bank group. But there is no statistically significant difference between the CAMEL ratios. It signifies that the overall performance of State Bank group is same.

Zawadi Ally (2013) analysed the financial performance of Tanzania's commercial banking sector. The study found that overall bank financial performance increased considerably in the first two years of the analysis. The study concluded that, there is no a significant mean difference of profitability among of peer banks groups in terms of ROA, however, a significance differences among banks group is existed in terms of ROE and NIM.

Ali Reza Momeni et. al., (2014) compared the performance of Mellat and Tejarat banks using CAMEL model. The results indicate that there is no significant difference in capital adequacy, assets quality, management quality and efficiency, income quality and liquidity between Mellat and Tejarat banks.

Nikita Agarwal et. al., (2014) studied the performance of Indian Banks with the help of CAMEL rating system. The study suggests that private sector banks are in advantage situation and thereby hinting at the possibility of further improvisation of most of the public sector banks. Private sector banks show marked consistency in their efficiency level during the period under study.

Sanja Broz Tominac (2014) the study concluded that application of balanced scorecard model helps employees of all levels to better understanding of strategy. This model helps management to consider weaknesses and strengths, areas on which losses are made and profitable ones.

Malaya Ranjan mohapatra, et.al., (2015) analysed the operational efficiency of commercial banks in India. The study reveals that the internal management and employee efficiency of foreign banks are far better than other sectors of commercial banks. The paper concluded that public sector banks are lagging behind regarding various financial parameters in comparison with other sector banks.

Hongbo Lyu et. al., (2016) investigated the feasibility of the balanced scorecard (BSC) method in enterprise knowledge management and then proposes a simplified and applicable performance evaluation model based on the BSC approach. Finally, fuzzy comprehensive evaluation (FCE) is used to evaluate the effectiveness and applicability of the proposed model. The result shows that the model is useful for evaluating the performance of KM in enterprises.

Rosanna Spano et, al., (2016) The aim of this paper was to offer an adaptation of the Balanced Scorecard (BSC) to improve performance measurement within research-intensive network. The study develops specific key performance areas and indicators to enrich each of the four perspectives with the innovation elements. The paper shows the potential of the BSC to achieve a practical and effective interplay between innovation and control.

Anil Kshatriya(2017) This paper focuses on implementation, monitoring, and application of balanced scorecard (BSC) techniques in an organization involved in providing machine tool solutions to the industrial sector. The growth of the company considered in real time constituted improvements of both top and bottom lines. This included growing revenues by improving of EBITDA (earnings before interests, taxes, depreciation, and amortization) and by increasing efficiency (i.e., cutting costs). These improvements were implemented by chalking out a comprehensive BSC designed to suit the machine tool industry. The four perspectives of the management, namely, internal business process, organizational learning, financial perspective, and customer perspective, have been considered lucidly and enunciate the parameters that affect the BSC very aptly.

Doctorial Thesis:

Sagar R.Dave (2008) evaluated the significance of intangible assets as a tool of performance measurement in the Indian banking sector, this research study aimed at designing a model of Balanced Scorecard for a representative Indian bank by taking various major variables of financial as well as nonfinancial performance indicators. The study concluded that performance of bank cannot be evaluated only on the basis of its profits, by using other indicators as defined through the four perspectives of Balanced Scorecard, definitely yields better performance evaluation.

Mohammed Abdul Razzaq (2010) The basic objective of the study was to throw light on the evolution, concept, uses and various other aspects of the Balance Scorecard Approach of Human Resource Management in the university system. Again, to identify the target and goals against which the universities will measure its performance like employee's satisfaction, employee's retention, student's satisfaction, competitive market share, etc. comparison with suitable statistical tools have been made. The study concludes that private universities are known for their efficiencies as compared to the Government universities of Jordan.

Sanjeev Kumar (2010) examined the performance measurement systems in Indian banking sector, with a view to develop a sound theoretical framework. The study concluded that the benefits of contemporary Performance Measurement System like BSC can only be availed by taking remedial measures regarding difficulty in assigning weightage to different perspective, assigning weightage to different measures under each perspective, difficulty in establishing cause and effect relationship among these perspectives, lack of employee and management support and reluctance of management to rely on non-financial measures. These issues were found to be most critical in the implementation of balance scorecard as a performance measurement and management tool in the Indian banking sector.

Syum abay (2010) concluded that there is a clear and strong relation between the financial performance and the non-financial performance measures (customer satisfaction, internal process/operational and employee satisfaction). In addition, empirical findings suggested that the non-financial measures are significant explanatory factors of financial performance. The findings of the study proved the cause-and-effect relationship between the financial and non-financial performance in these commercial banks.

Hussain, Zareen (2012) The study attempted to develop a reliable and valid instrument for exploring the process of change management and Balanced Scorecard existing in organizations and to observe the impact of organizational change and Balanced Scorecard on organizational effectiveness. The concluded that that there is a significant positive impact of Balanced Scorecard on organizational effectiveness.

Umanyal Karpagampal (2012) this study was aimed to develop a Balanced Scorecard framework for assessing the performance of management education institutions in Indian context, by identifying the variables that play a vital role in assessment. The study concluded that if BSC is implemented meticulously, any institution will be able to witness considerable improvement in its performance every year.

Upadhyay, Archana Yemeshvary Ashok(2012) The focus of the study was to identify the challenges encountered during BSC implementation as perceived by top management, leaders i.e. functional and department heads, implementation facilitators and employees. It is concluded that BSC implementation process, can also improve employee engagement. Organisations can use this approach for enhancing employee engagement while, at the same time, implementing BSC for business results.

Pardhasaradhi D (2013) the purpose of the study was to explore whether balanced scorecard enhances performance in the organization. The study found that BSC implementation has impacted the performance system. The study concluded that there exists a significant and positive correlation among all key performance indicators of four perspectives of BSC.

Hooshang Amiry (2014) examined the degree of inter-relationship between financial measures and non-financial measures that drive outcomes of future performance of hotel services and the importance of Balanced Scorecard approach in performance appraisal in the hotel industry in Karnataka. The study concluded that there exist a link between the perspectives and their measures with the strategic choice of the organization. Thus learning and growth perspective, internal business process perspective, customer perspective and financial perspective has a positive relationship with the Balanced Scorecard approach.

Thatte Ashish P (2015) the main objective of the study was to analyse financial performance of companies implementing balanced scorecard and not implementing balanced scorecard. The study concludes that the Indian companies certainly lack in adding additional perspectives to their Balanced Scorecard. If companies start using Balanced Scorecard in much bigger scale then it may be better for Indian Industry to achieve better results on global platform

Research Gap

The existing literature on performance measurement identifies that there are a few studies on application of Balanced Scorecard in measurement of performance of banking companies especially in India. The literature review identified some studies on measurement of financial performance of two select banks i.e. SBI and ICICI. But, they were confined to application of some ratios in measurement of financial performance of those two banks. There are only a few studies to measure the performance by including non-financial measures. Hence, to fill this research gap, in the present study, the performance evaluation of the two banks has been made by employing Balanced Scorecard Model.

Objectives of the study:

The study has the following objectives

1. To study the tools used in performance evaluation of banking companies.

2. To evaluate the performance of State Bank of India by applying Balanced Scorecard.

3. To evaluate the performance of ICICI Bank by applying Balanced Scorecard.

4. To compare the performance of State Bank of India and ICICI Bank.

Hypotheses:

The following hypotheses has been constructed to meet the above mentioned objectives

$H_0$1: The performance of SBI from customers' perspective, internal process perspective and learning and growth perspective do not influence its financial performance.

$H_0$2: The performance of ICICI Bank from customers' perspective, internal process perspective and learning and growth perspective and perspective do not influence its financial performance.
$H_0$3: There is no significant difference in the performance of SBI and ICICI Bank from Financial

Perspective, Customers Perspective, Internal Process Perspective and Learning and Growth Perspective.

Research Methodology

The research methodology adopted for this study is presented as follows:

Sources of data

The study is based on the secondary data. The data required for the computation of required variables to measurement the performance of the select banks, has been sourced directly from the Annual reports of the two banks and RBI Reports. Apart from this, various journals, magazines and books have been referred to get the relevant information for the study.

Period of the study:

Period of the present study is of 20 years ranging from the financial year 1996-1997 to 2015-2016.

1.9.3 Sample selection

Two prominent banks selected for the present study are State Bank of India and ICICI bank.

Rationale behind selection of SBI and ICICI

SBI has occupied a pre-dominant position based on Present Market Capitalization, Total Business, Total Value of Assets, Age of the bank , Market share etc., it has occupied top one rank in public sector in Indian banking industry. Based on the above discussed parameters in private sector, ICICI bank is in the top two positions. Hence, these two banks are selected for the present study.

