

A STUDY ON PERFORMANCE OF INDIAN COMMERCIAL BANKS AND ITS RELATIONSHIP WITH HUMAN ASPECTS IN BANKING

Synopsis of the Thesis submitted in fulfillment for the requirement of the Degree of

DOCTOR OF PHILOSOPHY

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1. INTRODUCTION AND RATIONALE OF THE STUDY

“Thank God, in joy & sorrow, to deposit & borrow, BANKS ARE THERE, Otherwise, The question would be funny, to keep & get money, HOW & WHERE?”

These words of Montek Singh Ahluwalia, Deputy Chairman of the Planning Commission of Republic of India, indicate the importance of Banks. Banking system occupies an important role in the economy of a nation. In fact, banking system of any country is the lifeblood of an economy. A banking institution is indispensable in the modern society. It plays a pivotal role in the economic development of a country and forms the core of the money market for the country [1]. The banking sector performs three primary functions in an economy; first, the operation of the payment system, second, the mobilization of savings and finally, the allocation of savings to investment projects. The banking system which constitutes the core of the financial sector plays a critical role in transmitting monetary policy impulses to the entire economic system. An efficient banking structure can promote greater amount of investment which can further help to achieve a faster growth rate of economy. Worldwide experience confirms that countries with well developed and market oriented free banking system grow faster and more consistently [2].

2. LITERATURE REVIEW

Literature Review section comprises the literature on performance of banks, dimensions of the performance of banks as; customer satisfaction, employee efficiency & satisfaction, corporate social responsibility and performance indicator for measuring the financial aspect, and the analytical hierarchy process (AHP) model.

2.1 PERFORMANCE OF THE BANKS

Indian banking sector has emerged as one of the strongest drivers for India's economic growth [3]. The Indian banking system is among the healthier performers in the world, when compared with top three banks in total assets and in terms of return on assets [4].

A diverse range of studies have been conducted by the researchers for measuring the performance of the banks, which present different perspective with regards to the performance of the banks in different countries. Traditional systems of performance evaluation of banks mostly use the factors like ROA and ROI for measuring the financial

performance of the banks. However, nowadays intellectuals and managers of organization find that traditional systems of performance evaluation have been typically based on financial views which are incomplete in evaluating overall performance of the organization and presenting an effective feedback [5]. Excessive financial measurements may increase organization's short term profit, but bring about losing competitive situation and threatens long-term profit. Non-financial criteria like customer's satisfaction, employee's satisfaction and corporate social responsibility can be necessary for strategic success of any bank [6]. Customer satisfaction is the key to the profitability of retail banking, which is having a long term financial impact on the business of the banks [7]. Performance of the banks depends upon the efficiency and level of satisfaction of its human resources. High level of human capital efficiency and employee satisfaction leads to the high performance of the banks [8]. It has also been found by the researchers that the banks which adhere to be socially responsible in their routine activities, outperform in their financial performance. There is a positive relationship between the corporate social responsibility and the financial performance of the banks both in short and long run [9].

Thus there are two main aspects from which one can measure the overall performance of the banks namely, financial aspects and human aspects. The dimensions of performance of a bank under human aspect are namely, customer satisfaction, employee satisfaction and Corporate Social Responsibility (CSR). The following conceptual model explains the performance and its dimensions.

CONCEPTUAL MODEL

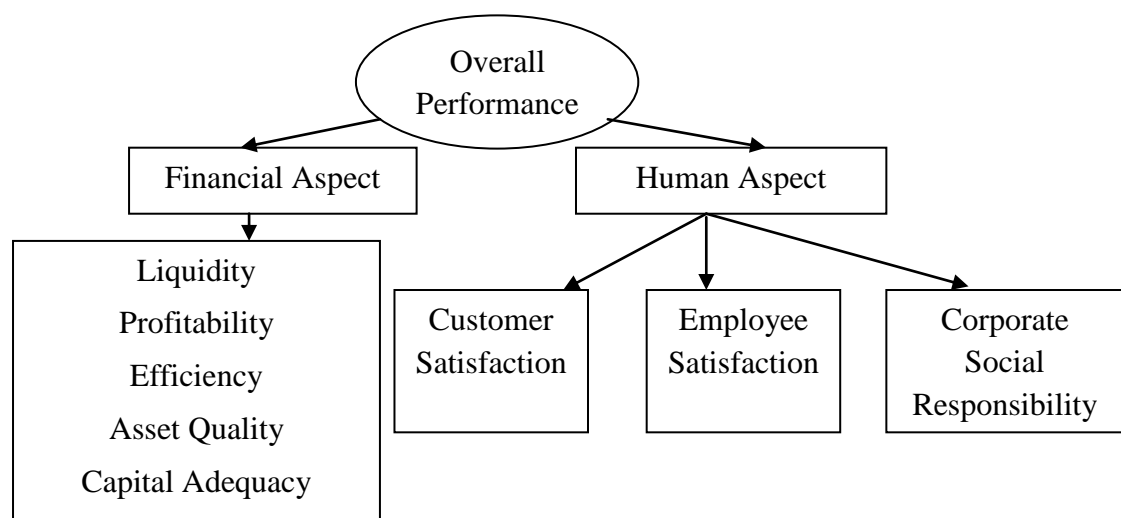


Figure 2.1: Conceptual Model

A detailed literature review, on every dimension discussed in the above conceptual model, has been done in the following section.

2.1.1 CUSTOMER SATISFACTION

Customer satisfaction is the judgment assumed out of the comparison of pre-purchase expectations with post-purchase evaluation of the product or service experience, as defined by academic literature [10]. Customer Satisfaction has become an important dimension for performance measurement particularly for banking and finance industry. As most banks and finance organizations offer similar products and services, improving customer satisfaction and loyalty is the most important factor in maintaining as well as increasing market share for these organizations [11].

