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RESEARCH METHODOLOGY
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RESEARCH METHODOLOGY

3.1 INTRODUCTION

“Research is a movement, a movement from the known to the unknown.”

Bank plays a crucial role in the economy of the country. It accepts the deposits from the public and lending the money. It is the sector which provides their services to all the types of customers in each and every area of the country each and every sector of the economy. Hence, it is the prime responsibility of the banks to perform well because it has direct impact on the economy. Hence the present research is carried out by the researcher to study the financial performance with new measurement tool EVA in selected Nationalized Banks.

3.2 STATEMENT OF THE PROBLEM

Bank plays a vital role in the economy of the country and it has direct impact on the entire economy of the country. The study is aimed to analyze financial performance with special reference to EVA as a tool of measurement in selected Nationalized Banks. It becomes quite essential to study and analyze the share holders value creation measure i.e. EVA which accounts for the cost of capital and thus measures the true economic profit. The traditional measures ROCE, RONW etc…failed to measure the Economic Performance but the value based measures i.e. EVA, MVA are becoming popular in measuring financial performance in today’s world.

The backdrop is that banks are using traditional financial measures but not using the value based measure to analyze the financial performance. The value based methods are quite useful in valuing banks because banks are a highly levered entity. As the financial leverage increases financial risk, equity shareholders will require higher rate of return in order to be compensated for assuming higher degree of risk. Therefore, it is quite useful method in valuing banks to measure the return earned by

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the banks more the returns required by equity shareholders. Hence, the banks should start implementing additional parameter i.e. EVA.

The Title of the Research Problem is

“AN ANALYTICAL STUDY ON FINANCIAL PERFORMANCE OF SELECTED NATIONALIZED BANKS WITH SPECIAL REFERENCE TO ECONOMIC VALUE ADDED”

3.3. RESEARCH DESIGN

Research design is a definite plan for obtaining a sample from a given population. The present study is mainly concerned with the financial performance with special reference to Economic Value Added in selected Nationalized Banks in India. Only five Nationalized Banks have been included in the study out of twenty Nationalized Banks including IDBI and ten year’s 2004-05 to 2013-14 financial information from has been collected.

3.4 TYPE OF THE STUDY

The present study will be analytical, descriptive and empirical in nature. The major purpose of descriptive research is description of the state of affairs as it exists at present. The present research work will be based on the annual reports of nationalized banks submitted to RBI and financial statements i.e Profit and Loss Account and Balance-Sheet.

3.5 REVIEW OF LITERATURE

The recent and relevant studies conducted from different angles on financial performance and new corporate performance measurement tool EVA is as under.

1) T. G. Saji (2014) studied empirical evidence on the casual relations between EVA and stock returns in the Indian context. The study was based on the data of companies listed on NSE India for the recession affected period, 2008-2013 and it revealed that on a year-on-year basis, EVA did not make any significant influence on stock return variations in an emerging market context. However, Panel Regression
model using on year time lagged values of exogenous variables successfully captured the correct explanatory timing of the relationship between EVA and stock returns there. It is revealed that the change in EVA and cost of capital of firms definitely affects their stock prices in the market and its impact could be visible only in the subsequent year.\(^1\)

2) Xuefeng Tian et. al. (2014) studied an analysis of the discrepancies between EVA and N.P. on the GEM listed companies. The objective of the study was to find out the overall trend of EVA and N.P. of companies listed on GEM and factors causing the differences between EVA and N.P. As a result, it was concluded that N.P. was found to be much greater than EVA, and the differences between EVA and N.P. were also found to increase year-on-year, Descriptive Statistics and Sensitivity Analysis suggesting that the growth of EVA is slower than that of Net Profit. The paper applied sensitivity analysis to companies having negative EVA, and the results showed that the cost of equity capital is the main reason for EVA and N.P. to cause reverse changes. The trend of average EVA rate also supports these findings. The EVA rate showed a declining trend instead of rising trend, implying that the GEM companies created value with expanded capital, but the use efficiency of the capital does not improve.\(^2\)

3) Hediye Sadat Mirsharafoddin et. al. (2014) conducted a study to investigate the relationship between characteristics of Board of Directors (BOD) as a corporate governance mechanism and EVA as a new performance evolution criterion. For the purpose of study eighty manufacturing companies listed in Tehran Stock Exchange (TSE) in Iran were chosen for five years 2005-2009. The statistical tool pooled regression analysis was used to test hypothesis with sample data. The result of the study revealed a direct and significant relationship between CEO- Chairman Duality with EVA. But there is no significant relationship between size of Board of Directors, proportion of outside directors and EVA. The results complied with the previous researches about characteristics of Board of Directors as a corporate governance mechanism.\(^3\)

4) Dr. K. Ratna Manikyam (2014) conducted a research on Challenges and Opportunities on Indian Banking Sector. This paper is explained the changing banking scenario, the impact of economic reforms on banks and analysis the challenges and opportunities of Indian banks. The banking sector is going through
major changes as a consequence of economic reforms. The economic reforms have also generated new and powerful customers and new mix of players such as public banks, private banks and foreign banks. As a result, lots of challenges and opportunities like High transaction costs, IT revolution, timely technological upgradation, intense competition, privacy & safety, global banking and financial inclusion are incurred. But today, the biggest challenge for the Indian banking system is to serve the mass and huge market of India and biggest opportunity is the Indian consumers. From the study, it is remarked that the competition from global banks and technological innovation has compelled the bank to rethink their policies and strategies. Different products and services provided by foreign banks to Indian banks to diversity and upgrade themselves so as to compete and survive in the market.  

5) Dr. Mukund Sharma (2014) analyzed and compared the performance of public and private sector banks in India using CAMEL model. In this analysis the six indicators like capital adequacy, asset quality, management soundness, earnings, liquidity and sensitivity to market risk which reflect the soundness of the institution framework were considered. Sixteen private and sixteen public sector banks were selected for the study. The study has been covered six years period 2007-08 to 2012-13. From the analysis based on CAMEL Ratios, it was found that the performance of the public sector banks were substantially better than their private sector counterparts and few banks were found to have poor ranking in more than 70% of ratios ranks comparisons.

6) Dr. Pratapsinh Chauhan and Dr. Vijay K. Patel (2013) conducted a study of shareholder value creation and measurement with the help of economic value added in Indian pharmaceutical industry. The reference period was covered 2000 to 2009 for the purpose of study. In the course of analysis, regression analysis has been used. By using regression analysis, it was found that the model was applicable to Indian pharmaceutical industry. On the basis of regression research, it was proved that the firm’s return on investment is highly dependent on economic return on net worth, debt equity ratio, creator’s velocity and price earnings ratio.

7) Dr. Jasviv S. Sura and Ms. Anju Lather (2013) examined Indian banking and information content of EVA and traditional measures. The EVA and MVA have not been grossly researched to Indian banking sector. The objective was to study EVA and traditional measure and to explain market value as well as to study and establish
cause and affect relationship between MVA and other select financial variables. The multiple regression and Biddle’s et. al (1997), Bao and Bao (1998) approach is selected for studying relative and incremental information of EVA and other traditional financial performance measures. The result of the survey concluded that Indian banks may not be recognizing the EVA benefits or even investors are also not considering EVA for the valuation of stocks. Furthermore, concluded that there was a little awareness about the EVA among Indian banking industry.7

8) Bijay Prakash Verma et. al (2013) focused on mergers and acquisitions and their impact on Indian bank’s corporate values by analyzing pre- and post-merger performance. The period 2000 and 2010 has been covered for the study. The study includes EVA to evaluate the performance of selected banks in pre- and post-merger periods. It was concluded that Indian banks, though small in comparison to their global counterparts, are taking great strides not only within the continental shelf of India but even beyond its borders too.8

9) Dr. Shefali Verma et. al (2013) examined the profitability of four major banks in India. Each sample selected from different groups for the study namely PNB, SBI, ICICI banks and Federal Bank during the post-reforms of banking sector in 2008 to 2012. For this purpose, the statistical tool coefficient of variation was used. By using this, it came to know that the profitability of different bank groups operating in India significantly differ from each other. It was cleared from that the private sector banks are performing better in terms of profitability and efficiency.9

10) Dr. K. Srinivas and L. Saroja (2013) analyzed and compare the financial performance and offered suggestions for the improvement of efficiency in HDFC bank and ICICI bank. For the purpose of the study, world renowned CAMEL model with t-test was applied. The study covered a period of ten years from 2003-2012. From the CAMEL’s analysis and t-test analysis, it was found that there was no significance difference between the ICICI and HDFC Bank’s financial performance. The ICICI bank performance was slightly less compared with HDFC.10