1.9.4 Selection of Variables

To measure the performance of banks twenty nine variables have been considered under different perspectives of Balanced Scorecard Nine different metric variables have been used under financial perspective viz., Net Interest Margin, Return on Assets, Return on Equity, Cash/Deposits Ratio, Credit/Deposits Ratio, Interest/Total Assets Ratio, Net NPA/Net Advances Ratio, Investment/Deposits Ratio and Capital Adequacy Ratio. Under Customers Perspective ten different measures of performance viz., Growth in Total Deposits, Term Loans/Total Advances, Priority Sector Advances/ Total Advances, Transactions outside India, Growth in Total Deposits, Term Deposits/Total Deposits, Deposits/Liabilities, Marketing

Expenses, Growth in Volume of Business and Marketing Expenses/Volume of Business. The performance analysis under Internal Process Perspective five metrics variables have been considered viz. Business per Employee, Profit Per Employee, Wages/Total Income, Wages to Total Expenses and Wages to Intermediation costs. The performance analysis under Learning and Growth Perspective, five metrics variables have been considered viz. Business Per Employee, Profit Per Employee, Wages/Total Income, Wages to Total Expenses and Wages to Intermediation costs.

Justification of the variables used in measurement of performance

To measure the performance from financial perspective, nine different variables have been used. NIM is the indicator of core operating performance of a banking company. ROA measures effective utilisation of assets of a bank in earning profits while ROE anchors the profitability of the bank from equity holders' perspective. Cash/Deposit ratio represents the liquidity position of a bank while Credit/Deposit ratio reflects how efficiently loan assets are created out of the deposits raised by the bank. The 'Interest to total assets' ratio measures the operating return on capital employed by the bank. Net NPA/Net Advances Ratio and Capital Adequacy Ratios are the measures of risk management of the bank. Finally, Investment/Deposits Ratio indicates how much portion of deposits is channelized into investments. All the nine variables represent the financial performance in different dimensions.

To measure the performance from customer's perspective, ten different variables have been used. Growth in total credit represents the growth in market share of the bank. Term Loans/total Advances ratio is the measure of long term asset creation of the bank while Priority sector advances/total advances ratio highlights the commitment of the bank in meeting the stipulated regulations. Besides, Transactions outside India anchors cross-border footprint of the bank manifesting into global competitiveness. Growth in total deposits measures the effectiveness of retail banking strategies adopted by the bank. Term Deposits to Total Deposits represents the long term commitment of the customers in parking their saving with the bank. Deposits/Liabilities Ratio indicates share of deposits in total outsiders funds held by the bank. Marketing expenses are considered as a measure of efforts made by the bank in attracting the new customers and showcasing its past performance and future prospective. Growth in volume of business is an indicator of the extension of market share by the bank. The 'marketing expenses to volume of business’ ratio indicates the amount of marketing expenses spent to gain each rupee of business by the bank. It also implies the effectiveness of marketing strategies adopted by the bank. So, all these ten variables manifest the performance of a bank from customers’ perspective.

To measure the performance from Internal Process Perspective, five metrics variables have been considered. Business per Employee is the measure of productivity of the employees of the bank. Higher the ratio, greater the productivity of the employees. Profit per employee implies contribution of each employee in achieving the profits by the bank. Business per employee and profit per employee may not always change in the same direction. If the marginal cost of increasing the business and marginal profit the bank derives, are not similar, the change in business per employee and change in profit per employee may not be similar. ‘Wages to Total Income’ ratio indicates how much portion of total income of a bank is attributed to employee cost while ‘wages to total expenses’ and ‘wages to intermediation cost‘ indicate the proportion of total expenses spent on employees.

To measure the performance from Learning and Growth Perspective, five metrics variables have been considered. Growth in ATMs, Growth Credit Cards and Growth in Debit Cards is the measure of technology adoption of the bank. It indicates the competitive strength of the bank in expanding its share in e-banking. Expenses per employee is an indicator amount spend on employees. Growth in skilled employees is the representative measure of the value of human resources held by the bank. Skilled employees play pivotal role in taking the bank to new heights. So, all these five variables represent the performance of a bank from learning and growth perspective.

Analytical Framework of the Study

At the outset, the profile of the select performance metrics is examined by using descriptive statistics like Mean, Median, Mode, Standard Deviation, Skewness and kurtosis have been employed.

The statistical significance of the impact of the performance under customer perspective, internal process perspective and learning and growth perspective on the financial performance is analyzed by employing regression model. Where the residuals of the regression analysis meet the required properties, Ordinary Least Squares (OLS) regression has been used and otherwise, Generalized Linear Regression Model has been employed. Net Interest Margin has been regressed on the select performance metrics under the three other performance perspective. Each regression model contains only one predictor variable.

Three statistical properties of the residuals have been examined viz., normality, autocorrelation and heteroscedasticity. Normality has been tested by employing Jarque-Bera test; autocorrelation has been tested by employing Breusch-Godfrey Serial Correlation LM Test and heteroscedasticity has been tested by employing Breusch-Pagan-Godfrey test.

Comparison of the performance of the two select banks has been made individually with respect to each performance metric by using independent sample‘t’ test. Before employing the ‘t’ test, equality of group variances has been tested by using Levene’s Test. And also, the difference between the two banks with respect to overall performance under the given perspective is tested by employing Multivariate test for difference between groups.

Scope of the Study

Basically, the purpose of Balanced Scorecard is two-fold. First, one is to measure the performance from both financial and non-financial perspective by establishing a logical relationship among the four perspectives (viz., financial perspective, customers’ perspective, internal process perspective and learning and growth perspective). The second one is to make the Balance Scorecard as a framework for the strategic management of the business. The present study is confined to employ the balanced scorecard only as a measurement model. Only the quantitative information is used for the measurement of performance from the four perspective. Though, the financial performance can be measured by using numerous metric variables, the study surrogates NIM as the indicator of financial performance of the select banks. NIM is the widely used measure of performance by the banking companies. It is also more pertinent measure in comparative evaluation of the financial performance of the banking companies. The present study concentrates on assessing the impact of the performance from the customer perspective, internal process perspective and learning and growth perspective on the financial performance of the select bank. In other words, it is presumed that the performance from customers’ perspective, internal process perspective and learning and growth perspective are the antecedents of the financial performance of the select banks.

Chapterisation

Chapter - I: Introduction

Chapter - II: Tools for measuring the Performance of Banking Companies

Chapter – III: Performance Evaluation of State Bank of India

Chapter - IV: Performance Evaluation of ICICI Bank

Chapter – V: Comparison of Performance of State Bank of India and ICICI Bank

Chapter – VI: Findings, Conclusion and Suggestions

Chapter – II

Tools for Measuring the Performance of Banks

As the banking sector is considered a vital segment of a modern economy, its efficiency is of vital importance. In order to ensure a healthy financial system and an efficient economy, banks must be carefully evaluated and analysed. The other reasons to evaluate the performance of banks are to determine their operational results and their overall financial condition, measure their assets quality, management quality and efficiency, and achievement of their objectives; as well as ascertain their earning quality, liquidity, capital adequacy, and level of bank services. The following are the tools used for measuring the performance of banks:

1. CAMELS rating:

The CAMELS rating system is a recognized international rating system that bank supervisory authorities use in order to rate financial institutions according to six factors represented by the acronym "CAMELS." Supervisory authorities assign each bank a score on a scale, and a rating of one is considered the best and the rating of five is considered the worst for each factor.

2. Z score:

This term is more commonly known as the Altman Z-score. Edward Altman, a professor at New York University, developed and introduced the Z-score formula to determine how close to bankruptcy a company was.

3. Economic Value Added

EVA can also be referred to as economic profit, and it attempts to capture the true economic profit of a company. This measure was devised by Stern Stewart and Co. If a company's EVA is negative, it means the company is not generating value from the funds invested into the business. Conversely, a positive EVA shows a company is producing value from the funds invested in it.

4. Market Value Added

Market value added (MVA) is the difference between the current market value of a firm and the capital contributed by investors. If MVA is positive, the firm has added value. If it is negative, the firm has destroyed value. The amount of value added needs to be greater than the firm's investors could have achieved investing in the market portfolio, adjusted for the leverage of the firm relative to the market.

5. Value at Risk

Value at risk (VaR) is a statistical technique used to measure and quantify the level of financial risk within a firm or investment portfolio over a specific time frame. This metric is most commonly used by investment and commercial banks to determine the extent and occurrence ratio of potential losses in their institutional portfolios

6. Asset Liability Management

Asset Liability Management (ALM) can be defined as a mechanism to address the risk faced by a bank due to a mismatch between assets and liabilities either due to liquidity or changes in interest rates. Liquidity is an institution's ability to meet its liabilities either by borrowing or converting assets. ALM is a systematic approach that attempts to provide a degree of protection to the risk arising out of asset/liability mismatch.