2.1.2 EMPLOYEE EFFICIENCY & SATISFACTION

Banking sector is highly intellectually intensive, where the main asset of the banks is its human capital, as the expenses incurred on employees are the major operating expense in the banking sector. The human capital is a key intellectual and strategic asset which increases the efficiency of banks. Performance of the banks depends upon the efficiency of its human resources. High level of Human Capital Efficiency (HCE) leads to the high performance of the banks [12]. Efficient employees are not a sufficient criterion to measure the performance of the banks. It should also be ensured that employees are efficient and satisfied both, because the dissatisfaction of employees may turn their efficiency into inefficiency at any time. Employee satisfaction is crucial in achieving quality and profitability in the service industry. Employee satisfaction leads to higher service quality and it influences customer satisfaction directly. Service quality and customer satisfaction eventually lead to financial gains [13].

2.1.3 CORPORATE SOCIAL RESPONSIBILITY

Corporate social responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large [14]. Banking sector is not untouched by the social responsibilities. Banks do not exist in a vacuum. They make a large contribution to the country's GDP growth, meet the demand of the growing middle class, contribute to infrastructure spending, and reach out to the semi-urban and rural areas [15].

2.1.4 FINANCIAL PERFORMANCE

On the basis of the literature review, performance indicators of the banks can be divided into two main categories, namely the financial statement and non financial statement indicators. The financial statement indicators are related to the decisions which directly affect the items in a balance sheet and profit & loss accounts. On the other hand, the non financial statement indicators involve those factors which do not have a direct impact on the financial statements [16].

2.2 ANALYTIC HIERARCHY PROCESS

An effective evaluation of firm's overall performance is a key step for firm's long-term strategic planning process [17]. The Analytic Hierarchy Process has been proposed in recent literature as an emerging solution approach to large, dynamic, and complex real world multi-criteria decision making problems, such as the measuring the overall performance of any organisation using quantitative and qualitative criteria [18].

2.3 GAPS FOUND FROM THE LITERATURE REVIEW

- There are very few such studies where a large number of financial variables have been taken together for measuring the performance of the banks.
- Performance has generally been measured in terms of financial performance. The human aspects of the performance such as employee satisfaction and customer satisfaction have been ignored.
- Very few studies are available which have measured the corporate social responsibility (CSR) of the banks in India in quantitative terms.
- No such comprehensive model is available which take both the financial and human aspect simultaneously for measuring the overall performance of banks.
- Few researchers have made efforts to provide a comparative analysis of Indian private, public and foreign sector banks simultaneously.

2.4 OBJECTIVES OF THE STUDY

On the basis of literature review and gaps identified during literature review; the following objectives have been framed:

1. To study the relationship of financial indicators with the performance of Indian commercial banks.

2. To measure the customer satisfaction and its relationship with performance of banks.
3. To measure the employee satisfaction and its relationship with performance of banks.
4. To study and measure the corporate social responsibility and its relationship with performance of banks.
5. To make a comparative study of overall performance of the public sector banks, private sector banks and foreign banks in India.

3. RESEARCH METHODOLOGY

This section discusses the research methodology adopted for the present study which includes secondary and primary data variables, population and sampling, development of tools/instruments along with standardising them scientifically establishing validity and reliability, conceptual model, statistical techniques used for quantitative analysis and qualitative analysis.

3.1 RESEARCH QUESTIONS AND FORMULATION OF HYPOTHESIS

From the literature review; liquidity, profitability, efficiency, asset quality and capital adequacy ratio have been identified as the main indicators of performance of banks.

To study the relationship of financial indicators, employee satisfaction and customer satisfaction and corporate social responsibility with the performance of banks, the following research questions have been formulated:

Research Question 1: Is there any relationship between financial indicators; namely, liquidity, profitability, efficiency, asset quality and capital adequacy ratio with performance of the banks?

Null Hypothesis 1 (H_{01}): There is no relationship between liquidity and performance of banks.

Null Hypothesis 2 (H_{02}): There is no relationship between profitability and performance of banks.

Null Hypothesis 3 (H_{03}): There is no relationship between efficiency and performance of banks.

Null Hypothesis 4 (H_{04}): There is no relationship between asset quality and performance of banks.

Null Hypothesis 5 (H_{05}): There is no relationship between capital adequacy ratio and performance of banks.

Research Question 2: What are the various factors which lead to customer satisfaction and up to what extent these factors are contributing towards customer satisfaction in Indian Commercial Banks?

Research Question 2.1: Is there any significant difference in the level of satisfaction of customers due to different ownership structures of banks (Public, Private and Foreign)?

Null Hypothesis 6 (H_{06}): There is no significant difference in customer satisfaction level of public, private and foreign banks.

Research Question 2.2: Is there any significant difference in the level of satisfaction of bank's customers across the four regions as North, South, East and West in India?

Null Hypothesis 7 (H_{07}): There is no significant difference in satisfaction level of bank's customers from different regions of the India.

Research Question 3: What are the various factors which lead to employee satisfaction and up to what extent these factors are contributing towards employee satisfaction in Indian Commercial Banks?

Research Question 3.1: Is there any significant difference in the level of satisfaction of employees due to different ownership structures of banks (Public, Private and Foreign)?

Null Hypothesis 8 (H_{08}): There is no significant difference in employee satisfaction level of public, private and foreign banks.