11) Dr. V. R. Nedunchezian and Ms. K. Premalatha (2013) attempted to find out the financial performance of commercial banks during its post merger period and to evaluate its impact of merger in the selected banks in pre and post merger in India. The Capital Adequacy Ratio, Management Efficiency Ratio, Earnings and Profitability Ratios were mainly used to find out whether the banks have achieved
performance efficiency during its post merger period or not. The pre-merger period and post-merger period were 2003-2006 and 2008-2011 respectively. The data analysis was done with the help of paired t-test to find out the significance difference of the ratios. It was observed that overall performance of selected banks after merger shows better improvement in most of the areas.\textsuperscript{11}

\textbf{12) Jayshree Chavan (2013)} emphasized on internet banking and its benefits and challenges in an emerging economy for future development of banks. The information technology has taken especially in banking sectors. Increased use of mobile services and use of internet becomes a new distribution channel for banking transactions, and international trading requires more attention towards e-banking security against fraudulent activities. The information and communication technology have brought about a lot of changes in almost all facets of life. Online banking is replacing the traditional banking practice which has lots of benefits which add value to customers’ satisfaction in the terms of better quality of service offered and at the same time enable the banks to gain more competitive advantage over other competitors. It was concluded that e-banking is increasing customer satisfaction and due to that customers may access their accounts anytime, from anywhere, and they get involved more, this creating relationships with banks. Banks should provide to their customers meaning offering service through several distribution channels and have more functions available online with convenience,. With the benefits of expanded product offerings and extending geographic reach; banks can obtain success on the financial market.\textsuperscript{12}

\textbf{13) Rashed Al Karim and Tamima Alam (2013)} evaluated the financial performance of selected private commercial banks in Bangladesh, listed on both the Dhaka Stock Exchange and Chittagong Stock Exchange. The researcher extensively used financial ratios that mainly indicate the adequacy of risk based capital, credit growth, credit concentration, non-performing loan position, liquidity gap analysis, liquidity ratio, Return on Assets (ROA), Return on Equity (ROE) and Net Interest Margin (NIM). Three indicators like internal-based performance measured by Return on Assets, Market-based performance measured by Tobin’s Q Model (Price Book Ratio) and Economic based performance measured by Economic Value Added have been used to measure financial performance of selected banks. The period of the study was 2008-2012. The statistical tool like multiple regression analysis was applied. The result of the study claimed that there was significant impact of bank size, credit risk,
operational efficiency and asset management on financial performance of private commercial banks in Bangladesh.¹³

14) DR. S. Kasturi Rangan (2013) evaluated the merger of HDFC bank and Centurian Bank of Punjab using Economic Value Added is a modern tool used by the bankers to measure the performance of their banks. The expectation of this study was that large entity will bring improved efficiency and profitability. Since the merger is done with a view to improve the business performance metrics, it is imperative to evaluate, whether the merger of these entities has created value to the shareholders. The pre-merger period (2005 to 2010) and post-merger period (2010 to 2013) have been considered for the purpose of the study, the analysis of the study revealed that EVA has exhibited cyclical trend after the merger. The banks had destroyed shareholder value during the year 2011 possibly due to very high cost of equity 34.38% and had increased value in 2013 for the bank.¹⁴

15) Kanika and Nancy (2013) evaluated the financial performance and growth patterns of Regional Rural Banks (RRBs). The study covered a specific period from 2006-07 to 2011-12 after globalization and amalgamation. The result concluded that the rapid expansion of RRB had helped in reducing substantially the regional disparities in respect to banking facilities in India. The efforts made by RRB in deposits mobilization, rural development, branch expansion and credit deployment in weaker section of rural areas are appreciable. RRB successfully achieve their objectives like households particularly to direct banking deprived credit to weaker rural section which had encouraged rural savings for productive activities, to generate employment in rural areas and bring down the cost of purveying credit in rural areas. Thus, RRBs are providing the strongest banking facilities.¹⁵

16) R. Mungra Ganesh et. al (2013) compared and measured the wealth of the selected Automobile Industries. The concept of wealth maximization is better than profit maximization. It focused on function of a firm to maximize its contribution to the society such as employees, creditors and consumers. The researcher has selected two automobile industries namely Tata Motors and Ashok Leyland for measuring the wealth of companies for nine financial year 2004-05 to 2011-12. It was resulted that the EVA, MVA, Cash Flow from Return on Investment and Market Value to Book Value Ratio were better in Ashok Leyland than Tata Motors. The study helped the investors to take right investment decision in automobile industries.¹⁶
17) Dhaval S. Desai (2013) analyzed the performance of Indian banks. The study was mainly based on the comparison of the innovative services and performance evaluation of the Indian banks by using CAMEL model. Three public sector banks and two private sector banks were selected. It was concluded that the current banking crisis, which is quite unprecedented, underlines the importance of regulatory issues and the effects of incompetence in this area. It was observed that CAMEL, as a rating system to judge the soundness of banks is quite useful tool which can lead to bank failures.17

18) Dr. Krishna A. Goyal and Vijay Joshi (2012) highlighted the general sentiments, challenges and opportunities for the Indian banking industry. First part of article consists of introduction and general scenario of Indian banking industry. The second part of article discuss various challenges and opportunities faced by Indian banking industry such as rural market, transparency, customer expectation, management of risks, growth in banking sector, human factor, global banking, environmental concern, social and ethical issues, employee and customer relation. The third part concluded that urgent emphasis was required on the Indian banking product and marketing strategies in order to get sustainable competitive edge over the intense competition from national and global banks.18

19) Anam Charan Raul (2012) conducted a study on impact of Merger & Acquisitions on shareholder’s wealth. This research paper studies an empirical investigation of various banks Merger & Acquisitions in India. The researcher also examined the motives of merger of the banks and evaluates various financial ratios both in pre and post merger periods for the 3 years. This investigation included an evaluation of value addition to shareholders of banks in India after merger by using three value added parameters of corporate performance such as EVA, MVA and ROCE. This paper also included four public merger banks (SBI, BOB, DB, PNB) and four private merged banks (ICICI, Indus ind, HDFC, IDBI). The overall message of this paper was that mergers do not lead to improved post-merger performance since the most important motive of profitability has not been achieved.19

20) Amalendu Bhunia (2012) presented a study on the relationship between the shareholder’s value and financial variables. The present study was based on secondary data and covered 155 samples of top companies from Indian industries during 1996-2010. The aim of the study was to examine the relationship between shareholder’s
value and financial variables and rank sample companies on the basis of certain financial variables. In the course of analysis linear regression, factor analysis and multiple discriminant analysis had been modeled. It was concluded that although large sample statistical research of this study was a powerful means of identifying the general relationship between the pairs of variables.\(^{20}\)

21) Dr. Madan Bhasin (2012) examined the effectiveness of EVA over the conventional measures of corporate performance. In this regards, EVA and conventional measures of corporate performance such as ROCE, RONW and EPS were analyzed. Five leading and globally well-known Indian companies like Bharat Heavy Electronics Ltd., Hero Motor Corporation Ltd., Infosys Ltd., L & T Ltd. and TCS Ltd. were selected for the study. The study covered five years period from 2006-07 to 2010-11. For this purpose, trend analysis and regression analysis are used. And it was found that there was no strong evidence to support Stern Stewart’s claim that EVA is supporter to the traditional performance measures in association with EVA. From this study it can be suggested that Indian listed companies should improve their EVA to the shareholders by considering the cost of capital invested because positive reported earnings not always provide additional value.\(^{21}\)

22) Rajesh Patel and Mitesh Patel (2012) examined shareholder value in the terms of Economic Value Added of selected private sector banks and its impact on share price. The study utilized data of seven private sector banks from 2004-05 to 2009-10. The data analysis was carried out by adopting descriptive statistics, correlation and regression analysis. It was concluded that the correlation between EVA and stock price for Kotak Mahindra Bank was somewhat positive where correlation between EVA and market value of Axis Bank, HDFC Bank, ICICI Bank, ING Vyasya Bank, Indusland bank and Karnataka Bank was negative.\(^{22}\)

23) M. Rajesh et. al. (2012) presented empirical study focused on new innovative corporate financial metrics EVA and MVA. It was examined that financial performance of ten selected cement industries in India and rank them based on their EVA and MVA. The ten years study period has been covered (2001-02 to 2010-11). The data was analyzed with the help of mean, variance, standard deviation and coefficient of variance. By using coefficient of correlation between EVA and MVA, it was proved that ACC Ltd and Grasim Cements Ltd. were having satisfactory
performance with consistent returns to the shareholders. The EVA and MVA are relative performance to measure the performance of the company.\textsuperscript{23}

\textbf{24) Dr. M. Dhanabhakyam and M. Kavitha (2012)} emphasized on the financial performance of selected public sector banks in India with the help of ratio analysis. For this study, six public sector banks were selected and covered a period from 2001 to 2010. The tools and techniques like Correlation and regression were used for the analysis. It revealed that the selected public sector banks such as Bank of India, Canara Bank, Indian Overseas Bank, Indian Bank, State Bank of India and Union Bank of India had performed well in the terms of growth rate and financial efficiency during the study period.\textsuperscript{24}