7. Balanced Scorecard

The Balanced Scorecard (BSC) was originally developed by Dr. Robert Kaplan and Dr. David Norton as a framework for measuring organizational performance using a more balanced set of performance measures. Traditionally, companies used only short-term financial performance as measure of success. The "balanced scorecard" added additional non-financial strategic measures to the mix in order to better focus on long-term success. The system has evolved over the years and is now considered a fully integrated strategic management system. The balanced scorecard retains traditional financial measures. But, financial measures tell the story of past events, an adequate story for companies for which investments in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information companies must make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation.

Chapter – III

Performance Evaluation of State Bank of India

1. Performance Analysis of SBI under Financial Perspective

This section presents the analysis of performance of SBI under Financial Perspective. Nine different metric variables have been considered under this perspective viz., Net Interest Margin, Return on Assets, Return on Equity, Cash/Deposits Ratio, Credit/Deposits Ratio, Interest/Total

Assets Ratio, Net NPA/Net Advances Ratio, Investment/Deposits Ratio and Capital Adequacy Ratio.

Table 1: Performance Analysis of SBI under Financial Perspective

	N	Mean	Std. Dev.	CV	Skewness	Kurtosis
NIM	20	3.759	0.826	21.968	0.091	1.310
ROA	20	0.784	0.179	22.832	-0.621	2.235
ROE	20	14.731	3.695	25.081	-0.391	2.291
Cash/Deposit	20	7.462	1.959	26.253	0.055	1.779
Credit/Deposit	20	66.724	15.913	23.849	-0.117	1.321
Interest/Total Assets	20	7.883	1.010	12.806	0.288	1.745
Net NPA/Net Advances	20	3.601	2.079	57.736	0.618	1.781
Investment/Deposit	20	40.497	10.155	25.076	0.429	1.909
CAR	20	12.928	0.827	6.396	0.175	2.271

Source: Computed from Data Compiled from Annual Reports of SBI

As shown table 1, the average Cash-Deposit Ratio of the bank is 7.462 with a standard deviation of 1.959 while average Credit-Deposit Ratio is 66.724 with a standard deviation of 15.913. Average Net Interest Margin (NIM) of the bank during the study period is 3.759 with a standard deviation of 0.826. The average ROE of the bank is 14.731 with a standard deviation of 3.695; the average ROA is 0.784 with a standard deviation of 0.179. Interest/Total Asset ratio is 7.883 with a standard deviation of 1.010; Net NPA/Net Advances Ratio has an average value of 3.601 with a standard deviation of 2.079.

2. Performance Analysis of SBI under Customers Perspective

This sub-section covers the discussion on the performance of SBI under Customers Perspective. This perspective consists of ten different measures of performance.

Table 2: Performance Analysis of SBI under Customer Perspective

	N	**Mean**	**Std. Dev.**	**CV**	**Skewness**	**Kurtosis**

Growth in Total Credit	20	18.280	6.937	37.952	0.253	2.299
Term Loan/Total Advances	20	46.684	10.708	22.938	-0.092	2.270
Priority Sector Advances/Total Advances	20	25.571	7.204	28.173	-1.664	5.620
Transactions outside India(crores)	16	2,24,932.000	2,22,867.000	99.09	1.145	3.302
Growth in Total Deposits	20	15.828	7.903	49.932	1.168	4.484
Term Deposits/Total Deposits	20	57.185	3.976	6.952	0.060	1.988
Deposits/Liabilities	20	79.052	3.455	4.371	-0.808	2.915
Marketing Expenses(crores)	20	172.323	185.362	107.57	1.411	4.243
Growth in Volume of Business	20	16.740	6.066	36.239	1.167	4.724
Marketing Expenses/Volume of Business	20	0.013	0.006	47.633	1.021	3.385

Source: Computed from Data Compiled from Annual Reports of SBI

As presented in table 2, Term Loans/Total Advances has an average value of 46.684 with a standard deviation of 10.708. The banks priority sector advances are 25.57% of total advances Growth in total deposits is 15.828 on YOY basis and standard deviation is 7.903. Term deposits/Total Deposits ratio is 57.185 with a standard deviation of 3.976. Deposits/Liabilities ratio has an average value of 79.052 with a standard deviation of 3.455. The ratio of 'Marketing Expenses to Volume of Business' is 0.013 with a standard deviation of 0.006.

3. Performance Analysis of SBI under Internal Process Perspective

This section furnishes the performance analysis of SBI from Internal Process Perspective. Five metrics variables have been considered under this perspective viz. Business per Employee, Profit per Employee, Wages/Total Income, Wages to Total Expenses and Wages to Intermediation costs.

Table 3: Performance Analysis of SBI under Internal Process Perspective

	N	Mean	Std. Dev.	CV	Skewness	Kurtosis
Business Per Employee	20	57412243	43509824	75.785	0.706	2.568
Profit Per Employee	20	316675.9	182504.1	57.631	0.124	1.806
Wages /Total Income	20	16.05454	2.330623	14.517	0.146	1.610
Wages /Total Expenses	20	19.05358	3.836311	20.134	0.147	1.538
Wages/Intermediation Cost	20	67.24576	4.527825	6.733	-0.006	1.690

Source: Computed from Data Compiled from Annual Reports of SBI

As revealed by table 3, Wages/Total Income ratio is 16.055% with a standard deviation of 2.331%. Wages/ Total Expenses ratio is 19.054% with a standard deviation of 3.836. Wages/Intermediation Cost is 67.246% with a standard deviation of 4.529.

4. Performance Analysis of SBI under Learning and Growth Perspective

This section covers performance analysis of SBI from Learning and Growth Perspective. Five variables have been chosen to measure the performance of the bank from Learning and Growth Perspective.

Table 4: Performance Analysis of SBI under Learning and Growth Perspective

	N	Mean	Std. Dev.	CV	Skewness	Kurtosis
Growth in ATMs	9	30.594	30.494	99.674	1.050	0.068
Growth in Debit Cards	4	20.341	8.650	42.525	0.466	0.826
Growth in Credit Cards	4	12.959	2.547	19.652	0.083	-4.998
Expenses Per Employee	20	648040	246808	38.085	0.804	2.815
Growth in Skilled Employees	14	1.467662	6.202	422.593	0.983	2.639

Source: Computed from Data Compiled from Annual Reports of SBI

As shown in table 4, the average growth in ATMs during the study period was 30.594% with a standard deviation of 30.494. Growth in Debit Cards has reported an average value of 20.341% with a standard deviation of 8.65. Growth in Credit Cards has reported an average value of 12.959% with a standard deviation of 2.547; Average expenses per employee during the study period is Rs. 6,48,040 with a standard deviation of Rs. 2,46,808.

5. Relationship of Financial Perspective with other Perspectives

This section presents the results of the analysis of the relationship of Financial Perspective with other Perspectives of the Balanced Scorecard. The analysis of the impact of select variables on Financial Perspective has been done by using OLS regression and wherever the residuals of the regression analysis do not satisfy the required properties, Generalized Linear Method has been employed..

Hypothesis-1 Ho: The performance of SBI under customers' perspective, internal process perspective and learning and growth perspective do not influence its financial performance.

Table 5: Summary of Hypothesis Testing

SL. No.	Null Hypothesis	Coefficient Value	'p' Value	Result
	Customer Perspective			
1	Term Loans to Total Advances Ratio does not have significant impact on financial performance of the bank.	0.055651	0.0000	Rejected
2	Transactions Outside India does not have significant impact on financial performance of the bank	0.694016	0.0000	Rejected
3	Term Deposits to Total Deposits Ratio does not have significant impact on financial performance of the bank	-0.111121	0.0072	Rejected

4	Marketing Expenses(log) does not have significant impact on financial performance of the bank	0.573605	0.0000	Rejected
5	Deposits to Liabilities Ratio does not have significant impact on financial performance of the bank	0.179354	0.0000	Rejected
6	Marketing Expenses to Volume of Business Ratio does not have significant impact on financial performance of the bank	82.94088	0.0010	Rejected
Internal Process Perspective				
1	Business per Employee does not have significant impact on financial performance of the bank	0.553564	0.0001	Rejected
2	Profit per Employee does not have significant impact on financial performance of the bank	0.910068	0.0000	Rejected
3	Wage Bill to Total Income Ratio does not have significant impact on financial performance of the bank	-0.266731	0.0001	Rejected
4	Wage Bill to Total Expenses Ratio does not have significant impact on financial performance of the bank	-0.177519	0.0000	Rejected
5	Wages to Intermediation Cost Ratio does not have significant impact on financial performance of the bank	-0.167331	0.0000	Rejected
Learning and Growth Perspective				
1	Number of ATMs (Log) does not have significant impact on financial performance of the	0.312660	0,0177	Rejected

	bank			
2	Expenses per Employee does not have significant impact on financial performance of the bank	1.206727	0.0068	Rejected

Source: Computed from Data Compiled from Annual Reports of SBI

Table 5 presents the testing of hypothesis done variable wise to study whether the performance of SBI under customers' perspective, internal process perspective and learning and growth perspective influence its financial performance. For the total 13 variables, the null hypothesis is rejected. Hence, it is concluded that the performance of SBI under customers' perspective, internal process perspective and learning and growth perspective influence its financial performance.