Research Question 3.2: Is there any significant difference in the level of satisfaction of bank's employees across the four regions as North, South, East and West in India?

Null Hypothesis 9 (H_{09}): There is no significant difference in satisfaction level of bank's employees from different regions of the India.

Research Question 4: What is the contribution of the dimensions of human aspects in banking as; customer satisfaction, employee satisfaction and corporate social responsibility in the performance of the banks?

Research Question 5: What is the contribution of financial and human aspect in the overall performance of the banks?

3.2 DATA

Both the secondary as well as the primary data have been used for the present study. Secondary data is used to study the relationship of financial indicators with the performance of banks and to measure the corporate social responsibility activities of the banks. The secondary data has been collected for the five variables namely; liquidity, profitability, efficiency, asset quality and capital adequacy ratio, which are identified from the literature review and for the corporate social responsibility activities done by the banks. The CSR score of the banks for each year are measured by using nine variables namely; Rural Branch Expansion, Priority Sector lending ratio, Environment Protection, Community Welfare, Women Welfare, Farmers' Welfare, New Initiative related to CSR, Financial Literacy and Education. To measure the customer satisfaction and employee satisfaction primary data have been collected from the bank employees and bank customers. Further, an attempt is made to understand the importance of the dimensions of bank performance, i.e. financial performance and human aspects, to establish the overall performance of the banks. For the matter, senior bank officials and industry experts were contacted for their opinion regarding the importance of the dimensions of the performance of the banks.

3.3 POPULATION AND SAMPLING

The secondary data has been collected for three years from the period 2009-10 to 2011-12. Since the secondary data has been collected on financial indicators of commercial banks, hence all the commercial banks operating in India during the above period are the population of the study. Regarding the primary data, the objective of the study is to measure the customer satisfaction and employee satisfaction; hence all the customers and employees of commercial banks are the population of the study.

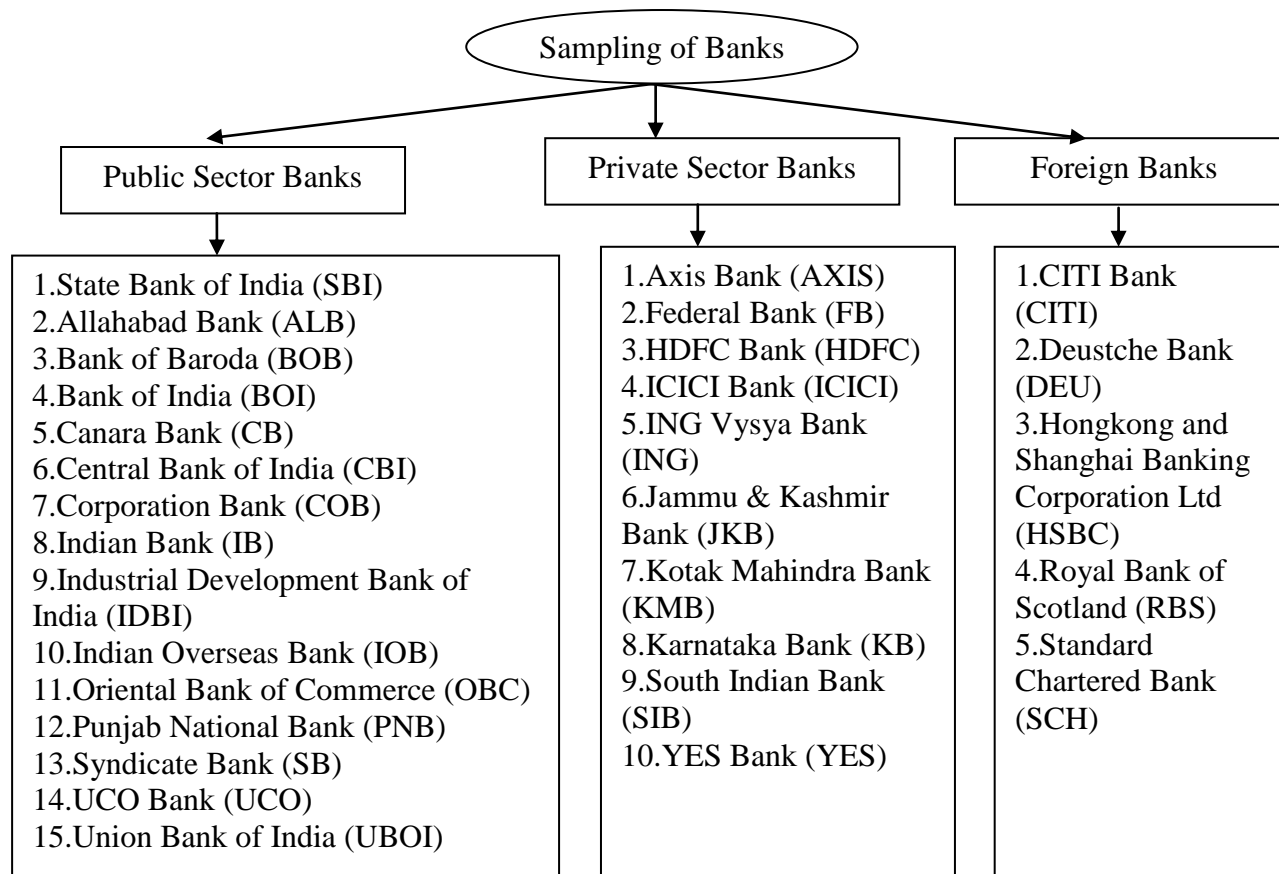


Figure 3.1: Sampling of Banks

There are four types of commercial banks operating in India; public sector banks, private sector banks, foreign banks and regional rural banks (RRB). Out of these only private, public and foreign banks have been taken in the study. The RRBs have been excluded from the study because the RRBs are not comparable with the other commercial banks in terms of size, scope, business and products/services offered by the banks. Thus sample of 30 banks consisting, 15 public sector banks, 10 private sector banks and 5 foreign banks has been taken. The proportion of public, private and foreign banks in the total sample of 30 banks is based on the contribution of assets of these three types of banks in the total assets of the banking industry as on 31st March 2011. Among each group of public, private and foreign banks, banks have been randomly selected by using random number method. The group wise list of 30 banks used in the study is shown in figure 3.1.

