Analysis of Banking sector operations in India with special reference to Private banks in response to Technological and other developments with a view to develop a future Banking model

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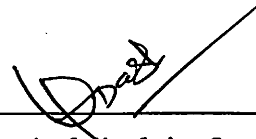
CERTIFICATE

This is to certify that the thesis entitled **"Analysis of banking sector operations in India with special reference to private banks in response to technological and other developments with a view to develop a future banking model"** and submitted by **Prakash Singh** ID No. **2001PHXF012** for award of Ph.D. Degree of the Institute, embodies original work done by him under my supervision.



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ABSTRACT

This thesis deals with the study of Indian Banking system in the post reforms phase. With the onset of 2003, the Indian financial sector would be entering its 12th year of reforms. During this decade, the reforms have touched upon almost every segment of the financial sector. Strengthening of the financial sector and improving the functioning of financial markets can be described as the core principles of financial sector reforms in India. The central plank is a set of prudential norms that are aimed at imparting strength to banks and financial institutions, and inducing greater accountability and market discipline. This study tries to answer the fundamental question to what extent has the domestic impetus, i.e., financial-sector policy reforms during the nineties, made banks in India more efficient? . It assesses whether the reform program has been successful so far in restructuring public-sector banks and if so, what elements of the program have contributed. In what way has the reform program affected the behavior of public-sector banks? To what extent have foreign and new domestic banks contributed to the performance of the whole banking sector? Has India's gradual approach to the privatization of banks been successful? What policy implications can we derive from India's experience?

With the restructuring and consolidation being witnessed in the banking industry, it is but natural that emphasis has shifted to newer parameters for analyzing banks performance. The traditional method to benchmark efficiency in the banking sector through the ratio analysis of different financial parameters like Return on Assets or Return on Investment which give one dimensional, incomplete picture of the process and fail to account for the interaction and trade off between the various parameters. Data Envelopment Analysis (DEA) has been used in the present study to measure efficiency performance of different banks. In the banking sector, it has been applied to benchmark performance of different banks or study the efficiency estimates of different branches of a particular bank. In the first test, to measure efficiency as directly as possible, that is, management's success in controlling costs and generating revenues, two input and two output variables, namely, interest expenses, non-interest expenses/operating expense (inputs) and net interest income/spread and non-interest income (outputs) have been used. A second DEA analysis was run with deposits and staff numbers as

inputs and net loans and non-interest income as outputs. In the second test, where a less direct approach is taken to measure efficiency, deposits replace interest expense, staff numbers replace non-interest expenses and net loans become proxy for net interest income. The two models have been used to show how efficiency scores differ when inputs and outputs are changed.

The Non-performing assets (NPAs) problem is one of the foremost and formidable problems that have shaken the entire banking industry. The malady of high level of NPAs is not confined to public sector banks alone; it is equally hammering the bottom line of old as well as new generation private sector banks and foreign banks. An attempt has been made in the study to look at the fundamental reasons for this high level of NPAs and to further compare the problem with International standards. Finally, the comparison between public and private sector banks related to the level of NPAs is also done.

The world of banking has assumed a new dimension at the dawn of 21st century with the advent of technology banking. The emerging electronic economy and computer technology are causing a paradigm shift in the way businesses are done and banks are increasingly leveraging technology for increasing their competitiveness through product differentiation, price reduction and value addition from improvement in speed and accuracy of transactions. A detailed discussion on the technology front, especially the advent of Internet banking is carried out in the study. What is in there for Indian banks, how can they gain out of this new delivery channel and what is the current status of Internet banking in India is pointed out.

With hot winds of competition blowing across the Indian banking industry, developing a close, symbiotic relationship with customers has become highly important than ever before. Banks have to come out with innovative measures to satisfy the needs of their present customers, acquire new ones and at the same time adopt procedures to win back the lost customers. This problem gets compounded as customer expectations for quality, service and value are increasing rapidly on a continuous basis. Thanks to the development of IT and Internet, which are changing the possibilities in terms of customer contact, service and insight, today banks can aim at meeting this expectation by adopting a strategy that is commonly

known as Customer Relationship Management. The study looks in to the new possibilities created in this arena by looking at the efforts being made by Indian banks to develop and foster a life long relationship with their customers.

Finally, with the huge shifts in ground realities for the Indian banking industry with liberalization and other developments, what does the future holds for banks is tried to be visualized in the study. With particular reference to Indian banking sector, an attempt is made to put in pieces a broad picture of the future of banking. Some future banking models are forecasted.

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LIST OF ABBREVIATIONS USED IN THE STUDY

AMC: Asset Management companies
ARC: Asset reconstruction Company
ARCIL: Asset reconstruction Company India Limited
ARF: Asset reconstruction Fund
ATM: Automated Teller Machine
BCC Model: Bank, Charnes and Cooper Model
BIFR: Board of Industrial & Financial Reconstruction
BPE: Business Process Engineering
CAR: Capital Adequacy Ratio
CAG: Comptroller and Auditor General
CBI: Central Bureau of Investigation
CCR Model: Charnes, Cooper and Rhodes Model
CD Ratio: Credit Deposit Ratio
COST: Operating Expense/ Operating Income
CRR: Cash Reserve Ratio
CVC: Chief Vigilance Commission
CRM: Customer Relationship Management
DIVERSE: Non Interest Income/ Assets
DFA: Distribution Free Approach
DEA: Data Envelopment Analysis
DMU's: Decision Making Units
DRT: Debt Recovery Tribunal
DRAT: Debt Recovery & Appellate Tribunal
EQUITY: Equity plus reserves/ Total Assets
EVA: Economic Value Added
ECS & FT: Electronic Clearing Service & Funds transfer
FMS: Flexible Manufacturing Systems
GBOND: Investment in G Secs/ Assets
GDP: Gross Domestic Product
IDRBT: Institute for Development & Research in Banking
IPO: Initial Public Offer
IMF: International Monetary Fund
IBA: Indian Bank Association
$INCOME_1$: Operating Income/ Assets
$INCOME_2$: Lending – Deposit Rates
JIT: Just in Time
LAN: Local Area Network
MNC: Multi National Corporation
MOF: Ministry of Finance
NPA: Non-Performing Asset
NBCA: New Basel Committee Accord
NPL: Non Performing loans
PSB: Public Sector Banks
PROV: Provision for NPA/ Assets

PRIORITY: Lending to Priority Sector/ Assets
PUBLIC: Lending to Public Sector/ Assets
RBI: Reserve Bank of India
ROAA: Return on Average Assets
ROA: Return on Assets
ROI: Return on Investment
ROE: Return on Equity
RRB's: Regional Rural Banks
RTGS: Real time Gross Settlement
SARAFESI Act:
SBI: State Bank of India
SCB: Scheduled Commercial Banks
SCM: Supply Chain Management
SEFT: Secured Electronic fund transfer
SICA: Sick Industries and Company Act
SIZE: Log of Banks Assets
SLR: Statutory Liquidity Ratio
TCS: Tata Consultancy Services
TQM: Total Quality Management
TIME: Dummy Variable
TBA: Total Branch Automation
TAMC: Thailand Asset Management Company
VRS: Variable return to Scale
WAN: Wide Area Network

INTRODUCTION

Chapter 1
INTRODUCTION

1.1 MACROECONOMIC DEVELOPMENTS

Financial systems worldwide are undergoing structural transformation. Technological innovation, deregulation of financial services at the national level, external financial liberalization, and organizational changes in the corporate world are some of the global factors driving the transformation. Banking and finance in emerging economies is also caught up in this change. In these economies, in addition to global developments, country-specific factors are motivating the structural shifts. Consequently, two separate directions of reform are evident. There is an expansion of the financial system due to vacation of policy interventions in entry, exit and operations, the application of new advances in information technology and in general, a greater emphasis on competition and market-based outcomes. Almost contemporaneously, there is a strong drive towards consolidation in a quest for exploiting core competitiveness and for developing "niche" strategies.

Indian banks have a chequered history. The British legacy left behind a host of large and small privately held banks. The late 60s saw the nationalization of banks, leading to the emergence of the public sector banks. The 90s saw the banking industry embracing technology in a massive way, led in particular by the new private banks and foreign banks. Among these series of technology innovations, Internet banking for the retail segment is a recent phenomenon that has generated a lot of interest in the Indian banking industry. Private and foreign banks have been the early adopters while the Public Sector banks are also beginning to latch on to the bandwagon (Ram, 2002). In other words we can say Indian banking is at cross roads today. Trite as it may sound, this characteristic is perhaps, more valid today than before. The banking sector constitutes the core of the Indian financial system, which has been subject to far reaching changes as an integral part of the overall programme of economic reforms. Following the unprecedented crisis in mid 1991, a series of policy initiatives have been taken in the last 10 years which have come to be collectively known as new economic policy. As part of the financial sector reforms,

prudential norms have been prescribed for banks and financial institutions. Moreover phased provisioning for non-performing assets is strengthening banks. These reforms will not only bring greater flexibility in operations for banks with respect to deployment of resources but also bring greater transparency in operations and strengthen the balance sheets of these organizations.

With the onset of 2003, the Indian financial sector would be entering its 12th year of reforms. During this decade, the reforms have touched upon almost every segment of the financial sector. Strengthening of the financial sector and improving the functioning of financial markets can be described as the core principles of financial sector reforms in India. The central plank is a set of prudential norms that are aimed at imparting strength to banks and financial institutions, and inducing greater accountability and market discipline. These norms include capital adequacy, asset classification and provisioning and also accounting standards, exposure and disclosure norms and guidelines for investment, risk management and asset-liability management (Jalan, 2002). Our approach has been to benchmark our norms against international standards. Nevertheless, it is the banking sector, which experienced major reforms. A retrospect of the events clearly indicates that the Indian banking sector has come far away from the days of nationalization. Increase in the number of banks due to the entry of new private and foreign banks, increase in the transparency of the banks' balance sheets through the introduction of prudential norms and increase in the role of the market forces due to the deregulated interest rates have all significantly affected the operational environment of the Indian banking sector. As the international standards became prevalent, banks had to unlearn their traditional operational methods of directed credit, directed investments and fixed interest rates, all of which led to deterioration in the quality of loan portfolios, inadequacy of capital and the erosion of profitability. Gone are the days of directed credit and directed investment, banks have now an entirely different game to play and their success will be measured on realities.

1.2 A DECADE AFTER REFORMS

The future of Indian Banking represents a unique mixture of unlimited opportunities amidst insurmountable challenges. On the one hand we see the scenario represented by the rapid process of globalization presently taking shape bringing the community of nations in the world together, transcending geographical boundaries, in the sphere of trade and commerce, and even employment opportunities of individuals. All these indicate newly emerging opportunities for Indian Banking. But on the darker side we see the accumulated morass, brought out by three decades of controlled and regimented management of the banks in the past (Kannan, 2002). It has siphoned profitability of the Government owned banks, accumulated bloated Non Performing Assets and threatens capital adequacy of the banks and their continued stability. Nationalized banks are heavily over-staffed. The recruitment, training, placement and promotion policies of the banks leave much to be desired. In the nutshell the problem is how to shed the legacies of the past and adopt to the demands of the new age.

On the brighter side are the opportunities on account of :

- The advent of economic reforms, the deregulation and opening of the Indian economy to the global market, brings opportunities over a vast and unlimited market to business and industry in our country, which directly brings added opportunities to the banks.
- The advent of Reforms in the Financial & Banking Sectors (the first phase in the year 1992 to 1995) and the second phase in 1998 heralds a new welcome development to reshape and reorganize banking institutions to look forward to the future with competence and confidence. The complete freeing of Nationalized Banks (the major segment) from administered policies and Government regulation in matters of day-to-day functioning heralds a new era of self-governance and a scope for exercise of self-initiative for these banks. There will be no more directed lending, pre-ordered interest rates, or investment guidelines as per dictates of the Government or RBI. Banks are to

be managed by themselves, as independent corporate organizations, and not as extensions of government departments.

- Acceptance of prudential norms with regards to Capital Adequacy, Income Recognition and Provisioning are welcome measures of self regulation intended to fine-tune growth and development of the banks. It introduces a new transparency, and the balance sheets of banks now convey both their strength and weakness. Capital Adequacy and provisioning norms are intended to provide stability to the Banks and protect them in times of crisis. These equally induce a measure of corporate accountability and responsibility for good management on the part of the banks
- Large scale switching to hi-tech banking by Indian Scheduled Commercial Banks (SCBs) through the application of Information Technology and computerization of banking operations, will revolutionalise customer service. The age-old method of 'pen and ink' systems is over. Banks now will have more employees available for business development and customer service freed from the needs of bookkeeping and for casting or tallying balances, as it was earlier.

All these welcome changes towards competitive and constructive banking could not however, deliver quick benefits on account insurmountable carried over problems of the past three decades. The role of the public sector banks has come under close scrutiny in the recent period. It is necessary to recognize that these banks have played a critical role in the development of the Indian economy in the period 1969-90, particularly in the spread of banking and monetisation of the economy; the mobilization of savings and their allocation by plan priorities. For all economies in the early and intermediate stages of development, credit markets face a persistent excess demand, reflecting the existing resource constraints. Moreover, market processes can well exclude the genuine credit needs of the weaker sections of society, which do not have the competitive strength to bid for funds in the market for bank credit. Public ownership in Indian banking was intended to address both concerns *i.e.*, the rationing

of credit in the face of excess demand not cleared by the market, and the channeling of bank credit flow to the economically disadvantaged sections of society. Since the 70s the SCBs of India functioned totally as captive capsule units cut off from international banking and unable to participate in the structural transformations, the sweeping changes, and the new type of lending products emerging in the global banking Institutions. Our banks are over-staffed. The personnel lack training and knowledge resources required to compete with international players. The prevalence of corruption in public services of which PSBs are an integral part and the chaotic conditions in parts of the Indian Industry have resulted in the accumulation of non-productive assets in an unprecedented level. The future of Indian Banking is dependent on the success of its efforts as to how it shakes off these accumulated past legacies and carried forward ailments and how it regenerates itself to avail the new vistas of opportunities to be able to turn Indian Banking to International Standards. (Kamesan, 2002).

1.3 STRUCTURAL CHANGES IN BANKING SYSTEM

With the restructuring and consolidation being witnessed in the banking industry, it is but natural that emphasis has shifted to newer parameters for analyzing banks performance. The traditional method to benchmark efficiency in the banking sector was the ratio analysis of different financial parameters (like ROA or ROI). However, these ratios give one dimensional, incomplete picture of the process and fail to account for the interaction and trade off between the various parameters. Particularly, factors like assets, profits, number of employees, customer satisfactions etc. are extremely important in identifying the productivity of a bank. Thus a multidimensional perspective is essential and these financial ratios in many cases, ends up with self-contradictory results and it is impossible to draw a meaningful conclusion. Data Envelopment Analysis (DEA) has also been widely used to measure efficiency performance of different financial institutions like banks, insurance, and mutual funds. Particularly in the banking sector, it has been applied to benchmark performance of

different banks or study the efficiency estimates of different branches of a particular bank. (Bhattacharya et. al, 1997).

Broadly efficiency in the financial sector is normally measured in terms of technical and economic efficiency. Technical efficiency (more common in Public sector banks) would be where a bank minimizes its inputs given the outputs i.e. trying to reduce its operating expense to maintain its growth whereas Economic efficiency (more in Private banks) involves maximizing output given the inputs i.e. trying to attain growth through limited inputs employing superior technology and service standards. The entry of private banks has changed the very definition of banking that have given a totally new dimension to banks performance analysis. Being big could be actually a problem now if you don't follow modern practices. The point is, by merely using standard ratios for banks analysis could sometime reach to false conclusions. More and more banks are talking about Intermediation costs, employee and branch productivity, non-interest income, and market capitalization to total income etc., parameters which were never discussed a decade ago. There is a growing need to look into newer parameters and techniques of analysis of banks to comment on efficiency and productivity.

1.4 TRANSPARENCY AND MARKET DISCIPLINE

There is now a wider appreciation that high quality financial reporting – described as the 'cornerstone of market discipline' - is essential for the efficiency and stability of the financial system. Structural changes underway in the financial system have only served to raise the premium on market disclosure. Globalization has brought with it stringent quality criteria as the emphasis is increasingly on comparability of information. Financial innovations have made the interpretation of disclosures more difficult, testing severely existing measurement techniques (Jalan, 2002). At the same time, availability of information is vital since it is the basis on which perceptions and expectations are formed, which ultimately drive markets and even business cycles. Information conveyed by the balance sheet, income and cash flow statements is the bread and butter of traditional accounting. Risk information is supplied primarily through

supplementary risk disclosures. Both are important for an efficient allocation of resources and financial discipline. We have been intensifying ongoing efforts to make the balance sheet and profit and loss accounts of banks more reflective of their true financial health.

From March 2003 banks would be required to conform to Accounting Standards issued by the Institute of Chartered Accountants of India. Banks are also required to make additional disclosures in notes to accounts on risk features such as movement in provisions held towards non-performing assets and depreciation of investments, capital market exposures and loans subject to corporate debt restructuring. These requirements are applicable to financial institutions as well. In the April, 2002 Monetary and Credit Policy Statement banks have been required to announce the maximum spread over their prime lending rates (PLR) along with their PLR announcements, the minimum and maximum rates charged to borrowers, deposit rates, the effective annualized return to the depositor and processing and service charges. These disclosures serve the interests of customers, besides fostering healthy competition among banks. The Reserve Bank, too, is expanding its disclosure to the markets, even while setting for itself exacting standards of quality and timeliness.

1.5 TECHNOLOGY, PAYMENT AND SETTLEMENT SYSTEM

Information technology is playing an active role in improving the productivity in all spheres including banking. The information technology revolution has brought about a fundamental transformation ushering in, as Alvin Toffler describes it, the fourth wave. Perhaps no other sector has been affected by advances in technology as much as banking and finance. It has become the most important factor for dealing with the intensifying competition and the rapid proliferation of financial innovations. It has enabled, in general, raising the efficiency of financial intermediation in the face of ever-rising volumes of transactions, falling margins and more empowered customer expectations. In particular, there are four or five key areas in which the financial system has experienced the benefits of the technology revolution: product development, market

infrastructure, risk control and market reach. The interaction of technology with globalization has contributed to the expansion of financial markets beyond national borders, heralding the end of geography. In the process, technology has changed the contours of three major functions of financial intermediaries: access to liquidity, transformation of assets and monitoring of risks. (Jalan, 2002).

The world of banking has assumed a new dimension at the dawn of 21st century with the advent of technology banking. The emerging electronic economy and computer technology are causing a paradigm shift in the way businesses are done and banks are increasingly leveraging technology for increasing their competitiveness through product differentiation, price reduction and value addition from improvement in speed and accuracy of transactions (Rangarajan, 2000). The need to introduce risk management and the need to provide IT- enabled services to stay competitive in the liberalized scenario, and the pressure on margins are forcing bank to look at technology for increasing efficiency and also to beat competition in the dynamic atmosphere. From the banks point of view, this development has enabled them to view a customer across multiple channels like branch, Internet, ATM, call centers etc and at the same time these self servicing channels would improve their bottom line as the cost of electronic transaction is much less than a physical paper based transaction. With competition increasing manifold, technology oriented service is a clear differentiating factor that creates a sustained brand image.

Adequate security is a prerequisite for a modern, technology-intensive payment and settlement system, especially one functioning in a highly networked environment. Information Systems Audit is another area, which needs to be adequately addressed. Some progress has been made in defining what we need but implementation would require a system-wide collaboration to obtain the best results. It is with this objective that the Reserve Bank has recently circulated the recommendations of its Working Group on Information Systems Security for the Banking and Financial Sector among all banks and financial institutions. Legal changes to deal with electronic data interchange and legal wherewithal for participants in the payment system are on the anvil. These

changes are intended to enable the benchmarking of our payment and settlement system against international standards such as the Core Principles for Systemically Important Payment Systems of the Bank for International Settlements. The future of banking and finance hinges around exploiting the opportunities thrown up by the technology explosion. This requires the combined efforts of all participants in the financial system. (Jalan, 2002)

1.6 THE NON PERFORMING ASSETS SAGA

It is imperative to have a look at some gloomy aspects of liberalization in banking .The Non performing assets (NPAs) problem is one of the foremost and formidable problem that has shaken the entire banking industry. At the macro level, NPAs have choked of the supply line of credit to the potential borrowers, thereby having a deleterious effect on capital formation and arresting the economic activity in the country. At the micro level the unsustainable level of NPAs has eroded the profitability of banks through reduced interests income and provisioning requirements, besides restricting the recycling of funds leading to serious asset liability mismatches. The malady of high level of NPAs is not confined to public sector banks alone, it is equally hammering the bottom line of old as well as new generation private sector banks and foreign banks. This is of particular concern because the private sector banks have been here only for a decade and already they have accumulated huge level of NPAs; almost an average of 8% is the level of Net NPAs of private sector banks. NPAs of schedule commercial bank totaled Rs.70, 904 crores as on March 31st 2002, which forms 10.4% of our gross bank credit, about 15.75 % of our annual budget and 3% of our GDP (RBI Bulletin, 2001). It is equivalent of our annual defence budget. The government and the banks had put in lots of effort to address the serious problem posed by NPAs by setting up Debt Recovery Tribunals and One Time Settlement Schemes but they did not go to the extent of solving the problem. Just when things were reaching to a critical level the government came up with a comprehensive piece of legislation called the Securitization Act. The act empowers to change or takeover the management or even takes possession of secured

assets of borrowers and sell or lease out their assets. Can it really solve the NPA problem for Indian banks remains to be seen.

1.7 CUSTOMER CENTRIC BANKING

Customer has always been at the center stage of any business organization. Its capacity to keep the lifeline running of business houses can never be undermined. But, of late, as an aftermath of opening up of economy and liberalization the customer is getting more and more attention and focus of all businesses is now on customer's satisfaction. With hot winds of competition blowing across the Indian banking industry, developing a close, symbiotic relationship with customers has become highly important than ever before. Banks have to come out with innovative measures to satisfy the needs of their present customers, acquire new ones and at the same time adopt procedures to win back the lost customers. This problem gets compounded as customer expectations for quality, service and value are increasing rapidly on a continuous basis. Thanks to the development of IT and Internet, which are changing the possibilities in terms of customer contact, service and insight, today banks can aim at meeting this expectation by adopting a strategy that is commonly known as Customer Relationship Management (CRM). Banks can leverage on these new inventions of science to develop, design and implement CRM strategies in their business processes. Most of the Indian banks are now turning to CRM as they are increasingly realizing that the cost of acquiring new customer is far higher than the cost of retaining existing ones. Their quest for more effective ways to woo and retain customers ends with the implementation of CRM models in their business practices. They no longer see CRM as an optional and expensive add-on but as a 'must' to survive in this ever-increasing competitive market.