Chapter – IV

Performance Evaluation of ICICI Bank

1. Performance Analysis of ICICI Bank under Financial Perspective

This Section provides the discussion on the analysis of performance of ICICI Bank under Financial Perspective. For this purpose, nine metric variables have been considered viz., Net Interest Margin, Return on Assets, Return on Equity, Cash/Deposits Ratio, Credit/Deposits Ratio, Interest/Total Assets Ratio, Net NPA/Net Advances Ratio, Investment/Deposits Ratio and Capital Adequacy Ratio.

Table 6: Performance Analysis of ICICI Bank under Financial Perspective

	N	Mean	Std. Dev.	CV	Skewness	Kurtosis
NIM	20	3.479	1.596	45.867	-0.044	1.574
ROA	20	1.261	0.376	29.817	0.717	3.506
ROE	20	13.802	4.840	35.066	0.323	2.023
Cash/Deposit	20	8.326	2.294	27.554	0.866	2.755
Credit/Deposit	20	85.962	28.558	33.222	-0.380	2.859

Interest/Total Assets	20	7.558	1.505	19.909	-0.335	4.656
Net NPA/Net Advances	20	1.985	1.325	66.746	1.597	4.851
Investment/Deposit	20	53.168	17.184	32.320	2.043	7.883
CAR	20	14.779	3.319	22.457	0.228	1.488

Source: Computed from Data Compiled from Annual Reports of ICICI Bank

As shown in table 6, Average NIM of the bank is 3.479 with a standard deviation of 1.596; ROA of the bank is 1.261 while ROE is 13.802; Cash deposit ratio of the bank is 8.326 with a standard deviation of 2.294 while credit-deposit ratio is 85.962 with a standard deviation of 28.558. Interest to Total Assets ratio of the bank is 7.558 with a standard deviation of 1.505; Net NPA to Net Advances ratio is 1.985 with a standard deviation of 1.325; Investment/Deposits ratio is 1.985 with a standard deviation of 17.184; Capital Adequacy Ratio is 14.779 with a standard deviation of 3.319.

2. Performance Analysis of ICICI Bank under Customers Perspective

This section presents results of the analysis of the performance of ICICI Bank under Customers Perspective. This perspective is represented by ten different measures of performance.

Table 7: Performance Analysis of ICICI Bank under Customer Perspective

	N	Mean	Std. Dev.	CV	Skewness	Kurtosis
Growth in Total Credit	20	30.800	28.636	92.973	0.770	2.924
Term Loan/Total Advances	20	64.483	31.276	48.503	-1.083	2.295
Priority Sector Advances/Total Advances	20	22.070	6.206	28.122	-1.097	4.497
Transactions outside India(crores)	16	105402.700	90027.90	85.41	-0.149	1.423
Growth in Total Deposits	20	39.990	37.540	93.873	0.762	2.930
Term Deposits/Total Deposits	20	70.001	11.258	16.083	-0.195	1.596

Deposits/Liabilities	20	67.180	14.015	20.862	-0.655	3.683
Marketing Expenses(crores)	20	108.207	80.937	74.80	-0.170	1.502
Growth in Volume of Business	20	44.709	55.457	124.039	2.258	8.494
Marketing Expenses/Volume of Business	20	0.039	0.015	38.326	0.022	1.913

Source: Computed from Data Compiled from Annual Reports of ICICI Bank

Average growth in total credit is 30.80% with a standard deviation of 28.636%; Term Loans to Total Advances Ratio has the mean value of 64.483 with a standard deviation of 31.276. Priority sector advances to Total Advances ratio has an average value of 22.07 with a standard deviation of 6.21. The average transactions outside India are Rs. 1,05,000 crores with a standard deviation of Rs. 90,000 crores. Growth in Total Deposits is 39.99% with a standard deviation of 37.54%; Term Deposits to Total Deposits ratio has average value of 70.001 with a standard deviation of 11.258; Deposits to Liabilities ratio is 67.18 with a standard deviation of 14.015; the average marketing expenses of the bank are Rs. 108 crores with a standard deviation of 80.90 crores. Growth in Volume of Business is 44.71% with a standard deviation of 55.457%. The ratio of Marketing Expenses to Volume of Business is 0.039 with a standard deviation of 0.015.

3. Performance Analysis of ICICI Bank under Internal Process Perspective

This sub-section highlights the results of performance analysis of ICICI Bank under Internal Process Perspective. Five metrics variables have been selected.

Table 8: Performance Analysis of ICICI Bank under Internal Process Perspective

	N	Mean	Std. Dev.	CV	Skewness	Kurtosis
Business Per Employee	20	90944843	21110753	23.213	-0.369	2.774
Profit Per Employee	20	1048813	262058.7	24.986	0.327	3.397
Wages /Total Income	20	5.534937	1.945376	35.147	0.163	1.797

Wages /Total Expenses	20	6.75024	2.231421	33.057	0.231	1.725
Wages/Intermediation Cost	20	28.59099	9.821757	34.353	0.476	1.751

Source: Computed from Data Compiled from Annual Reports of ICICI Bank

The mean value of Business per Employee and Profit per Employee are Rs. 9,09,44,843 and Rs.10,48,813; the mean value of Wages to Total Expenses ratio is 6.75; the mean value of Wages to Intermediation cost is 28.591.

4. Performance Analysis of ICICI Bank under Learning and Growth Perspective

This section presents the discussion on the results of the analysis of performance of ICICI Bank from Learning and Growth Perspective. Five variables have been chosen to measure the performance of the bank from Learning and Growth Perspective. They are Growth in ATMs, Growth in Debit Cards, Growth in Credit Cards, Expenses per Employee and Growth in Skilled Employees.

Table 9: Performance Analysis of ICICI Bank under Learning and Growth Perspective

	N	Mean	Std. Dev.	CV	Skewness	Kurtosis
Growth in ATMs	9	18.056	12.462	69.017	2.206	5.500
Growth in Debit Cards	4	18.902	4.270	22.590	-0.288	0.488
Growth in Credit Cards	4	6.531	4.709	0.721	-0.507	-2.594
Expenses Per Employee	10	556415.027	106360.630	19.115	0.034	-0.768
Growth in Skilled Employees	14	18.461	19.410	1.051	-0.540	-0.056

Source: Computed from Data Compiled from Annual Reports of ICICI Bank

The average growth in ATMS is 18.056 with a standard deviation of 12.462; average growth in debit cards is 18.902 with a standard deviation of 4.27 and average growth in credit cards is

6.531 with a standard deviation of 4.71.Growth in skilled employees is 18.461 % with a standard deviation of 19.41%.

5. Relationship of Financial Perspective with Other three Perspectives

In this section, analysis of the relationship between Financial Perspective and Other three Perspectives of the Balanced Scorecard has been made. The analysis has been done by using Ordinary Least Squares (OLS) regression analysis. If residuals of the regression analysis do not satisfy the required properties, Generalized Linear Method (GLM) has been employed. The following sub-sections cover results of the analysis.

Hypothesis- 2 Ho: The performance of ICICI Bank under customers' perspective, internal process perspective and learning and growth perspective and perspective do not influence its financial performance.

Table 10: Summary of Hypothesis Testing

S. No.	Null Hypothesis	Coefficient Value	'p' Value	Result
	Customer Perspective			
1	Growth in Total Credit does not have significant impact on financial performance of the bank.	-0.031549	0.0036	Rejected
2	Term Loans to Total Advances Ratio does not have significant impact on financial performance of the bank.	0.011670	0.3189	Accepted
3	Priority Sector Advances/Total Advances Ratio does not have significant impact on financial performance of the bank.	0.124178	0.0193	Rejected
4	Transactions Outside India does not have significant impact on financial performance of the bank.	0.194364	0.0000	Rejected
5	Growth in Total Deposits does not have significant impact on	-0.033621	0.0000	Rejected

	financial performance of the bank.			
6	Term Deposits to Total Deposits Ratio does not have significant impact on financial performance of the bank.	-0.101138	0.0000	Rejected
7	Marketing Expenses (log) does not have significant impact on financial performance of the bank.	0.456802	0.0093	Rejected
8	Growth in Volume of Business does not have significant impact on financial performance of the bank.	-0.019441	0.0011	Rejected
Internal Process Perspective				
1	Business per Employee does not have significant impact on financial performance of the bank.	2.873846	0.0382	Rejected
2	Wage Bill to Total Income Ratio does not have significant impact on financial performance of the bank.	0.439630	0.0149	Rejected
3	Wage Bill to Total Expenses Ratio does not have significant impact on financial performance of the bank.	0.313627	0.0531	Accepted
4	Wages to Intermediation Cost Ratio does not have significant impact on financial performance of the bank.	0.096472	0.0058	Rejected
Learning and Growth Perspective				
1	Number of ATMs (Log) does not have significant impact on financial performance of the bank.	-0.572875	0.1319	Accepted
	Number of Debit Cards (Log)	-0.634158	0.0326	Rejected

2	does not have significant impact on financial performance of the bank.			
3	Number of Credit Cards (Log) does not have significant impact on financial performance of the bank.	-1.807810	0.0071	Rejected
4	Expenses per Employee do not have significant impact on financial performance of the bank.	-1.676787	0.0556	Accepted

Source: Computed from Data Compiled from Annual Reports of ICICI

Table -10 presents the testing of hypothesis done variable wise to study whether the performance of ICICI Bank under customers' perspective, internal process perspective and learning and growth perspective influence its financial performance. For the total 16 variables from different perspectives, the null hypothesis is rejected for 12 variables and accepted for 4 variables. Hence, it is concluded that the performance of ICICI under customers' perspective, internal process perspective and learning and growth perspective influence its financial performance.