\textbf{25) M. Gangu Naidu (2012)} examined the study of financial performance of reputed public bank in India i.e. Andhra Bank. The data was taken for 5 years 2006 to 2010. Ratios were used to evaluate financial performance of Andhra Bank. As per the analysis performed it was found that CAGR of various variables were seen in Andhra Bank. Andhra Bank has shown CAGR in case of interest earned, expenditure, burden, total liability, total assets and interest expenditure funds. It was concluded that there was decrease in interest earn, total expenditure, net profit to total funds which lead to decrease in profitability while decrease in the ratio of interest expenditure leading to increase burden ratio.\textsuperscript{25}

\textbf{26) Saeid Jabbarzadeh Kangaloei et. al (2012)} investigated the relationship between Economic Value Added (EVA) and Return on Assets (ROA) in listed firm of Tehran Stock Exchange (TSE). The study investigated whether ROA was a substitution for EVA in vehicle, food, chemistry and cement industry during the period of 2008 to 2010. The Pierson Coefficient of Correlation was applied. It is observed that there was strong relationship between EVA and ROA in TSE and it is an additional method to evaluate the firm’s performance.\textsuperscript{26}

\textbf{27) Dr. Pratapsinh Chauhan (2012)} studied the shareholder’s value creation in Indian Petroleum Industry. The seven companies in those three public sectors and four private sectors had been selected for the period of ten years (2001-02 to 2010-2011) for the purpose of the study. For the empirical analysis EVA, MVA, NOPAT, PAT, Market Capitalization and EPS data were used and for analyzing the trend and growth of value addition in terms of EVA and MVA in petroleum industry, statistical tools like mean, standard deviation, correlation, chi-square test and T-test were used
for analyzing the financial data of sample petroleum firms. From the analysis, it was observed that both public and private petroleum industries revealed positive EVA and MVA. The researcher found that EVA had significant correlation with OP, NOPAT, EPS, Market Capitalization and MVA of firms of both the sectors. It was also found that the performance of both the petroleum industry was satisfactory during the study period and the private sector petroleum firm’s trend of EVA and MVA was higher than public sector petroleum firm. Finally, it was concluded that EVA and MVA are an effective indicator of shareholder value creation and they are highly sensitive associated with the market capitalization of firm’s market value added in both sectors.27

28) Dr. Virender Koundal (2012) concentrated on Indian financial system. For this all commercial banks had been selected to analyze the comparative performance of public sector, old private sector banks, new private sector banks and foreign banks for this study. It also revealed the challenges and opportunities particularly faced by the public sector banks. Ratio analysis was used for 2010-11. It was concluded that foreign banks were on an average most efficient and new private banks were more efficient than old private banks. The public sector banks were not profitable.28

29) Arvind A. Dhond (2012) examined to know which financial performance measurement tool has strong relationship with shareholder’s value creation. Furthermore, this study found out the awareness about the concept of EVA and shareholders wealth in the market from the target respondents. For the purpose of the study, the information obtained from 364 respondents by considering the companies, chartered accountants, stock brokers etc…The respondents were selected through stratified random sampling technique. As per survey, it was found that companies use several methods for measuring the shareholder’s value. Most of the methods were traditional methods which were less effective in measuring shareholders value creation. This can partly be attributed to their conservative practices and partly to the complexity involved in the calculation of EVA.29

30) Nutan N. Thoke and Parikshit K. Pachorkar (2012) attempted to evaluate the relationship between financial performance of Indian public sector banks and private sector banks with the help of ratios. For the purpose of the study correlation analysis was used to measure relationship between dependent variables and independent variable. The result of the study revealed correlation between in the
public sector banks and private sector banks and there was high degree of positive correlation between independent variable and interest income. The comparison of percentage of other income showed that private sector banks were generating more percentage of other income than public sector banks. Credit deposit ratio showed that how private banks have fully used their assets for revenue generation.\(^{30}\)

31) **Avneet Kaur (2012)** conducted a study to analyze the profitability performance as well as Non-Performing Assets of Public Sector Banks in India. This study covered a period of ten years from 2000-01 to 2009-10. For analyzing the profitability performance of public sector commercial banks in India, Growth Rate, Compound Growth Rate, Co-efficient of Correlation, Ratio Analysis and Median were used. It was cleared from the analysis that the contribution of public sector commercial banks to the profitability of scheduled commercial banks in India was more.\(^{31}\)

32) **Dr. A. Vijayakumar (2012)** carried out an empirical analysis of Economic Value Added and other accounting performance indicator in Indian automobile industry and also examined whether the EVA has better predictive power relative to the traditional accounting measures such as EPS, RONW, ROCE, Capital Productivity and Labour Productivity. The twenty automobile industries were selected for year 1997-98 to 2008-09 for the purpose of the study. All the three sectors like commercial vehicles, passenger cars and multi-utility vehicles (two or three wheelers) were selected. The statistical tools like mean, range, standard deviation variance, skewness and Kurtosis factor analysis and multiple regression analysis had been selected for the computation. The result of the study claimed that 53% to 76% of sample companies had registered negative EVA during the terminal years of the study period. The result of factor analysis showed that out of the eight variables, three factors have been extracted and these three factor put together explained 69.902% of total variance. Further result of multiple regressions indicated that four variables like EPS, Sales, PAT and MVA were better explaining the EVA. Finally the study supported the claim that the EVA is better predictor of market value compared to other accounting measures.\(^{32}\)

33) **H. M. Vander Poll et. al. (2011)** emphasized on implementation of Economic Value Added (EVA\(^{TM}\)) performance measure in South Africa. The purpose of this study was to determine the extent to which EVA\(^{TM}\) is used by South African organization as well as methods used by these organizations to calculate EVA\(^{TM}\).
Furthermore, the aim was to determine most linked implementation of it in the South African business sectors. The present research revealed that understanding the business is very important when making an informed decision on the parameters which are used to measure financial performance.\textsuperscript{33}

\textbf{34) Dr. V. K. Shobhana and Dr. K. Manjula (2011)} conducted a study on Merger and Acquisition activity in the Indian Manufacturing Sector and shareholder value addition in the merged entities. The present study makes a probe into the shareholder value addition of 46 selected merged entities in the manufacturing sector during the five post merger periods from 2000-01 to 2003-04. The paper focused on evaluating the post-merger performance of the merged companies by the way of intra-firm comparisons while using value added metrics corporate performance such as EVA and MVA to identify the specific gainer or losers after merger. The analyst revealed that with the help of intra-firm analysis with EVA and MVA, majority (80\%) of the merged companies had no definite trend in value addition during the post merger periods.\textsuperscript{34}

\textbf{35) Kajal Chaudhary and Monica Sharma (2011)} compared the performance of public and private sector banks in India. This paper attempted to show how efficiently public and private sector banks have been managing NPA. It was concluded that because of increase in competition and new technologies, public sector banks must pay more attention on their functions and thereby decrease processing cost, the erosion of product and geographic boundaries, and less restricted governmental regulations forces the public sector banks to compete with private and foreign banks.\textsuperscript{35}

\textbf{36) Pankaj Mishra (2011)} conducted a study on banking sector reforms and its impact on Indian economy. The purpose of the study was to examine the impact of the reforms on Credit Deposit Ratio, Credit to GDP Ratio, Investment in Government Securities to Deposits, Share of Business of Public Sector Banks, the proportion of various types of advances etc… further, the researcher also examined the difference in various aspects of the working results of the public sector banks and private sector banks when compared with foreign banks. The result of the study remarked that the banking industry has positional ability to rise as demonstrated by the rapid pace of automation which already had a profound impact on raising the standard of banking services.\textsuperscript{36}
37) Sahila Chaudhary and Dr. Sultan Singh (2011) emphasized on brief overview of the reforms initiated after 1991 in Indian banking sectors. The purpose of the study was to analyze the impact of reforms on the soundness of Indian banking. The two parameters like quality and capital adequacy were considered for the study. To test the statistical significance, ANOVA technique was used. Both the parameters have significant improvement over the years in all the groups of banks. The capital adequacy ratio is above the stipulated level and the quality of the assets has also improved over a period of time. Therefore, it was concluded that banking reforms had transformed Indian banks into strong, stable and prosperous entities.

38) Vivek Singh Sachan (2011) studied the background of downsizing and found out the organizational downsizing on productivity and performance of public sector banks. The study included major public sector banks like Bank of Baroda, Canara Bank, Punjab National Bank and State Bank of India for the period 2001-02 to 2005-06. Downsizing is now becoming a worldwide phenomenon in corporate sector. Coefficient of correlation was computed to examine the relationship between financial performances of the public sector banks and downsizing of the human resources. This clearly showed that VRS increases financial performance of public sector banks.