1.8 FUTURE OF BANKING

How should we look at the future of Indian Banking in the new millennium? One way is to continue doing what we are doing now, but try and do it little better. The other and more exciting challenge, is to set ourselves in pursuit of a more dynamic business model which incorporates the current trends of multiple delivery channels and stresses on

more cost effectiveness and customer relationships. The need for change in the banking industry is clear. The onslaught of new technologies, increasing competition, and evermore demanding customers are forcing retail banks to rethink their product offerings and distribution channel designs. Banks are looking more towards alliances and outsourcing. They need to outsource non-core operations and ally with partners to maintain focus on core business, invest in new technologies to capture growth opportunities and lower the cost of processing and shift to greater reliance on non-interest income to decrease market cyclicality on earnings. To remain competitive in this changing financial services landscape, banks must simultaneously increase their product lines, add new delivery channels, develop more effective marketing systems and enhance their service quality levels. Banks must look beyond traditional banking products to expand and deepen customer relationships. Insurance and investment offer bank significant opportunities to innovate along product and service dimension, increasing customer retention and profitability.

1.9 OBJECTIVES OF THE STUDY:

The present study primarily aims to analyze and evaluate the operations and performance of private banks in India in the post liberalization era and through a study of the technological innovations in the field of banking suggest an ideal banking model, which will find it competitive in the New Millennium. The specific objectives of the study are:

a) To assess the overall effect of banking reforms started in 1991 in India in terms of quality of assets, revenue generation, capital adequacy, asset liability management, cost and profitability and levels of technological advancements.
b) To make detailed comparative financial analysis of major public and private banks in India in the post liberalization phase using various financial tools.
c) To analyze the various technological developments that have taken place in the last decade in the banking industry making banks look more customer friendly

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and the advent of on-line banking or virtual banking and its implications for the existing physical banking structure.

d) To suggest a banking model which will incorporate all the changes that have taken place or going to take place in the next decade. A model, which will be generally replacing all the existing banking models and will lead to optimization of scarce resources.

1.10 HYPOTHESES IN THE STUDY:

The hypotheses tested in this study follow from the objectives:

1. Indian banking industry has survived the challenges of liberalization through restructuring, realignment and has performed more efficiently prior to liberalization.

2. The private sector banks have outperformed their public sector counterparts through better asset management, lower overheads and administrative costs which in turn has lead to consistent performance way ahead of public sector banks.

3. The problem of NPA is more acute in Public sector banks than their counterparts in the private sector and the various methods initiated by the government to solve this menace has helped the banking sector in improving its bottom line.

4. Indian banks by and large are following and are likely to follow the paths of adoption of new technology, extensive use of banking softwares, product innovations, mergers etc in response to the changing environment.

5. The private sector banks and some public sector banks have joined the bandwagon of internet banking and have begun offering various financial services to the customers on line because they believe that internet banking is the cheapest mode of banking and this alternative channel will improve their bottomlines.

6. The customer has gradually become the most important person for a bank and banks are going all out to woo them by using customer centric strategies and technologies like CRM.

7. Given the drastic changes in the banking industry, traditional and existing models of banking are finding themselves highly inadequate and there is a pressing need to develop future models with more emphasis on technology, cost effectiveness, customer retention, outsourcing and strategic alliances to leverage brand equity.

1.11 METHODOLOGY:

The research methodology to be adopted for the study is primarily based on secondary data available from various sources including annual report of RBI on banking, annual report of various private sector banks, web sites of major banks, other economic and banking reports, journals and newspapers, sites on the net related with banking like Indian Banking Association, National Institute of Bank Management, RBI, Indiainfoline etc. Looking at the objective of the study, the processed data has to be analyzed in detail by using various economic and financial parameters that are more relevant in the modern competitive environment and are gaining wider acceptability. The data collected have been analyzed using Statistical tools of Regression Analysis and other linear programming techniques like (DEA) Data Envelopment Analysis etc.

Although the required data for financial analysis of the private banks is widely available and is mostly of secondary character in form of annual reports, Bulletins or on the net but this information is not complete for detailed study or Research purpose and other economic reports brought out by government, RBI, IBA, NIBM etc. have to be referred to.

1.12 CHAPTERISATION:

The study has been divided into the following chapters:

The first chapter is the Introduction, where we talk about the background of the research, objectives and hypotheses being tested in the study.

In the second chapter, we take a general view of deregulation and integration of global financial markets and its effects on the Indian Banking system in particular. The Indian Banking sector has already witnessed a decade of financial reforms involving major restructuring and consolidation since 1991 and with the onset of second generation of reforms; attempt has been made to test the efficacy of reforms.

In the third chapter we go one step further down from where we left in the second chapter and carry out a comprehensive performance analysis of major new generation private sector banks in India, both on traditional and newer parameters. As already discussed, with the change in the basic banking structure, it is no longer meaningful to do performance analysis only on traditional parameters; an attempt is made to introduce some newer parameters. We also try to compare private banks performance with public sector banks and try to figure out who is the winner actually and in what ways lessons can be learnt by each other's performances.

After the efficacy and efficiency being analyzed, we start looking at some strategic issues confronting the banking sector. In the fourth chapter we take a look at one of the most serious problem confronting the banking industry in India, the issue of Non Performing Assets. The growing menace of NPA, which is threatening every financial system of the world and had badly crippled the efficiency of Indian banks also. We look into some specific reasons, current issues and the concepts of Asset Reconstruction Company and the Securitization Act, 2002. Whether the private banks have fared better than their public sector counterparts when it comes to NPA levels will also be analyzed.

Information Technology (IT) has played a major role in shaping the future of major industries and banking is no exception. In the fifth chapter the application and avenues that IT has provided in the Indian Banking sector is highlighted. The advent of Internet Banking, related issues, security concerns and what it means specifically in the Indian context is discussed in detail. What is the status of Internet banking in India and why are banks going for an additional channel is looked into through a survey. Is it really profitable to go for an additional delivery channel and how to successfully integrate this new channel in the current model and how to go around implementing a successful e banking strategy has been discussed.

Lastly but not the least, the growing significance of the customer and reducing customer loyalty has also thrown up lot of implications for banks as such. In the sixth chapter we talk about how banks like most of the other industries have come to realize the importance of the customer and how they are actually spending crores of rupees into developing an effective CRM strategy. How CRM has completely revolutionized the manner in which banking was done earlier, what does CRM means for Indian banks, the cost factor and technology imperatives have been my issues of focus.

Indian Banking is passing through a transition phase with lots of restructuring and reengineering going on every day. In the last chapter, we try to bring out the driving forces behind these changes, which are forcing banks to rethink their strategy; we talk about possible future banking scenarios and some emerging models that could be used by Indian banks. With competition intensifying and development of newer delivery channels and ever-demanding customer, there is a pressing need for banks to restructure their system, develop appropriate survival strategies and help building a more vibrant banking system.

IMPACT OF BANKING SECTOR REFORMS

Chapter 2
IMPACT OF BANKING SECTOR REFORMS

2.1 INTRODUCTION & LITERATURE REVIEW

Strengthening financial systems has been one of the central issues facing emerging markets and developing economies. This is because sound financial systems serve as an important channel for achieving economic growth through the mobilization of financial savings, putting them to productive use and transforming various risks (Loayza et. al, 1999; Rajan et. al, 1998; Demirgüç-Kunt et. al, 1998; Strahan et. al, 1996). Many countries adopted a series of financial sector liberalization measures in the late 1980s and early 1990s that included interest rate liberalization, entry deregulations, reduction of reserve requirements and removal of credit allocation. When the Indian Financial sector entered the last decade of the twentieth century, things have almost gone out of control and the financial sector was on the verge of collapse with the reserves going down to two weeks of imports. Their effects on the banking sector were quite a damaging one and problems had mounted from all possible arenas, which brought down the profitability of banks to unimaginable lows (Jalan, 2001. Some of them include high Cash Reserve Ratio, Statutory Liquidity Ratio and directed credit programmes; cross subsidization, politicization, poor legal system to recover loans and lack of transparency in the balance sheets of Banks. All these led to:

- Deterioration of financial health, integrity, autonomy, flexibility and vibrancy.
- Distortion of resource allocation, portfolio quality, productivity, efficiency and profitability.
- Poor customer service, outdated work technology and very high transaction costs
- Low capital base and faulty accounting scenarios.

The crisis was preceded by massive, unhedged, short-term capital inflows, which then aggravated double mismatches (a currency mismatch coupled with a maturity mismatch) and undermined the soundness of the domestic financial sector. A maturity mismatch is generally inherent in the banking sector since commercial banks accept short-term deposits and converts them into relatively longer-term, often illiquid, assets.

Nevertheless, massive, predominantly short-term capital inflows – largely in the form of inter-bank loans – shortened banks' liabilities, thus expanding the maturity mismatch. Further, a currency mismatch was aggravated since massive capital inflows denominated in foreign currency were converted into domestic currency in order to finance the cyclical upturn of domestic investment in manufacturing equipment, real estate and stocks (Asian Policy Forum 2000 and Yoshitomi et. al, 2000). The major causes of this scenario were policy-induced rigidities, excessive degree of centralized administrative direction and investments, massive branch expansion, overstaffing and union pressure and above all, political intervention. (Reddy, 2000)

2.2 INDIAN BANKING SCENARIO IN 1991

Government intervention in the banking sector had its origin in nationalistic thinking. Colonial banking was perceived to be biased in favor of working capital loans to trade and large capitalist enterprises, and against rural areas and 'the common man'. This legacy combined with socialist ideology culminated in the nationalization of all the large banks in 1969. The nationalized banks were explicitly set quantitative targets to expand their network in rural areas and to direct credit to priority sectors. Over time, they also became a major source of lending to the government and thus of financing fiscal deficits. Considering the post independence history of Indian banking, the surprise thing is not the evident weaknesses of Indian banking but the fact that hey were nevertheless some notable achievements. There was a dramatic expansion of banks through out the country and while many bank branches were unprofitable, they did play a positive role in increasing financial savings. The worst elements of 'financial repression' were avoided, largely because inflation remained largely low and real interest rates were mildly negative. But while performance was satisfactory in resource mobilization, it was very unsatisfactory as regards resource allocation. The low productivity of investment in India has many causes, but inefficient credit allocation by the banking sector was undoubtedly one of them.

By 1991, the country had erected an unprofitable, inefficient and financially unsound Banking sector. A few facts will suffice. The profitability of Indian banks was extremely

low in spite of rapid growth of deposits. The average return on assets in the second half of 1980s was about 0.15 per cent, an extraordinarily low figure by world standards. Return on equity was higher (about 9.5 per cent) but that was simply a reflection of low capitalization of Indian banks. Capital and reserves averaged about 1.5 percent of assets, compared to 4-6 per cent in other Asian countries (Kamesan, 2002) .The true picture was even worse because these figures were not based on applying the correct income recognition and provisioning criteria. Not only were the banks financially unsound but, by universal agreement, they also provided an abysmal quality of service. Further, in 1992/93, non-performing assets (NPAs) of 27 public-sector banks amounted to 24 per cent of total credit, only 15 public-sector banks achieved a net profit, and half of the public-sector banks faced negative net worth (Joshi et. al, 1996). Given that global accounting standards were not applied, even these indicators are likely to have exaggerated the banks' true performance.

2.3 NEED FOR REFORMS

So we can reasonably summarize the Indian financial system of the pre-reform period essentially catered to the needs of planned development in a mixed-economy framework where the government sector had a predominant role in economic activity. As part of planned development, the macro-economic policy in India moved from fiscal neutrality to fiscal activism (Reddy, 2000). Such activism meant large developmental expenditures, much of it to finance long-gestation projects requiring long-term finance. The sovereign was also expected to raise funds at fine rates, and understandably at below the market rates for private sector. In order to facilitate the large borrowing requirements of the government, interest rates on government securities were artificially pegged at low levels, which were unrelated to market conditions. The Government securities market, as a result, lost its depth as the concessional rates of interest and maturity period of securities essentially reflected the needs of the issuer (Government) rather than the perception of the market. The provision of fiscal accommodation through *ad hoc* treasury bills (issued on tap at 4.6 per cent) led to high levels of monetisation of fiscal deficit during the major part of the eighties. In order to check the monetary effects of such

large-scale monetisation, the cash reserve ratio (CRR) was increased frequently to control liquidity (Reddy, 2000).

The environment in the financial sector in these years was thus characterized by segmented and underdeveloped financial markets coupled with paucity of instruments. The existence of a complex structure of interest rates arising from economic and social concerns of providing concessional credit to certain sectors resulted in "cross subsidization" which implied that higher rates were charged from non-concessional borrowers. The regulation of lending rates, led to regulation of deposit rates to keep cost of funds to banks at reasonable levels, so that the spread between cost of funds and return on funds is maintained. The system of administered interest rates was characterized by detailed prescription on the lending and the deposit side leading to multiplicity and complexity of interest rates. (Asian Policy Forum, 2000). The directed and concessional availability of bank credit with respect to certain sectors resulted not only in distorting the interest rate mechanism, but also adversely affected the viability and profitability of banks. The lack of recognition of the importance of transparency, accountability and prudential norms in the operations of the banking system led also to a rising burden of nonperforming assets.

In sum, there was a *de facto* joint family balance sheet of Government, RBI and commercial banks, with transactions between the three segments being governed by plan priorities rather than sound principles of financing inter-institutional transactions (Reddy, November 2000). There was a widespread feeling that this joint family approach, which sought to enhance efficiency through coordinated approach, actually led to loss of transparency, of accountability and of incentive to measure or seek efficiency. The policies pursued did have many benefits, although the issue of the higher costs incurred to realize the laudable objectives remains. Thus, the post-nationalization phase witnessed significant branch expansion to mobilize savings and there was a visible increase in the flow of bank credit to important sectors like agriculture, small-scale industries, and exports. However, these achievements have to be viewed against the macro-economic imbalances as well as gross inefficiencies at the micro level in the

financial sector compounded by non-transparent accounting of intra-public sector financial transactions.

2.4 THE BANKING REFORMS: A CLOSE LOOK

The banking sector reforms in India, initiated since 1992 in the first phase has provided necessary platform to the banking sector to operate on the basis of operational flexibility and functional autonomy, thereby enhancing efficiency, productivity and profitability. The reforms brought out structural changes in the financial sector, eased external constraints in their working, introduced transparency in reporting procedures, restructuring and recapitalisation of banks and have increased the competitive element in the market (Kannan, 2002). The salient features of these reforms include:

- Phasing out of statutory pre-emption - The SLR requirement have been brought down from 38.5% to 25% and CRR requirement from 7.50% to 5.75%.
- Deregulation of interest rates - All lending rates except for lending to small borrowers and a part of export finance have been de-regulated. Interests on all deposits are determined by banks except on savings deposits.
- Capital adequacy - CAR of 9 % prescribed with effect from March 31, 2000.
- Other prudential norms - Income recognition, asset classification and provisioning norms has been made applicable. The provisioning norms are more prudent, objective, transparent, uniform and designed to avoid subjectivity.
- Debt Recovery Tribunals - 22 DRTs and 5 DRATs have already been set up and 7 more DRTs will be set up during the current financial year. Comprehensive amendment in the Act have been made to make the provisions for adjudication, enforcement and recovery more effective.
- Transparency in financial statements - Banks have been advised to disclose certain key parameters such as CAR, percentage of NPAs, provisions for NPAs, net value of investment, Return on Assets, profit per employee and interest income as percentage to working funds.

- Entry of new private sector banks - 9 new private sector banks have been set up with a view to induce greater competition and for improving operational efficiency of the banking system. Competition has been introduced in a controlled manner and today we have nine new private sector banks and 36 foreign banks in India competing with the public sector banks both in retail and corporate banking.
- Functional autonomy - The minimum prescribed Government equity was brought to 51%. Nine nationalized banks raised Rs.2855 crores from the market during 1994-2001. Banks Boards have been given more powers in operational matters such as rationalization of branches, credit delivery and recruitment of staff.
- Hiving off of regulatory and supervisory control - Board for financial supervision was set up under the RBI in 1994 bifurcating the regulatory and supervisory functions.

2.5 ASSESSMENT OF INDIA'S BANKING SECTOR REFORMS

After having discussed in detail the Indian Banking scenario in 1991 and what exactly were the reasons behind the crisis situation that prompted the then Indian government to launch a series of reforms and also pointing out in detail the major reforms (both first and second generation), their institutional aspect, it is but obvious that we now have to look at the efficacy of reforms. After more than a decade of reforms, various researchers and economists are making attempts to understand the implications of these reforms, have they really produced the results for which they were meant, have the targets been achieved? In other words it is time to look back and carefully assess the reforms for future directions and provide an ideal platform for the launch of next generation of reforms. This study tries to answer the fundamental question to what extent has the domestic impetus, i.e., financial-sector policy reforms during the nineties, made banks in India more efficient? There are two ways in which this analysis has been approached. The first study tries to use some specific parameters in the banking sectors and using them it tries to test some hypothesis related to reforms while the second study takes help of some specific ratios directly and takes a close look at them over a period of time.

This study focuses on India's banking sector, which has been attracting increasing attention since 1991 when a financial reform program was launched. It assesses whether the reform program has been successful so far in restructuring public-sector banks and if so, what elements of the program have contributed. This study also tackles the following fundamental questions. In what way has the reform program affected the behavior of public-sector banks? To what extent have foreign and new domestic banks contributed to the performance of the whole banking sector? Has India's gradual approach to the privatization of banks been successful? What policy implications can we derive from India's experience?

2.5.1 Main Issues

2.5.1(a) India's pre-reform period and financial reform

Since 1991, India has been engaged in banking sector reforms aimed at increasing the profitability and efficiency of the then 27 public-sector banks that controlled about 90 per cent of all deposits, assets and credit. Prior to the reforms, India's financial sector had long been characterized by prevalence of reserve requirements, interest rate controls, and allocation of financial resources to priority sectors. As a result of the reforms, the number of banks increased rapidly. In 1991, there were 27 public-sector banks and 26 domestic private banks with 60,000 branches, 24 foreign banks with 140 branches, and 20 foreign banks with a representative office.4 Between January 1993 and March 1998, 24 new private banks (nine domestic and 15 foreign) entered the market; the total number of scheduled commercial banks, excluding specialized banks such as the Regional Rural Banks rose from 75 in 1991/92 to 99 in 1997/98. Entry deregulation was accompanied by progressive deregulation of interest rates on deposits and advances. From October 1994, interest rates were deregulated in a phased manner and by October 1997, banks were allowed to set interest rates on all term deposits of maturity of more than 30 days and on all advances exceeding Rs 200,000.

2.5.1 (b) Drastic versus gradual privatization approaches

While India's financial reforms have been comprehensive and in line with global trends, one unique feature is that, unlike with other former planned economies such as Hungary and Poland, the Indian Government did not engage in a drastic privatization of public-sector banks. Rather, it chose a gradual approach toward restructuring these banks by enhancing competition through entry deregulation of foreign and domestic banks. This reflects the view of the Narasimham Committee that ensuring the integrity and autonomy of public-sector banks is the more relevant issue and that they could improve profitability and efficiency without changing their ownership if competition were enhanced. Since this approach was introduced, some criticisms have been expressed (Joshi, 1996). First, public-sector banks continue to be dominant thanks to their better branch coverage, customer base, and knowledge of the market compared with newcomers. Second, public-sector banks would find it more difficult to reduce

personnel expenditure because of the strong trade unions. Third, the government would find it difficult to accept genuine competition within public-sector banks. In response to these concerns, the government decided to gradually expand private-sector equity holdings in public-sector banks, but still avoided the transformation of their ownership. The 1994 amendment of the Banking Act allowed banks to raise private equity up to 49 per cent of paid-up capital. Consequently, public-sector banks, which used to be fully owned by the government prior to the reform, were now allowed to increase non-government ownership. So far, only eight public-sector banks out of 27 have diversified ownership.

Meanwhile, a consensus is emerging that state ownership of banks is bad for financial sector development and growth (World Bank 2001). Based on data from the 10 largest commercial and development banks in 92 countries for 1970-1995, (La Porta et. al, 2000) have found that greater state ownership of banks in 1970 was associated with less financial sector development, lower growth, lower productivity, and that these effects were greater at lower levels of income. (Barth et. al, 2001) have shown that greater state ownership of banks tends to be associated with higher interest rate spreads, less private credit, less activity on the stock exchange, and less non-bank credit, even after taking into account other factors that could influence financial development. This suggests that greater state ownership tends to be anti-competitive, reducing competition from both banks and non-banks. Moreover, (Caprio et. al, 2000) have shown that greater state ownership at the start of 1980 was associated with a greater probability of a banking crisis and higher fiscal costs. With respect to privatizing banks, moreover, the (World Bank, 2001) takes the view that privatization can yield real benefits to economies provided that an appropriate accounting, legal and regulatory infrastructure is in place. It should be noted that premature privatization might give rise to banking crises. (Clarke et. al, 1998) have demonstrated that Argentina promoted the privatization of public-sector banks in a reasonably developed regulatory and infrastructure environment, and thus privatized banks improved productivity remarkably.

Considering the implications derived from the above studies, this chapter examines whether India's gradual approach has been successful so far by examining whether

public-sector (commercial) banks have improved their performance (profitability, efficiency and soundness) in the reform period. Three types of performance indicators have been used: (a) profitability, (b) cost efficiency, and (c) earnings efficiency. It tests this hypothesis by analyzing trend patterns and empirically testing the performance of public-sector banks.

2.5.1 (c) Diversification of banking activities

The other discussed feature of India's banking sector is that the Reserve Bank of India has permitted commercial banks to engage in diverse activities such as securities related transactions (for example, underwriting, dealing and brokerage), foreign exchange transactions and leasing activities. The 1991 reforms lowered the CRR and SLR, enabling banks to diversify their activities. Diversification of banks' activities can be justified for at least five reasons. First, entry deregulation and the resulting intensified competition may leave banks with no choice but to engage in risk-taking activities in the fight for their market share or profit margins. As a result, risk-taking would reduce the value of banks' future earnings and associated incentives to avoid bankruptcy (Allen et. al, 2000). Second, banks need to obtain implicit rents in order to provide discretionary, repetitive and flexible loans. In addition, banks attempt to reduce the extent of information asymmetry by processing inside information on their clients and monitoring their performance. Diversification of banking activities helps banks to mitigate the two problems raised above by providing them with an opportunity to gain non-interest income and thereby sustain profitability.

Third, banks can stabilize their income by engaging in activities whose returns are imperfectly correlated, thereby reducing the costs of funds and thus lending and underwriting costs. Fourth, diversification promotes efficiency by allowing banks to utilize inside information arising out of long-term lending relationships. Thanks to this advantage, banks are able to underwrite securities at lower costs than non-bank underwriters. Firms may also obtain higher prices on their securities underwritten by banks because of their perceived monitoring advantages. Further, banks can exploit economies of scope from the production of various financial services since they can

spread fixed physical (i.e., branches and distribution channels) and human capital costs (Steinherr et. al, 1990). Fifth, diversification may improve bank performance by diluting the impact of direct lending (through requiring banks to allocate credit to priority sectors). Direct lending reduces the banks' incentives to conduct information processing and monitoring functions. As a result, this not only lowers banks' profitability by limiting financial resources available to more productive usages, but also results in a deterioration of efficiency and soundness by discouraging banks from functioning properly. (Gilson et. al, 1990).