After determining the list of sampled banks, the sample size of the customers and employees for collecting primary data has been determined using the following method given by Krejcie & Morgan.

$$n = \frac{X^2 * N * P (1-P)}{(ME^2 * (N-1)) + (X^2 * P * (1-P))}$$

Where:

n = Sample size, X^2 = Chi-square for the specified confidence level at 1 degree of freedom, N = Population Size, P = population proportion, ME = desired Margin of Error (expressed as a proportion).

Table 3.1: Sample Size for Primary Data

Sample Unit	Population Size	Confidence Level	Margin of Error	Sample Size
Banks' Customers	1176748130	99%	2.35	3013
Banks' Employees	1004180	99%	2.35	3004

As shown in Table 3.1, the population size has been calculated on the basis of data taken from the website of Reserve Bank of India. Thus the calculated sample size for customers and employees of the banks has been rounded of to 3000. To collect primary data stratified random sampling technique has been used. For sampling of customers and employees, whole India has been divided into four geographical regions as North, South, West and East. A list of capital cities in each geographical region has been prepared. Capital cities have been randomly selected from each list by random number method. Thus total 9 capital cities have been selected for the study. Figure 3.2 shows the detail sampling plan which is used for collecting primary data for both, from the customers and employees of the banks.

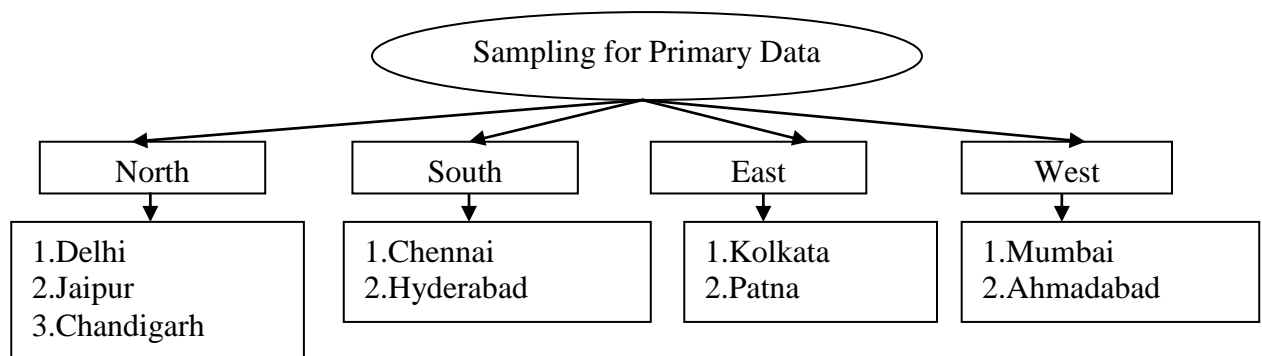


Figure 3.2: Sampling for Primary Data

The collection of primary data on the importance of financial and human aspects in performance of banks has been done from thirty senior level bank employees. The list of experts from the area of banking and finance have been prepared using professional database, newspapers, magazines, and with the help of internet browser. Snowball sampling has been used for collecting data from the experts.

3.4 RESEARCH INSTRUMENTS FOR THE PRIMARY STUDY

For the purpose of primary data collection, three well-structured questionnaires have been developed. Questionnaire A has been developed for measuring the customer satisfaction. Questionnaire B has been developed for measuring employee satisfaction. Questionnaire C has been developed for measuring the importance of dimensions of performance of banks. The nature of questions in the all the questionnaires is close ended. In questionnaire A, 24 statements and in questionnaire B, 34 statements have been included on the basis of review of literature and discussions with experts in the relevant fields. The statements in both the questionnaires were to be rated on the five point Likert's scale; where 1 means very dissatisfied, 2 means dissatisfied, 3 means neutral, 4 means satisfied and 5 means very satisfied.

A pilot study was conducted to measure the reliability and validity of the research instruments to check for potential errors and overall appropriateness of the questionnaires. The pilot study was conducted on 250 respondents for each questionnaire from Delhi/NCR region.

Table 3.2: Reliability Test for Questionnaire A and B

Questionnaire	Number of Respondents	Number of Statements	Cronbach's Alpha	Method of Data Collection
Customer satisfaction (Questionnaire A)	250	24	0.7762	Personal Interaction
Employee satisfaction (Questionnaire B)	250	34	0.7780	Personal Interaction
Area for the Study: Delhi, Gurgaon, Faridabad, Ghaziabad, and Noida Software used: SPSS 17.0				

The reliability of the questionnaire was checked using cronbach's Alpha. As per the table 3.2 the cronbach's alpha for both the questionnaires was above 0.70, which shows that both the questionnaires are reliable. In order to test the validity of the questionnaires, the

questionnaires were presented to the experts in the field of banking/finance and to the academicians in relevant field and all the items of both the questionnaires were discussed with them. The Questionnaire C has been developed to find relative importance of financial aspects and human aspects in performance of banks. To measure the relative importance Analytic Hierarchy Process (AHP) model has been used.