Chapter – V

Comparison of Performance of State Bank of India and ICICI Bank

In this section comparison of the performance of two banks is made with reference to their performance from four different perspectives of Balanced Scorecard. For the purpose of comparison of the performance of the two banks, all the variables which have been considered in evaluating the individual performance of the two banks are selected. Comparison is made in terms of the mean difference between the performance metrics of the two banks. The inference on the significance difference between the two banks with respect to the select variables, is drawn by employing independent sample 't' test. Equality of group variances has been tested before applying the 't' test.

Analysis of the Difference in the financial performance of ICICI bank and SBI

This section provides the results of the analysis of difference in financial performance of ICICI bank and SBI. Descriptive Statistics and Independent sample t-test have been employed individually on all the variables representing the performance under the financial perspective. Finally, multivariate test has also been conducted to test significance of overall difference between the two banks with respect to their financial performance.

Hypothesis-3 Ho: There is no significant difference in the performance of SBI and ICICI Bank under Financial Perspective, Customers Perspective, Internal Process Perspective and Learning and Growth Perspective.

Table 11: Summary of Hypothesis Testing

S.No	Null Hypothesis	'p' Value	Result
1	There is no difference in SBI and ICICI with respect to NIM	0.49	Accepted
2	There is no difference in SBI and ICICI with respect to ROA	0.00	Rejected
3	There is no difference in SBI and ICICI with respect to ROE	0.5	Accepted
4	There is no difference in SBI and ICICI with respect to Cash Deposit Ratio	0.21	Accepted
5	There is no difference in SBI and ICICI with respect to Credit Deposit Ratio	0.01	Rejected
6	There is no difference in SBI and ICICI with respect to Interest to Total Asset Ratio	0.43	Accepted
7	There is no difference in SBI and ICICI with respect to Net NPA/Net Advances	0.01	Rejected

	Ratio		
8	There is no difference in SBI and ICICI with respect to Investments to Deposits Ratio	0.01	Rejected
9	There is no difference in SBI and ICICI with respect to Capital Adequacy Ratio	0.03	Rejected

Source: Computed from Data Compiled from Annual Reports of ICICI and SBI

Under the financial perspective, there is no significant difference between the two banks in terms of their NIM, ROE, cash deposit ratio and interest to total assets ratio while significant difference exists between the two banks with reference to their ROA, credit deposit ratio, Net NPA/Net Advances Ratio, Investment/Deposit Ratio and Capital Adequacy Ratio. It means out of nine variables, five variables differ significantly between the two banks

Analysis of difference between ICICI bank and SBI with respect to overall their Financial Performance

This sub-section presents the results of the analysis of difference between ICICI Bank and SBI with respect their overall financial performance by using multivariate analysis.

H0: There is no difference between SBI and ICICI bank with respect to their Overall Financial Performance

H1: There is a difference between SBI and ICICI bank with respect to their Overall Financial Performance

Table 12: Results of Multivariate Test

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.997	1274.183	9	30	0.000
	Wilks' Lambda	.003	1274.183	9	30	0.000
	Hotelling's Trace	382.255	1274.183	9	30	0.000
	Roy's Largest Root	382.255	1274.183	9	30	0.000
Bank	Pillai's Trace	.848	18.641	9	30	0.000

	Wilks' Lambda	.152	18.641	9	30	0.000
	Hotelling's Trace	5.592	18.641	9	30	0.000
	Roy's Largest Root	5.592	18.641	9	30	0.000

Source: Computed from Data Compiled from Annual Reports of ICICI and SBI

Table 12 shows the results of multivariate test performed to test the significant difference between ICICI bank and SBI with respect to their overall financial performance. All the four multivariate tests reveal that there is a significant difference between ICICI bank and SBI with respect to their overall financial performance.

Analysis of the Difference between ICICI bank and SBI with respect to their performance from Customers' Perspective

This section provides the results of the analysis of difference between ICICI bank and SBI in terms of their performance from customers' perspective. Descriptive statistics and independent sample t-test have been employed individually on all the variables representing the performance under this perspective. Finally, multivariate test has also been done to test the significance of overall difference between the two banks with respect to their performance from customers' perspective.

Table 13: Summary of Hypothesis Testing

S.No	Null Hypothesis	'p' Value	Result
1	There is no difference in SBI and ICICI with respect to Growth in Total Credit Ratio	0.07	Accepted
2	There is no difference in SBI and ICICI with respect to Term Loans to total Advances Ratio	0.02	Rejected
3	There is no difference in SBI and ICICI with respect to Priority Sector Advances	0.11	Accepted

	to total Advances Ratio		
4	There is no difference in SBI and ICICI with respect to Transactions outside India	0.06	Accepted
5	There is no difference in SBI and ICICI with respect to Growth in total Deposit	0.01	Rejected
6	There is no difference in SBI and ICICI with respect to Term deposit to total deposit ratio	0.00	Rejected
7	There is no difference in SBI and ICICI with respect to Deposit to Liability Ratio	0.00	Rejected
8	There is no difference in SBI and ICICI with respect to Marketing Ratio	0.168	Accepted
9	There is no difference in SBI and ICICI with respect to Growth in volume of Business	0.04	Rejected
10	There is no difference in SBI and ICICI with respect to Marketing Expenses to total volume of Business	0.00	Rejected

Source: Computed from Data Compiled from Annual Reports of ICICI and SBI

On Customers Perspective front, out of the ten variables, six variables have shown significant difference between the two banks. The variables which have shown significant difference include term loans/total advances ratio, transactions outside India, growth in deposits, term deposits/total deposits, deposits to liabilities, growth in volume of business, marketing expenses/volume of business. The variables which have not shown difference between the two banks, are growth in total credit, priority sector advances/total advances, marketing expenses.

Analysis of difference between ICICI bank and SBI with respect to overall Performance under Customers' Perspective

This sub-section presents the results of the analysis of overall difference between ICICI bank and SBI in terms of their overall performance from customers' perspective.

H0: There is no difference between SBI and ICICI bank with respect to their overall Performance from Customers' Perspective

H1: There is a difference between SBI and ICICI bank with respect to their overall Performance from Customers' Perspective

Table 14: Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.999	1654.681	10	21	.000
	Wilks' Lambda	.001	1654.681	10	21	.000
	Hotelling's Trace	787.943	1654.681	10	21	.000
	Roy's Largest Root	787.943	1654.681	10	21	.000
Bank	Pillai's Trace	.886	16.260	10	21	.000
	Wilks' Lambda	.114	16.260	10	21	.000
	Hotelling's Trace	7.743	16.260	10	21	.000
	Roy's Largest Root	7.743	16.260	10	21	.000

Source: Computed from Data Compiled from Annual Reports of ICICI bank and SBI

Table 14 presents the results of multivariate test conducted to test the statistical significance of difference between SBI and ICICI bank with respect to their overall performance from customers' perspective. The test results reveal that there is significant difference in the performance of SBI and ICICI bank from customers' perspective.

Analysis of the Difference between ICICI bank and SBI with respect to their performance under Internal Process Perspective

This section presents the difference between ICICI bank and SBI in terms of their performance under internal process perspective. Line chart, descriptive statistics and Independent sample t-test have been applied individually on the variables representing the performance from Internal Process Perspective.

Table 15: Summary of Hypothesis Testing

S.No	Null Hypothesis	'p' Value	Result
1	There is no difference in SBI and ICICI with respect to Business per Employee	0.00	Rejected
2	There is no difference in SBI and ICICI with respect to Profit per Employee	0.00	Rejected
3	There is no difference in SBI and ICICI with respect to Wage bill to total Income Ratio	0.00	Rejected
4	There is no difference in SBI and ICICI with respect to Wage bill to total Expense Ratio	0.00	Rejected
5	There is no difference in SBI and ICICI with respect to Wage bill to Intermediation cost Ratio	0.00	Rejected

Source: Computed from Data Compiled from Annual Reports of ICICI and SBI

Analysis of the difference in performance of the two banks from internal process perspective discloses that all the five select variables exhibit significant difference between the two banks. The variables showing significant difference are business per employee, profit per employee, wages/total income, wages/total expenses and wages/intermediate cost.