However these five advantages can be offset by the following limitations. First, public-sector banks' engagement in the securities business may promote a concentration of power in the banking sector since the asset size of banks expands. This is partly because banks have a natural tendency to promote lending over securities, thereby indirectly deterring the development of capital markets. Further, the reputation and informational advantages enjoyed by public-sector banks put them in an even more favorable position, preventing other banks and investment firms from competing on a level playing field. Second, the engagement of banks in underwriting services may lead to conflicts of interest between banks and investors. Banks may decide to underwrite securities for troubled borrowers so that the proceeds of the issue of securities can be used to pay off these banks' own claims to the companies. Further, banks may impose tie-in deals on customers by using their lending relationships with firms to pressure them to purchase their underwriting services (for example, using the threat of increased credit costs or non-renewal of credit lines).

Third, diversification may expose banks to various new risks. For example, banks may end up buying the securities they underwrite. They may also face greater market risks as they increase their share of securities holdings and market-making activities. Further, derivatives involve higher speed and greater complexity, which may reduce the solvency and transparency of banking operations. The presence of these three potential disadvantages suggests that measures are needed to balance the advantages and disadvantages. (Kashyap et. al, 1990). The Reserve Bank of India tries to cope with the disadvantages by encouraging banks to engage in securities business through

subsidiaries, thereby putting in place firewalls between traditional banking and securities services. The Reserve Bank of India also prohibits cross-holdings with industrial groups to minimize "connected lending" – one of the causes of the East Asian crisis.

To assess the overall impact of banks' activities, this chapter examines whether diversification improves bank performance. In particular, the impact of disadvantages can be assessed indirectly by examining how soundness is associated with diversification. It is also important to examine whether diversification has led to even greater dominance of public-sector banks by examining whether banks' asset portfolios differ between public sector and private banks. Does banks' engagement in foreign exchange and securities business improves their performance. Has investment in government securities worsened banks' performance since it limits the realization of the diversification effect and finally has lending to the priority sectors and the public sector lowered banks' performance.

2.5.1 (d) Impact of foreign and private domestic banks

One interesting feature of India's banking sector is that some large public-sector banks appear to have been performing reasonably well in the post-reform period. This could be attributed to (a) the import of better risk management skills from foreign and private domestic banks, (b) intensified competition, (c) the diversification effect described above, (d) reorganization (for example, mergers and acquisitions), and (e) goodwill. In India, however, given the virtual absence of an exit policy, large-scale mergers and acquisitions among problematic banks have not occurred so far. It is generally thought that the entry of well-capitalized new banks is likely to improve the quality and variety of services, efficiency of bank management, and prudential supervisory capacity (Levine 1996; Walter et. al, 1983; Gelb et. al, 1990). The entry of foreign banks tends to lower interest margins, profitability, and the overall expenses of domestic banks (Clarke et. al, 2000; Claessens et. al, 2000).

Further, (Claessens et. al, 2000) have reported that the number of entrant's matters compared with their market share, indicating that foreign banks affect local bank competition upon entry rather than after they have gained a substantial market share. Moreover, these banks may be able to provide a source of new capital for enterprises and thus reduce government restructuring costs, especially when the domestic banking sector is devastated in the aftermath of a crisis. Some studies also find that foreign banks tend to go for higher interest margins and profitability than domestic banks in developing countries, while the opposite is true in developed countries. On the other hand, premature deregulation and foreign entry may cause some downside effects. First, they may increase the risk of a banking crisis if there is macroeconomic or regulatory weakness, as was experienced in Argentina, Brazil and Chile in the 1970s (Demirgüç-Kunt et. al, 1998). Second, foreign banks may exhibit a home country bias, leading them to retreat promptly and massively at the first sign of difficulty. In the East Asian crisis, for example, it is widely believed that foreign banks, such as Citibank, played a major role in supporting the capital outflow without consideration as to the national damage caused.

This chapter assesses whether their performance shows statistically different results from that of public-sector banks through three steps: (a) analyzing trend patterns, (b) testing the hypotheses that the average level of each indicator is the same between public-sector and foreign and private domestic banks, and (c) using ordinary least squares regression. We also try to see whether foreign and private domestic banks have performed better than public-sector banks, and thus have contributed to an improvement in overall banking sector performance.

THE HYPOTHESES

In order to find out the overall impact of financial reforms on the Indian banking sector, we have developed few hypotheses, which will try to test the issues discussed above.

- The first hypothesis is that the degree of concentration in the banking sector has been declining in the reform period.
- The second hypothesis is that the performance of public-sector banks may have deteriorated initially during the adjustment period, but performance improved later on.
- The third hypothesis is that banks' engagement in foreign exchange and securities business improves their performance
- The fourth hypothesis is that investment in government securities has worsened banks' performance since it limits the realization of the diversification effect.
- The fifth hypothesis is that lending to priority sectors and the public-sector has lowered banks' performance.
- The sixth hypothesis is that foreign and private domestic banks have performed better than public-sector banks, and thus have contributed to an improvement in overall banking sector performance.
- The seventh hypothesis is that new banks perform better.

2.5.2 Appraisal of the Performance of the Banking Sector

India's financial market has been gradually developing, but still remains bank-dominated in the reform period. The extent of financial deepening measured by total deposits in GDP has risen only modestly from 30 per cent in 1991 to 38 per cent in 1999. Capital market development has also been quite sluggish. Outstanding government and corporate bonds as a share of GDP rose from 14 per cent in 1991 to 18 per cent in 1999 and from only 0.7 per cent in 1996 to 2 per cent in 1998, respectively, while equity market capitalization dropped from 37 per cent in 1995 to 28 per cent in 1999. Nevertheless, the government's commitment on restructuring the highly regulated banking sector appears strong. Since financial reforms were launched in 1991 and

particularly when the entry of new banks was permitted in 1993, public-sector banks appear to have become more conscious of the need for greater profitability and efficiency, suggesting that the reform has had a favorable impact on India's financial market. According to an analysis of the overall performance of state-owned, domestic and foreign banks based on trend patterns in 1993-2000, the overall performance of public sector banks appears comparable with foreign and private domestic banks in general, foreign banks performed better than domestic banks (public-sector and private domestic banks) in terms of cost, earnings efficiency and soundness. However, domestic banks overtook foreign banks in terms of profitability in 1999-2000. Moreover, all banks are comparable in terms of the scale of medium- to long-term credit and liquidity. The results are summarized below.

2.5.2 (a) Profitability

Foreign banks' profitability (defined as the ratio of profits after tax to average assets [ROAA] exceeded that of private domestic and public-sector banks in 1996-2001, despite a declining trend. However, private domestic banks have become more profitable than foreign banks in 2000-2001. International Monetary Fund (2001) has also reported that foreign and new private domestic banks maintained higher profitability (about 1-2 per cent) than public-sector and old private domestic banks (0.6-0.8 per cent) during the period 1995/96-1999/2000. Profits from securities and foreign transactions, and brokerage/ commission services have also increasingly contributed to profitability for all banks, suggesting that the diversification effect is positive. For example, the average profitability of Standard Chartered Bank in 1994-2000 was 1.38 per cent, well above that of the State Bank of India at 0.7 per cent.

Table2.1 Performance Indicator of the banking sector

	1996	1997	1998	1999	2000	2001	2002	2003
ROAA								
All banks	-0.1	0.2	1.3	0.7	1.1	1..2	0.6	0.5
Foreign	2.0	2.0	2.0	1.6	1.5	1.2	0.3	-0.1
Private	-0.2	0.4	1.3	1.4	1.2	1.4	0.8	1.2
Public sector	-1.1	-1.8	0.4	0.6	0.4	0.7	0.3	0.8
COST								
All banks	78.5	74.4	74.6	77.7	82.8	75.3	81.3	74.6
Foreign	64.5	61.4	76.7	78.4	80.4	65.5	79.6	74.8
Private	83.8	81.7	79.6	78.4	80.2	81.1	84.4	79.6
Public sector	89.4	90.2	88.6	87.6	82.5	81.8	84.4	84.9
INCOME $_1$								
All banks	11.7	10.8	10.1	10.9	11.4	11.7	10.8	11.0
Foreign	13.8	13.2	12.7	12.9	13.1	13.4	12.6	12.4
Private	10.9	9.8	9.1	10.8	11.2	11.4	10.7	10.5
Public sector	9.7	9.3	9.1	10.3	10.6	10.7	10.1	9.8
INCOME $_2$								
All banks	7.4	7.2	5.2	5.4	5.9	6.2	5.1	4.2
Foreign	11.8	8.9	6.8	4.9	6.0	6.2	6.4	4.1
Private	4.9	6.9	4.3	4.7	5.9	5.6	4.6	3.8
Public sector	3.3	4.8	4.3	5.3	5.7	4.8	4.4	3.8
DIVERSE								
All banks	1.2	1.1	1.3	1.4	1.6	2.2	1.6	1.7
Foreign	2.0	1.7	1.5	1.7	1.8	3.1	2.2	2.3
Private	1.1	0.8	1.1	1.2	1.1	1.4	1.2	1.3
Public sector	1.2	1.1	1.1	1.2	1.1	1.2	1.1	1.2
GBOND								
All banks	21.7	22.7	20.4	19.7	21.1	21.7	22.8	23.6
Foreign	18.7	23.8	22.5	15.8	17.8	18.9	20.7	21.6
Private	20.8	20.2	16.8	17.2	20.2	21.0	21.2	22.8
Public sector	22.2	24.9	23.7	24.3	25.7	26.4	26.9	27.4
PROV								
All banks	2.3	2.1	1.7	1.3	0.9	1.1	1.3	1.6
Foreign	3.9	3.1	2.6	1.9	2.3	1.8	2.6	2.8
Private	0.9	1.2	1.3	1.0	0.8	0.9	0.6	0.8
Public sector	1.9	2.4	1.3	1.7	1.1	0.9	1.0	0.8
EQUITY								
All banks	3.9	4.3	7.6	12.8	13.7	12.6	11.9	11.2
Foreign	7.5	8.1	16.4	22.4	25.6	26.2	24.7	22.1
Private	1.8	2.4	3.3	3.1	4.1	4.6	4.3	4.1
Public sector	3.4	3.7	5.8	10.2	6.8	5.8	4.7	6.1

ROAA=PAT/Avg.Assets, **COST**=OPER.EXP/OPER.INC, **INCOME$_1$**=OPER.INC/ASSETS, **INCOME$_2$**=Lending-Deposit Rates, **DIVERSE**=Non Interest Income/Assets **GBOND**=Investment in G Secs/Assets, **PROV**=Provision for NPA/Assets, **EQUITY**=Equity plus Reserves/Total Assets

2.5.2 (b) Cost And Earnings Efficiency

Foreign and private domestic banks are generally more cost-efficient than public sector banks. The ratio of operating expenditure to operating income **[COST]** in 2000 was 72 per cent for foreign banks, 80-85 per cent for domestic banks, and 84 per cent for public-sector banks. While foreign banks are more cost-efficient, their efficiency level has somewhat deteriorated. Instead, domestic and public-sector banks improved efficiency over the sample period. As for earning capacity, foreign banks are generally better performers. The earning indicator proxied by the ratio of income to assets **[INCOME $_1$]** shows that foreign banks have consistently performed better than private domestic and public sector banks. However, foreign banks' income-generating capacity deteriorated somewhat from 13.8 per cent in 1997 to 12.4 per cent in 2003, while the two other types of banks maintained their performance at a level of about 11 per cent. The inferior performance of domestic banks relative to foreign banks can be attributed to (a) the larger share of credit extended to the public-sector, (b) more stringent requirements imposed on direct lending, (c) a lesser degree of diversification, and (d) lower interest rate margins.

Implicit interest rate spread (defined as the difference between implicit lending and deposit rates) **[INCOME $_2$]** has been shrinking for all banks over the sample period. While foreign banks have received higher interest rate spreads than private domestic banks and public-sector banks, their margins have become comparable in 2001. An alternative indicator (the difference between interest income and expenditure) shows that while all types of banks reduced interest rate margins over the sample period, those of public-sector and private domestic banks have generally remained negative and recently even worsened. This suggests that domestic banks must obtain income from other activities to maintain profitability and thus extend credit to the private sector.

2.5.2 (c) Capital, Asset Quality, Management and Liquidity

The balance sheets of foreign banks appear to be more structurally sound than those of domestic and public-sector banks based on the following criteria: capital adequacy, asset quality, management and liquidity. First, on the capital adequacy ratio proxied by equity plus reserves over total liabilities or total assets **[EQUITY]**, the ratio of foreign

banks increased from 7 per cent in 1996 to 20 percent in 2001. While the ratios increased moderately for domestic banks, it still remains small. This suggests that foreign banks have greater incentives to lend prudently and remain well capitalized than the two other kinds of banks. This reflects the fact that foreign banks steadily reduced their deposit dependence ratio from 67 per cent of liability in 1996 to 47 per cent in 2003, while the two other types maintained their dependence ratio at about 85 per cent throughout the sample period. Nevertheless, the IMF report (2001) indicates that the risk-weighted capital ratio has been comparable among all banks and has improved from 1996/97 to 1999/2000: from 10.4 per cent to 11.9 per cent for foreign banks, from 11.7 per cent to 12.4 per cent for old private domestic banks, and from 10 per cent to 10.7 per cent for public sector banks, while that of new private domestic banks declined from 15.3 per cent to 13.4 per cent.

Second, by contrast, the assessment on asset quality based on (a) the ratio of contingent liabilities to assets, (b) asset growth, (c) the ratio of investment in securities to assets, (d) the ratio of provisions for NPA to assets and (e) the ratio of medium- and long-term credit to assets reveal mixed results. The first indicator reports that the ratio of foreign banks (at around 25-30 per cent) has been greater than that of domestic banks and public-sector banks. While this indicates that foreign banks are more exposed to high potential losses in cases of default, this outcome may simply show that foreign banks provide more complex and sophisticated services than the two other types of banks, given that their activities are concentrated on urban areas, wholesale markets and large clients.

The second indicator reports that foreign and private domestic banks faced rapid credit growth in 1996-2001, signaling some kind of risk-taking behavior. However, this may be explained simply by their early stage of establishment. The third indicator shows that all three banks invested about 30-40 per cent of assets in securities in response to the SLR, indicating that all of them have a large cushion against NPAs. In particular, public sector and private domestic banks increased their share of investment in government bonds in assets in 1994-2001 from 21 per cent to 23 per cent and from 21 per cent to 27 per cent,

respectively [GBOND]. This may be due to their preference for more liquid, safe assets as the Basle Accord was applied.

The fourth indicator reports that foreign banks generally allocated greater provisions for NPAs [PROV]. Given that more stringent accounting and auditing standards of their mother countries are applied to foreign banks, the foreign banks are more resilient to adverse shocks. IMF (2001) has reported that foreign and new private domestic banks maintained small NPA ratios (about 2-4 per cent) during the period 1995-2000 - below the level of public-sector and old domestic banks, with the former declining from 9.2 per cent in 1996/95 to 7.4 per cent in 1999/2001 and the latter remaining at around 7 per cent. The final indicator reports that foreign and private domestic banks increased medium- to long-term credit in 1993-2000 from 7.5 per cent to 17 per cent and from 10 per cent to 13 per cent, respectively, suggesting their increased confidence in India's financial market. Public-sector banks maintained the same level of exposure throughout the sample period.

Management performance is assessed based on two indicators: (a) the ratio of credit to deposits; and (b) the ratio of equity and reserves to debt (inverse of leverage). The first indicator reports that foreign banks attempt to improve their income by expanding their lending operations as compared with other domestic banks. The ratio of foreign banks surged from 56 per cent in 1993 to 94 percent in 2000, while the two other types of banks maintained the ratio at about 40 per cent over the same period. Given that foreign banks' ratio of credit to assets is similar to other domestic banks (about 35 per cent of assets), however, this simply suggests that foreign banks lowered the deposit dependence ratio. Based on the second indicator, foreign banks are generally less leveraged than domestic and public sector banks. Fourth, all three types of banks maintain a similar liquidity position, accounting for about 15 per cent in terms of cash and balances with banks; and about 50 per cent in terms of the sum of cash, balances with banks, and investment. This reflects the CRR and the SLR.

2.6 TESTING THE DIFFERENTIAL BEHAVIOR BETWEEN PUBLIC SECTOR, FOREIGN AND PRIVATE BANKS

A statistical test was conducted to see whether the average levels of the following indicators are the same for public sector, foreign, and private domestic banks: ROAA, COST, INCOME1, INCOME2, PROV, and EQUITY.

Table 2.2 t Test values for Banks for the year 1996-2003

	Foreign Banks Vs Public sector Banks	**Private Banks Vs Public sector Banks**		**Foreign Banks Vs Public sector Banks**	**Private Banks Vs Public sector Banks**
1996			2000		
ROA	3.834***	0.873	ROA	4.132***	2.793***
COST	-5.743***	-1.745*	COST	0.041	-3.017***
INCOME$_1$	2.913***	0.298	INCOME$_1$	1.328*	0.316
INCOME$_2$	5.672 ***	1.318	INCOME$_2$	-0.045	0.548
PROV	2.377***	-1.847**	PROV	-0.314	-2.032*
EQUITY	11.53**	2.119*	EQUITY	-0.006	0.393
1997			2001		
ROA	3.129***	2.344***	ROA	0.326	1.196
COST	-8.345***	-1.972*	COST	-4.889***	-1.928**
INCOME$_1$	1.735*	-0.611	INCOME$_1$	4.584***	.9734
INCOME$_2$	7.437*	0.424	INCOME$_2$	2.116*	3.115***
PROV	0.573	-2.965***	PROV	1.559	-0.215
EQUITY	3.824***	2.471***	EQUITY	0.541	1.327*
1998			2002		
ROA	5.317***	2.317***	ROA	0.044	1.547
COST	-0.437	-1.118**	COST	-0.765	-0.814
INCOME$_1$	1.315	-1.572**	INCOME$_1$	2.837***	1.073
INCOME$_2$	3.731***	-0.471	INCOME$_2$	2.376**	0.051
PROV	3.572***	0.031	PROV	2.161*	-1.886**
EQUITY	0.547	-0.314	EQUITY	0.562	0.017
1999			2003		
ROA	2.913***	2.653***	ROA	-2.001	2.137**
COST	0.831	-3.115***	COST	-3.832***	-3.017***
INCOME$_1$	1.324	0.214	INCOME$_1$	2.828***	0.421
INCOME$_2$	-0.931	-1.532*	INCOME$_2$	0.702	0.419
PROV	-1.796**	-1.983**	PROV	2.793***	0.057
EQUITY	-0.316	-0.383	EQUITY	0.301	0.353

Note: The values reported are t- test values and *, ** and *** indicate significance at 10 percent, 5percent and 1 percent significance level respectively.

The results show that foreign banks have generally performed better than public-sector banks in terms of all indicators (Table 2.2). A similar pattern is observed for private domestic banks against public-sector banks. However, such differences were more pronounced in the earlier period compared with later periods. This may suggest that public-sector banks have made greater efforts to improve their performance as reforms have progressed. A closer look is warranted and will be dealt with in the next chapter.

2.7 HYPOTHESES TESTING

This section assesses the extent of concentration in the banking sector and conducts empirical estimation to test seven hypotheses developed above.

The First Hypotheses: The degree of concentration in the banking sector has been declining in the reform period. This chapter tests this hypothesis by adopting two approaches: (a) the m-bank concentration ratio adopted by (Sarkar et. al, 1998) and (b) the Herfindahl Index adopted by (Juan-Ramon et. al, 2001). The m-bank concentration measures (a) one-bank concentration ratio (market share of the largest bank or the State Bank of India, (b) five-bank ratio, and (c) 10-bank ratio. Deposits are used to estimate the m-bank concentration indicator.

2.7.1 Concentration Ratio

The ratios are commonly used to indicate the degree to which an industry is oligopolistic and how the largest firms in the industry hold market control. The proportion of total output in an industry that's produced by a given number of the largest firms in the industry. The two most common concentration ratios are for the five largest firms and the ten largest firms. The five-firm concentration ratio, as such, is the proportion of total output produced by the five largest firms in the industry and the 10-firm concentration ratio is proportion of total output produced by the ten largest firms in the industry.

HERFINDAHL INDEX: A measure of concentration of the production in an industry that's calculated as the sum of the squares of market shares for each firm. This is an alternative method of summarizing the degree to which an industry is oligopolistic and

the relative concentration of market power held by the largest firms in the industry. The Herfindahl index gives a better indication of the relative market control of the largest firms than can be found with the five-firm and ten-firm concentration ratios.

The Herfindahl Index is defined as

$HI = 100 * \Sigma k_i^2$ or $\Sigma_1^n[share_i]^2$ where $k_i = K_i / \Sigma K_i$ and i = 1 to N where N is the number of banks during the period under consideration.

This indicator has been calculated for the whole banking sector as well as for public sector, foreign, and private domestic banks, respectively. The higher the indicator, the greater the concentration of the banking sector. The lower limit of this indicator is obtained as 100 divided by N and the upper limit is 100. The m-bank concentration indicator reveals that the degree of concentration in the banking sector has barely changed during the period 1996-2003(Table 2.3). Since most of these large banks are public-sector banks, this indicates that public-sector banks continue to be dominant and enjoy scale advantages over new banks. On the other hand, the Herfindahl Index shows that the degree of concentration has declined consistently in the whole banking sector, more or less in line with the first hypothesis. In addition, the concentration has declined even within foreign banks, private domestic banks, and public-sector banks. Since the lower limit (100/N) has also declined, this suggests that a number of new banks have entered the market and exerted some competition at the lower end.

Table 2.3.Concentration indicators, 1996-2003

	1996	1997	1998	1999	2000	2001	2002	2003
M-Bank concentration Ratio								
1-Bank concentration Ratio	23.8	25.1	21.7	20.8	20.1	19.8	21.7	23.6
5-Banks concentration Ratio	47.3	43.4	43.2	44.7	43.8	45.4	46.2	46.3
10-Banks concentration Ratio	63.7	62.8	63.9	64.8	62.1	65.6	62.9	64.1
Herfindahl Index								
All Banks	10.8	8.9	8.3	7.7	7.1	6.8	7.2	7.3
Foreign Banks	13.4	13.0	12.7	11.9	11.6	10.7	12.2	12.6
Private Banks	10.9	10.3	8.6	6.4	5.2	5.1	4.9	5.5
Public Sector Banks	14.7	12.6	11.1	10.2	9.6	8.9	9.2	8.9

2.8 EMPIRICAL ESTIMATION & RESEARCH FINDINGS

There are few studies that assess the impact of India's reform program. Based on data from 1993/94 and 1994/95, (Sarkar et. al, 1998) have shown that foreign banks are more profitable than public-sector banks, based on two indicators (profits divided by average assets and operating profits divided by average assets). The profitability of private domestic banks is similar to that of foreign banks, but private domestic banks spend more resources on provisions for NPAs. Second, foreign banks are more efficient than private domestic and public-sector banks, based on two measures (net interest rate margins and operating cost divided by average assets). Based on data from the period 1980-1997/98, (Sarkar et. al, 1998) have concluded that foreign banks, despite the superior quality of services they offer, have not been a competitive threat in Delhi, West Bengal and Maharashtra, where their presence is greatest. This shows that competition has emerged only at the fringe, since the entry of new banks has been at the lower end. Domestic private banks have gained some market share in these regions, but the impact on public-sector banks was small and gained at the expense of foreign banks. In Uttar Pradesh, Madhya Pradesh, Bihar, Orissa, Gujarat and Punjab, public-sector banks have been predominant before and since the reforms, thus no apparent impact from new entries was observed. In Tamilnadu, Kerala, Andhra Pradesh, Karnataka, Jammu and Kashmir and Rajasthan, private domestic banks have been more concentrated than in

other regions and have experienced an increase in market share at the expense of public-sector banks but the presence of foreign banks was small.