4. DATA ANALYSIS

Primary data analysis for questionnaire A and B, has been done using various statistical tools like Factor Analysis, Multiple Linear Regression Analysis, ANOVA, Chi-square test, and Multiple Dichotomy Test. Data analysis of questionnaire C has been done using AHP Model. Secondary data analysis has been done using multiple regression analysis method.

Table 4.1: Variables used for the secondary study

Serial No	Variable	Formula	Description	Expected Relationship with Performance
1	Liquidity (LQ)	Mean value of $L1 + L2 + L3$	L1 = Consumer & Short term funds to Total Assets, L2 = Credit Deposit Ratio L3 = Total Loans to Total Assets	Positive
2	Profitability (PR)	Mean value of $P1 + P2 + P3$	P1 = Interest income to total asset ratio, P2 = Noninterest income to total asset ratio, P3 = Net interest margin (NIM)	Positive
3	Efficiency (EFF)	Mean value of $E1+E2+E3$	E1 = Human capital efficiency (HCE) ratio E2 = Structural capital efficiency (SCE) ratio E3 = Capital employed efficiency (CEE) ratio	Positive
4	Asset Quality (AQ)	Mean value of $A1 + A2 + A3$	A1 = Net non-performing asset to net advances A2 = Gross non-performing asset to gross advances A3 = Loan loss provisions to total loans	Negative
5	Capital Adequacy Ratio	$CAR = \text{Capital (Tier I and Tier II)} / \text{Risk}$	Capital Tier I = Equity Capital and Free reserves. Capital Tier II = Debts	Positive

	(CAR)	Weighted Assets		
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Research Question 1: Is there any relationship between financial indicators; liquidity, profitability, efficiency, asset quality and capital adequacy ratio with performance of the banks?

Table 4.2: Regression Results

Dependent Variable: ROA (Return on Asset), R Square = 0.781				
Model		Beta	t-value	Sig.
	Liquidity	.021	.011	1.962**
	Profitability	.245	.116	2.1060*
	Efficiency	.119	.139	0.854
	Asset Quality	-.356	.101	-3.537*
	Capital Adequacy	.082	.023	3.532*
Predictors: (Constant), LQ, PR, EFF, AQ, CA, ANOVA RESULTS: (F-Test = 13.220 which is significant at 0.01 level)				

*Significant at 1% level of significance.

**Significant at 5% level of significance.

It can be interpreted from the regression analysis that Return on Asset (ROA) which has been used for measuring the financial performance of the bank, is positively related to the liquidity, profitability and capital adequacy while ROA is negatively related to the asset quality indicator. The relationship between ROA and efficiency is found to be insignificant.

Research Question 2: What are the various factors which lead to customer satisfaction and up to what extent these factors are contributing towards customer satisfaction in Indian Commercial Banks?

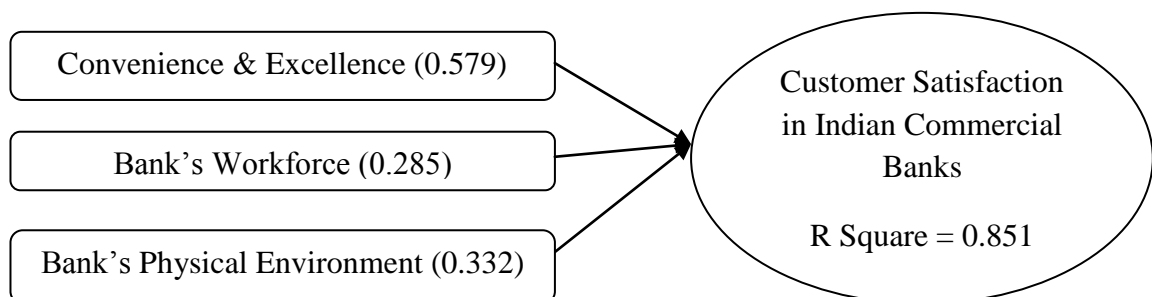


Figure 4.1: Model for Customer Satisfaction in Indian Commercial Banks

Figure 4.1 depict the three factors which have emerged from the study for the customer satisfaction in the Indian commercial banks using factor analysis. A further regression of

factors with the Overall customer satisfaction revealed that Convenience & Excellence, Bank's Workforce and Bank's Physical Environment are positively and significantly related to Overall customer satisfaction. Regression coefficients are statistically significant at 1 percent level of significance. The three independent variables of regression model can explain 85 percent of variation in the value of dependant variable as shown by the adjusted R Square which is 0.851.

Research Question 2.1: Is there any significant difference in the level of satisfaction of customers due to different ownership structures of banks (Public, Private and Foreign)?

Null Hypothesis 6 (H_{06}): There is no significant difference in customer satisfaction level of public, private and foreign banks.	<i>F</i>	<i>P-value</i>
	4.507	0.014

A significant P-value indicates that there is a significant difference in the level of satisfaction of customers due to different ownership structures of banks (Public, Private and Foreign).

Research Question 2.2: Is there any significant difference in the level of satisfaction of bank's customers across the four geographic regions as North, South, East and West in India?

Null Hypothesis 7 (H_{07}): There is no significant difference in satisfaction level of bank's customers from different geographic regions of the country.	<i>F</i>	<i>P-value</i>
	0.479	0.697

An insignificant P-value indicates that there is no significant difference in satisfaction level of bank's customers from different geographic regions of the country.

The customer satisfaction level has also been analysed with respect to the demographic factors. Chi square test has been used to measure the differences in satisfaction level of the customers on the basis of their demographic profiles such as, age, occupation, annual income and qualification.