Analysis of difference between ICICI bank and SBI with respect to overall performance under Internal Process Perspective

This sub-section presents the results of analysis of overall difference between ICICI bank and SBI with respect to their performance from Internal Process Perspective.

H0: There is no difference between SBI and ICICI bank with respect to their overall performance from Internal Process Perspective

H1: There is a difference between SBI and ICICI bank with respect to their overall performance from Internal Process Perspective

Table-16: Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.983	402.773	5	34	0.000
	Wilks' Lambda	.017	402.773	5	34	0.000
	Hotelling's Trace	59.231	402.773	5	34	0.000
	Roy's Largest Root	59.231	402.773	5	34	0.000
Bank	Pillai's Trace	.947	122.723	5	34	0.000
	Wilks' Lambda	.053	122.723	5	34	0.000
	Hotelling's Trace	18.047	122.723	5	34	0.000
	Roy's Largest Root	18.047	122.723	5	34	0.000

Source: Computed from Data Compiled from Annual Reports of ICICI and SBI

Table16 shows the results of multivariate test performed to test the significance of difference in performance from internal process perspective between SBI and ICICI Bank. The test results disclose that there is a significant difference between SBI and ICICI bank in terms of their performance from Internal Process Perspective.

Analysis of the difference between ICICI bank and SBI with respect to their performance from Learning and Growth Perspective

This section presents the results of the analysis of difference between ICICI bank and SBI with respect to their performance under Learning and Growth perspective. Line chart, descriptive statistics and Independent Sample t-test have been employed on all the select variables representing the performance from Learning and Growth Perspective. Besides, the difference based on overall performance under this perspective has been tested by using multivariate test.

Table -17: Summary of Hypothesis Testing

S.No	**Null Hypothesis**	**‘p’ Value**	**Result**
1	There is no difference in SBI and ICICI	0.28	Accepted

	with respect to No of ATMs		
2	There is no difference in SBI and ICICI with respect to Debit Cards	0.776	Accepted
3	There is no difference in SBI and ICICI with respect to Credit Cards	0.053	Accepted
4	There is no difference in SBI and ICICI with respect to Growth in Skilled Employees	0.01	Rejected
5	There is no difference in SBI and ICICI with respect to Expense per Employee	0.056	Accepted

Source: Computed from Data Compiled from Annual Reports of ICICI and SBI

Performance from learning and growth perspective has been measured by using five variables. Out the five variables, four have shown no difference between the two banks and only one variable has exhibited difference between the two banks. The variables which have shown difference between the two banks include growth in number of ATMs; growth in number of debit cards and credit cards; training expenses per employee. However, growth in number credit cards and training expenses per employee show difference between the two banks when the level of significance is 10%. The only variable which does not show significant difference between the two banks is growth in skilled employees.

Analysis of difference between ICICI Bank and SBI with respect to overall Performance under Learning and Growth Perspective

This sub-section presents the results of the analysis of overall difference between ICICI Bank and SBI with respect to their performance under learning and growth perspective by using Line Chart, Descriptive Statistics and Independent Sample t-test.

H0: There is no difference between SBI and ICICI Bank with respect to their Performance from Learning and Growth Perspective

H1: There is a difference between SBI and ICICI bank with respect to their Performance from Learning and Growth Perspective

Table -18: Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.997	147.548	5	2	0.007
	Wilks' Lambda	.003	147.548	5	2	0.007
	Hotelling's Trace	368.870	147.548	5	2	0.007
	Roy's Largest Root	368.870	147.548	5	2	0.007
Bank	Pillai's Trace	.911	4.087	5	2	0.208
	Wilks' Lambda	.089	4.087	5	2	0.208
	Hotelling's Trace	10.218	4.087	5	2	0.208
	Roy's Largest Root	10.218	4.087	5	2	0.208

Source: Computed from Data Compiled from Annual Reports of ICICI and SBI

Table 18 shows the results of multivariate analysis performed to test significance of difference between SBI and ICICI bank with respect to their overall performance from Learning and Growth Perspective. The test results reveal that there is no significance difference in the performance from Learning and Growth perspective between SBI and ICICI bank.

Chapter – VI

Findings Conclusions and Suggestions

This section provides the chapter wise findings, conclusions and suggestions:

12.1 Chapter – III: Performance Evaluation of State Bank of India

In this chapter, measurement of Balance Scorecard has been done by identifying metric variables under the four perspectives. Descriptive Statistics has been presented for the metric variables representing the four perspectives. Next, dependence relationship between performance under financial perspective and remaining three perspectives has been examined. For this purpose, NIM, which is the key measure of operating performance of a bank, is used as a dependent variable and all the select variables under the three perspectives have been used as independent variables. Regression models have been constructed by treating each metric variable under the three perspectives individually as an independent variable and NIM as a dependent variable. The results of performance State Bank of India are summarized as follows:

Findings:

1. The average Net Interest Margin (NIM) of the bank during the study period is 3.759 with a standard deviation of 0.826. The average ROE of the bank is 14.731 with a standard deviation of 3.695; the average ROA is 0.784 with a standard deviation of 0.179.

2. The average Cash-Deposit Ratio of the bank is 7.462 with a standard deviation of 1.959 while average Credit-Deposit Ratio is 66.724 with a standard deviation of 15.913. The average of Interest/Total Asset ratio is 7.883 with a standard deviation of 1.010.

3. Net NPA/Net Advances Ratio has an average value of 3.601 with a standard deviation of 2.079. Investment/Deposits ratio has an average value of 40.497 with a standard deviation of 10.155. The average Capital Adequacy Ratio of the bank is 12.928 with a standard deviation of 0.827.

4. The average YOY growth in Total Credit deployed by the bank is 18.28 with a standard deviation of 6.937. Term Loans/Total Advances has an average value of 46.684 with a standard deviation of 10.708. The Average Transactions outside India are Rs. 224932.0 crores with a standard deviation of Rs.222867.0 crores.

5. The banks priority sector advances are 25.57% of total advances. The standard deviation in this ratio is 7.204. Growth in total deposits is 15.828 on YOY basis and standard deviation is 7.903. Average Marketing expenses are Rs. 172.3229 crores with a standard deviation of Rs. 185.3623 crores.

6. Term deposits/Total Deposits ratio is 57.185 with a standard deviation of 3.976. Deposits/Liabilities ratio has an average value of 79.052 with a standard deviation of 3.455. Skewness of the distribution is negative while the kurtosis is almost zero. It highlights no visible peaks in the distribution of the data.

7. The ratio of ‘Marketing Expenses to Volume of Business’ is 0.013 with a standard deviation of 0.006Skewness of the distribution is positive which indicates that majority of the times the ratio was less than its average during the study period. Business per employee had witnessed more fluctuations during the study period as indicated by the CV value of 75.785%..

8. Profit per employee has CV value of 57.681%. Wages/Total Income ratio is 16.055% with a standard deviation of 2.331%. Wages/Total Income ratio reveals that employee expenditure is 16.055% of total income generated by the bank. Wages/ Total Expenses ratio is 19.054% with a standard deviation of 3.836 while Wages/Intermediation Cost is 67.246% with a standard deviation of 4.529. The average growth in ATMs during the study period was 30.594% with a standard deviation of 30.494.

9. Growth in Debit Cards has reported an average value of 20.341% with a standard deviation of 8.65. Growth in Credit Cards has reported an average value of 12.959% with a standard deviation of 2.547.

10. Average expenses per employee during the study period is Rs. 6,48,040 with a standard deviation of Rs. 2,46,808. The results of the analysis reveal that Term Loans/Total Advances Ratio at current values has significant positive impact on Net Interest Margin.

11. The Transactions outside India have significant positive impact on NIM. Term Deposits to Total Deposits Ratio has negative impact on NIM. The results of the analysis bring to light the fact that the marketing expenses present significant positive impact on the NIM of the bank.

12. The Deposits to Liabilities Ratio has significant positive impact. It connotes that increase in Deposits/Liabilities ratio leads to increase in NIM of the bank. Marketing Expenses to Volume of Business Ratio has significant positive impact on NIM. Business per Employee has significant positive impact on NIM of the bank.

13. Profit per employee has significant positive impact on NIM of the bank. So, it can be inferred that performance of employees plays crucial role in achieving better operating profits by the bank.

14. Wage Bill to Total Income Ratio has significant negative impact on NIM. Wage Bill to Total Expenses Ratio has significant negative impact on NIM of the bank. Wages to Intermediation Cost Ratio has significant negative impact on NIM.

15. Number of ATMs on has significant positive impact on the operating profits of the company. An expense per Employee has significant positive impact on NIM of the bank.

Conclusions

1. Credit-Deposit ratio signifies that bank has not used borrowings for funding the advances. It solely depends on the deposits to fund the advances. It manifests prudent Asset-Liability management practices of the bank. The sum of Credit-Deposits ratio and Investment-Deposits ratio is more than 100. It means bank uses some portion of external borrowing for funding either advances or investments, Very low value of standard deviation signifies the dedicated adherence of CAR by the bank.