2.8.1 Regression Results of Public Sector Banks

In this study the progress of India's financial reforms has been investigated via two steps. In the first step, the overall impact of the financial reforms on public-sector banks has been assessed by using pooled data. The performance measures adopted are **ROAA, COST and INCOME1**. Some of these indicators were employed from (Claessens et. al, 2000; Demirgüç-Kunt et. al, 1997; Sarkar et. al, 1998). The time dummy **(TIME)** has been introduced to capture time differences in the sample. Five control variables are picked up to account for banks' specific features and behaviour. They are:

(a) [DIVERSE]; diversification proxied by the sum of profits from securities and foreign exchange transactions and brokerage and commissions/assets
(b) [GBOND]; investment in government securities/assets
(c) [PRIORITY]; lending to priority sectors proxied by lending to priority sectors/assets
(d) [PUBLIC]; lending to the public sector proxied by lending to the public sector/assets
(e) [SIZE]; size of the bank proxied by the log of each bank's asset size

This analysis uses data from the Prowess database for 1996-2003 compiled by the Centre for Monitoring Indian Economy Pvt. Ltd (See Appendix 5), which includes most of the major banks in India. The results from this estimation are reported in Table 2.4. A significant coefficient of the time dummy variable **(TIME)** would indicate that the particular year was different, which could be due to numerous factors, including regulatory changes, if any, that happened during that year.

Table 2.4.Regression results of Public-sector banks

Explanatory variables	Dependent variables		
	ROAA	COST	INCOME1
Constant	-3.94 (-1.34)	(21.4)*** (9.87)	8.74*** (1.97)
Time 97	-2.016*** (-2.48)	10.42*** (3.85)	0.57 (0.92)
Time 98	-2.31*** (-4.87)	4.35*** (2.38)	0.75 (.97)
Time 99	-0.51 (- 0.68)	2.04 (0.79)	0.29 (0.47)
Time 2000	-0.68 (-1.77)	2.17 (1.21)	0.23 (0.43)
Time 2001	0.11 (0.31)	-0.03 (-0.03)	0.8 (1.35)
Time 2002	0.27 (0.73)	-0.11 (-0.03)	0.29 (0.57)
Time 2003	-0.02 (-0.07)	0.31 (0.17)	0.43 (0.72)
DIVERSE	2.31*** (4.31)	-9.53*** (-6.83)	3.05*** (3.95)
GBOND	1.01*** (1.23)	-0.26*** (1.34)	0.005 (0.11)
PRIORITY	0.07*** (3.14)	-0.38*** (-3.78)	-0.007 (-0.31)
PUBLIC	0.02 (1.06)	-0.13 (-.932)	-0.021 (-0.876)
SIZE	0.41 (1.37)	-1.93*** (-3.47)	-0.07 (-0.41)
R^2	0.42	0.51	0.23

Note: The values reported are t- test values and *, ** and *** indicate significance at 10 percent, 5percent and 1 percent significance level respectively. The values in the brackets are regression coefficient values.

First, the time effect on **ROAA** (and **COST**) given in columns 1 and 2 was negative (positive) and statistically significant initially. Since many of the regulatory changes took place during the earlier period of reforms, the significance of the time effect could reflect the initial negative impact of the reform, which has disappeared in the later period. Based on these outcomes, the financial reforms appear to have had a non-negligible impact on the overall performance of public-sector banks. While the reforms lowered their profitability and cost efficiency at the initial stage, this negative effect disappeared later on as they adjusted to a new environment, supporting the second hypothesis that the performance of public-sector banks may have deteriorated initially during the

Table 2.4.Regression results of Public-sector banks

Explanatory variables	Dependent variables		
	ROAA	COST	$INCOME_1$
Constant	-3.94 (-1.34)	(21.4)*** (9.87)	8.74*** (1.97)
Time 97	-2.016*** (-2.48)	10.42*** (3.85)	0.57 (0.92)
Time 98	-2.31*** (-4.87)	4.35*** (2.38)	0.75 (.97)
Time 99	-0.51 (- 0.68)	2.04 (0.79)	0.29 (0.47)
Time 2000	-0.68 (-1.77)	2.17 (1.21)	0.23 (0.43)
Time 2001	0.11 (0.31)	-0.03 (-0.03)	0.8 (1.35)
Time 2002	0.27 (0.73)	-0.11 (-0.03)	0.29 (0.57)
Time 2003	-0.02 (-0.07)	0.31 (0.17)	0.43 (0.72)
DIVERSE	2.31*** (4.31)	-9.53*** (-6.83)	3.05*** (3.95)
GBOND	1.01*** (1.23)	-0.26*** (1.34)	0.005 (0.11)
PRIORITY	0.07*** (3.14)	-0.38*** (-3.78)	-0.007 (-0.31)
PUBLIC	0.02 (1.06)	-0.13 (-.932)	-0.021 (-0.876)
SIZE	0.41 (1.37)	-1.93*** (-3.47)	-0.07 (-0.41)
R^2	0.42	0.51	0.23

Note: The values reported are t- test values and *, ** and *** indicate significance at 10 percent, 5percent and 1 percent significance level respectively. The values in the brackets are regression coefficient values.

First, the time effect on **ROAA** (and **COST**) given in columns 1 and 2 was negative (positive) and statistically significant initially. Since many of the regulatory changes took place during the earlier period of reforms, the significance of the time effect could reflect the initial negative impact of the reform, which has disappeared in the later period. Based on these outcomes, the financial reforms appear to have had a non-negligible impact on the overall performance of public-sector banks. While the reforms lowered their profitability and cost efficiency at the initial stage, this negative effect disappeared later on as they adjusted to a new environment, supporting the second hypothesis that the performance of public-sector banks may have deteriorated initially during the

Table 2.4.Regression results of Public-sector banks

Explanatory variables	Dependent variables		
	ROAA	COST	INCOME1
Constant	-3.94 (-1.34)	(21.4)*** (9.87)	8.74*** (1.97)
Time 97	-2.016*** (-2.48)	10.42*** (3.85)	0.57 (0.92)
Time 98	-2.31*** (-4.87)	4.35*** (2.38)	0.75 (.97)
Time 99	-0.51 (- 0.68)	2.04 (0.79)	0.29 (0.47)
Time 2000	-0.68 (-1.77)	2.17 (1.21)	0.23 (0.43)
Time 2001	0.11 (0.31)	-0.03 (-0.03)	0.8 (1.35)
Time 2002	0.27 (0.73)	-0.11 (-0.03)	0.29 (0.57)
Time 2003	-0.02 (-0.07)	0.31 (0.17)	0.43 (0.72)
DIVERSE	2.31*** (4.31)	-9.53*** (-6.83)	3.05*** (3.95)
GBOND	1.01*** (1.23)	-0.26*** (1.34)	0.005 (0.11)
PRIORITY	0.07*** (3.14)	-0.38*** (-3.78)	-0.007 (-0.31)
PUBLIC	0.02 (1.06)	-0.13 (-.932)	-0.021 (-0.876)
SIZE	0.41 (1.37)	-1.93*** (-3.47)	-0.07 (-0.41)
R^2	0.42	0.51	0.23

Note: The values reported are t- test values and *, ** and *** indicate significance at 10 percent, 5percent and 1 percent significance level respectively. The values in the brackets are regression coefficient values.

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adjustment period, but performance improved later on. Second, **DIVERSE** has exerted a statistically positive (negative) contribution to **ROAA** and **INCOME1** **(COST)**, indicating that the diversification effect on the performance of public-sector banks is favorable and thus the third hypothesis regarding banks' engagement in foreign exchange and securities business improving their performance is supported.

The statistically significant and negative (positive) impact of **GBOND** on **ROAA** **(COST)** is present. This suggests that investment in government bonds limits banks in the diversification of their asset portfolios and thus the fourth hypothesis is supported that investment in government securities has worsened banks' performance since it limits the realization of the diversification effect. On the other hand, **PRIORITY** has made a statistically significant and positive (negative) impact on **ROAA** **(COST)**, contrary to the fifth hypothesis. This implies that while lending to priority sectors is generally regarded as the cause of NPAs, some lending activities have generated high income and have allowed banks to improve cost efficiency.

2.8.2 Regression Results Of Whole Banking Sector

As a next step, the analysis examines the overall impact of the whole banking sector by using pooled data of all commercial banks for 1996-2003. In addition to the approach adopted above, ownership dummy variables (**[FOREIGN]** and **[PRIVATE]**) have been used to capture differences in ownership. **FOREIGN** **(PRIVATE)** equals 1 if the bank is foreign (domestic)-owned and equals 0 otherwise. Moreover, the age dummy **(AGE)** has been used to capture the differences between new and old banks. **AGE** is equal to 0 if the bank existed before 1991 and equals 1 otherwise. The estimation results reported in Table 2.5 are summarized as follows.

Table 2.5.Regression results of whole banking sector

Explanatory variables	Dependent variables		
	ROAA	COST	$INCOME_1$
Constant	0.37 (0.47)	21.31*** (3.67)	7.31*** (2.97)
FOREIGN	0.83*** (1.95)	-54.43 (-1.14)	3.14*** (2.54)
DOMESTIC	0.84*** (2.93)	-63.55 (-1.41)	0.49 (.76)
Time 97	-0.57 (-.96)	2.87 (0.06)	1.44** (1.98)
Time 98	-0.11 (-0.29)	-15.65 (-0.34)	0.59 (0.81)
Time 99	0.68*** (1.82)	3.83 (0.12)	0.11 (0.19)
Time 2000	0.23 (0.67)	84.37** (2.16)	2.07** (1.98)
Time 2001	0.54** (1.79)	11.75 (0.31)	.96** (1.89)
Time 2002	0.26 (1.21)	13.87 (0.37)	0.76 (.89)
Time 2003	0.24 (0.29)	7.64 (0.31)	0.57 (.98)
DIVERSE	0.42*** (5.14)	-15.32** (-1.93)	0.71*** (5.71)
GBOND	0.38*** (4.31)	-5.63*** (3.97)	0.06*** (2.97)
PRIORITY	-0.002 (-0.27)	-0.93* (-2.01)	-0.001 (-0.36)
PUBLIC	0.021 (1.15)	0.23 (0.14)	-0.02* (-2.02)
AGE	-0.17 (-1.11)	14.51 (0.62)	-0.65* (1.14)
SIZE	0.06 (1.24)	-27.74*** (-4.13)	0.21 (0.68)
R^2	0.17	0.09	0.18

Note: The values reported are t- test values and *, ** and *** indicate significance at 10 percent, 5percent and 1 percent significance level respectively. The values in the brackets are regression coefficient values.

First, if the entry of foreign and private domestic banks brings in more skilled banks, the profitability and efficiency of the banking sector is expected to be higher. The results reported in columns 1-3 indicate that the coefficients of **FOREIGN** and **PRIVATE** in the **ROAA** equation were statistically significant and positive, although their coefficients were not significant in the **COST** equation. Further, coefficients of **FOREIGN** are positive and statistically significant in the **INCOME1** equation. These results suggest particularly that foreign banks perform better than domestic banks, and that ownership matters, thus supporting the sixth hypothesis. Second, the coefficient of **TIME** is negative (but statistically insignificant) initially in the **ROAA** equation of the whole banking sector, but is positive and statistically significant in 1997 and 1999. The **TIME** coefficient was also positive and statistically significant in the **INCOME1** equation. Third, **DIVERSE** has improved profitability and the cost and earnings efficiency of the whole banking sector, in line with the third hypothesis. The coefficient of DIVERSE shows that the diversification impact on **ROAA** and **INCOME1** (and **COST**) was positive (negative) and statistically significant.

Fourth, **GBOND** helps banks to increase holdings of safe, liquid assets, and thus improve their liquidity position. At the same time it increases the opportunity to allocate financial resources toward government securities in a declining interest regime and hence increasing profit- ability . The results indicate that the coefficients of **GBOND** on **ROAA** (and **COST**) were positive (negative) and statistically significant, thus not supporting the fourth hypothesis. Contrary to our expectations, however, the impact of **GBOND** on **INCOME1** was positive and statistically significant. Fifth, lending to priority sectors and the public sector would be expected to lower the profitability and earnings efficiency of the whole banking sector, reflecting that this type of lending is characterized by direct lending. Despite the share of credit extended to priority sectors accounting for more than 20 per cent of their total credit, the coefficients of **PRIORITY** and **PUBLIC** with respect to **ROAA** turn out to be insignificant, contrary to the fifth hypothesis. Moreover, the coefficient of **PRIORITY** on **COST** was negative and statistically significant, implying that some types of those credits have enhanced cost efficiency. However, the coefficient of **PUBLIC** on **INCOME1** was negative and statistically significant, suggesting that such lending lowers banks' income earnings

capacity. Sixth, the coefficient of **AGE** with respect to **ROAA** and **INCOME1** was negative but statistically insignificant.

2.9 CONCLUSION

Since the financial reforms of 1991, there have been significant favorable changes in India's highly regulated banking sector. This chapter has assessed the impact of the reforms by examining seven hypotheses. It concludes that the financial reforms have had a moderately positive impact on reducing the concentration of the banking sector (at the lower end) and improving performance. The empirical estimation showed that regulation (captured by the time variable) lowered the profitability and cost efficiency of public-sector banks at the initial stage of the reforms, but such a negative impact disappeared once they adjusted to the new environment. In line with these results, Tables show that profitability turned positive in 1997-2000, cost efficiency steadily improved over the reform period, and the gap in performance compared with foreign banks has diminished. Moreover, allowing banks to engage in non-traditional activities has contributed to improved profitability and cost and earnings efficiency of the whole banking sector, including public-sector banks. By contrast, investment in government securities has lowered the profitability and cost efficiency of the whole banking sector, including public-sector banks. Lending to priority sectors and the public sector has not had a negative effect on profitability and cost efficiency, contrary to our expectations.

Further, foreign banks (and private domestic banks in some cases) have generally performed better than other banks in terms of profitability and income efficiency. This suggests that ownership matters and foreign entry has a positive impact on banking sector restructuring. The above results suggest that the current policy of restructuring the banking sector through encouraging the entry of new banks has so far produced some positive results. However, the fact that competition has occurred only at the lower end suggests that bank regulators should conduct a more thorough restructuring of public-sector banks. Given that public-sector banks have scale advantages, the current approach of improving their performance without rationalizing them may not produce further benefits for India's banking sector. As 10 years have passed since the reforms were initiated and public-sector banks have been exposed to the new regulatory

environment, it may be time for the government to take a further step by promoting mergers and acquisitions and closing unviable banks. A further reduction of SLR and more encouragement for non-traditional activities (under the bank subsidiary form) may also make the banking sector more resilient to various adverse shocks.

2.10 IMPACT OF BANKING REFORMS: A GRAPHICAL REPRESENTATION

In this part of the chapter we try to present a graphical representation of the effect of financial sector reforms, which started in 1991 by looking at some key ratios generally used to analyze bank performances across the globe. A graphical presentation gives a more comprehensive picture of the situation and moreover it justifies our conclusions already arrived at in the Statistical analysis carried out earlier in the chapter. Each representation will be followed by a brief explanation of the possible reasons behind the trends depicted in the graph. The ratios we are including in the graphical analysis are mainly related to profitability and efficiency, they are:

(i) Gross Profit (Loss)/Total Assets
(ii) Net Profit (Loss)/ Total Assets
(iii) Interest Income/Total Assets
(iv) Interest Expended/Total Assets
(v) Spread/Total Assets
(vi) Intermediation Costs/Total Assets
(vii) Net NPAs/Net Advances
(viii) Business Per Employee

2.10.1 Gross Profit (Loss)/Total Assets and Net Profit (Loss)/ Total Assets

Both the categories of banks show a southward movement in the margins at the beginning of first phase of reforms due to a shift in income recognition norms and the net profit margins are negative for Public Sector banks showing poor profitability. The contributing factors were high operating costs, disguised unemployment and excessive political intervention. The private sector banks also saw their bottom lines being eroded but managed to keep it on the positive side. The main reason being almost no intervention and the category of people they served. The figures were better if only the new private banks were taken into account. In short the reforms were effective enough to show that the top lines and the bottom lines improved though it was much better for private banks as compared to PSBs in terms of growth and in absolute terms.

Figure 2.1:Gross Profit (Loss)/Total Assets

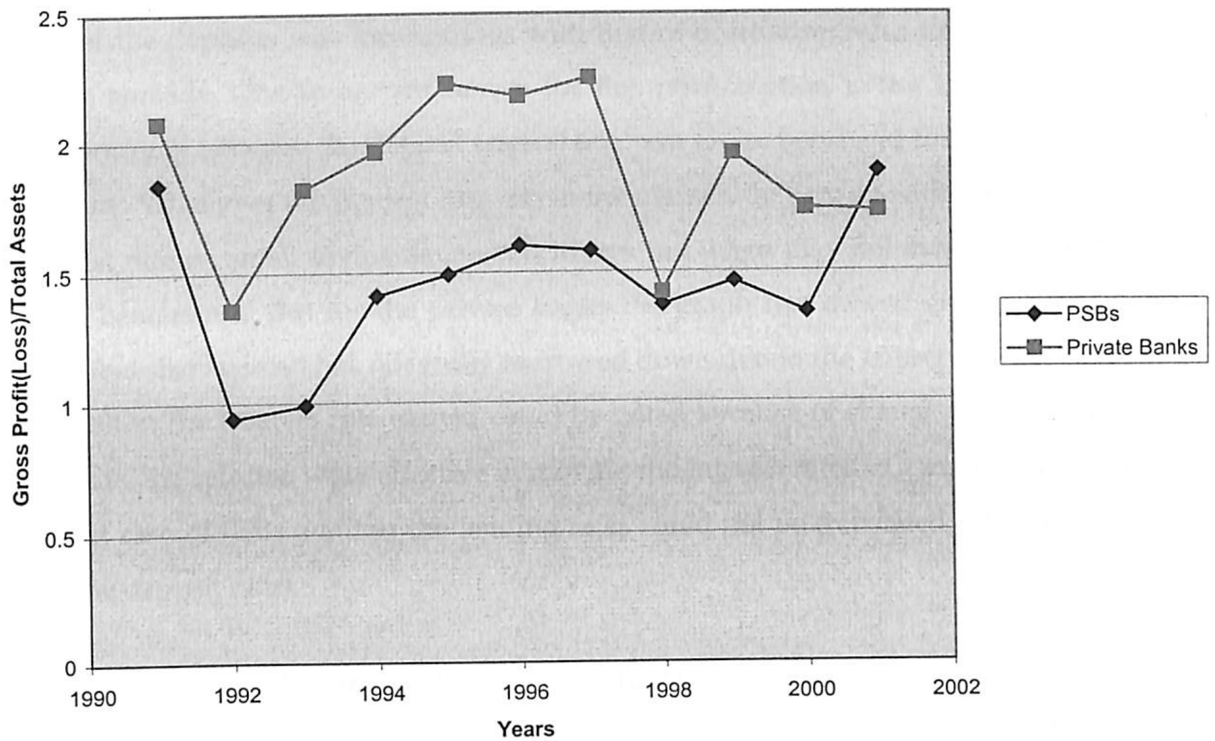
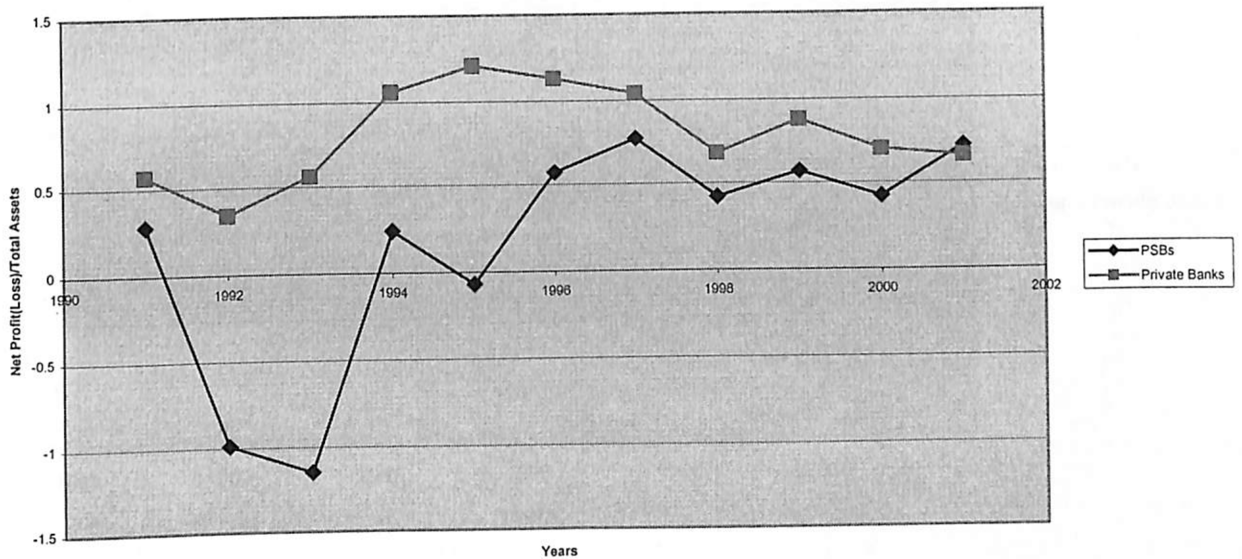


Figure 2.2:Net Profit (Loss)/ Total Assets

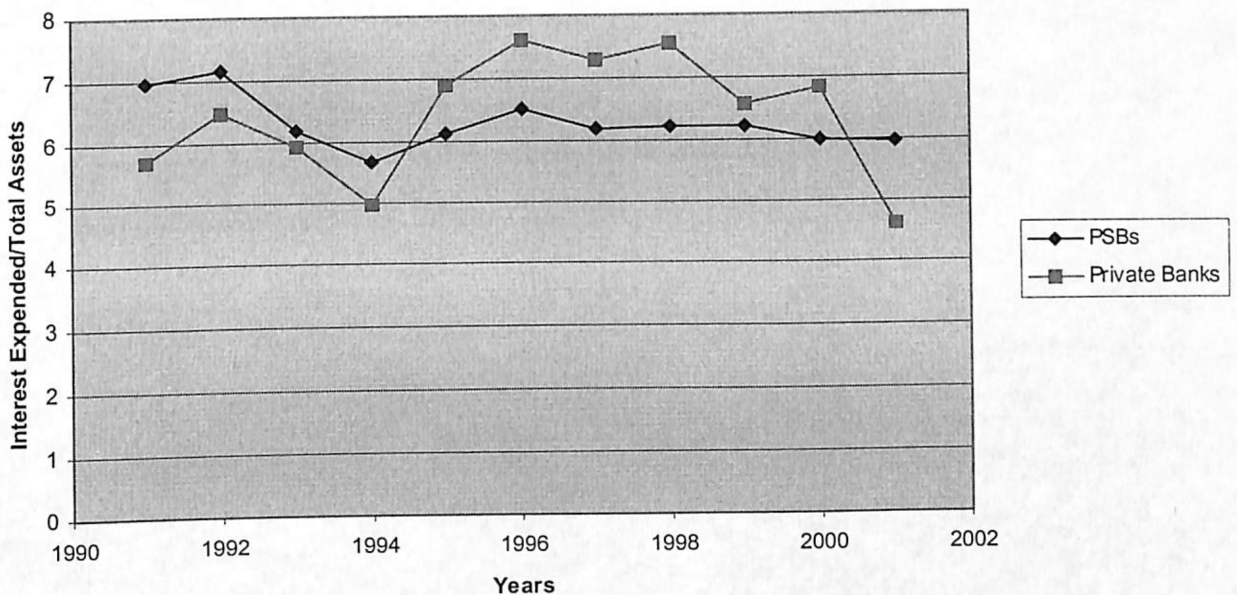


2.10.2 Interest Income/Total Assets and Interest Expended/Total Assets

With the beginning of first and second phase of reforms, there is a clear drop in the interest earned and interest expended as the interest rates were deregulated and there was a huge drop in interest rates. But one thing worth noting is that in the case of PSBs the rate of fall of the interest income is much more than the rate of fall of interest

expended. In other words the rate of borrowing has dropped for lenders but the rates offered for the deposits was incongruous with that of borrowing rates thus narrowing down the spreads. One important reason for this phenomenon is the fact that there exists a large gap between the deposit rates of one year G-Sec bond and the small saving interest rate. Whenever the interest rate rise in the market, they do so with inflation and the interest rate on small saving as the benchmark but when they fall they do not have the same benchmark. But for the private banks the graph has moved exactly parallel showing that their spread has not really narrowed down due to the falling interest rates. A steep fall in the interest rate earned could be noted because of change in accounting norms. Thus the reforms were effective in moving the interest rates to a market oriented rate but in case of PSBs a fall in the lending rates could not be translated into an equal drop in the deposit rates.