39) Dr. Vikas Choudhary and Suman Tandon (2011) evaluated the performance of Commercial Banks in India after financial reforms. It is the comparison of selected public sector banks, private sector banks and foreign banks by using different indicators. The study covered a period of nine years from 1999 to 2007. It was proved that before liberalization, public sector banks were working under the guidance of government to achieve the social objective and were not earning profits. After liberalization, Indian banking industry especially public sector banks have changed. Public sector banks were thinking to improve profitability and productivity which is essential to survive in a globalized economy. All these goals are possible only with the help of strength and control over costs, new technologies of managing various branches, motivating people, proper consideration for innovation, better system and procedures, fixing adequate and reasonable norms and creation of team spirit in bank management.

40) Memon Ubed Yusuf (2011) emphasized on emerging trends in banking-challenges and opportunities. Presently, banking sector has come up with lots of initiatives that are oriented to provide a better customer services with the help of new
technologies. The going development in the global markets offers so many challenges and opportunities to the banking sector. So the purpose of this study was to explain the changing banking scenario, the challenges of national and commercial banks in changing banking scenario, to study the opportunities for the national and commercial banks in changing banking scenario and to analyze the impact of Liberalization, Privatization and Globalization. The present banking scenario provides lots of opportunities. Opportunities are immense like to enter in new business and new markets, to develop new ways of working, to improve efficiency, to deliver high level of customer services, rural area customers, offering various channels, good customer services, internet banking, retail leadings and Indian consumers as well as facing lots of challenges like customer satisfaction, to provide several personnel services, Non-Performing Assets, competition, managing technology, copyng with regulatory reforms, development of skill of bank personnel, customer awareness and satisfaction, corporate governance, changing need of customers, keeping pace with technology upgradation, lack of common technology standards for mobile banking, sustaining healthy bottom lines and increasing shareholders value, structural changes and man power planning also. Hence, it was concluded that the banking sector will need to master a new business model by building management and customer services. Banks should contribute intensive efforts to render better services to their customer. Nationalized and commercial banks should overcome the challenges and to get advantage of opportunities in changing banking scenario.  

41) Dr. Hemal Pandya and Chetana Parmar (2011) measured corporate success through various profitability indicators for selected Indian corporate. The profitability measures such as Return on Investment (ROI), Return on Capital Employed (ROCE), Return on Net Worth (RONW), Return on Sales (ROS) and the most recent measure Economic Value Added (EVA) were used to gauge the financial health of a business corporate. A sample of 30 leading companies from various industrial sectors of Indian industries was selected for this study. The study period was 2004-05 to 2008-09. For the purpose of analysis, the Karl Pearson’s Correlation Coefficients and corresponding ‘p’ values were used for testing statistical significance. This analysis revealed that so-called newly innovated concept of EVA was not correlated very well with the shareholder’s wealth, and profitability measures
were not the sole indicator of the corporate success. Hence, the shareholders must not rely upon only these measures for their investment decisions.\textsuperscript{41}

\textbf{42) Dr. N. Sakthivel (2011)} examined the value creation in Indian Pharmaceutical Industry: A regression analysis. The focus of the present study was to evaluate the impact of EVA and productivity on value creation in 15 Indian pharmaceutical industries which are traded in BSE 200 index. The aim of the study was to determine the impact of financial and economic variables on value creation in Indian pharmaceutical industry. The period of the study ranged from 1997-98 to 2006-07. For this purpose, multiple regression models and factor analysis had been applied and it was found that the companies with high level of EVA were very highly valued and differ from valuation of companies with low and moderate groups therefore it was cleared that EVA was the only variable which has unique influence on MVA of pharmaceutical companies. In regression analysis, total productivity was not having explanatory power on value creation in short-term, but it had some influence on value creation in the long-run with respect to pharmaceutical companies.\textsuperscript{42}

\textbf{43) A. Vijaykumar (2011)} conducted a study on Economic Value Added (EVA) and shareholder’s wealth creation: A Factor Analytic Approach. This study has been made to check whether EVA has got a predictive power of selected automobiles companies in India through Factor Analysis or not. Eight functional parameters which signify the wealth maximization of shareholders have been considered for study i.e. Earnings per share (EPS), Sales (S), Profit After Tax (PAT), Market Price (MP), Market Value Added (MVA), Return On Sales (ROS), Return on Total Assets (RTA) and Return on Capital Employed (ROCE). The result of the study revealed that out of the selected Automobile Industries 53% to 76% of the sample companies had registered negative EVA during the terminal years of the study period. 1996-97 to 2008-09 periods has been covered for the study. The top five companies were generating EVA which included Bajaj Auto Ltd., Hero Honda Motors, Mahindra and Mahindra Ltd., Ashok Leyland Ltd. and Tata Motors Ltd.\textsuperscript{43}

\textbf{44) Rana Amisha S. (2011)} prepared a thesis on share holder value creation in the Automobile Industry in India. The two automobile industries namely, Tata Motors Ltd. and Mahindra and Mahindra have been selected covering a period of 2003-04 to 2007-08. The study found that both the companies have negative EVA during the study period. It means that both the companies would not been able to create any
wealth for their shareholders because of several reasons i.e. higher cost of capital, sometimes more than one beta in both the companies and the proportion of profit which is lower than the proportion of increase in the capital.\textsuperscript{44}

\textbf{45) Dr. R.K. Uppal (2010)} attempted to throw light on past & present of Indian banking industry and to predict about the scope & future of Indian banking industry in the new millennium. For this reason, the paper analyzed in some detail the evolution of Indian banking with reference to some distinct phases. The first phase covers the period from 1948-68, 1969-91 and 1992-98. These three periods constitute the past of Indian banking. The period of information technology beginning from 1999 & till the year 2008 may be regarded as the present or current phase which provides the basis for looking into the future of Indian banking system. To access the growth of banking in this period, three common indicators like total branches, total deposits and total credit have been selected. Further, profitability and productivity of Indian banking industry was calculated for both phases to know the impact of IT on these parameters. For this purpose, average, standard deviation and co-efficient of variation were used. On the basis of the study of past and present of Indian banking industry, it was concluded that various reforms introduced in Indian banking industry have made progress but not become competitive internationally.\textsuperscript{45}

\textbf{46) Dr. Vikas Choudhary and Suman Tandon (2010)} attempted to analyze the financial performance of public sector banks and it includes 19 nationalized banks and State Bank of India (SBI) and its associates. The data was taken for 10 years 1997-2007, and selected variables like Compound Annual Growth Rate (CAGR), Coefficient of variance of advances, deposits, total assets, return on assets, return on equity, interest expended to total assets, spread ratio and non-performing assets to net advances were calculated for the evaluation. It was concluded that in the terms of growth of advances, deposits and total assets State Bank of Indore has shown maximum CAGR where as Punjab & Sind bank has shown least growth of deposits and advances, and State Bank of India has shown least growth in deposits. From the view point of return on equity and return on assets, United Bank of India were best where as Dena bank, Punjab Sind Bank and Indian Bank have shown negative trends in this ratio. Decline in NPA’s ratio was highest in State Bank of Hyderabad and least in case of Dena Bank.\textsuperscript{46}
47) Dr. Anil K. Sharma and Satish Kumar (2010) conducted a study on EVA in various countries and published in various sources. A total of 112 papers have been published on the EVA from 1994 to 2008 and reviewed. The purpose of this study was to identify gaps in the existing literature and suggest the future research on EVA. The study report found that the developed countries have been found to be supporting EVA and considering conventional measures as better tools of corporate performance reporting than developing countries. The paper presented a comprehensive literature review and a critical analysis to move towards the advances in EVA and also helpful to the researcher and managers who wish to understand and implement EVA. This paper presented the year-wise and country-wise publication of literature on EVA, relationship between EVA and stock returns, EVA adoption and firm value, relationship between EVA and MVA, and EVA and Managerial performance.47

48) Dr. Mayuri J. Farmar (2009) studied identify the major trends in the banking operations of nationalized bank in India as well as to measure various trends in the profitability of these banks. The study has undertaken the overall performance of 27 Indian PSBs. The study covered a period of ten years 1989-98. This duration had been divided into two periods: pre-reform period 1989-92 and post-reform period 1993-98. The result of the study concluded that the overall performance of PSBs including their profitability performance can be improved by the knowledge of profitability of major activities carried out by the PSBs and concentrated with the activities yielding over incomes and the establishment cost as the most significant variables.48

49) Saweta Aggarwal (2009) presented a comparative study of one public sector bank (PNB) and one private sector bank (ICICI) which are very popular and have been listed in stock exchange. The study has covered a period of four years from 2004 to 2007. The banks have been compared on the basis of seven parameters i.e. paid-up capital, advances, deposits, branch expansion, and non-performing assets and for the purpose of the study, annual reports of these banks and published data from stock exchange have been used. From the analysis it was concluded that branch expansion, acceptance of deposits from public and percentage of NPA, PNB was better than ICICI bank. But in case of average loans granted per branch and profitability, ICICI bank was better and depends more on borrowed funds.49