2. It can be observed that Term Deposits/Total Deposits ratio is more than the ratio of Term Loans/Total Advances. It indicates the conservative approach in maintaining the Asset-Liability ratio of the bank. Term Loans/Total Advances ratio highlights that major portion of total advances are deployed in lending other than long term loans (like short term or medium term loans).

3. The growth in Debit cards and Credit card clearly indicates that customers give more preference to debit cards rather than credit cards. Transactions outside India fetch more operating profits to the bank. It highlights the competitiveness of the bank in International markets.

4. The results of the analysis bring to light the fact that the marketing expenses present significant positive impact on the NIM of the bank. The results are quite intuitive indicating the intensity of the competition faced by the bank. It can be inferred that showcasing the competencies of the bank play pivotal role in gaining edge over the competitors in the industry. Hence, bank should budget the marketing expenses keeping in view its crucial role in beating the competition in the market.

5. Profit per employee has significant positive impact on NIM of the bank. So, it can be inferred that performance of employees plays crucial role in achieving better operating profits by the bank. Wage Bill to Total Income Ratio has significant negative impact on NIM. It indicates that

higher the expenditure on employee, lower the operating profits of the bank. It underscores the need for controlling the cost incurred on the employees by rationalizing the job evaluation system in the organisation and also identifying the wastage areas and trying to minimize such wastages.

6. Number of ATMs on has significant positive impact on the operating profits of the company. It highlights that rendering banking services through ATM reduces the operating costs and ultimately causes increase in NIM of the bank. It is mainly due to this reason; ATM points have been burgeoning in the recent past which is enabling easily access to ATMs by the customers in their nearby locations.

7. From the testing of hypothesis done variable wise it can be concluded that the performance of SBI under customers' perspective, internal process perspective and learning and growth perspective influence its financial performance.

Suggestions

1.Positive impact of term loans to total advances ratio on financial performance of bank suggest that the bank should concentrate on increasing the proportion of loans in order to achieve operating profits but at the same time the bank should see that it does not jeopardise its liquidity portion.

2. Transactions outside India has positive impact on financial performance so the bank should focus on expanding and sustaining its global footprint and at the same time the bank should take proper measures to hedge its risk arising from foreign exchange exposure.

3. Significant impact of marketing expenses recommends that bank should give attention to showcasing its competitive strengths more effectively.

4. The significant of number of ATMs on the financial performance of the bank advocates that technology adoption results in cost reduction and hence it will have a positive impact on the performance of the bank so, the bank should give importance to technology by establishing more number of-banking centres.

12.2 Chapter – IV: Performance Evaluation of ICICI Bank

This chapter provides measurement and evaluation of the performance of the ICICI bank under the framework of Balanced Scorecard. Just like in case of SBI, performance of the bank has been evaluated from four perspectives viz., financial perspective, customer perspective, internal process perspective and learning and growth perspective. After the evaluation of the performance from the four perspectives by using descriptive statistics, the study proceeds to assess the impact of the performance from the three perspectives on the performance from the financial perspective. The summary of the performance of ICICI under different perspectives and the results of regression analysis are presented as follows:

Findings

1. The results indicate that average NIM of the bank is 3.479 with a standard deviation of 1.596. ROA of the bank is 1.261 while ROE is 13.802. Cash deposit ratio of the bank is 8.326 with a standard deviation of 2.294 while credit-deposit ratio is 85.962 with a standard deviation of 28.558.

2. Interest to Total Assets ratio of the bank is 7.558 with a standard deviation of 1.505. Net NPA to Net Advances ratio is 1.985 with a standard deviation of 1.325. Investment/Deposits ratio is 1.985 with a standard deviation of 17.184. Capital Adequacy Ratio is 14.779 with a standard deviation of 3.319.

3. Average growth in total credit is 30.80% with a standard deviation of 28.636%; Term Loans to Total Advances Ratio has the mean value of 64.483 with a standard deviation of 31.276. Priority sector advances to Total Advances ratio has an average value of 22.07 with a standard deviation of 6.21.

4. The average transactions outside India are Rs. 1,05,402.7 crores with a standard deviation of Rs. 90,027.90 crores. Growth in Total Deposits is 39.99% with a standard deviation of 37.54%;

5. Term Deposits to Total Deposits ratio has average value of 70.001 with a standard deviation of 11.258. Deposits to Liabilities ratio is 67.18 with a standard deviation of 14.015; The average marketing expenses of the bank are Rs. 108.2069 crores with a standard deviation of Rs. 80.93650 crores.

6. Growth in Volume of Business is 44.71% with a standard deviation of 55.457%. 16. The ratio of Marketing Expenses to Volume of Business is 0.039 with a standard deviation of 0.015.The

mean value of Business per Employee and Profit per Employee are Rs. 9,09,44,843 and Rs.10,48,813. The mean values of Wages to Total Income ratio is 5.535 and it indicates that out of the total income, 5.535% is distributed in the form of wages to the employees.

7. The mean value of Wages to Total Expenses ratio is 6.75. It highlights that 6.75% of the total expenses portion is occupied by the wages. The mean value of Wages to Intermediation cost is 28.591. The average growth in ATMS is 18.056 with a standard deviation of 12.462;

8. Average growth in debit cards is 18.902 with a standard deviation of 4.27. Average growth in credit cards is 6.531 with a standard deviation of 4.71. Average expenses per employee are 556415.027 with a standard deviation of 106360.630. Growth in skilled employees is 18.461 % with a standard deviation of 19.41%.

9. The growth in total credit has significant negative impact on the NIM of the bank. It indicates the need for maintaining prudent balance between assets and liabilities of the bank so that lending can be made profitably. Priority sector advances positively affect the NIM of the bank and the affect is significant statistically.

10. The transactions outside India have significant positive impact on NIM of the bank. It indicates competitive strength of the bank in the international banking industry

11. Growth in total deposits negatively affects the NIM of the bank and also the impact is statistically significant. Term Deposits to Total Deposits Ratio has significant negative impact on NIM of the bank. It means higher the proportion of term deposits, lower the NIM of the bank.

12. Marketing expenses have significant positive impact on NIM of the bank. It implies the need for showcasing the competencies of the bank to get edge over the competitors in the market. Growth in volume of business negatively affects NIM of the bank. It implies negative economies of scale derived by the bank.

13. Wage Bill to Total Income ratio has significant positive impact on NIM of the bank. It connotes that increase in wage bill leads to increase in operating profits of the company which implies the key role of human resources in the banking organisations.

14. Wage Bill to Total Expenses Ratio indicate that the predictor has insignificant positive impact on NIM of the bank. Wages to Intermediation Cost Ratio unveil significant positive impact of the ratio on NIM of the bank.

15. Number of ATMs discloses has negative impact on NIM of the bank. But, the impact is not significant. Number of debits cards issued by the bank negatively affects its NIM. The results indicate that number of Credit Cards has significant negative impact on NIM of the bank.

16. The ‘Expenses per Employee’ have negative impact on NIM of the bank. But, the impact of the predictor is not significant.

Conclusions

1. ROA and ROE of the bank indicates that substantial portion of the assets have been funded by debt capital only. Very low value of ROA indicates the week earning potential of the assets held by the bank. Term Loans to Total Advances Ratio and Term deposits to total deposit ratio indicate that the bankers want to be conservative in its long term lending policy.

2. Growth in debit cards and credit cards indicates the customers are more inclined to use debit cards rather than credit cards. As the credit cards may have hidden charges, customers of middle income group may be afraid of using credit cards.

3. The transactions outside India have significant positive impact on NIM of the bank. It indicates competitive strength of the bank in the international banking industry. Based on the significant negative impact of credit cards on financial performance of the bank. It can be concluded that the bank is aggressively issued credit cards without properly accessing credibility of the customers and it results in excessively using the credit limit by the customer.

4. From the testing of hypothesis done variable wise it can be concluded that the performance of ICICI Bank under customers’ perspective, internal process perspective and learning and growth perspective influence its financial performance.

Suggestions

1. Significant negative impact of growth in total credit on the financial perspective of the bank warns that the credit policy of the bank should be critically assessed and should identify the lacunae in the credit policy of the bank.

2. Significantly positive impact of foreign transactions of the bank suggests that the bank should expand its market share in the international banking industry.

3. The impact of marketing expenses is similar as in case of SBI. It suggests that the bank should give more importance to marketing in order to augment its competitiveness in the market.

4. Significant negative impact of credit cards on the financial performance of the bank indicates that usage of credit cards by the customers excessively may result in adverse effect to the bank. Usually private banks like ICICI bank aggressively issues credit cards to its customers and the customers become habituated to use credit cards beyond their affordability it ultimately result in loss to the bank in terms of interest and principal amount. So it can be advised that the bank should be cautious in issuing credit cards to customers.