Figure 2.3:Interest Income/Total Assets

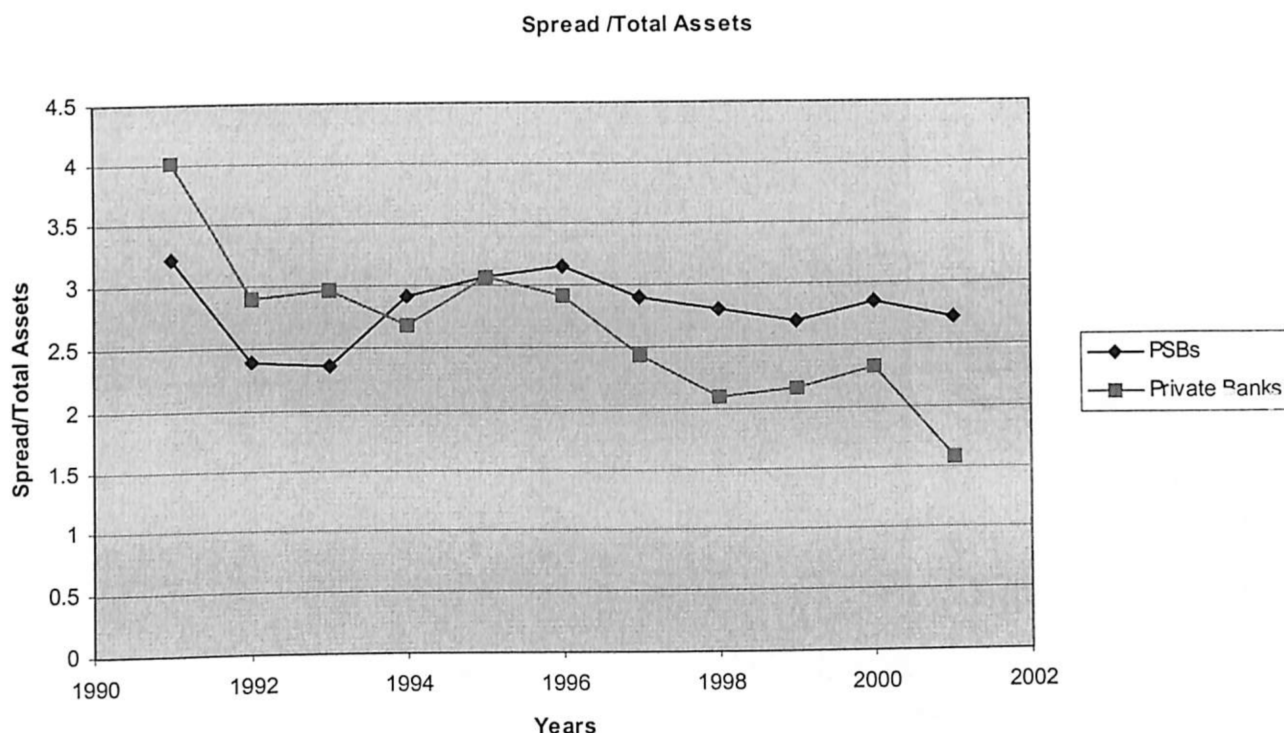


2.10.3 Spread/Total Assets

Interesting enough is the fact that the spread has fallen really drastically for the private banks due to their steadfast efforts in getting a firm hold on the market which is highly sliced due to the increased service proliferation by Financial Institutions. The PSBs do not have that steep a fall since the level of competition has not really reached its zenith,

though it has become competitive to a great extent when compared to a decade ago when the word competition was missing from the dictionary of PSBs. Another interesting fact is that foreign banks did not witness that steep a fall in their spreads which was mainly attributed to the fact that they served the top 2 to 5 percent of the population and hence they need not offer very low rates of lending and a comparatively high deposit rates as in case of private banks. This fact has forced the banks to offer more fee-based services and to increase revenues from other sources (Non Interest Income) to maintain their bottom lines.

Figure 2.4:Interest Expended/Total Assets



2.10.4 Intermediation Costs/Total Assets

The intermediation costs are almost flat for PSBs over the past decade showing that the reforms have not really had any glaring effects from the view of providing services to customers at lower costs. Private banks have really gone a long way in providing cheaper services to the customers or adding more value to the customer's money. Two things are important in this context. First the absolute level of intermediation costs are very high for PSBs as compared to their private counterparts which shows that they are

still having problem in the arena of utilizing their human resources effectively. Private banks have overcome this problem by turning to the cost cutting models of outsourcing. Second, the new private banks have grown on their businesses by betting on big technology to drive their operations. As a result, business overheads were kept under control despite break neck expansion needs and their gamble seems to have paid off. The intermediation costs of new private sector banks are just about a third of the foreign banks who provide sophisticated services but at a premium.

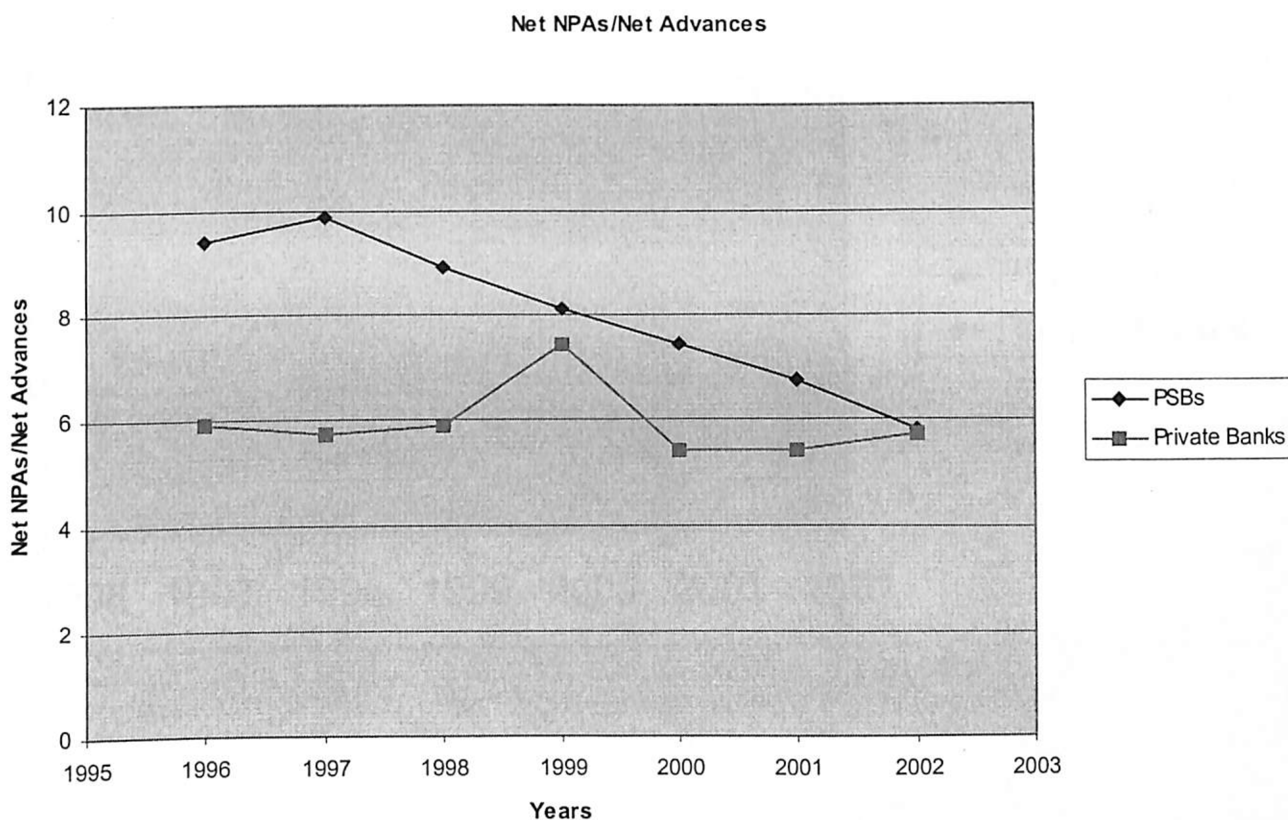
Figure 2.5:Intermediation Costs/Total Assets

2.10.5 Net NPAs/Net Advances

Over the past ten years even though the level of Net NPAs to the Advances have fallen there is no room for cheer because the Gross NPAs have been steadily rising on the other side. It has already been mentioned in our Introduction that the gross NPAs of our banking sector stands at a mammoth Rs.70, 904 crores taking the total to a staggering Rs 1,10,000 crores for the whole financial sector. This is the current account deficit of the country or roughly about 5 per cent of our country's GDP.The catch is that as the gross NPAs continue to shoot up despite all the reforms, the banks continue to make

increasing advances thereby keeping the ratio down. So here again one needs to look into the figures before drawing any sound conclusion regarding the effect of reforms on the NPA levels in the country. Another important concern in this area is that figure for the Private sector banks is pretty high considering the fact they have been into some serious business only from 1995-96.Immediately after two years there was sudden spurt in the ratio, but the banks were alert enough to bring it back to the original level from where it started moving back. However, the ratio is much better if we take only the new private sector banks into consideration. Hence we can confidently say that none of the banks have shown any great improvement in this regard and this is one area, which needs tremendous consideration from all categories of banks though the methodology of handling the issue would be completely different as we move from one category to another.

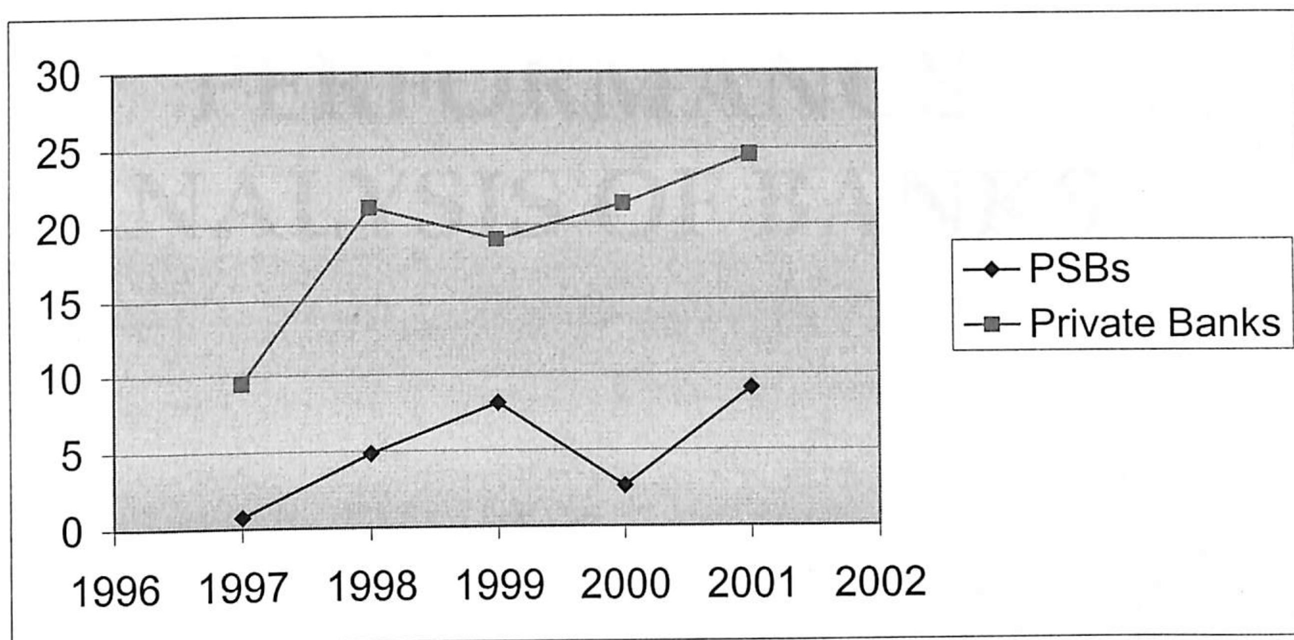
Figure 2.6:Net NPAs/Net Advances



2.10.6 Business Per Employee

Another ratios that have gained significance increase in recent time are the Business employee. However the problem with this ratio is that we cannot compare two categories of banks to this figure, as it does not provide them with the level playing field for the obvious reason. The major cause for this is that the PSBs with their twin objective of social considerations and providing service to the maximum number of people are burdened with too many customers with a very small balance and disguised unemployment. On the other hand the private banks use a minimum professional staff and generally provide service to the upper segment of the population. Thus, this ratio alone cannot be used for interpretation of a banks performance

Figure 2.7:Business Per Employee



PERFORMANCE ANALYSIS OF BANKS

Chapter 3
PERFORMANCE ANALYSIS OF BANKS

3.1 INTRODUCTION

We have seen in the last chapter that the Indian banking sector has been undergoing a metamorphosis in the wake of the implementation of financial sector reforms and also the adoption of international accounting policies regarding asset classification, income recognition, provisioning requirements and capital adequacy norms. The Indian banking scene has changed drastically with the private sector making inroads in an area hitherto dominated by large public sector banks. Growing disinvestments is likely to impact the banking industry as well. There is every possibility of privatization of public sector banks, leading to greater operational autonomy. This has put pressure particularly on the PSBs to adjust to these exacting changes as soon as possible. The new world order has ensured "Survival of the Fittest". New services are the order of the day, in order to stay ahead in the rat race. Banks are now foraying into net banking, securities, consumer finance, housing finance, treasury market, merchant banking and insurance. With competition coming to the fore, the watchword in the Indian banking sector today is improving the bottom line.

With the public sector no longer dominating the banking sector, and interest rates deregulated, competition is at an all-time high. Growing customer awareness has further compounded the problem. The focus is now on customer management. Time is money for the client, and most of the banks are waking up to this concept. Convenience is the other watchword! This need is being met through innumerable ATMs and Internet banking. Technology also is allowing personalization of services. Technology is allowing banks to operate efficiently. The credit worthiness of a prospective customer can be determined instantaneously. Banks can now offer better service without any incremental cost. In sum, the banking sector, which was considered dry in the last several years, has caught the investor fancy in expectations of changing regulations and improving business conditions due to opening up of the economy. Entry of private and foreign banks in the segment has provided healthy competition and is likely to bring more operational efficiency into the sector.

3.2 PERFORMANCE EVALUATION OF BANKS

Bank efficiency has always been an important issue in developing countries because most of them have faced at least one banking crisis, if not more. The question of relative comparison of banks by size, type of ownership, age has been at some point an issue or will become an issue in the future. How good it is to let new banks in the market, should the domestic banking sector be opened up, do small banks have a future in the era of globalization and banking market consolidation etc. These and other questions will continue to dominate the discussion in the banking arena. Therefore an understanding of a bank's relative performance compared to the market, or over a period of time is important for analysis, practitioners and policy makers alike. Apart from traditional analysis of Financial Statement a more dynamic and vibrant methodology is required. A common way to tackle this problem is an Econometric approach to measure various aspects of bank efficiency in a multi bank environment.

3.2.1 Literature Review

It is usual to measure the performance of banks using financial ratios. (Yeh ,1996) notes that the major demerit of this approach is its reliance on benchmark ratios. These benchmarks could be arbitrary and may mislead an analyst. Further, (Sherman et. al, 1985) note that financial ratios don't capture the long-term performance, and aggregate many aspects of performance such as operations, marketing and financing. In recent years, there is a trend towards measuring bank performance using one of the frontier analysis methods. In frontier analysis, the institutions that perform better relative to a particular standard are separated from those that perform poorly. Such separation is done either by applying a non-parametric or parametric frontier analysis to firms within the financial services industry. The parametric approach includes stochastic frontier analysis, the free disposal hull, thick frontier and the Distribution Free Approaches (DFA), while the non-parametric approach is Data Envelopment Analysis (DEA) (Molyneux et al. 1996). This approach has been used since "recent research has suggested that the kind of mathematical programming procedure used by DEA for efficient frontier estimation is comparatively robust" (Seiford et. al, 1990). Furthermore, after (Charnes et. al, 1978) who coined the term DEA, a 'large number of papers have extended and applied the DEA methodology' (Coelli, 1996).

Taking specifically the Indian case, is evaluating Indian Banks performance a rather straightforward issue. The answer is No. Earlier though, (Tyagarajan ,1975, Rangarajan et. al, 1972 and Subramanyam ,1993) have examined various issues relating to the performance of Indian banks, none of these studies have examined the efficiency of bank service provision in India. Actually when one makes an attempt to conduct some kind of Bank analysis to differentiate good banks from the bad ones, there are so many other things which need to be taken care of before the actual analysis can take shape. By merely using the standard ratios for banks financial analysis, one can sometime to reach to conclusions, which could be far from the actual. But at the same time there has to be some mechanism through which banks can be compared and evaluated. The traditional analysis largely focused on parameters like Credit-Deposit Ratio commonly referred to as CD Ratio, level of NPAs, Capital Adequacy Ratios and the other usual earning ratios. Things have changed now and just having a high CD Ratio doesn't mean that you are a sound bank. The basic definition of banking business has changed, largely due to the entry of Private Sector in the banking industry that have given a totally new dimension to the banking business which was never thought of a decade ago.

The emphasis on allocational efficiency witnessed during the last two decades is giving way to functional efficiency and productivity. The parameters for performance evaluation of banks have changed drastically. The traditional yardstick of assessment of banks by the quantum of business growth has given way to efficiency and economy of operations. The most traditional method to benchmark efficiency in the banking sector is the ratio analysis of different financial parameters (like ROA or ROI). However, these ratios give one dimensional, incomplete picture of the process and fail to account for the interaction and trade off between the various parameters. Particularly, factors like assets, profits, number of employees, customer satisfaction etc are extremely important in identifying the productivity of a bank. Thus a multidimensional perspective is essential and these financial ratios in many cases, ends up with self-contradictory results and it is impossible to draw a meaningful conclusion. Lastly, there is little reliable empirical research on bank efficiency in India although (Bhattacharya et al., 1997, Chatterjee ,1997 and Saha et al. , 2000) have examined various issues relating to the performance of Indian banks. This study measures relative efficiency of Indian banks subsequent to the period used by

the above studies. Some of the techniques/methods used by researchers/economists/media/etc across the globe are summarized below:

1. **The distribution-free approach (DFA)** to estimating *X*-efficiency assumes that individual firms exhibit constant inefficiency across time, and that inefficiency can be revealed by estimating a panel cost (or profit or production) function and averaging together the annual residuals for individual firms. (Young, 1987)
2. **Cone ratio DEA (Data Envelopment Analysis)** models are suggested for monitoring and/or early warning systems to be used by bank regulatory agencies. (P. L. Brockett et. al, 86)
3. **Target setting:** evaluating the ability of the branch offices to meet the targets established by bank management. We then evaluate the targets themselves, and we find that the list of targets can be substantially reduced without significant loss or distortion of information to bank management. We then re-evaluate the performance of branch offices on the basis of a reduced set of influential targets. (Lovell et. al, 95)
4. **Input-specific technical efficiency**: This model is applied to obtain estimates of technical inefficiency specific to factors of production in the banking industry (Mohamed, 86)
5. **Frontier profit efficiency**: Profit efficiency is determined using the thick frontier approach, and estimated using both alternative and standard profit function specifications to illustrate the effect of different assumptions regarding the competitiveness of the output market. (Lozano, 92)
6. **BUSINESS TODAY (Dec 22, 2002)**

   - **Size and Strength** (Deposits, Average Working Funds, Net Profit)

   - **Operations** (Net interest income, Incremental low cost deposits/incremental deposits, cost to income ratio, cost of Avg interest bearing funds, Fee income/total income)

   - **Earnings Quality** (interest spread/avg working funds, Operating profit/avg. working funds, ROAA)

   - **Productivity** (provisions/operating profit, Business/branch, operating profit/employee, operating profit/branch)

   - **Capital Adequacy** (CAR, Tier I capital)

- **Asset Quality** (NPA/Net Advances, NPA growth rate, Loan loss cover)

7. **Economic Value Added** EVA Methodology, (Stern Stewart, 96) Economic value-added (EVA) is the after-tax cash flow generated by a business minus the cost of the capital it has deployed to generate that cash flow.
8. **Performance Measurement index** for banks (J Sadakkadula et. al, 2000). A comprehensive index taking into account Operating Profit to working funds, return on Assets, operating profit margin, and net profit margin and dividing the individual bank values to the industry average and summing it up.
9. **Muti Variant Discriminant Analysis** (Net other earnings/ast, Loss reserve /total loan, Non interest income/total Asset, total loan/total deposit, Net operating income/total asset): STEKPI Version, Malaysia
10. **Comparative Analysis of Korean Banks Performance (Hong et. al, 2001)** Core Capital/asset, interest spreads, non interest income/average assets, overheads/ average assets, domestic loan growth rate, domestic loan/deposits, non performing loans/gross loans.
11. **Self Organizing Maps** using Artificial Intelligence, which is essentially classification of banks based on some selected parameters in well-demarcated clusters, the properties of which are studied. (Nag et. al, 2002)

12.BUSINESS INDIA (Nov25- Dec 8,2002)

- **Capital Adequacy** (C.A.R, D/E, Advances/Total Assets, G-sec/Inv, G-sec/Total Assets)
- **Resources Deployed** (Asset, Liq/Total Assets, Inv/Total Assets, Adv/Total Assets, Fixed Assets/Total Assets)
- **Asset Quality** (NNPA/Net Adv, Adv/Total Assets, ADV Growth, Inv/Total Assets, Adv Yield, Inv Yield, Inv Growth)
- **Management Quality** (CRED/DEP, NP/EMP, BUS/EMP, ROANW)
- **Earnings Quality** (Net Profit, EPS Growth, Spread, Other Income/Net Interest Income, NP/TAA)

- **Liquidity** (Liq/Total Assets, G-sec/Total Assets, Approved securities/Total Assets)

13. **Data Envelopment Analysis (DEA)** has been widely used to measure efficiency performance of different financial institutions like banks, insurance, and mutual funds. Particularly in the banking sector, it has been applied to benchmark performance of different banks or study the efficiency estimates of different branches of a particular bank.