50) R. K. Uppal (2009) studied Indian Banking in Globalized Era: Moving Towards Better Tomorrow and analyzed the comparative growth in relative share of
all bank groups in total assets of scheduled commercial banks and apart to this examined the comparative growth in selected factors of performance, and their impact on the performance of all bank groups in pre and post e-banking period that reflects the impact of new competitive environment on the banks performance in the terms of various selected variables. The time period for the study was deliberately divided into pre banking period 1996-97 to 1999-00 and post e-banking period 2002-03 to 2005-06. For the purpose of study, Indian banking industry was further divided into four bank groups to analyze their performance in the terms of selected parameters. The 95 banks for 1996-97 to 1999-00 and 85 banks for 2002-03 to 2005-06 have been studied. From the analysis it may be concluded that performance during e-banking period is better in all selected parameters except one or two i.e. profitability, establishment and intermediation cost, provision.50

51) R. Satis and Dr. S.S. Rao (2009) highlighted the awareness and adaptability of EVA in Indian banks which are listed in BSE SENSEX. It also discussed about the suggestions and recommendations to the banking sector for the use of value based financial performance and adaptability of EVA. This study gave an idea about EVA and also told us the opinion of the respondents regarding the effectiveness of various financial measures for performance evaluation of the banking sector through questionnaire. The study concludes that EVA is slowly gaining the increased attention as a financial measure of business performance of banks.51

52) Nikhil Chandra Shil (2009) emphasized more on conceptual framework of Economic Value Added (EVA) and also gave an idea about foundation, definitions, scope of EVA and some other related issues, steps in EVA computation, advantages and limitations of EVA. The theoretical and its implementation approach gave an idea about EVA. It was concluded that calculating true EVA becomes a challenge and it should be used with other parameters to take decision effectively. Companies may go for simulation over past several years’ performance to find out areas where EVA as a managerial tool is stronger than others.52

53) Ashok Kumar and Karam Pal (2007 & 2008) conducted a study on Economic Value Added a tool for measuring shareholder’s value. The entire business world seems to be moving towards greater transparency, supporting financial disclosure mechanism and superior corporate governance. The concept of shareholder’s value and Economic value Added are well known to Indian corporate.
But its applicability in our country is of recent origin. It is a concept of capitalist economy and it is based on the principle of “The Survival of the Fittest” of economics. The methodology differs for conversion of accounting profit to net operating profit after tax, beta and risk free rate of return. Hence, it is clear from various studies that the concept has originally emerged in the west and later turns out to be time-honored across the world. Many researchers have applied sophisticated eco-metric tools for assessing the impact of EVA concept on corporate financial performance.\textsuperscript{53}

\textbf{54) Dr. Shivkumar Deene and Dr. Kanahalli Balappa (2007)} attempted to identify the drivers of EVA and their impact on EVA as well as show the relationship between drivers and EVA in selected companies of consumer product sector. For the purpose of the study, five companies from consumer product sector namely Palmolive India Ltd., Dabar India Ltd., Nestle India Ltd., Procter & Gamble India Ltd. and Hindustan Lever Ltd. were selected. The study spans from 2000 through 2004. It was concluded that all selected companies were creating Economic Value Added. Based on the four drivers such as spread, capital employed, risk and growth, it was found that spread wise EVA creation was moving in case of Procter & Gamble India Ltd. The efficiency of capital in the terms of EVA to capital employed was moving in case of Nestle India Ltd. It was proved that risk and EVA are inversely related.\textsuperscript{54}

\textbf{55) Dr. D. Suryachandra Rao (2007)} assessed the impact of reforms measures on the efficiency, profitability and overall performance of public and private sector commercial banks. The period of the study started from 1992-93 in which reforms were initiated to 2002-03 – a little more than a decade. The study included 27 public sector banks and 24 private sector banks for comparative analysis during the course of implementation of banking sector reforms. The study evaluated the performance of public sector banks and private sector banks by using eleven indicators such as Business per Branch, Operating Expenses per Branch, Profit per Branch, Business per Employee, Profit per Employee, Return on Assets, Return on Equity, Net Interest Margin (NIM) and Credit-Deposit Ratio (CDR). The performance analysis was carried out as per Time-Series Analysis and Period-wise Analysis. It was concluded that the financial health of banks improved due to prescribed prudential norms. Almost all banks improved their capital adequacy and asset quality during the period of the study.\textsuperscript{55}
56) Debdas Rakshit (2006) carried out a case study of Dabar India Ltd based on new corporate performance measure EVA. This research paper examined whether the company has been able to create or destroy shareholder’s wealth as well as also compute the traditional performance indicator like ROI of Dabar India Ltd. 1998-99 to 2002-03 period has been covered. The study concluded that the company able to generate value of its shareholders successfully during the study period. Many of the companies have destroyed shareholder’s wealth over a period of time and only a few have positively contributed their wealth.56

57) Roji George (2005) examined the complication of EVA in Indian banks. The purpose of this study was to measure the EVA, to analyze the relationship between EVA and non-performing assets and the relationship between EVA and employee productivity. The 21 banks consisting of 8 public sector banks and 13 private sector banks covering the period 2001-02 to 2002-03 have been selected for the survey. The statistical tool correlation was used to measure the relationship between two variables. It was clearly revealed that Indian banks were improving their performance not only in making profits but also in EVA. On the basis of comparative study of public and private sector banks, it was found that both public and private sector banks create shareholder’s value. There was positive relationship between EVA and productivity and a negative relationship between EVA and non-performing assets.57

58) Nirmal Nathawani (2004) conducted a study on financial performance of banking sector of India for the period of five years from the year 1997-98 to 2001-02. The aim of the study was to understand and to evaluate the different types of efficiency level of all the commercial banks in India. For this study, all the commercial banks in India have been selected. It emphasized on the development of banking in India as well as the war and post war development of banks till the date of period of the study. It also covered the recent scenario in new challenges, new dimensions, HRD rigidities and corporate governance of the banks. These different types of banks differ from each other in terms of profitability, liquidity, operational efficiency, working capital and credit efficiency. The study was limited to only financial performance covering ten ratios only. For the purpose of the study, ratio analysis was used for appraisal of financial performance. For the analysis, the statistical tools like ratios, trends, correlation, regression, T-test, F-test, Z-test, ANOVA and χ²-test were used. From the analysis, it was concluded that, the
strategies like retaining customer loyalty, Human Resource Management (HRM), managing competition, innovation, technology up-gradation, leadership and managing change, tackling Non-Performing Assets (NPAs), improving the spread implemented and monitored closely, will ensure the early restructuring of a bank. The quality of products, services and process will be highly critical for the success of any business enterprise in the new era. The road ahead has immense potential and opportunities but with challenges at every turn. It is only those banks which adapt themselves to the changes, innovate and introduce new technologies to meet the needs of the customer will succeed.58

59) K. P. Singh and M. C. Garg (2004) published a book related to the concept of EVA in the field of finance theory. This present book on Economic Value Added in Indian corporate is sensibly wide-ranging. The book has been divided into nine chapters. The object of this study was to compute and analyze EVA of the sample companies and rank the sample on the basis of other financial variables. The sample was based on top 200 companies, which are listed into BSE-200 or BSE-Dollex for the year 1998-2002. For the purpose of the study, correlation coefficients, paired samples, Durbin-Watson test, independent samples T-test, Jonckheere – Terpstra Test, Kendall’s test, The Friedman Test, The Mann-Whitney U-test, Kruskal-wallis H and chi-square test have been calculated to interpret the relationship between different variables. The regression models have also been used to analyze the influence of independent variables. The result of the study concluded that during the industry wise and sector wise multiple regression analysis, it was noticed that EVA is the only principal and most reliable variables which has a decisive role in accounting for changes in MVA.59

60) Mohammad Saleh Jahur and Al Nahian Riyadh (2002) evaluated and compared the performance of selected banking companies in Bangladesh through EVA. The study includes 39 selected bank of Bangladesh covering the year 2001. In order to test the hypothesis of the study, rank correlation between EVA and other measures of performance have been used. The result of the study proved that in the current scenario, banks have to satisfy a large number of shareholders therefore EVA is important tool to judge a bank’s performance. The study found that by using a rank correlation coefficient between EVA and different criteria ranking under Return on Assets, Net Profit, Profit per Employee and Deposit per Employee have close
resemblance to the ranking under EVA whereas the ranking under interest income and spread does not match with the ranking under EVA. 

61) Arvind A. Dhond (2001) presented the comparison of financial performance of four Indian banks which included two public sector banks like SBI & BOI and two private sector banks i.e. ICICI and HDFC. This paper tries to highlight the study of EVA as an innovative parameter for the measurement of shareholder’s wealth. Three consecutive financial years have been covered 2006-07 to 2008-09. With the help of EVA, the paper examined an appropriate way of evaluating selected bank’s performance and also finds out which Indian banks were able to create an EVA and value addition for its shareholders since 2006-07 to 2008-09. It was found that all the selected banks are creating shareholder’s value.