Table 4.3: Chi Square Results

Demographic Variables	Pearson Chi Square Value
Age*Customer Satisfaction	30.937*
Gender*Customer Satisfaction	5.236
Educational Qualification*Customer Satisfaction	29.236
Occupation*Customer Satisfaction	114.747*

Annual Income*Customer Satisfaction	34.933*
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*Significant at 1% level of significance.

It can be interpreted from table 4.3 that there is a significant difference in the satisfaction level of customers belonging to different age groups, different occupations and having different annual income. However, there is no significant difference in the customer satisfaction level on the basis of gender and educational qualification.

Research Question 3: What are the various factors which lead to employee satisfaction and up to what extent these factors are contributing towards employee satisfaction in Indian Commercial Banks?

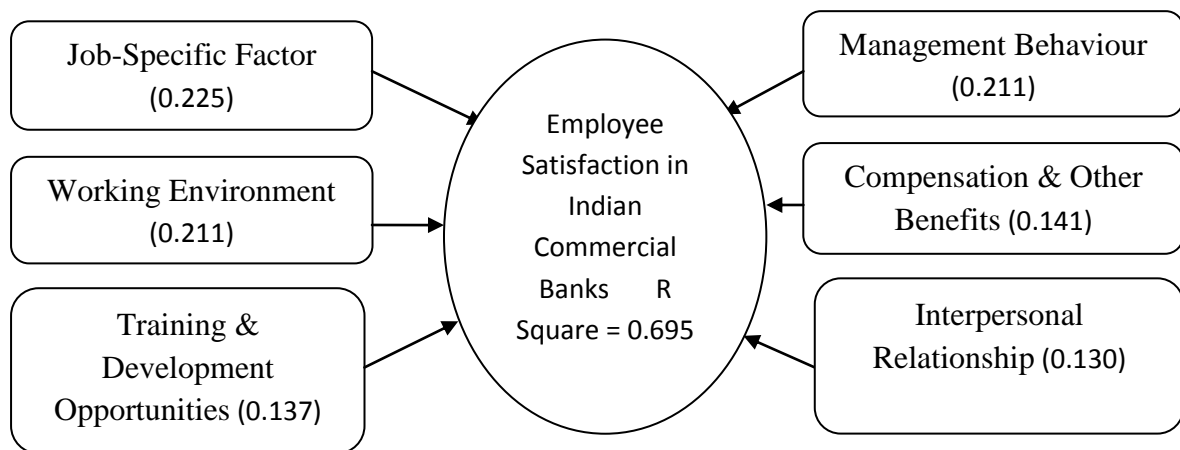


Figure 4.2: Model for Employee Satisfaction in Indian Commercial Banks

Figure 4.2 depict the factors which have emerged from the study of the employee satisfaction in the Indian commercial banks using factor analysis. A further regression analysis of the above factors with the Overall employee satisfaction indicates that all the six factors are positively and significantly related to Overall employee satisfaction. Regression coefficients are statistically significant at 1 percent level of significance. The six independent variables of regression model can explain 0.695 percent of variation in the value of dependant variable, R Square is 0.695.

Research Question 3.1: Is there any significant difference in the level of satisfaction of employees due to different ownership structures of banks (Public, Private and Foreign)?

Null Hypothesis 8 (H_{08}): There is no significant difference in employee satisfaction level of public, private and foreign banks.	<i>F</i>	<i>P-value</i>
	3.254	0.042

A significant P-value indicates that there is a significant difference in the level of satisfaction of employees due to different ownership structures of banks (Public, Private and Foreign).

Research Question 3.2: Is there any significant difference in the level of satisfaction of bank's employees across the four geographic regions as North, South, East and West in India?

Null Hypothesis 9 (H ₀₉): There is no significant difference in satisfaction level of bank's employees from different geographic regions of the country.	<i>F</i>	<i>P-value</i>
	1.005	0.392

An insignificant P-value indicates that there is no significant difference in satisfaction level of bank's employees from different geographic regions of the country.

The employee satisfaction level has also been analysed with respect to the demographic factors. Chi square test has been used to measure the differences in satisfaction level of the employees on the basis of their demographic profiles such as, age, gender and job tenure.

Table 4.4: Chi Square Results

Demographic Variables	Pearson Chi Square Value
Age*Employee Satisfaction	152.023*
Gender*Employee Satisfaction	5.035
Job tenure*Employee Satisfaction	45.482*

*Significant at 1% level of significance.

It can be interpreted from table 4.4 that there is a significant difference in the satisfaction level of employees belonging to different age groups and having different job tenure. However, there is no significant difference on the basis of gender of the employees.

Research Question 4: What is the contribution of the dimensions of human aspects in banking as; customer satisfaction, employee satisfaction and corporate social responsibility in the performance of the banks?

The weights of the dimensions of human aspect using AHP model have been shown in table 4.5.

Table 4.5: Weights of Dimensions of Human Aspect using AHP model

Customer Satisfaction	0.2422
Employee Satisfaction	0.1248
Corporate Social Responsibility	0.6330

From the results of the AHP model it can be interpreted that corporate social responsibility is having highest weight among the three dimensions of human aspect. Corporate social responsibility which is having a weight of approx 63 percent is found to be important than customer satisfaction and employee satisfaction while customer satisfaction having a weight of 24 percent is more important than employee satisfaction with a weight of approx 12 percent.

Research Question 5: What is the contribution of financial and human aspect in the overall performance of the banks?

The weights of the financial and human aspect using AHP model have been shown in table 4.6.