3.3 DATA ENVELOPMENT ANALYSIS APPROACH

Over the past two decades, the measurement of financial institution efficiency using nonparametric frontier models has received considerable attention. However, while the literature on the application of data envelopment analysis (DEA) to the area of bank efficiency measurement is burgeoning, research on the salient properties of efficiency scores as a tool of policy is comparatively rare. The paucity of empirical research in this key area seems perplexing, especially when one recognizes that policymakers need accurate assessments about the effects of their decisions on the institutions they supervise. Only two studies have been identified to date within this tradition of the bank efficiency measurement literature. The first is (Berger et. al, 1997), which specified a formal set of conditions that efficiency rankings derived from various frontier methods should meet in order to be useful in a policy role. The second is (Barr et. al, 1993), which attempted to investigate the properties of DEA efficiency scores by studying the relationship between these scores and traditional measures of bank performance.

The objective of this chapter is to measure the productive efficiency of banks in a developing country, that is, India. The measurement of bank efficiency is done using DEA. The objective of this study is to measure and to explain the measured variation in the performance and therefore the productive efficiency of Indian commercial banks. While many similar studies have evaluated the performance of banking sector in the US and other developed countries, very few studies have evaluated the performance of banking sectors in developing economies. Earlier though, (Tyagarajan, 1975), (Rangarajan et. al, 1972) and (Subramanyam, 1993) have examined various issues relating to the performance of Indian banks, none of these studies have examined the efficiency of bank service provision in India. Some recent

studies did measure the efficiency in service provision of Indian banks but they suffer from certain limitations.

The main impetus for this study was the appointment of the Narsimham Committee (1997) by the Government of India, with a mandate to suggest a program of banking sector reforms so as to 'strengthen India's banking system and make it internationally competitive'. This obviously requires that the relative efficiency of Indian banks is measured and compared with banking efficiency in other countries. Secondly, a scheme of voluntary redundancies for bank employees is under consideration by the Indian Banks' Association. In this context, the efficiency issues of banks in India have again come to the fore. Thirdly, Indian banking is particularly interesting because of the diversity of bank ownership forms. Indian banks can be classified into three ownership groups; publicly owned, privately owned and foreign owned. It is expected that there will be performance variation across groups of banks. This study will quantify and explain the performance variation. Lastly, there is little reliable empirical research on bank efficiency in India although (Bhattacharya et al. 1997), (Chatterjee, 1997) and (Saha et al. 2000) have examined various issues relating to the performance of Indian banks. This study measures relative efficiency of Indian banks subsequent to the period used by the above studies.

The literature on financial institution efficiency is comparatively recent but nevertheless at a growing pace. In a comprehensive review of 130 DEA studies on bank efficiency across 21 countries, (Berger et. al, 1997) showed that 116 scholarly papers were published between 1992 and 1996 alone (See Appendix). Research on financial institution efficiency is dominated by studies from the American institutional milieu, where the large number of banks has traditionally facilitated econometric modeling (Avkiran, 1999). The vast majority of these studies have focused on the cost effects of scale and scope economies. Nonetheless, despite the volume of research in this area, there is still no consensus on the best method for measuring efficiency in financial institutions. At least four different approaches have been employed-to date. These are the econometric (stochastic) frontier approach, the thick frontier (TFA) approach, the distribution-free (DFA) approach and the linear programming (DEA) approach.

DEA is a linear programming technique initially developed by Charnes, Cooper and Rhodes in 1978 to evaluate the efficiency of public sector non-profit organizations. Sherman and Gold in 1985 were the first to apply DEA to banking. DEA calculates the relative efficiency scores of various Decision-Making Units (DMUs) in the particular sample. The DMUs could be banks or branches of banks. The DEA measure compares each of the banks/branches in that sample with the best practice in the sample. It tells the user which of the DMUs in the sample are efficient and which are not. The ability of the DEA to identify possible peers or role models as well as simple efficiency scores gives it an edge over other methods. As an efficient frontier technique, DEA identifies the inefficiency in a particular DMU by comparing it to similar DMUs regarded as efficient, rather than trying to associate a DMUs performance with statistical averages that may not be applicable to that DMU. DEA modeling allows the analyst to select inputs and outputs in accordance with a managerial focus. This is an advantage of DEA since it opens the door to what-if analysis. Furthermore, the technique works with variables of different units without the need for standardization (e.g. dollars, number of transactions, or number of staff).

3.3.1 Mathematical Formulation

A common measure for relative efficiency is,

Efficiency = Weighted Sum of Outputs/ Weighted Sum of Inputs

Efficiency of unit j = $u_1 y_{1j} + u_2 y_{2j} + \ldots\ldots / v_1 x_{1j} + v_2 x_{2j} + \ldots\ldots$

Where u_1 = weight given to output i

y_{1j} = amount of output 1 from unit j

v_1 = weight given to output 1

x_{1j} = amount of input 1 to unit j

The basic mathematical formulation of DEA has the following form: Maximize 1 subject to 2

$$E_B = \left\{\sum_{r=1}^{R} u_{rb} y_{rb}\right\} \Big/ \left\{\sum_{i=1}^{I} v_{ib} x_{ib}\right\} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(1)$$

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$$\left\{\sum_{r=1}^{R} u_{rb} y_{rj}\right\} \Big/ \left\{\sum_{i=1}^{I} v_{ib} x_{ij}\right\} \leq 1, \forall_{j,}\ j = 1,2\ldots, N \quad \ldots\ldots..(2)$$

(where r = 1,2,....,R and i = 1,2,...,N)

- y_{rj} : observed quantity of output r produced by unit j = 1,2,...,N
- X_{ij} : observed quantity of input I used by unit j = 1,2,.....,N
- u_{rb} : the weight (to be determined) given to output r by base unit b
- V_{ib} : the weight (to be determined) given to input i by the base unit b
- e : a very small positive number (non Archimedean infinitesimal

In our present study, we have applied the output -oriented (CCR) and (BCC) DEA model to measure the efficiencies. We solve the following linear programming model.

$$\max \phi + \delta\left\{\sum_{i=1}^{m} s_i^- + \sum_{r=1}^{s} s_r^+\right\}$$

$$\text{st.} \sum_{j=1}^{n} \delta_{xy} + s_i - = x_{i0}, \forall_i = 1,2, \ldots, m$$

$$\sum_{j=1}^{n} \delta_{xy} - s_r + = \phi y_{r0}, \forall_r = 1,2, \ldots, s$$

$$\delta, s_i^-, s_r^+ \geq 0$$

Where x_{ij} and y_{rj} are the amount of ith input consumed and the amount of rth output produced by the jth DMU. If $f_0^*= 1$ and all the input/ output slacks are zero, then a unit is said to be efficient.

3.3.2 Literature Review on DEA (See Appendix 1)

In this context it is worth mentioning some other studies that have been conducted in other countries on banking industry efficiency using DEA Method. Some of the studies done in US are Aly et. al, 1990, Elyasiani et. al, 1995, Grabowsky et. al, 1994, Ferrier et. al, 1990, Miller et. al, 1996, Grabowsky et. al, 1988 and Yue,1992. Recently researchers outside US also started examining the efficiency of these banks using the DEA method. Berg et. al, 1993 and Forsud et. al, 1991 explore the efficiency of

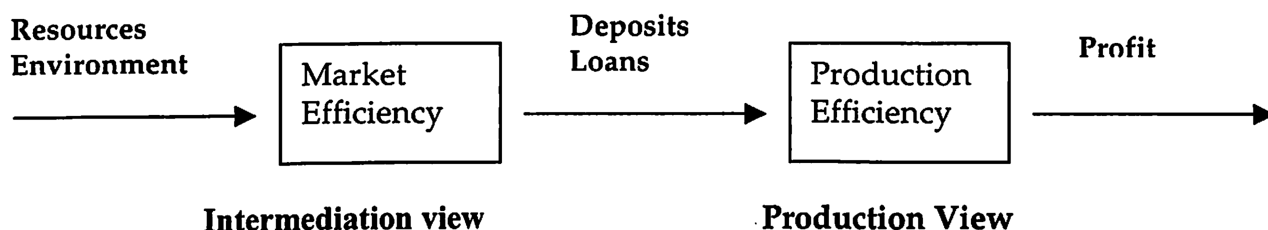
Norwegian banks and other Nordic countries. Fukuyama (1993, 1995) examines the efficiency of Japanese commercial banks. Favero et. al, 1995 and Resti (1993, 1997) deal with the Italian banking industry. Noulas et. al, 1996 look at the Indian public sector banks. Pal et. al, 1998) again did it for Indian banks. An international survey on the efficiency of financial institutions can be found in Berger et. al, 1997.

Two approaches are commonly used in applying DEA in banking:

- The production view, in which branches are viewed as using labor, capital, space, etc to process transactions, make sales of financial products, etc;
- The intermediation view, in which branches are viewed as collecting funds and deposits from the neighborhood and intermediating them into loans and other income-earning activities.

These two views are complementary and can be integrated into an overall assessment, as shown

Figure: Integrating DEA Assessments in Banking



The choice of inputs and outputs in DEA is a matter of long standing debate among researchers. Most of the DEA studies follow an intermediation approach. Within the intermediation approach, the exact set of inputs and outputs used depends largely on data availability. As already stated DEA is sensitive to the choice of input-output variables. This is strength of the technique, since it reveals which of the input-output variables need to be closely monitored by bank management to improve efficiency.

3.4 DEFINITION OF BANK INPUT AND OUTPUT VARIABLES

One of the main difficulties in the measurement of bank output is that there is no consensus in the literature on how to define or measure these services. Broadly speaking, bank output

should also include the portfolio management and advisory services that international banks typically provide to depositors while acting as their intermediaries. The absence of an explicit price also causes significant complications in the measurement of financial services. Without an explicit price, economists must impute their value. While we generally regard banks as producers of financial services in this paper, not all financial services constitute output. More specifically, the role of the financial products in the context of banking operations should first be considered.

A fundamental difficulty arises in the treatment of bank deposits. A considerable amount of debate in the literature surrounds the input-output status of deposits. Traditionally, deposits are regarded as the main ingredients for loan production and the acquisition of other earning assets. On the other hand, high value-added deposit products, like integrated savings and checking accounts, investment trusts and foreign currency deposit accounts tend to highlight the output characteristics of deposits. Indeed, high value-added deposit services are an important source of commissions and fee revenue for specialized commercial banks such as trust and private banks. In the context of these specialized institutions, one cannot afford to ignore the output nature of deposits. Deposits are "therefore simultaneously an input into the loan process and an output, in the sense that they are purchased as a final product providing financial services. Extending this argument further, one might further contend that the classification of deposits should therefore depend on the structure and characteristics of banks in the representative sample and viewed in the regulatory context of the country in question.

Specification of input and output variables is a key consideration in using DEA. Choosing correct inputs and outputs is important for the effective interpretation, use, and acceptance of the results of the DEA analysis by management or other affected parties. The following guidelines might be useful in identifying appropriate input and output variables. There should be some basis for believing that relationships exist between inputs and outputs such that an increase in an input can reasonably be expected to increase one or more of the outputs. In addition, all input and output measures should be regularly reported by each organization and available in positive amounts in every period for each DMU. Another

consideration is whether the variables should be based on currently available data or new measures developed. It is generally desirable to stay close to the kinds of input and output measures currently used by management for performance evaluation. Management is already familiar with these measures and has accepted them as being informative. In addition, data on these variables are already being collected and therefore, new data collection systems are not needed.

Management should be involved in the selection of inputs and outputs. The omission of pertinent variables can limit the managerial usefulness of the DEA analysis. Also, remember that the inputs and outputs do not have to be reduced to a common unit of measure. Third, the inputs and outputs should be comprehensive. That is, they should fully measure the activities of the organization under evaluation and should also be operationally meaningful in the sense that they should be commonly used, and hence, familiar to officials concerned with the evaluation and control of these activities. Finally, the values of the variables should be controlled (e.g., by audit and review processes) so that they cannot be easily manipulated or carelessly reported without some significant chance of detection and correction. DEA results and the interpretation of these results can be significantly affected by missing data or misreported data.

3.5 METHODOLGY

3.5.1 DEA Model Used in the Study

The first step in the analysis is the measurement of bank performance. Following Bhattacharya et al. 1997, performance has been associated with technical efficiency (hereafter refereed to as 'efficiency'). It is the ability to transform multiple resources into multiple financial services. According to Coelli et. al, 1996, the constant returns to scale (CRS) DEA model is only appropriate when the DMU is operating at an optimal scale. Some factors such as imperfect competition, constraints on finance, etc. may cause the firm to be not operating at an optimal level in practice. To allow for this possibility, Banker, Charnes and Cooper in 1984 introduced the variable returns to scale (VRS) DEA model. In this study, technical efficiency has been calculated using variable returns to scale (VRS) input oriented BCC model of the DEA and Constant returns to scale CCR Model methodology both. The

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input-oriented model determines the minimal input efficiency measure. In addition to a proportional decrease in inputs in order for a farm to be efficient, there might be slacks that allow for further unproportional reduction of some inputs (Coelli et *al.*, 1996). The output-oriented model measures the proportional increase in output that can be attained with constant input (Thiele et. al, 1999). Slacks in this type of model give information about the possibility of an unproportional increase in some outputs. We are using both the BCC and CCR Model to separate Technical efficiency into pure technical efficiency and scale efficiency so as to find reasons for inefficiencies. Following the scale properties of the above two models, [Cooper et al, 1994] give the definition of scale efficiency; for a particular DMU the scale efficiency is defined as ratio of its overall technical efficiency score (measured by the CCR Model) and pure technical efficiency score (measured by BCC Model).

The Tests (Two Models)

In the test, To measure efficiency as directly as possible, that is, management's success in controlling costs and generating revenues (that is, x-efficiencies), two input and two output variables, namely, interest expenses, non-interest expenses/operating expense (inputs) and net interest income/spread and non-interest income (outputs) have been used (hereafter referred to as Model A). A second DEA analysis was run with deposits and staff numbers as inputs and net loans and non-interest income as outputs (hereafter referred to as Model B). In the Model B, where a less direct approach is taken to measure efficiency, deposits replace interest expense, staff numbers replace non-interest expenses and net loans become proxy for net interest income. The two models have been used to show how efficiency scores differ when inputs and outputs are changed. The second test has been carried out only for the year 2001. The input and output variables considered are:

Table 3.1. Input and Output Variables for Model A and Model B

Model A		Model B	
Input Variables	**Output Variables**	**Input Variables**	**Output Variables**
Interest Expense	Net interest income	Deposits	Net Loans
Operating Expense	Non-interest income	Staff Numbers	Non-interest income

3.5.2 Data Used

The present study uses the available published data for the years 1997-2002 compiled by the Indian Banks' Association (IBA) and Reserve Bank Of India Report. As per this database, in the year 2001-2002, there were 27 public sector commercial banks, 34 private sector commercial banks and 42 foreign banks. Of these 103 banks, the data on some of the inputs and outputs of nine banks (1 private sector and 8 foreign) were not available. Hence these banks were excluded from the sample and due to data availability problem at the individual bank level some more banks got excluded. The final sample thus had 27 public sector commercial banks, 20 private sector commercial banks and 21 foreign ownership banks. Thus, the total observations consisted of 68 banks. Time series data on all the outputs and the inputs from 1997 to 2002 will be used in the Empirical Analysis. (See Appendix 2 for the list of banks considered)

3.6 EMPIRICAL RESULTS

3.6.1 First Test

Table 3.2 reports the mean efficiency results for the whole sample, the nationalized banks, the private and foreign banks for the year 1997 through 2002. Several conclusions emerge.

Table 3.2. Efficiency Results under Constant return to scale (CCR Model)

Banks	1997	1998	1999	2000	2001	2002
Public Sector Banks	0.6769	0.5534	0.6526	0.6652	0.6655	0.6690
Private Banks	0.6300	0.6178	0.6267	0.6217	0.6615	0.6488
Foreign Banks	0.7535	0.8394	0.8895	0.8397	0.8050	0.8118
Overall Mean	**0.6920**	**0.6944**	**0.6914**	**0.6864**	**0.6918**	**0.6904**

First, the overall technical efficiency for the whole sample is 69% and it is almost stable over the six-year period. Accordingly, the banks, on an average can produce the same quantity of output by reducing the levels of input by 31%. Second, the foreign banks appear to be the most efficient ones from the groups and show a continuous increase in efficiency from 1997 to 2002. Third, the efficiency of the nationalized banks has remained nearly the same for the whole period and it is around 67%, however it went down from a high of 67.69% in 1997 to 66.34% in 1998 and 65.26% in 1999 and recovered to 66.90% in 2002. One possible explanation for this could be the

decline in banks net income since these banks have to report all their non performing assets and make provisions for them.

Table 3.3 reports the result on pure Technical efficiency. As can be seen the pure technical efficiency for the whole sample ranges between 80.53% and 84.94%. Again, the foreign banks are most efficient, while the efficiency for public and private sector banks show a decline. High ratio of non-performing assets to net advances seems to explain decline in pure efficiency.

Table 3.3.Efficiency Results under Variable return to scale (BCC Model)

Banks	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Public Sector Banks	0.8497	0.8279	0.8233	0.8369	0.8509	0.8587
Private Banks	0.8423	0.7847	0.8165	0.7271	0.7454	0.7176
Foreign Banks	0.9097	0.9342	0.9339	0.8777	0.8484	0.9088
Overall Mean	**0.8494**	**0.8298**	**0.8276**	**0.8053**	**0.8165**	**0.8235**

Table 3.4 reports the result on Scale inefficiency. The major source of overall inefficiency for the nationalized banks is scale inefficiency. For private banks we observe that in the first three years, the scale inefficiency dominates, while in the last three years, the pure technical inefficiency is larger than scale inefficiency. If anything, the last observation suggests that the private sector banks have moved closer to the right size but they got worse in utilizing their inputs. Competition from foreign banks may have hurt private banks in their ability to attract customers in the metropolitan areas, as both private and foreign banks are concentrated in these areas only.

Table 3.4. Scale Efficiency

Banks	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Public Sector Banks	0.7967	0.8013	0.7927	0.7948	0.7821	0.7791
Private Banks	0.7479	0.7873	0.7675	0.8550	0.8874	0.9041
Foreign Banks	0.8283	0.8985	0.9525	0.9567	0.9488	0.8933
Overall Mean	**0.8147**	**0.8368**	**0.8354**	**0.8523**	**0.8473**	**0.8384**

3.6.2 Second Test

The efficiency scores of each of the banks included in the sample are shown in the Table 3.5

Table 3.5. Efficiency Score of Bank categories

		Model A				Model B			
	N	Mean	Stand Dev	Min	Max	Mean	Stand Dev	Min	Max
Public Sector Banks	27	0.78	0.08	0.67	1	0.45	0.18	0.28	1
Private Banks	20	0.84	0.11	0.55	1	0.60	0.30	0.05	1
Foreign Banks	21	0.89	0.14	0.56	1	0.80	0.19	0.44	1
All Banks	68	0.83	0.12	0.55	1	0.62	0.24	0.05	1

The mean efficiency score of Indian banks was 0.83 as per Model A and 0.62 as per Model B of the study. The efficiency score fits within the range of the scores found in other overseas studies but is lower than the world mean efficiency. "The mean efficiency value was 0.86 with a range of 0.55 (UK) to 0.95 (France)". A mean efficiency score that is lower than the world mean implies that there is a need for Indian banks to further improve efficiency so as to achieve world best practice. The government also needs to help banks by creating an appropriate policy environment that promotes efficiency. In the Table 3.6, we present number of banks by ownership in four quartiles of efficiency scores.

Table 3.6: Number of banks in four quartiles of efficiency scores by bank ownership

	Model A				Model B			
	Public	Private	Foreign	Total	Public	Private	Foreign	Total
Lowest Efficiency (Q1)	1	2	3	6	7	5	3	15
Next to Lowest Quartile (Q2)	13	2	7	22	10	8	4	22
Next to highest Efficiency Quartile (Q3)	8	9	6	23	7	3	6	17
Highest efficiency quartile (Q4)	5	7	5	17	3	4	8	14
Total	27	20	21	68	27	20	21	68
Banks on the frontier (Efficiency Score=1)	2	4	5	11	1	3	7	11

The above table shows that as per Model A, of the 11 banks on the frontier, 5 were foreign banks while as per Model B, out of the 11 banks on the frontier 7 were foreign banks. Further, it could be seen that as per Model A, out of the 17 banks in the highest efficiency quartile (Q4), 5 (30%) are foreign banks and 7 (42%) are private sector banks. As per Model B, out of 14 banks 8 (58%) are foreign banks in the Q4. This means that as a group more foreign banks are in the highest efficiency quartile than public or private sector banks. Their preponderance in Model B is, particularly, noteworthy. It shows that foreign banks are much more efficient as a group in use of inputs of staff and deposits as compared to public or private sector banks. As a group, the public sector commercial banks have displayed lower efficiency level in both the models.

The banks that were on the efficiency frontier under both models included State Bank of India, Bank of Baroda (two public sector banks), ICICI Bank, UTI Bank (two private sector) and Citi Bank, Bank of America, Deutsche Bank, ABN Amro Bank, Chase Manhattan Bank, (five foreign banks). The minimum efficiency score in Model B for private sector bank was 0.05. This was because two banks, Bank of Nainital and Bareilly Bank had scores of 0.05 and 0.06 respectively. These outlier cases are because of peculiarity of the region in which these banks operate. They are flush with deposits but have few avenues for lending. These banks invest funds in

government securities (which is not considered here as output due to non-availability of data) hence these banks show low efficiency scores.

3.7 ANALYSIS OF THE FINDINGS

The scores computed using Model A and Model B need some explanation. As already stated DEA is a flexible technique and produces efficiency scores that are different when alternative sets of inputs and outputs are used. In Model A, we have used prices of inputs (interest and non-interest expenses) as the input variables while in Model B, mainly quantities of inputs (deposits and staff numbers) have been used as input variables. Foreign banks as a group appear to be more efficient users of input quantities to produce a given output as compared to the public sector banks and private sector banks. This means that there are inefficiencies in use of these two inputs (deposits and staff numbers) between the public sector and private sector banks, which these banks need to remedy to achieve increased efficiency. On the other hand, foreign banks need to focus on pricing aspects (interest and non-interest income and expenses) of their inputs and outputs to achieve higher efficiencies. The lower scores for public sector banks in both the models could be because these banks are in the transition phase and could have higher amount of fixed assets employed which have not generated good returns because of political interference and other issues while the Private banks need some more time to improve upon their advantages and with more mergers and consolidations happening in this sector, the inefficiencies due to scale will be reduced and the gap between private and foreign banks will be narrowed down further.