62) Bibhuti B. Pradhan (2000) highlighted the concept of Economic Value Added. Economic Value Added is an alternative performance measure technique which attempts to resolve and overcome the limitation of traditional accounting measurement criteria by correlating with shareholder wealth and response action of a company’s manager. It also concentrated on the calculation of EVA. The corporate reporting lies more on a regulatory disclosure of financial statement, director’s report, auditor’s report, cash flow statement, significant accounting policies, business profile and statement related to subsidiary companies. In spite of all these, competitive corporate bodies have gone for disclosed more information than as required by the law. Out of all these additional information, company should also disclose Economic Value Added statement as an emerging new technique in the recent. The economic Value Added reporting in their annual reports not only measure and evaluated by shareholders but also by the financial institutions and their investors. This article revealed the EVA reporting Satyam Computer Service Ltd. for the year 1994 to 1998. The result of EVA in Satyam Computer Services Ltd. was negative -179.51 in 1994 and positive 65.12 in 1998.

63) J. K. Pattanayak and Kampan Mukherjee (2000) presented the concept of Economic Value Added: Adding Value to Money. The researcher observed the difference between accounting concept and economic concept and also observed that the popularity and limitations of accounting concept as well as evolution of EVA concept and computation of EVA. The purpose of computation of EVA was to determine the past and present financial performance along with future strategic
planning. The objective of this technique was to determine whether the organization’s NOPAT generated during a given period is capable of covering the cost of capital for the same period or not, thus creating a value for its shareholders.  

64) Dr. Manoj Anand et.al (1999) observed the KPMG-BS study to assess top 100 Indian companies on EVA, sales PAT and MVA criterion. The survey was done on top 100 Indian companies using a composite index including sales, profitability and compounded annual growth rate. The study covered the period 1996-97. For this Spearman’s rank correlation coefficient is used. It was proved that EVA, REVA (Refined Economic Value Added) and MVA are better measure of business performance in the terms of shareholder value creation and competitive advantage of firm. 

65) Adnan M. Abdeen and G. Timothy Haight focused on the uses, benefits and limitations of EVA as a stakeholder’s value creation measure. The objective of this study was to compare the performance of EVA user companies with non-user fortune 500 companies for the year 1997 and 1998. It revealed that the performance of the 500 fortune companies using EVA was better than the Non-EVA users. It concluded that EVA is an instrument which will become less popular to measure value creation to stakeholder and it will join other traditional parameters used by business firms. 

66) Bhavesh Chadamiya and Mital Menapara evaluated financial performance of Indian Banking Sectors during pre and post mergers and acquisitions. For the purpose of the study, ICICI and HDFC banks have been selected for the period of five years before merger and five years after merger. To evaluate the performance, Ratio Analysis and T-test were used as tools of analysis. It was found that overall the merger and acquisition does not affect the financial position of banks except when weaker and non-viable banks are merged with a financially sound and profit making bank in such case, the profitability of the later bank will be affected. It was concluded that merging companies were takeover by companies with reputed and good management. Therefore, it was possible for the merged firms to turn around successfully in due course.
3.6 AREA AND SCOPE OF THE STUDY

The overall area of the study will be focused on selected Nationalized Banks in India. At present, there are 20 Nationalized Banks including IDBI in India. This research is focused on financial performance and Economic Value Added of any 5 Nationalized Banks. For this purpose, the researcher has selected a random sample of any 5 Nationalized Banks i.e. 25% of universe.

3.7 PERIOD OF THE STUDY

The period of the present research study has covered the period of last ten consecutive financial years beginning from 2004-05 to 2013-14.

3.8 OBJECTIVES OF THE STUDY

The proverb likes “Study without objective is like a Ship without Rudder”. No work is started without any objective. The objectives determine the direction and bring the outcome and future. The present research work has been undertaken with the following objectives keeping in view:

- To study, analyze and compare the Profitability of selected Nationalized Banks.
- To study, analyze and compare the Financial Efficiency of selected Nationalized Banks.
- To study the value creation for shareholders in the selected Nationalized Banks.
- To study, analyze and compare Economic Value Added of the selected Nationalized Banks.
- To study Market Value Added of the selected Nationalized Banks.
- To examine an appropriate way of evaluating bank’s financial performance.
- To make suggestions and recommendations for the use of EVA as a measure of financial performance to the selected nationalized banks.
3.9 HYPOTHESIS OF THE STUDY

Hypothesis means an assumption or some preposition to be proved or disproved. Hypothesis of the study should be cleared and precise. Hypothesis is of two types Null Hypothesis and Alternative Hypothesis.

The Null Hypothesis is used to maintain objectivity and ambiguity in results. The hypothesis can be accepted or rejected only at certain probability levels. Hypothesis is tested at 5% level of significance of employing Test of Hypothesis. In order to achieve the objectives of the study, the following hypothesis are framed.

a) \( H_0: \) There is no significant difference in Net Profit Ratio among the selected Nationalized Banks.

b) \( H_0: \) There is no significant difference in Operating Profit Ratio among the selected Nationalized Banks.

c) \( H_0: \) There is no significant difference in Return on Capital Employed among the selected Nationalized Banks.

d) \( H_0: \) There is no significant difference in Return on Net Worth among the selected Nationalized Banks.

e) \( H_0: \) There is no significant difference in Return on Assets among the selected Nationalized Banks.

f) \( H_0: \) There is no significant difference in Earning Per Share among the selected Nationalized Banks.

g) \( H_0: \) There is no significant difference in Price-Earning Ratio among the selected Nationalized Banks.

h) \( H_0: \) There is no significant difference in Dividend Pay-out Ratio among the selected Nationalized Banks.

i) \( H_0: \) There is no significant difference in Dividend Per Share among the selected Nationalized Banks.

j) \( H_0: \) There is no significant difference in Cost-Income Ratio among the selected Nationalized Banks.

k) \( H_0: \) There is no significant difference in Operating – Cost to Assets Ratio among the selected Nationalized Banks.
l) $H_0$: There is no significant difference in Burden Ratio among the selected Nationalized Banks.

m) $H_0$: There is no significant difference in Spread Ratio among the selected Nationalized Banks.

n) $H_0$: There is no significant difference in Interest Income to Assets Ratio among the selected Nationalized Banks.

o) $H_0$: There is no significant difference in Interest Expenses to Assets Ratio among the selected Nationalized Banks.

p) $H_0$: There is no significant difference in Non-Interest Income to Assets Ratio among the selected Nationalized Banks.

q) $H_0$: There is no significant difference in Provision & Contingencies to Assets Ratio among the selected Nationalized Banks.

r) $H_0$: There is no significant difference in Economic Value Added among the selected Nationalized Banks.

s) $H_0$: There is no significant difference in Market Value Added among the selected Nationalized Banks.

The Regression Analysis Model is used to find the variables that determine the Economic Value Added of selected Nationalized Banks which are listed in the stock exchange. The following hypothesis will be tested for Regression Analysis:

a) $H_0$: There is no significant relationship between Economic Value Added and Market Value Added.

b) $H_0$: There is no significant relationship between Economic Value Added and Return on Capital Employed.

c) $H_0$: There is no significant relationship between Economic Value Added and Net Profit.

d) $H_0$: There is no significant relationship between Economic Value Added and Net Worth.

e) $H_0$: There is no significant relationship between Economic Value Added and Interest Spread.

f) $H_0$: There is no significant relationship between Economic Value Added and Dividend Paid.
g) $H_0$: There is no significant relationship between Economic Value Added and Earning Before Interest and Tax.

h) $H_0$: There is no significant relationship between Economic Value Added and Net Operating Profit After Tax.

i) $H_0$: There is no significant relationship between Economic Value Added and Net Profit Ratio.

j) $H_0$: There is no significant relationship between Economic Value Added and Operating Profit Ratio.

k) $H_0$: There is no significant relationship between Economic Value Added and Return on Net Worth.

l) $H_0$: There is no significant relationship between Economic Value Added and Return on Assets.

m) $H_0$: There is no significant relationship between Economic Value Added and Spread Ratio.

n) $H_0$: There is no significant relationship between Economic Value Added and Earning Per Share.

o) $H_0$: There is no significant relationship between Economic Value Added and Dividend Per Share.

p) $H_0$: There is no significant relationship between Economic Value Added and Price-Earning Ratio.

q) $H_0$: There is no significant relationship between Economic Value Added and Cost-Income Ratio.

3.10 SIGNIFICANCE OF THE STUDY

The research has its significance as it is related to EVA and financial performance of Nationalized Banks. The study has its significance on below mentioned points:

1. The study aims to provide the information related to EVA, the use of EVA in selected Nationalized Banks and their financial performance in analytical form in nutshell.

2. The study aims to provide a clear perception of underlying economy of a business and enables managers to make better decisions.
3. The study aims to provide analytical information related to the profitability of Nationalized Banks.
4. It will be a guide for readers to know about behavior and pattern of profitability and EVA in Nationalized Banks.
5. It will be useful for the students of commerce and finance or future researchers as a source of reference.

3.11 RESEARCH METHODOLOGY

The aim of the study is to measure the financial performance and shareholder’s value creation EVA in selected nationalized banks. The following methodology has been used to measure the performance.