Table 4.6: Weights of Financial and Human Aspect using AHP model

Financial Aspect	0.4757
Human Aspect	0.5243

From the results of the AHP model it can be interpreted that financial aspect is having a weight of approx 48 percent while human aspect is having a weight of approx 52 percent in the overall performance of the banks. Thus human aspect is slightly more important while measuring the overall performance of the banks. Financial aspect is also important to be considered while measuring the overall performance of the banks because 48 percent is a significant contribution as shown by the experts on the basis of their judgements on two criteria.

COMPARATIVE ANALYSIS OF OVERALL PERFORMANCE OF BANKS USING CONCEPTUAL MODEL

This section deals with the comparative analysis of the overall performance of the banks using the conceptual model shown in Fig 2.1. The overall performance has been measured as the weighted average of financial aspect and human aspect score of the banks.

$$\text{Overall Performance} = w1 * \text{Financial Aspect} + w2 * \text{Human Aspect}$$

Financial Aspect: Financial aspect of the banks has been measured through multiple regression equation derived from the analysis done in the Table 4.2.

$$Y = -1.603 + 0.021 * LQ + 0.245 * PR + 0.119 * EFF + -0.356 * AQ + 0.082 * CA$$

Human Aspect: Human Aspect has been measured using the following equation:

$$\text{Human Aspect} = w3 * \text{Customer Satisfaction} + w4 * \text{Employee Satisfaction} + w5 * \text{Corporate Social Responsibility.}$$

The weight w1, w2, w3, w4, and w5 are relative importance of these criterions from the AHP model. Where w1 = 0.475765, w2 = 0.524235, w3 = 0.242216, w4 = 0.1248160 and w5 = 0.632968.

Customer Satisfaction (CS) = Customer satisfaction score has been calculated as the mean of overall satisfaction of total number of respondents for each bank.

Employee Satisfaction (ES) = Employee satisfaction score has been calculated as the mean of overall satisfaction of total number of respondent employees for each bank.

Corporate Social Responsibility (CSR): The CSR variable has been measured as the mean value of CSR score of the banks for the period 2009-10 to 2011-12. The CSR score of the banks for each year has been calculated by adding up the score of nine variables used for measuring the CSR.

$$CSR = RBE + PSL + EP + CW + WW + FW + NI + FL + EDU$$

Where; RBE is the Rural Branch Expansion, measured as the number of branches in rural areas of a particular bank, PSL is the Priority Sector lending ratio of advances made to priority sector to total advances by a bank, EP is the number of Environment Protection activities done by a bank, CW is the number of Community Welfare activities done by a bank, WW is the number of activities done by a bank for women and girl child welfare, FW

is the number of activities done by a bank for farmers' welfare, NI is the number of new initiatives related to CSR activities taken by a bank in the year in which CSR is being measured, FL is the number of efforts made for promoting financial literacy and EDU is the number of activities done by a bank for promotion of education in society.

Table 4.7: Overall Performance Score of the Banks

Bank	Corporate Social Responsibility	Customer Satisfaction	Employee Satisfaction	Financial Aspect	Human Aspect	Overall Performance Score
PNB	20	4.34	4.26	1.23	14.24	8.05
JKB	16	4.27	4.30	1.49	11.70	6.84
ICICI	16	4.48	4.36	0.70	11.76	6.50
ALB	14	4.28	4.23	1.16	10.43	6.02
ING	14	3.86	4.00	1.15	10.30	5.94
SB	14	4.28	4.25	0.96	10.43	5.92
HDFC	13	4.26	4.23	1.27	9.79	5.74
OBC	13	4.27	4.23	0.90	9.79	5.56
RBS	12	4.16	4.28	1.26	9.14	5.39
CB	12	4.17	4.19	1.07	9.13	5.29
SBI	12	4.16	4.18	0.92	9.12	5.22
UBOI	12	4.25	4.21	0.83	9.15	5.19
AXIS	11	4.20	4.22	1.48	8.51	5.16
FB	11	3.99	4.22	1.48	8.46	5.14
IOB	12	3.88	4.11	0.78	9.05	5.11
IDBI	11	4.04	4.16	1.39	8.46	5.10
KMB	11	3.92	4.20	1.36	8.44	5.07
SIB	10	3.98	4.19	1.83	7.82	4.97
CBI	11	3.92	4.12	1.05	8.43	4.92
IB	11	4.06	4.16	1.01	8.47	4.92
COB	11	3.95	4.13	0.84	8.43	4.82
BOI	10	3.85	4.11	1.13	7.78	4.61
KB	9	3.78	4.07	1.74	7.12	4.56
HSBC	10	3.97	4.24	0.97	7.82	4.56
BOB	9	3.85	4.06	0.77	7.14	4.11
DEU	7	3.89	4.21	2.03	5.90	4.06
UCO	9	3.73	4.03	0.69	7.10	4.05
CITI	7	3.93	4.27	1.56	5.92	3.84
SCH	7	3.73	4.23	1.24	5.86	3.66
YES	6	3.28	3.97	1.67	5.09	3.46

Table 4.7 reveals the overall performance of the banks along with individuals score of financial aspect, human aspect and three variables under human aspect; corporate social responsibility, customer satisfaction and employee satisfaction. It can be interpreted from the table, that overall performance score of the banks is ranging from 3.46 (minimum) to 8.05 (maximum) with an average score 5.75. The maximum score is achieved by the Punjab National Bank while the minimum score is recorded for YES bank. Only six banks have shown overall performance above the average score among which three banks are public sector banks and three are private sector banks. None of the foreign bank has achieved the overall performance score above the average score for overall performance of the banks.