The efficiency estimates as per this study compare well with the score estimated by Bhattacharya et al. (1997). In their study the efficiency scores ranged from 79.19 to 80.44 in the years 1986 through 1991. In the study of Saha et al. (2002) where efficiency scores have been estimated only for 25 public sector banks the estimates ranged from 0.58 to 0.74 in the year 2001 and the mean score was 0.69. The inputs and outputs, number of firms in the sample and the year are different in the present study compared to these two studies. Bhattacharya et al. analyze data for the prederegulation years while this study does so after sufficient period has elapsed since deregulation. The banks have taken steps to lower the ratio of Non-Performing Assets, which has been brought down from 20 per cent in 1995-96 to 12 percent in 2000-2001

(Rangarajan, 2002). This would help in increasing interest income an input in Model A. The banks need to continue their efforts to reduce the percentage of nonperforming assets to improve efficiency. Another important reason affecting the efficiency of public sector banks, in particular, is the high establishment expenses as a percentage of total expenses. In the year 2000-2001, the ratio was 20.13 for public sector banks, 9.87 for private sector commercial banks and 7.66 for foreign banks. The public sector banks have introduced the voluntary redundancy scheme for staff, which is successful and has helped in bringing down this ratio and thus improve efficiency scores further.

3.8 THE LAST WORD

Using published data, this paper worked out the production efficiency score of Indian banks for the year 2000-2001. The scores were calculated using the non-parametric technique of Data Envelopment Analysis. The study shows that as per the Models, the private sector banks have a higher mean efficiency score as compared to the public sector and foreign commercial banks in India have been the star performers. Most banks on the frontier are foreign owned or private sector banks. The study recommends that the existing policy of bringing down non-performing assets as well as curtailing the establishment expenditure through voluntary retirement scheme for bank staff and rationalization of rural branches are steps in the right direction that could help Indian banks improve efficiency over a period of time so as to achieve world best practice.

3.9 AN OBJECTIVE METHOD FOR RANKING THE PRIVATE SECTOR BANKS

In the previous part of the chapter we have seen how Private Sector banks in India have done comparatively better than their counterparts in the public sector. In this part of the study we extend our analysis further and make an attempt to compare these private sector banks within themselves and try to find out which banks are really the best performing banks in the country. The study is an attempt to develop an objective method for ranking the Private Sector banks on the basis of four performance criterions namely: (a) Business Performance, (b) Efficiency, (c) Safety and Soundness, and (d) Labor Productivity. In turn 40 indicators measure these performance measures.

This is to develop an objective method for ranking the banks. At present, several newspapers and magazines are carrying out this exercise, but these methods use weights, at some stage or the other, which are determined by subjective considerations. These methods have the inherent problem of changing the ranks by changing the subjective weights, and, thus, bias gets built in, either intentionally or unintentionally. The moment one starts the exercise by evaluating one parameter as more important than the other, one is essentially letting his subjective judgment take over objectivity. Therefore, what has been attempted in the study is that, ab initio, parameters have not been given weights. These weights have been determined in an objective manner. This is where the study departs from the usual ratings available in which parameters are chosen, ab initio, on the basis of subjective judgment.

There are techniques available to determine the importance of a parameter, but these are rather complex. Another objective of this study is to arrive at a rather simple method to rank banks, which anybody can use. A method, which can give a comprehensive view of a bank by incorporating as many performance indicators as possible. Mostly, the available methods use a few of these indicators; besides, these methods do not take into account the inter-relationships among these variables. To that extent, these models lack insight. Another important aspect of the rating models is that they should be based on published data, which, anyway, all the existing models do use. Some of these are not simple enough for general readers to understand. As these are mostly brought out by newspapers and magazines, it is presumed that these should be intelligible to general readers. The method presented here is not only simple but also

easy to work with. The method, besides giving ranks, also throws light on certain other aspects of banking, as can be seen in due course.

Data have been collected from the balance sheets of the banks and the RBI Report on trend and Progress of Banking in India, 2000-2001.Four aspects of a bank's performance has been studied:

a) Business Performance
b) Efficiency
c) Safety and Soundness, and
d) Labour productivity, comprising 11,19,7 and 3 indicators respectively. Thus, in all 40 indicators have been focused on. These indicators are mentioned in the table. The indicators have been selected by following the Return on Equity (ROE) decomposition Analysis.

3.9.1 Ranking of the Private sector Banks

For the purpose of ranking the 17 private banks, the following methodology has been followed, which is given step-by-step, below:

1. **First Step:** The 17 banks were sorted out in descending order (from best to worst) according to the values posted by them in respect of each of the indicators belonging to the four aspects studied. (Table 3A)
2. **Second Step:** In respect of each of the aspects (Business Performance, Efficiency, Safety and Soundness, and Labour Productivity) the number of times a bank occupied the 1st, 2nd, 17th positions (since there are 17 banks) was computed. The number of times that a bank appeared in different positions equaled the number of indicators under each aspect studied. e.g. the business performance aspect had 11 indicators, and hence, each bank would appear 11 times in total across the 17 positions. The results are presented in the Table 3B.
3. **Third Step:** Weights were assigned to each rank in the descending order. Since there were 17 banks, the weightage pattern was as follows:

   1st rank-17, 2nd rank-16, 3rd rank-15,......17th rank-1. Weights were then normalized. These weights are presented in Table 3C.

4. **Fourth Step:** The sum of the number of times a bank appeared in the 17 ranks as weighted by the above-mentioned weights was calculated. These sums are presented in Table 3D in respect of all the four aspects studied.

5. **Fifth Step:** on the basis of the above-mentioned values presented in Table 3D and 3E, the banks were ranked from 1st to 17th in respect of the four aspects. These are presented in Table 3G.

To arrive at the total ranking over all the four aspects, Steps 2 to 4 were repeated, i.e., first, on the basis of Table, the number of times a bank occupied the 1st, 2nd, 3rd,..... 17th positions (since there were 17 banks) in total was computed.

Next, weights, as mentioned in step 3, were assigned to each rank. Sum of the number of times a bank appeared in the 17 ranks as weighted by the weights was calculated. The 17 banks were ranked as per these weighted sums

Table 3.7: List of Indicators

Business Performance Indicators

Sr.No	Indicators	Code
1.	Growth Rate in Deposits	B1
2.	Growth Rate in Investments	B2
3.	Growth Rate in Loans	B3
4.	Growth Rate in Net Profit	B4
5.	Growth Rate in Core Net Profit	B5
6.	Growth Rate in Provisions and Contingencies	B6
7.	C: D Ratio	B7
8.	C+1: D Ratio	B8
9.	Market share* in Deposits	B9
10.	Market share* in Loans	B10
11.	Market share* in Investments	B11

Efficiency Indicators

Sr.No	Indicators	Code
1.	Return on Net Assets	E1
2.	Return on Assets	E2
3.	Equity Multiplier	E3
4.	Asset Utilization Ratio	E4
5.	Profit Margin	E5
6.	Interest Income/Average Assets	E6
7.	Non-Interest Expenses/Total Income	E7
8.	Total Interest Expenses/ Total Income	E8
9.	Provisions and Contingencies/Total Income	E9
10.	Wages and Salaries /Total Income	E10
11.	Operating Expenses /Total Income	E11
12.	Net Interest Margin	E12
13.	Burden	E13
14.	Interest Expenses on Deposits/Total Income	E14
15.	Interest Expenses on Non-Deposits/Total Income	E15
16.	Commissions, Exchange, Brokerage Income /Average Assets	E16
17.	Net Profit from Exchange Transactions /Average Assets	E17
18.	Interest /Discount Income from Loans and Bills/Average Assets	E18
19.	Interest Income from Investments/Average Assets	E19

Safety and Soundness Indicators

1.	Total CRAR	S1
2.	Tier-I Capital Ratio	S2
3.	Net NPA Ratio	S3
4.	Gross NPA Ratio	S4
5.	Growth Rate in Contingent Liabilities	S5
6.	Total Contingent Liabilities /Total Assets	S6
7.	Ratio of Loans to Sensitive Sector to Net Advances	S7

Productivity Indicators

1.	Business per Employee Rs.lakh	P1
2.	Profit per Employee	P2
3.	Staff Costs per Rs. 100 crore of Average Assets	P3

- **Market share is in relation to 17 Private sector Banks**

Table 3.8
Indicator Wise Ranking of Banks
A. Business Performance Indicators

	2000-2001											2001-2002										
BANK	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11
JKB	17	15	17	13	14	4	1	12	3	1	5	15	11	5	3	2	3	1	1	4	1	[illegible]
IIB	9	8	14	8	10	6	8	17	1	2	3	17	14	13	13	13	10	4	16	3	4	3
UWB	3	3	4	3	2	12	15	3	14	14	13	1	4	2	14	14	9	16	11	13	14	12
IDBI	6	14	6	12	1	13	12	8	5	5	4	6	9	6	15	15	14	11	9	5	5	4
BSB	13	6	16	16	17	8	3	1	15	12	14	13	17	17	17	17	15	7	2	15	13	15
CEN	16	17	1	15	15	15	6	16	6	6	7	10	2	9	2	5	5	5	15	6	6	6
BOR	15	5	15	14	12	10	7	13	7	8	8	9	6	12	1	1	8	8	13	7	8	8
FB	5	4	3	4	3	16	4	7	8	7	10	16	12	16	8	9	2	3	6	8	7	10
ICICI	12	16	5	7	7	11	2	2	13	11	15	5	3	4	7	14	611	2	7	4	11	14
SIB	4	11	2	2	6	3	13	15	16	15	16	14	5	11	4	4	13	12	10	16	16	16
HDFC	1	1	7	5	4	17	16	9	12	13	12	2	1	1	9	10	1	15	5	12	12	11
BOP	10	9	9	11	5	2	5	10	2	3	2	3	13	8	5	7	6	10	17	1	3	[illegible]
NB	8	12	10	1	13	9	17	14	11	17	9	12	10	3	11	3	16	17	8	11	15	9
VB	11	10	12	17	16	14	10	6	10	10	11	7	16	10	12	11	7	9	12	10	10	13
GTB	7	7	11	9	11	1	9	5	4	4	1	4	8	4	6	8	4	6	4	2	2	1
CSB	14	13	13	10	9	5	11	11	17	16	17	8	7	15	16	16	17	14	14	17	17	17
UTI	2	2	8	6	8	7	14	4	9	9	6	11	15	7	10	12	12	13	3	9	9	7

Table 3.8(cont'd) B. Efficiency Aspect (2000-2001)

Bank	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19
JKB	13	4	11	16	14	17	6	11	13	8	8	16	5	1	16	10	5	4	17
IIB	7	3	5	15	3	15	11	2	14	3	4	9	6	2	15	11	1	10	16
UWB	6	7	14	3	7	2	9	6	10	11	10	1	12	7	10	5	14	16	3
IDBI	15	12	2	12	11	12	12	5	6	16	16	6	15	9	6	4	16	15	7
BSB	11	11	9	6	12	9	5	12	12	5	5	13	7	6	17	8	13	2	10
CEN	14	15	6	13	15	8	16	14	8	7	7	10	11	14	7	17	3	6	11
BOR	16	17	17	14	17	13	13	15	4	14	14	14	14	15	8	7	8	14	14
FB	1	5	15	9	4	10	10	1	1	17	17	2	17	5	4	14	2	1	13
ICICI	3	1	3	4	1	5	1	8	16	2	2	11	1	11	5	1	4	3	12
SIB	10	10	8	11	10	7	15	10	5	13	15	4	16	10	9	13	12	13	5
HDFC	2	4	13	2	5	3	2	9	15	4	3	7	3	8	11	9	15	9	4
BOP	9	9	7	10	9	14	3	3	17	6	6	12	4	3	14	6	7	7	15
NB	17	16	1	17	16	16	17	17	3	15	9	17	13	17	1	16	17	17	1
VB	12	13	10	8	13	11	7	7	11	10	13	8	10	12	2	3	10	8	6
GTB	5	6	12	5	6	4	4	4	7	12	11	5	8	4	13	2	11	5	9
CSB	8	8	16	7	8	6	8	16	2	9	12	15	9	13	12	15	6	11	8
UTI	4	2	4	1	2	1	14	13	9	1	1	3	2	16	3	12	9	12	2

Table 3.8 (Cont'd)

B. Efficiency Aspect (2001-2002)

Bank	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19
JKB	9	9	8	13	9	17	3	7	8	10	10	13	6	1	17	6	6	2	17
IIB	11	8	5	16	8	14	8	5	14	4	4	9	5	5	15	9	2	9	16
UWB	12	12	16	5	12	7	6	9	12	14	8	6	10	7	11	7	11	16	4
IDBI	15	14	4	15	14	13	12	8	10	16	16	5	16	9	5	4	16	14	5
BSB	17	17	7	10	17	10	10	16	17	15	15	16	15	11	16	10	14	7	7
CEN	10	10	6	11	10	3	16	12	9	5	5	4	11	13	8	17	1	3	12
BOR	5	11	17	14	11	12	13	11	4	9	11	12	12	12	6	5	10	11	11
FB	2	2	12	8	2	4	15	1	1	17	17	1	17	2	4	12	13	1	14
ICICI	1	1	2	2	1	8	1	4	15	1	1	8	1	6	7	1	4	4	13
SIB	7	6	13	6	6	5	9	6	6	12	14	3	14	8	9	13	7	8	6
HDFC	4	5	14	3	5	2	11	15	3	3	3	14	4	15	13	11	15	15	2
BOP	8	7	9	12	7	16	2	2	16	6	6	10	3	4	10	8	3	6	15
NB	16	6	1	17	16	15	17	17	2	8	7	17	7	17	1	16	17	17	1
VB	13	13	10	9	13	9	7	10	11	7	12	7	13	10	3	3	12	5	10
GTB	3	3	11	4	3	6	4	3	7	13	9	2	9	3	12	2	8	10	8
CSB	14	15	15	7	15	11	5	13	5	11	13	15	8	14	14	15	5	13	9
UTI	6	4	3	1	4	1	14	14	13	2	2	11	2	16	2	14	9	12	3

Table 3.8(Cont'd)

C. Safety and Soundness Aspect

Bank	2000-2001							2001-2002						
	S1	S2	S3	S4	S5	S6	S7	S1	S2	S3	S4	S5	S6	S7
JKB	13	12	12	9	12	17	17	4	7	8	7	15	17	17
IIB	4	4	7	12	2	12	7	3	4	9	12	12	13	12
UWB	5	8	8	8	14	15	14	10	13	12	11	10	15	8
IDBI	11	14	14	14	4	11	4	15	16	13	13	9	8	1
BSB	6	11	17	15	10	9	16	17	17	17	17	16	10	16
CB	10	15	10	7	5	7	5	9	14	10	8	4	7	7
BOR	17	17	9	10	11	5	11	13	15	11	10	8	6	15
FB	9	9	2	3	13	13	6	6	6	4	5	11	14	5
ICICI	2	1	1	1	9	10	3	2	1	1	2	14	1	4
SIB	12	16	6	6	8	4	15	7	5	6	6	7	5	11
HDFC	1	3	3	4	6	6	1	1	3	2	3	1	3	2
BOP	15	6	5	5	1	1	8	16	8	5	4	13	11	6
NB	16	5	16	17	15	16	10	12	9	14	16	5	9	9
VB	8	10	15	16	17	8	9	11	12	15	14	3	12	3
GTB	7	7	13	13	7	3	12	8	10	7	9	6	4	10
CSB	14	13	11	11	16	14	13	14	11	16	15	17	16	13
UTI	3	2	4	2	3	2	2	5	2	3	1	2	2	14

Table 3.8 (Cont'd)

D. Labour Productivity Aspect

Bank	2000-2001			2001-2002		
	P1	P2	P3	P1	P2	P3
JKB	5	10	6	5	8	10
IIB	4	3	3	8	7	4
VB	10	7	15	9	12	13
IDBI	7	9	7	4	6	6
BSB	13	13	14	11	17	15
CB	6	12	5	6	9	5
BOR	9	17	12	12	11	9
FB	12	5	17	13	4	17
ICICI	2	1	2	2	1	1
SIB	14	11	13	15	10	12
HDFC	1	4	4	3	2	2
BOP	11	6	8	10	5	8
NB	17	15	16	17	15	16
UWB	16	16	9	16	16	7
CSB	15	14	11	14	13	14
GTB	8	8	10	7	14	11
UTI	3	2	1	1	3	3

Table 3.9

Frequency Distribution of Ranks

A. Business Aspect **2000---2001**

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	2	-	1	1	1	-	-	-	-	-	-	1	1	1	1	-	2
IIB	1	1	1	-	-	1	-	3	1	1	-	-	-	1	-	-	1
UWB	-	1	4	1	-	-	-	-	-	-	-	1	1	2	1	-	-
IDBI	1	-	-	1	2	2	-	1	-	-	-	2	1	1	-	-	-
BSB	1	-	1	-	-	1	-	1	-	-	-	1	1	1	1	2	1
CB	1	-	-	-	-	3	1	-	-	-	-	-	-	-	3	2	1
BOR	-	-	-	-	1	-	2	2	-	1	-	1	1	1	2	-	-
FB	-	-	2	3	1	-	2	1	-	1	-	-	-	-	-	1	-
ICICI	-	2	-	-	1	-	2	-	-	-	2	1	1	-	1	1	-
SIB	-	2	1	1	-	1	-	-	-	-	1	-	1	-	2	2	-
HDFC	2	-	-	1	1	-	1	-	1	-	-	2	1	-	-	1	1
BOP	-	3	1	-	2	-	-	-	2	2	1	-	-	-	-	-	-
NB	1	-	-	-	-	-	-	1	2	1	1	1	1	1	-	-	2
VB	-	-	-	-	-	1	-	-	-	4	2	1	-	1	-	1	1
GTB	2	-	-	2	1	-	2	-	2	-	2	-	-	-	-	-	-
CSB	-	-	-	-	1	-	-	-	1	1	2	-	2	1	-	1	2
UTI	-	2	-	1	-	2	1	2	2	-	-	-	-	1	-	-	-

Table 3.9 (Cont'd)

A. Business Aspect (Concluded)

2001-2002

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	3	1	2	1	2	-	-	-	-	-	1	-	-	-	1	-	-
IIB	-	-	2	2	-	-	-	-	-	1	-	-	3	1	-	1	1
UWB	1	1	-	1	-	-	-	-	1	-	1	1	1	3	-	1	-
IDBI	-	-	-	1	2	2	-	-	2	-	1	-	-	1	2	-	-
BSB	-	1	-	-	-	-	1	-	-	-	-	-	2	-	3	-	4
CB	-	2	-	-	3	3	-	-	1	1	-	-	-	-	1	-	-
BOR	2	-	-	-	-	1	1	4	1	-	-	1	1	-	-	-	-
FB	-	1	1	-	-	1	1	2	1	1	-	1	-	-	-	2	-
ICICI	-	1	1	-	1	1	2	-	-	-	2	-	-	3	-	-	-
SIB	-	-	-	2	1	-	-	-	-	1	1	1	1	1	-	3	-
HDFC	3	1	-	-	1	-	-	-	1	1	1	2	-	-	1	-	-
BOP	1	1	2	-	1	1	1	1	-	1	-	-	1	-	-	-	1
NB	-	-	2	-	-	-	-	1	1	1	2	1	-	-	1	1	1
VB	-	-	-	-	-	-	2	-	1	3	1	2	1	-	-	1	-
GTB	1	2	-	4	-	2	-	2	-	-	-	-	-	-	-	-	-
CSB	-	-	-	-	-	-	1	1	-	-	-	-	-	2	1	2	4
UTI	2	-	1	-	-	2	-	2	1	1	2	1	-	1	-	-	-

Table 3.9 (Cont'd)

B. Efficiency Aspect

2000-2001

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	1	-	-	1	2	1	-	2	-	1	2	-	2	2	-	3	2
IIB	1	2	3	1	1	1	1	-	1	1	2	-	-	1	3	1	-
UWB	1	1	2	-	1	2	3	-	1	3	1	1	-	2	-	1	-
IDBI	-	1	-	1	1	3	1	-	1	-	1	4	-	-	3	3	-
BSB	-	1	-	-	3	2	1	1	2	1	2	3	2	-	-	-	1
CB	-	-	1	-	-	2	3	2	-	1	2	-	1	3	2	1	1
BOR	-	-	-	1	-	-	1	2	-	-	-	-	2	7	2	1	3
FB	4	2	-	2	2	-	-	-	1	2	-	-	1	1	1	-	3
ICICI	5	2	3	2	2	-	-	1	-	-	2	1	-	-	-	1	-
SIB	-	-	-	1	2	-	1	1	1	5	1	1	3	-	2	1	-
HDFC	1	3	3	3	1	-	1	1	3	-	1	-	1	-	2	-	-
BOP	3	-	1	-	-	-	3	1	-	-	2	3	-	-	1	-	-
NB	-	-	1	-	-	-	-	-	1	-	3	-	1	-	1	4	8
VB	-	1	1	-	-	1	2	3	-	4	2	2	3	-	-	-	-
GTB	-	1	-	4	4	2	1	1	1	-	2	2	1	-	-	-	-
CSB	-	1	-	-	-	2	1	5	2	-	1	2	1	-	2	2	-
UTI	4	4	2	2	-	-	-	-	2	2	-	-	1	1	-	1	-

Table 3.9 (Cont'd)

B. Efficiency Aspect (Concluded)

2001-2002

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	1	1	1	-	-	3	1	2	3	2	-	-	2	-	-	-	3
IIB	-	1	-	2	4	-	-	3	3	-	1	-	-	2	1	2	-
UWB	-	-	-	1	1	2	3	1	1	1	2	4	-	1	-	2	-
IDBI	-	-	-	2	3	-	-	1	1	1	-	1	1	3	2	4	-
BSB	-	-	-	-	-	-	3	-	-	4	1	-	-	1	3	3	4
CB	1	-	2	1	2	1	-	1	1	3	2	2	1	-	-	1	1
BOR	-	-	-	1	2	1	-	-	1	1	6	4	1	1	-	-	1
FB	4	4	-	2	-	-	-	1	-	-	-	2	1	1	1	-	3
ICICI	8	2	-	3	-	1	1	2	-	-	-	-	1	-	1	-	-
SIB	-	-	1	-	1	6	2	2	2	-	-	1	2	2	-	-	-
HDFC	-	2	4	2	2	-	-	-	-	-	2	4	1	2	-	-	-
BOP	-	2	2	1	-	3	2	2	1	2	-	1	-	-	1	2	-
NB	-	1	-	-	-	-	2	1	-	-	-	-	-	-	4	4	7
VB	-	-	2	-	1	-	3	-	2	4	1	2	4	-	-	-	-
GTB	-	2	5	2	-	1	1	2	2	1	1	1	1	-	-	-	-
CSB	-	-	-	-	3	-	1	1	1	-	2	-	3	3	5	-	-
UTI	2	4	2	2	-	1	-	-	1	-	1	1	1	3	-	1	-