Parameters of the Study:

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<tbody>
<tr>
<td>FINANCIAL PARAMETERS</td>
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<table>
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<tr>
<th>Profitability Ratios</th>
<th>Calculation</th>
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<tr>
<td><strong>Net Profit Ratio</strong></td>
<td>Net Profit × 100</td>
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<td>Total Business</td>
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<td><strong>Operating Profit Ratio</strong></td>
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<td>Total Business</td>
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<td><strong>Total Business</strong></td>
<td>Deposits + Advances</td>
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<td><strong>Return on Capital Employed</strong></td>
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<td>Capital Employed</td>
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<td><strong>EBIT</strong></td>
<td>Net Profit+ Tax + Interest on Borrowings</td>
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<td><strong>Return on Net Worth</strong></td>
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<td>Net Worth</td>
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<td><strong>Net Worth</strong></td>
<td>Paid-up Capital + Reserves</td>
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<td><strong>Return on Assets</strong></td>
<td><strong>Net Profit After Tax Before Interest × 100</strong></td>
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<td><strong>Total Assets</strong></td>
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**Investment Analysis / Market Valuation Ratios**

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<th><strong>Earning Per Share</strong></th>
<th><strong>Net Profit × Face Value</strong></th>
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<td><strong>Paid-up Capital</strong></td>
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<th><strong>Price-Earning Ratio</strong></th>
<th><strong>Market Price Per Share</strong></th>
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<td><strong>Earning Per Share</strong></td>
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<th><strong>Dividend Payout Ratio</strong></th>
<th><strong>Dividend Paid including Corporate Tax</strong></th>
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<td><strong>Dividend × 100</strong></td>
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<td><strong>Net Profit</strong></td>
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<th><strong>Dividend Per Share</strong></th>
<th><strong>Dividend Paid × Face Value</strong></th>
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<td><strong>Equity Share Capital</strong></td>
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**Financial Efficiency Ratios**

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<th><strong>Non-Interest Expenses × 100</strong></th>
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<td><strong>Non-Interest Income + Spread</strong></td>
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<th><strong>Operating- Cost to Assets Ratio</strong></th>
<th><strong>Operating Expenses × 100</strong></th>
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<td><strong>Total Assets</strong></td>
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<th><strong>Burden Ratio</strong></th>
<th><strong>Non- Interest Expenses × 100</strong></th>
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<th><strong>Spread Ratio</strong></th>
<th><strong>Interest Income – Interest Expenses</strong></th>
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<td><strong>Total Assets</strong></td>
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<th><strong>Interest Income to Assets Ratio</strong></th>
<th><strong>Interest Income × 100</strong></th>
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<td><strong>Total Assets</strong></td>
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<tr>
<th><strong>Interest Expenses to Assets Ratio</strong></th>
<th><strong>Interest Expenses × 100</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Total Assets</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Non-Interest Income to Assets Ratio</strong></th>
<th><strong>Non-Interest Income × 100</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Total Assets</strong></td>
</tr>
</tbody>
</table>
ECONOMIC VALUE ADDED (EVA)

EVA as a residual income measure of financial performance is simply the operating profit after tax less a charge for the capital, equity as well as debt, used in the business.

\[
\text{Economic Value Added} = \text{NOPAT} - [\text{Invested Capital} \times \text{WACC}]
\]

**Step – 1 NOPAT**

\[
\text{NOPAT} = \text{Net Profit} + \text{Interest on Borrowings} - [1 - \text{Tax Rate}]
\]

**Step – 2 Invested Capital or Capital Employed**

\[
\text{Invested Capital} = \text{Paid – up Capital} + \text{Reserves} + \text{Total Borrowings}
\]

**Step – 3 Cost of Capital**

The Cost of Capital refers to the opportunity cost or rate of return. It is the shareholder’s required rate of return on a portfolio of all company’s existing securities. It is calculated by using Weighted Average Cost of Capital (WACC).

\[
\text{WACC} = \frac{\text{Paid – up Capital} \times K_c + \text{Borrowings} \times K_d}{\text{Capital Employed}}
\]

**Cost of Debt \((K_d)\):** The Cost of Debt refers to the average rate of interest the company pays for its debt obligation and then adjusting it for taxes.

\[
K_d = \frac{\text{Interest on Borrowings} \times (1 - \text{Tax Rate}) \times 100}{\text{Total Borrowings}}
\]

The researcher has taken tax rate of particular year in the study.
**Cost of Equity** \((K_e)\): Cost of Equity determines the expected rate of return for the investors. It is more challenging to calculate because it does not give the fix return to its shareholders and it depends on the market expected rate of return. It can be calculated by using CAPM method.

Under CAPM, cost of equity capital is expressed as—

\[ K_e = R_f + \beta (R_m - R_f) \]

\(R_f\) - The researcher has taken 365 T-Bills rate of particular year from Reserve Bank of India Websites as a risk free rate of return.

\(R_m\) - The market rate of return is calculated based on market Index. The CNX Nifty Index has been considered for the purpose of calculation. It has been taken from the National Stock Exchange website. The market index is calculated difference between yearly April Market Index and March Market Index in percentage.

\(\beta\) - Beta is the risk free coefficient which measures the sensitivity of the security returns of a particular security to change in the market returns. Beta has been calculated based on SENSEX for each year separately.

\[
\text{Beta} (\beta) = \frac{N\sum_{i=1}^{N} X_i Y_i - (\sum_{i=1}^{N} X_i)(\sum_{i=1}^{N} Y_i)}{N\sum_{i=1}^{N} X_i^2 - (\sum_{i=1}^{N} X_i)^2}
\]

\(X\) = Monthly Closing Return on the Stock Market Indices (NSE)

\(Y\) = Monthly Closing Return on Share Prices of a Particular Bank

\(N\) = No. of Months in a year

**MARKET VALUE ADDED**

\[ \text{Market Value Added} = \text{Market Capitalization} - \text{Net Worth} \]

For calculating MVA, market capitalization as on 31st March for each year of the study was considered which was taken from Capital Line.
3.12 DATA COLLECTION

The data collection is very important task for the researcher. There are two sources for the collection of data primary sources and secondary sources. But the present study is based on secondary data. The data have been collected from various Books relating to the subjects, Articles published in News Papers, Magazines, Journals, Periodicals for better quality, and reliability of the study and financial information have been collected from published Annual Reports of selected Nationalized Banks, IBA Bulletins and various websites i.e. Capital Line, National Stock Exchange, Reserve Bank of India.

3.13 UNIVERSE OF THE STUDY

The universe of the study consist all the banks working in India. The banks in India comprise Commercial Banks and Co-operative Banks.

Commercial Banks

- Scheduled Commercial Banks
- Non-Scheduled Commercial Banks

Scheduled Commercial Banks

- Public Sector Banks (26)
  - SBI & Its Associations (6)
  - Nationalized Banks including IDBI (20)
- Private Sector Banks (20)
  - Old Private Sector Banks (13)
  - New Private Sector Banks (7)
- Foreign Banks (43)
- Regional Rural Banks (64)
- Local Area Banks (4)

3.14 SELECTION OF SAMPLE UNIT

The selection of the sample should be easy, quick and based on the availability of reliable data. The researcher has selected five Nationalized Banks i.e. Bank of Baroda (BOB), Bank of India (BOI), Indian Overseas Bank (IOB), Oriental Bank of Commerce (OBC) and Punjab National Bank (PNB) from the universe of the study. In
this research, the researcher has randomly selected five Nationalized Banks as the sample from the universe of the study. The sample has been included in the study by considering the following criteria.
- The bank should be listed in Indian Stock Exchange.
- The data should be available for the entire study period, 2004-05 to 2013-14.

3.15 DEVELOPMENT OF TOOLS AND TECHNIQUES

The collected data should be duly edited, classified, analyzed and tabulated by using all types of relevant Accounting Techniques and Statistical Techniques as per the requirement. The research data is analyzed using Microsoft Office Excel 2007 and Statistical Package for Social Science (SPSS).

There are many Accounting Techniques i.e. Common Size Statement, Comparative Analysis, Trend Analysis, Ratio Analysis to measure the financial performance. For the purpose of the present study, the Ratio Analysis, Economic Value Added and Market Value Added have been used to analyze the financial performance.