Chapter – V: Comparison of Performance of State Bank of India and ICICI Bank

This chapter provides the comparatively analysis of difference between ICICI bank and SBI with respect to their performance under the four perspectives of Balanced Scorecard.

Findings

1. The average NIM of ICICI bank is 3.479 and that of SBI is 3.759 with a standard deviation of 1.596 and 0.826 respectively. The difference in the average NIM of ICICI and SBI is 0.280 and standard error of difference is 0.402. It clearly indicates that deviations in NIM are comparatively more in case of ICICI Bank.

2. There is no significant difference between SBI and ICICI bank with respect to their NIM.

3. The average ROA of ICICI bank is 1.261 and that of SBI is 0.784 with a standard deviation of 0.376 and 0.179 respectively. The difference in the average ROA of ICICI bank and SBI is 0.480 and standard error of difference is 0.09. The results reveal that the deviations in ROA are comparatively more in case of ICICI Bank.

4. Under the financial perspective, there is no significant difference between the two banks in terms of their NIM, ROE, cash deposit ratio and interest to total assets ratio while significant difference exists between the two banks with reference to their ROA, credit deposit ratio, Net NPA/Net Advances Ratio, Investment/Deposit Ratio and Capital Adequacy Ratio. It means out of nine variables, five variables differ significantly between the two banks

5**.** On Customers Perspective front, out of the ten variables, six variables have shown significant difference between the two banks. The variables which have shown significant difference include term loans/total advances ratio, transactions outside India, growth in deposits, term deposits/total deposits, deposits to liabilities, growth in volume of business, marketing expenses/volume of business. The variables which have not shown difference between the two banks, are growth in total credit, priority sector advances/total advances, marketing expenses.

6. Analysis of the difference in performance of the two banks from internal process perspective discloses that all the five select variables exhibit significant difference between the two banks. The variables showing significant difference are business per employee, profit per employee, wages/total income, wages/total expenses and wages/intermediate cost.

7. Performance from learning and growth perspective has been measured by using five variables. Out the five variables, four have shown no difference between the two banks and only one variable has exhibited difference between the two banks. The variables which have shown difference between the two banks include growth in number of ATMs; growth in number of debit cards and credit cards; training expenses per employee. However, growth in number credit cards and training expenses per employee show difference between the two banks when the level of significance is 10%. The only variable which does not show significant difference between the two banks is growth in skilled employees.

Conclusion

1. There is a significant difference in credit deposit ratio of the two banks, it indicates difference in lending policies of the two banks. Investment Deposit ratio is comparatively more in case of ICICI Bank, it indicates that the banks give more preference to investment rather than advances. Insignificant difference in Cash Deposit may indicate that there is no difference in the liquidity preference of the two banks. There is difference in NIM of the two banks but not in ROA of the

banks, it indicates that other incomes of the banks differ significantly due to the various strategies adopted by the banks.

2. Difference in CAR of the banks indicates that ICICI bank is comparatively in a better position in term of risk management. There is a remarkable difference in growth in total deposits of the two banks, comparatively higher growth rate achieved by ICICI bank. It indicates that the bank is rapidly expanding its market share in the industry.

3. ICICI bank has reported comparatively higher rate of term deposits to total deposits. It indicates that the bank offers comparatively better interest to the term deposit holders. Having larger proportion of term deposits helps the banks in maintaining better asset liability ratio. It also enables the bank to extend more amount of long term advances. Deposits to liability ratio is comparatively less in ICICI bank, it may due to the reason that private banks can procure long term source of funds as secured loans rather than unsecured loans because deposits are unsecured loans to bank. In case of SBI it was different because it is a public sector bank and it is free from default risk.

4. Marketing expenses per unit of volume of business is more in case of ICICI bank, it indicates that private banks are spending comparatively more amount on marketing of their business. There is remarkable difference between ICICI bank and SBI in terms of business per employee. It clearly indicates that ICICI bank has more employee productivity compared to SBI. Comparatively low productivity in SBI can be attributed to inefficient personnel management in public sector banks like SBI. It is very difficult to resort to practices like retrenchment or layoff in the public sector banks, because of the rigid rules and regulations in the public sector banks.

5 Wage bill to total income ratio indicates that comparatively large portion of the operating expenses are incurred on employees of SBI. It mainly due to two reasons one is comparatively large number of employees and comparatively higher pay structure of the SBI. In case of all the five select variables there is a significant difference between SBI and ICICI bank. So, it can be concluded that ICICI bank has comparatively better performance from internal process perspective.

6. There is no significant difference between SBI and ICICI bank with respect to number of ATMs, number of debit cards and credit cards issued. So, it can be concluded that in employing e-employing technology both the banks are equally competing.

7. Growth in skilled employees of ICICI bank is twelve times greater than that of SBI. It may be due to the reason that ICICI bank is rapidly expanding its market share and hence there would be a need for more number of skilled employees that is a reason why there is a substantial growth in skilled employees of the bank in the study period.

8. The comparative analysis of difference between SBI and ICICI bank with respect to their performance under the four perspectives of Balanced Scorecard shows that there is a significant difference between two banks under financial perspective, customer perspective and internal process perspective but there is no difference in the performance of select banks under learning and growth perspective.

Suggestions

1. The credit deposit ratio of ICICI bank indicates that the bank is maintaining very less margin of deposits. It may endanger the liquidity position of the bank.

2. Based on comparatively higher term loan to total advances ratio of ICICI bank, it can be suggested that the bank should give more attention for balancing the Asset Liability Ratio.

3. Comparatively lower growth in total credit of SBI suggest that the bank should concentrate on expanding its market share by improving its competitiveness.

4. As SBI has comparatively low business per employee and very low profit per employee. It should concentrate on improving the productivity of the employees.

5. Based on the comparatively lower growth in skilled employees, it can be suggested that banks should concentrate on this area by assisting the requirement of skilled employees and accordingly recruiting them in time

Contribution of the Present Study

Findings of the present study contribute to the existing domain of knowledge in the area of management accounting in general and performance measurement and evaluation in particular.

Though, the existing literature in this area documents various studies on the performance measurement and evaluation of banking companies, they confine to the application of financial measures only. The present study by considering the non- financial measures also yields useful insights about the dynamics of the performance of the banking companies.

The study of lead –lag relationship between financial performance and performance from other three perspectives provide insights into the information content of non-financial measures in predicting the future financial performance of the bank.

The present study helps in measurement and evaluation of the performance of banking company in comprehensive manner.

The methodology used and analytical frame work applied in the present study is helpful to the financial analysts, management accounts, and academic researcher in applying the Balanced Scorecard model in measuring and evaluation of the performance of the banking companies.

14. Limitations of the Study

Balanced Scorecard comprises both the financial and non-financial measures of performance. Non-financial measures include customer value, employee value, efficiency of internal process and learning of the employees. Usually, non-financial performance is measured through both quantitative and qualitative measures. But, in the present study, only quantitative variables are used to measure the non-financial performance. All the quantitative variables, which are selected for the study, have logical representativeness of the concerned perspective. Hence, ignoring the qualitative variables does not undermine the validity of the results of the study.

Performance from Financial perspective has been measured by employing nine different variables. However, to analyze the impact the performance from the remaining three perspectives on financial performance, only NIM is used as a representative variable of the financial performance. NIM does not consider the other incomes earned by the bank, apart from its income from core banking activities. Though, NIM is not a comprehensive measure of the financial performance of a bank, it is widely accepted measure of the performance of the bank.

Balanced Scorecard suggests sequential cause and effect relationship between the four perspectives. Better learning and growth leads to better internal process of the organisation;

better internal process augments customer satisfaction. Finally, firms with better customer satisfaction will have better financial performance. In the present study, due to limitations of the data, such sequential relationship could not be analyzed. Instead, the impact of the performance from customer's perspective, learning and growth perspective and internal process perspective on financial perspective has been analyzed. As, the ultimate objective any firm is attain better financial performance, analyzing the direction relation of the remaining three perspectives with the financial perspective is legitimate.

Lastly, data of some variables is incomplete during the study period. In Learning and growth perspective, data relating to number of ATMs, debit cards, credit cards, expenses per employee and skilled employees is available for less than 20 years. In customer perspective, data relating to transactions outside India is also available incompletely. For all the remaining variables, data is available for the complete study period.

15. Scope for Further Research

In the present study, performance of SBI and ICICI Bank has been studied by applying Balanced Scorecard. The study can be extended to other banks in both public sector and private sector banks.

The study can also be made in the similar lines on the performance of foreign bank operating in India and comparison of the performance of foreign banks and Indian banks can also be done.

Moreover, in the present study, only quantitative financial variables have been considered for the analysis. The study can be extended to include qualitative variables like customer satisfaction, employee satisfaction, motivation, morale etc.,

In the present study, to analyse the impact of performance from customer, employer and internal process perspective on the financial performance NIM is considered as a representative variables, there is a scope for considering other financial variables like ROA, ROE, Net Profit ratio etc., as a representative variables of financial performance.

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