Table 4.8: Classification of Banks on the basis of performance

High Performers	Medium Performers	Low Performers
Punjab National Bank, Jammu & Kashmir Bank, ICICI Bank, Allahabad Bank, ING Vysya Bank, Syndicate Bank, HDFC Bank and Oriental Bank of Commerce.	Royal Bank of Scotland, Canara Bank, South Indian Bank, State Bank of India, Axis Bank, Union Bank of India, Federal Bank, Indian Overseas Bank, IDBI Bank, Kotak Mahindra Bank, Indian Bank, Corporation Bank, Central Bank of India, Bank of India, Karnataka Bank and Honkong and Shanghai Banking Corporation Ltd.	Bank of Baroda, Deutsche Bank, UCO Bank, CITI Bank, Standard Chartered Bank and YES Bank.

On the basis of performance scores calculated in Table 4.8, the banks have been classified into three categories, high performers, medium performers and low performers. The banks with Overall performance score 5.5 and above have placed in the high performer category. The banks with overall performance score 4.5 and above have been placed in the medium performers' category and the remaining banks with lower scores have been kept in the low performers category.

5. FINDINGS AND CONCLUSIONS

This section discusses the major findings from the data analysis, conclusions derived from the study, limitations and further scope of the study.

5.1 MAJOR FINDINGS

The following are the empirical findings from the data analysis chapter.

1. The analysis of financial parameters in the study revealed that Return on assets ratio is positively related to liquidity, profitability and capital adequacy ratio while it is negatively related to the asset quality variable.
2. On the study of customer satisfaction it is found that Convenience & Excellence, Bank's Workforce and Bank's Physical Environment are the three main factors which lead to customer satisfaction in commercial banks of India. These factors are positively and significantly related to Overall customer satisfaction.
3. An analysis of employee satisfaction in banks revealed that the job-specific factors, management behavior, working environment, training & development opportunities, interpersonal relationship and compensation & other benefits are the six factors which lead to employee satisfaction in commercial banks. All these factors have a positive and significant relationship with the overall employee satisfaction in Indian commercial banks.
4. It is derived from the study that there is no difference in the satisfaction level of customers and satisfaction level of employee on the basis of location of bank branches in different geographical regions.
5. From the study it has been found that there is a significant difference in the satisfaction level of customers and satisfaction level of employee on the basis of ownership structures of the banks.
6. The comparative analysis of the public, private and foreign banks on the basis of overall customer satisfaction shows that public banks are on top position in terms of customer satisfaction except the tangibility factors such as ambience, infrastructure, hygiene etc. The comparative analysis of the public, private and foreign banks on the basis of overall

employee satisfaction shows that foreign banks are leading in employees of foreign banks are more satisfied with the job design, status, autonomy and independence while doing routine works, authority and responsibility and flexibility to balance life and work issues, compensation and other financial benefits; except job security. Public banks are leading in management behaviour factor and working environment factor while private sector banks are leading in training and development opportunities factor and interpersonal relationship factor.

7. The study shows that there is a significant difference in the satisfaction level of customers belonging to different age groups, different occupations and having different annual income. However, there is no significant difference in the satisfaction level of the customers due to the gender difference and due to the difference in their educational qualification.

8. The analysis reveals the fact that there is a significant difference in the satisfaction level of the employees belonging to different age group and different job tenure while there is no difference in the satisfaction level of the employees due to the gender difference.

9. On the basis of analysis of the corporate social responsibility in India commercial banks it has been found that public banks are leading in CSR score while foreign banks are far behind from both the public and private banks in CSR score. It is also found that banks are performing well related to the community welfare activities while lowest performance of banks is recorded for the CSR activities related to women welfare.

10. The human aspects have been found to be more important than financial aspect. Among three dimensions of human aspect i.e. corporate social responsibility, customer satisfaction and employee satisfaction; corporate social responsibility of the bank is found to be more important than customer satisfaction and employee satisfaction. On comparing customer satisfaction and employee satisfaction the customer satisfaction has been found to be more important than employee satisfaction in the banks.

11. The overall performance of the banks has been measured using both the financial aspects and human aspect. The banks which are performing better in human aspect stand better in overall performance also. Positive and significant relations have been found between the

corporate social responsibility, customer satisfaction, employee satisfaction, financial aspect, human aspect and overall performance of the banks.

5.2 CONCLUSION

In financial service sector, particularly in banking activities, globalization increased management's need for performance measurement. In this context, this study puts forth a comprehensive model proposal for the performance evaluation of the banking system whose effective and productive performance is measured by using financial and non-financial performance criteria. The performance criteria have been determined via the developed model and the performance of Indian commercial banks has been analyzed within the scope of the model. From the analysis it is clear that human aspect is more important than financial aspect in banks. The banks which are performing well in three dimensions of human aspect i.e. corporate social responsibility, customer satisfaction and employee satisfaction are found to be overall good performers.

5.3 LIMITATIONS

The research suffers from the following limitations:

- Geographical scope of the study is limited to urban areas only.
- The sample size for primary study is three thousand customers and three thousand employees of the banks, which is of course small in comparison to population of customers and employees nationwide.
- There can be many interpretations and explanations to the data collected. This is an empirical study and the research provides the explanation as understood by the researcher only.
- The secondary data is collected for the period 2009-10 to 2011-12 therefore more evidence may be needed to generalize the results.

5.4 SCOPE FOR FURTHER RESEARCH

Since the current study is limited to data collected from urban areas only, the study can be extended to rural areas also. The further scope of the study is that a comparison between the Indian banks and banks of foreign countries can also be done using same conceptual model. The time period of collecting secondary data can be extended from 3 years to 5 years or more.

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