3.16 STATISTICAL TOOLS AND TECHNIQUES

Statistical tools and techniques are very important for the researcher to analyze and interpret data. There are many techniques to analyze the information. The statistical tools and techniques i.e. Mean, Standard Deviation, Co-efficient of Variance, Co-relation, Regression, T-test, Z-test, F-test one way and two way ANOVA etc…

In order to analyze the financial data, many statistical techniques have been used. Uni-variate Statistical Techniques like mean, Standard Deviation and coefficient of variance, and multivariate Statistical Techniques like Regression Analysis and Factor Analysis have been used to analyze the study data. To test the hypothesis at 5% level of significance, F-test (One Way ANOVA) has been used.
Mean

Mean is the most common measure of central tendency. Mean defined as the value which we obtain by dividing the total of values of various given items in a series by the total number of items.

\[ \bar{X} = \frac{\sum X}{N} \]

Standard Deviation

Standard Deviation concept was introduced by Karl Pearson in 1823. It is defined as the square-root of the average of squares of deviations, such deviations for the values of individual items in a series are obtained from the arithmetic average. It is worked out as under.

\[ \sigma = \sqrt{\frac{1}{n} \sum_{i=1}^{n} (x_i - \bar{x})^2} \]

Diagrammatic and Graphical Presentation of Data

Diagrams and graphs are visual aids, which give a bird’s eye of a given set of numerical data. It is an attractive style of presenting the tabular data and it is easy to understand the differences. Diagrams and graphs reveal more information about the data presented in the tabular form.

Diagrammatic and graphical presentation of data has been applied for the presenting data of selected nationalized banks.

Regression Analysis

Regression analysis is another statistical tool for measuring the association between two variables. It is a technique of determination of a statistical relationship between two or more variables. This technique helps to evaluate the cause and effect of one variable on another variable. Regression analysis that involves two variables is termed as bi-variate linear regression analysis.

When there are two or more than two independent variables, analysis concerning relationship is Multiple Regression Analysis. Multiple regression analysis
is multivariate technique which examines the relationship between a single dependent variable and two or more independent variables. It is often used as forecasting tool. Linear regression uses one independent variable and multiple regression uses two or more independent variables to predict the outcome. The equation describes such relationship as the Multiple Regression.

In multiple regression, normality must be assumed that mean and variables must have normal distribution as well as linearity must be assumed which means the model should be linear in nature.

\[ y = a + b_1 x_1 + b_2 x_2 \]

Regression analysis is used to measure and find the variables that determine the Economic Value Added of selected Nationalized Banks which are listed in the stock exchange. The researcher has used seventeen independent variables and framed hypothesis.

**Factor Analysis**

Factor analysis is another multivariate statistical tool. This technique is useful to identify the underlying factors that represent the relationship between a set of observed variable called factors. It is often used in data reduction and reduces a large number of variables to a small number of factors that explain most of the variance observed in much large number of manifest variables. To test the acceptability of data, the following steps were considered. The correlation matrix is computed which shows that there is enough correlation to go ahead for factor analysis. Kaiser-Meyer-Olkin (KMO) is used to measure the sample adequacy. KMO checks factorization of original variables effectively. It also compares the value of correlation between variables and those of the partial correlation. High KMO index means nearby one, act effectively. It should be more than 0.50.

Bartlet’s Test of Sphericity Test has been applied, to the resultant correlation matrix to test whether the relationship among the variables have been significant or not. An overall significance of correlation matrix is tested with Bartlett’s test of Sphericity providing support for the validity of the factor analysis of the data set. It also tests whether the correlation matrix is an identity matrix or not. A significance
value less than 0.05 indicates that these data are multivariate normal and acceptable for factor analysis.

Communalities indicate the percentage of variance explained by the factors or components. A high communality value indicates that the maximum amount of variance in the variable is explained by the factors extracted from the factor analysis. Higher the value of communality, more important the factor is.

Principal Component Analysis (PCA) is used for extracting data. As a method of PCA, it is useful as dimension reduction technique. It obtains a set of factors which summarized the information available in data. Rotation is necessary when extraction technique suggests that there are two or more factors. The rotation of factors gives an idea about how the factors initially extracted differ from each other and gives a picture of which items loads on which factor. An orthogonal rotation is performed using Varimax with Kaiser Normalisation.

Factor analysis has been done as a part of analysis for the selected nationalized banks. Eighteen functional parameters have been used which signify the wealth maximization of shareholders for the study. These functional parameters include EVA, MVA, ROCE Ratio, Net Profit, Net Worth, Interest Spread, Dividend Paid, EBIT, MC, NOPAT, NP Ratio, OP Ratio, RONW Ratio, ROA Ratio, Spread Ratio, EPS, DPS, P/E Ratio and Cost-Income Ratio.

**F-Test One Way ANOVA**

Analysis of variance (ANOVA) is a collection of statistical models, and their associated procedures, in which the observed variance in a particular variable is partitioned into components attributable to different sources of variations. ANOVA is to test for differences among the means of the populations by the examining the amount of variation within each of these samples, relative to the amount of variation between the samples. ANOVA technique is used when there is only one factor and investigates the differences amongst its various categories having numerous possible values.
F-test is used to measure whether there is any significant difference in the profitability ratios, financial efficiency ratios, market valuations ratios, economic value added and market value added among the selected nationalized banks.

### 3.17 DEFINITIONS OF KEY WORDS

The present study includes the three key words i.e. Financial Performance, EVA and MVA.

Financial Performance – Financial Performance means to measure and evaluate the company’s operations in monetary terms.

Economic Value Added (EVA) – The surplus or profit generated over and above the cost of capital is known as Economic Value Added.
Market Value Added (MVA) – It is the difference between the market value of equity and book value of equity.

### 3.18 LIMITATIONS OF THE STUDY

There are some of the limitations of the study which researcher found during the research work, which are as follows:

- The present study is focused on only five randomly selected Nationalized Banks in India.
- The present study is focused on financial performance of selected Nationalized Banks in India through Ratio Analysis and such analysis has its own limitations, which may affect the study.
- The present study is considering Accounting Ratios and there are certain ratios which will not be calculated so it is one of the major limitations of the study.
- There are different methods to measure the EVA of the banks. In this connection, view of experts differences from one to another.
- The present study is largely based on Accounting techniques and statistical techniques and they have their own limitations which will affect the present study.
- The present study is based on secondary data which is collected from annual reports of the banks, the various publications of RBI and IBA Bulletins published from time to time which may affect the study. Therefore, the quality of this research depends on quality and reliability of data published in annual reports.
- The economic condition varies at different point of time and that will affect the findings of the present study

### 3.19 FUTURE SCOPE

The present study is only based on financial performance including EVA and MVA in selected Nationalized Banks. There are many researches on financial performance but less study on shareholders’ value creation in Indian Banks. As there are many methods to measure the shareholder value creation, the results of one method should be compared with that of other method to undertake detailed analysis.
of shareholder value creation in Indian Banks. Hence, there is further scope of research to explore Economic Value Added and other shareholders value creation in Indian Banking Sector because most of banks are not utilizing EVA as an additional tool to measure the financial performance.

3.20 ORGANIZATION OF CHAPTER

“An Analytical Study on Financial Performance of Selected Nationalized Banks with Special Reference to Economic Value Added”. This research work consists of five chapters. The organization of chapter reveals the chapters of the study. Following is the organization of chapters:

**Chapter – 1 Overview of Banking Sector**

The first chapter deals with the details about the banking sector and the sample units. Banking sector is the pillar of the Indian economy and play vital role in the Indian economy. Today, banking sector is facing several challenges and immense opportunities due to the global economy. This chapter includes History, Origin of the Word Bank, Services Provided by Banks, Role Played by Banks in Modern Economy, Nationalization and Nationalized Banks, Reasons of Nationalization, Different Phases of Nationalization, Challenges and Opportunities and Introduction about the Selected Sample Units.

**Chapter – 2 Conceptual Frameworks**

Chapter – 3 Research Methodology

The third chapter describes brief introduction of research study. The title of the present research study is “An Analytical Study on Financial Performance of Selected Nationalized Banks with Special Reference to Economic Value Added” which covers the period of last ten years from 2004-05 to 2013-14. This study is limited to the randomly selected five Nationalized Banks only. The main objective of the present study is to study and analyze the financial performance in terms of Profitability, Financial Efficiency, Market Valuation, Economic Value Added (EVA) and Market Value Added (MVA) of selected Nationalized Banks. This study is mainly based on the secondary data published by the banks in their annual reports, IBA Bulletins and Reserve Bank of India Websites. The Accounting Technique and Statistical techniques have been used to measure the Profitability, Market Valuation, Financial Efficiency, Economic Value Added and Market Value Added of selected Nationalized Banks. Accounting Technique like Ratio Analysis and Statistical technique like Mean, Variance, Regression Analysis, Factor Analysis and F-test have been applied to test the hypothesis of the study i.e. Null Hypothesis (H₀) and Alternative Hypothesis (H₁). Finally, significance of the study and limitations of the study have been considered in this chapter.

Chapter – 4 Analysis and Interpretation

This chapter deals with the analysis and interpretation of financial performance in the terms of Profitability, Financial Efficiency and Market Valuation as well as Shareholder’s Value Creation Measurement tools in the terms of Economic Value Added and Market Value Added in nationalized banks with the help of accounting and statistical tools and techniques and finally result is obtained.

Chapter – 5 Summary of Findings, Suggestions and Conclusion

The fifth chapter deals with summary of the earlier chapters, major findings and appropriate suggestions to overall banking sector.
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