Table 3.9 (Cont'd)

C. Safety and Soundness Aspect

2000-2001

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	-	-	-	-	-	-	-	-	1	-	-	3	1	-	-	-	2
IIB	-	1	-	2	-	-	2	-	-	-	-	2	-	-	-	-	-
UWB	-	-	-	-	1	-	-	3	-	-	-	-	-	2	1	-	-
IDBI	-	-	-	2	-	-	-	-	-	-	2	-	-	3	-	-	-
BSB	-	-	-	-	-	1	-	-	1	1	1	-	-	-	1	1	1
CB	-	-	-	-	2	-	2	-	-	2	-	-	-	1	-	-	
BOR	-	-	-	-	1	-	-	-	1	1	2	-	-	-	-	-	2
FB	1	1	1	-	-	-	-	-	2	-	-	-	2	-	-	-	-
ICICI	3	1	1	-	-	-	-	-	1	1	-	-	-	-	-	-	-
SIB	-	-	-	1	-	2	-	1	-	-	-	1	-	-	1	1	-
HDFC	1	-	2	1	-	2	1	-	-	-	-	-	-	-	-	-	-
BOP	-	-	-	-	2	1	-	1	-	-	-	-	-	-	2	1	-
NB	-	-	-	-	-	-	-	1	1	1	-	-	-	1	1	1	1
VB	-	1	-	1	-	1	-	-	-	-	2	-	1	1	-	-	-
GTB	-	1	-	-	-	1	-	-	-	-	2	-	-	1	1	-	-
CSB	-		1	-	-	-	3	-	-	-	-	1	2	-	-	-	-
UTI	-	3	2	1	-	-	-	-	1	-	-	-	-	-	-	-	-

Table 3.9 (Cont'd)

C. Safety and Soundness Aspect

2001-2002

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	-	-	-	1	-	-	2	1	-	-	-	-	--	-	1	-	2
IIB	-	-	1	1	-	-	-	-	1	-	-	3	1	-	-	-	-
UWB	-	-	-	-	-	-	-	1	-	2	1	1	1	-	1	-	-
IDBI	1	-	-	-	-	-	-	1	1	-	-	-	2	-	1	1	-
BSB	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	2	4
CB	-	-	-	1	-	-	2	1	1	1	-	-	-	1	-	-	-
BOR	-	-	-	-	-	1	-	1	-	1	1	-	1	-	2	-	-
FB	-	-	-	1	2	2	-	-	-	-	1	-	-	1	-	-	-
ICICI	2	2	-	1	-	-	-	-	1	1	-	-	-	-	-	-	-
SIB	-	-	-	-	2	2	2	-	-	-	1	-	-	-	-	-	-
HDFC	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BOP	-	-	-	1	1	1	-	1	-	-	-	-	1	-	-	2	-
NB	-	-	-	-	1	-	-	-	3	-	-	1	-	1	-	1	-
VB	-	-	2	-	-	-	-	-	-	-	1	2	1	1	-	-	-
GTB	-	-	-	-	-	-	1	1	2	1	2	-	-	-	-	-	-
CSB	-	-	-	1	-	-	1	-	1	-	1	-	1	-	1	1	-
UTI	1	3	1	-	1	-	-	1	-	-	-	-	-	-	-		-

Table 3.9 (Cont'd)

D. Labour Productivity Aspect

2000-2001

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	-	-		1	1	-	-	-	-	-	-	1	-	-	-	-	-
IIB	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
UWB	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1	-	-
IDBI	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1
BSB	-	-	1	-	-	1	-	-	1	-	-	-	-	-	-	-	-
CB	-	-	-	-	1	1	-	-	-	-	-	1	-	-	-	-	-
BOR	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1
FB	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	1
ICICI	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SIB	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-	-	-
HDFC	-	-	-	1	-	-	-	1	-	-	1	-	-	-	-	-	-
BOP	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-
NB	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	-
VB	-	-	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-
GTB	-	-	-	-	-	1	-	-	-	-	-	-	1	1	-	-	-
CSB	-	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-
UTI	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3.9 (Cont'd)

D. Labour Productivity Aspect(Concluded)

2001-2002

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	-	-	-	-	1	-	-	1	-	1	-	-	-	-	-	-	-
IIB	-	-	-	1	-	-	1	1	-	-	-	-	-	-	-	-	-
UWB	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	-	-
IDBI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
BSB	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	1
CB	-	-	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-
BOR	-	-	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-
FB	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	1
ICICI	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SIB	-	-	-	-	-	-	-	-	-	1	-	1	-	-	1	-	-
HDFC	-	-	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-
BOP	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-	-	-
NB	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	-
VB	-	-	-	-	-	-	-	1	-	-	-	-	1	1	-	-	-
GTB	-	-	-	-	1	-	-	-	-	-	1	-	-	1	-	-	-
CSB	-	-	-	-	-	-	1	-	-	-	1	-	-	1	-	-	-
UTI	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3.10
Weight Pattern

Rank	Weight	Normalized weight
1.	17	0.1111
2.	16	0.1046
3.	15	0.0980
4.	14	0.0915
5.	13	0.0850
6.	12	0.0784
7.	11	0.0719
8.	10	0.0654
9.	9	0.0588
10.	8	0.0523
11.	7	0.0458
12.	6	0.0392
13.	5	0.0327
14.	4	0.0261
15.	3	0.0196
16.	2	0.0131
17.	1	0.0065
Total	153	1.0000

Table 3.11
Weighted Sums

2000-2001					2001-2002				
Bank	B	E	S	P	Bank	B	E	S	P
JKB	0.627	0.895	0.222	0.216	JKB	0.961	1.118	0.333	0.203
IIB	0.732	1.242	0.510	0.288	IIB	0.575	1.144	0.399	0.229
UWB	0.732	1.235	0.353	0.144	UWB	0.575	1.026	0.307	0.131
IDBI	0.732	0.948	0.353	0.144	IDBI	0.647	0.856	0.333	0.039
BSB	0.503	1.105	0.275	0.235	BSB	0.327	0.621	0.105	0.124
CB	0.510	0.915	0.444	0.203	CB	0.830	1.150	0.438	0.222
BOR	0.549	0.614	0.301	0.105	BOR	0.765	0.948	0.314	0.144
FB	0.830	1.268	0.497	0.131	FB	0.660	1.288	0.490	0.131
ICICI	0.634	1.621	0.647	0.320	ICICI	0.680	1.706	0.608	0.327
SIB	0.621	0.954	0.386	0.105	SIB	0.503	1.203	0.516	0.111
HDFC	0.660	1.399	0.569	0.203	HDFC	0.788	1.209	0.725	0.248
BOP	0.850	1.183	0.366	0.203	BOP	0.804	1.255	0.379	0.248
NB	0.503	0.647	0.392	0.085	NB	0.542	0.765	0.392	0.105
VB	0.464	1.098	0.242	0.092	VB	0.529	1.078	0.366	0.124
GTB	0.843	1.366	0.399	0.137	GTB	0.974	1.451	0.314	0.157
CSB	0.405	1.000	0.418	0.183	CSB	0.261	0.817	0.353	0.144
UTI	0.804	1.510	0.634	0.327	UTI	0.588	1.366	0.634	0.320
CV(%)	21.94	24.90	30.54	46.77	CV(%)	30.08	24.02	35.78	44.61

Table 3.12
Aspect –wise Ranks of NBs

2000-2001					2001-2002				
Bank	B	E	S	P	Bank	B	E	S	P
JKB	10	15	17	5	JKB	2	10	12	7
IIB	5	6	4	3	IIB	11	9	7	5
UWB	9	7	12	10	UWB	11	12	16	11
IDBI	5	13	12	13	IDBI	9	14	12	12
BSB	14	9	15	16	BSB	16	17	17	14
CB	13	14	6	6	CB	7	8	6	6
BOR	12	17	14	15	BOR	10	13	14	9
FB	3	5	5	12	FB	14	4	5	11
ICICI	9	1	1	2	ICICI	1	1	3	1
SIB	11	12	10	13	SIB	15	7	4	13
HDFC	1	3	3	6	HDFC	5	6	1	3
BOP	8	8	11	4	BOP	4	5	9	3
NB	15	16	16	17	NB	13	16	8	16
VB	16	10	9	6	VB	8	11	10	13
GTB	2	4	8	11	GTB	3	2	15	8
CSB	17	11	7	9	CSB	17	15	11	9
UTI	4	2	2	1	UTI	6	3	2	2

Table 3.13.

Frequency Distribution of Ranks: All four Aspects (2000-2001)

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1	-	1
IIB	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-
UWB	-	-	-	-	1	-	1	-	-	1	-	1	-	-	-	-	-
IDBI	-	-	-	-	1	-	-	-	-	-	-	1	1	-	-	-	1
BSB	-	-	-	1	-	-	-	-	1	-	-	-	-	1	1	-	-
CB	-	-	-	-	-	2	-	-	-	-	-	-	1	1	-	-	-
BOR	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	1
FB	-	-	1	-	2	-	-	-	-	-	-	1	-	-	-	-	-
ICICI	2	1	-	-	-	-	-	1	-	-		-	-	-	-	-	-
SIB	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-
HDFC	-	-	2	-	-	1	-	1	-	-	-	-	-	-	-	-	-
BOP	1	-	-	-	-	1	-	1	-	-	1	-	-	-	-	-	-
NB	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	2	-
VB	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	2	-
GTB	-	1	-	1	-	-	-	1	-	-	1	-	-	-	-	-	-
CSB	-	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	1
UTI	1	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3.13 (Cont'd)

Frequency Distribution of Ranks: All four Aspects (2001-2002)

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	-	1	-	-	-	-	1	-	-	1	-	1	-	-	-	-	-
IIB	-	-	-	-	1	-	1	-	1	-	1	-	-	-	-	-	-
UWB	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	1	-
IDBI	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-		1
BSB	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2
CB	-	-	1	-	-	2	-	1	-	-	-	-	-	-	-	-	-
BOR	-	-	-	-	-	1	-	-	1	-	-	-	1	1	-	-	-
FB	-	-	-	1	1	-	-	1	-	-	1	-	-	-	-	-	-
ICICI	2	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
SIB	-	-	-	1	-	-	1	-	-	-	-	-	-	-	2	-	-
HDFC	1	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-
BOP	-	-	-	1	-	1	-	-	1	1	-	-	-	-	-	-	-
NB	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	2	-
VB	-	-	-	-	-	-	-	-	-	1	1	-	1	1	-	-	-
GTB	1	1	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
CSB	-	-	-	-	-	-	-	-	1	-	1	-	-	-	1	-	1
UTI	-	2	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-

Table 3.13.

Frequency Distribution of Ranks: All four Aspects **(2000-2001)**

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1	-	1
IIB	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-
UWB	-	-	-	-	1	-	1	-	-	1	-	1	-	-	-	-	-
IDBI	-	-	-	-	1	-	-	-	-	-	-	1	1	-	-	-	1
BSB	-	-	-	1	-	-	-	-	1	-	-	-	-	1	1	-	-
CB	-	-	-	-	-	2	-	-	-	-	-	-	1	1	-	-	-
BOR	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	1
FB	-	-	1	-	2	-	-	-	-	-	-	1	-	-	-	-	-
ICICI	2	1	-	-	-	-	-	1	-	-		-	-	-	-	-	-
SIB	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-
HDFC	-	-	2	-	-	1	-	1	-	-	-	-	-	-	-	-	-
BOP	1	-	-	-	-	1	-	1	-	-	1	-	-	-	-	-	-
NB	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	2	-
VB	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	2	-
GTB	-	1	-	1	-	-	-	1	-	-	1	-	-	-	-	-	-
CSB	-	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	1
UTI	1	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3.13 (Cont'd)

Frequency Distribution of Ranks: All four Aspects **(2001-2002)**

Bank	Ranks																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
JKB	-	1	-	-	-	-	1	-	-	1	-	1	-	-	-	-	-
IIB	-	-	-	-	1	-	1	-	1	-	1	-	-	-	-	-	-
UWB	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	1	-
IDBI	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-		1
BSB	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2
CB	-	-	1	-	-	2	-	1	-	-	-	-	-	-	-	-	-
BOR	-	-	-	-	-	1	-	-	1	-	-	-	1	1	-	-	-
FB	-	-	-	1	1	-	-	1	-	-	1	-	-	-	-	-	-
ICICI	2	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
SIB	-	-	-	1	-	-	1	-	-	-	-	-	-	-	2	-	-
HDFC	1	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-
BOP	-	-	-	1	-	1	-	-	1	1	-	-	-	-	-	-	-
NB	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	2	-
VB	-	-	-	-	-	-	-	-	-	1	1	-	1	1	-	-	-
GTB	1	1	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
CSB	-	-	-	-	-	-	-	-	1	-	1	-	-	-	1	-	1
UTI	-	2	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-

Table 3.14
Overall Ranks of Banks

Bank	2000-2001		Bank	2001-2002		% change
	Point	Rank		Point	Rank	
JKB	0.163	13	JKB	0.268	8	64.4
IIB	0.353	3	IIB	0.261	9	-26.1
UWB	0.248	8	UWB	0.144	13	-41.9
IDBI	0.163	13	IDBI	0.131	14	-19.6
BSB	0.098	17	BSB	0.052	17	-73.5
CB	0.216	9	CB	0.320	5	48.1
BOR	0.105	15	BOR	0.196	11	86.7
FB	0.307	5	FB	0.288	7	-6.2
ICICI	0.386	2	ICICI	0.392	1	1.6
SIB	0.170	12	SIB	0.203	10	19.4
HDFC	0.340	4	HDFC	0.373	2	9.7
BOP	0.301	7	BOP	0.333	4	10.6
NB	0.105	15	NB	0.124	16	18.1
VB	0.196	10	VB	0.157	12	60.2
GTB	0.307	5	GTB	0.301	6	-2.0
CSB	0.183	11	CSB	0.131	15	-28.4
UTI	0.412	1	UTI	0.359	3	-12.9
CV (%)	42.66		CV(%)	43.35		

3.9.2 Analysis of the Results:

If we take a close look at the rankings of the Private sector banks, we see that the three new generation private sector banks namely ICICI Bank, HDFC Bank and UTI Bank emerge a clear winner in almost all respects of performance whereas in the old generation Private banks, the notable performers are Federal Bank, Jammu & Kashmir Bank and The Bank of Rajasthan Ltd. Some other notable observations are:

1. When it comes to Business Performance, ICICI Bank leads the table followed by Jammu & Kashmir Bank and Global Trust Bank. Bank of Punjab and HDFC Bank take the next two positions. If we compare this performance with the previous year we find that ICICI Bank has made a major improvement whereas HDFC Bank has slid few positions. Bank of Punjab and Jammu & Kashmir Bank has shown a huge improvement whereas IDBI Bank and IndusInd Bank have shown a drop in their Business performance. The worst performers are Benares State Bank Ltd and Catholic Syrian Bank consistently.

2. If we take a look at the Efficiency parameter we find that ICICI Bank leads the table again (topper also last year) followed by Global Trust Bank and UTI Bank. Federal Bank and Bank of Punjab hold the next two spots. Looking back at the previous year we find that the major gainers are Centurion Bank and South Indian Bank while most of the other banks have maintained their same level of efficiency except for Benares State Bank Ltd which has seen a further drop in its efficiency levels.

3. When it comes to Soundness and Safety of the banks, HDFC Bank, UTI Bank and ICICI Bank share the honors yet again very closely followed by South Indian Bank and Federal Bank. As compared to last year, Jammu & Kashmir Bank and Vysya Bank have shown huge gains whereas Global Trust Bank and United Western Bank show a drop in the safety levels on Capital Adequacy and risky assets measure.

4. Finally, looking at Employee productivity levels, the results are on expected lines, the best players are yet again HDFC Bank, UTI Bank and ICICI Bank, Bank of Punjab, Centurion Bank etc. whereas the laggards are Nainital Bank, Benares State Bank Ltd etc. As compred to the last year most banks have shown an improvement barring few.

5. If we look at he overall picture HDFC Bank, UTI Bank and ICICI Bank, Bank of Punjab, Centurion Bank etc are the best performers whereas the poorest banks are IDBI Bank, Nainital Bank, Benares State Bank , Catholic Syrian Bank etc. The rankings are more or less same as compared to last year except for some minor changes. The notable exceptions are Jammu & Kashmir Bank, Centurion Bank and Bank of Rajasthan who have witnessed better results whereas IDBI Bank and United Western Bank have slid considerably.

3.10 COMPARING THE INCOMPARABLE

In the earlier part of the Chapter we attempted to analytically compare Public and Private sector banks using various tools and usually commended the Private Sector banks for their repeated excellent performance. This conclusion is a very naïve observation because both the categories of banks work almost in two different worlds and it would be highly inappropriate to jump to any sort of conclusion before looking into the validity of such a comparison. In other words it is not advisable to compare an orange with an apple. Some of the aspects that will make the comparison more meaningful are discussed below.

3.10.1 The Backdrop

It is a story of growth. The regime of liberalisation in the 1990s aimed at giving impetus to economic growth. Thus were born the new private sector banks among many other initiatives. Once established, the new private sector banks promised to be among the leading growth segments of the Indian economy. The stock market was also enthusiastic about these banks. However, the initial euphoria gave way to growth pangs and barring a couple — HDFC Bank and ICICI Bank — the rest seemed to falter. In most industries, only a couple of companies graduate from the small to mid-size to large companies. It thus appeared that this might be true for the new private sector banks too. Non-performing assets piled up, profitability slipped and growth seemed to elude the rest of the banks. Things now appear to be changing. The promise of a revival is in the air as a couple of other private sector banks — IDBI Bank and UTI Bank — start to make rapid strides. The Reserve Bank of India has granted fresh licenses to two new banks Kotak Mahindra and Rabobank. After all, it just may not be the story of HDFC Bank and ICICI Bank alone. The future continues to be promising, though the distances to travel continue to be huge.

3.10.2 Advantage Private Banks

3.10.2 (a) Capturing Market

When they were set up, the agenda for the new private sector banks was to capture as much market share as possible. They have achieved it in most respects. New banks accounted for 6.5 per cent of the demand deposits and nearly 3 per cent of the savings deposits in the banking system in March 2001. It is likely to be higher at the end of March 2002. In March 1996, the

proportions were 1.6 and 0.3 per cent respectively. The inflows into the savings accounts of new banks grew at 122 per cent annually between March 1996 and 2001. The rate of growth in demand deposits was more modest at 53 per cent. Clearly, the retail foray has spelt success for new banks (Krishnamurthy, 2002). Continued success in their attempts to increase the inflow of demand and savings deposits is important to rein in costs. That new banks continue to account for a smaller share of the total pie suggests that the prospect for growth in the next two-three years continues to be bright. On the asset side, the share of new banks in loans and advances (including investments) has increased from around 1.7 per cent at the end of March 1996 to 6.7 per cent March-end 2001. On an average, the rate of growth has been 55 per cent each year. Investments in government securities have increased at a higher rate of 71 per cent. On a relative basis, new banks have been less successful in capturing share on the asset side than on the liability side. Interestingly, new banks have had greater success in lending against bills purchased or discounted than in areas such as cash credit or working capital advances. This suggests that the going for the banks in terms of building relationships (which will get reflected in cash credit or working capital advances growth) has been difficult. On the contrary, banks are likely to downplay their achievements thus far. Predictably, the profitability of new banks has been superior to the industry average. Shareholder funds have risen on an average at around 34 percent for new banks compared to the industry's 11 per cent. The steady and significant increase in shareholder funds place the new banks at an advantage. This is the one of the pillars of the foundation on which the strategy to capture market share from established public sector majors is being built.

3.10.2 (b) Focus on Strategy

The focus rightly turns to strategies for achieving rapid growth. The success of HDFC Bank and ICICI Bank was largely because of their focus on the triple A-rated companies. That helped reduce level of non-performing assets and increase profitability. Other banks were less focussed on the triple A sector (Krishnamurthy, 2002). To an extent, the difference in the degrees of success of the various private sector banks may have been due to the differences in their target customers. However, other banks may not have focused on the non-triple A rated segment out of choice. If HDFC Bank and ICICI Bank could focus on the triple A segment and grab market

shares from larger public sector rivals it was because of the support of their larger parents — HDFC and ICICI.

In fact, ICICI and ICICI Bank teamed up to sell their products. Lacking such support, other banks have had to look at assets of lower quality. Now, other banks too are eyeing the triple A segment. For banks such as IDBI Bank and UTI Bank, incremental growth is coming more from companies in the top rated category. In the last couple of years, this was reflected in the reduction in the net non-performing assets proportion and rising profitability in the case of both IDBI Bank and UTI Bank. Apart from the triple A segment, the focus seems squarely centred on retail banking. The promise of larger spreads and lower delinquency appears to have whetted the appetite of these new banks. However, here too, HDFC Bank and ICICI Bank have left the others far behind. Their brands are much stronger than those of the other new banks. The larger public sector banking rivals are also proving adept at building brands. Greater efforts at brand building may be necessary for new banks to build quality retail assets. The growth in the retail accounts of IDBI Bank and UTI Bank in the last year has been impressive.

3.10.2 (c) Low Costs

A focus on the retail segment is also essential to become a least cost provider of services. The two sources of low-cost resources are demand deposits, essentially belonging to the corporate sector, and savings deposits, originating from the retail segment. The efficient use of resources by the corporate segment may ensure that demand deposits do not grow at a rapid rate in future. Thus, to augment the base of demand deposits, new banks will have to capture market share from old banks. On the other hand, savings deposits continue to grow at a rapid rate. Thus, augmenting their low cost resource base may prove less of a problem. Interestingly, HDFC Bank, the most successful of the lot, has the highest proportion of low-cost liabilities. Demand and savings deposits account for 30 per cent of its total resources. That the most successful new bank has also one of the least cost bases among Indian banks is no coincidence. For the other banks, the ratio is less than 20 per cent. That has had its impact on spreads and profitability. Future growth is also predicated on remaining low-cost service providers on a relative basis. Public sector banks are tasting success in reducing their costs of operations. With their size of operations they could prove to be more than a handful for the new banks. Indeed, with their low costs of operation, HDFC Bank and ICICI Bank are in a position to counter their

larger PSU rivals. However, for the others, it is essential to augment low-cost resource bases. Thanks to the success in their retail foray, UTI Bank and IDBI Bank have been able to reduce operations costs in 2002. These gains need to be sustained to pitchfork these banks into the league of their larger rivals

3.10.2 (d) Retail Thrust

The thrust into retail banking by the new banks is another crucial factor that will determine the extent of the success enjoyed by the new banks. Growth in retail assets (car loans, home loans, commercial vehicle loans, personal loans, loans against shares, loans against RBI bonds, credit cards) has been outpacing the growth in lending to the corporate sector by a significant margin. Given the easy liquidity scenario, which is boosting the demand for credit from households, the rate of growth may remain high. This has implications for new banks. Importantly, the spreads in retail lending are much higher than lending to the triple A-rated companies. It may even be as high as what lending to lower rated companies generates. Due to this HDFC Bank says that it will lend largely to the triple A-rated sector in the case of corporate lending and would prefer retail lending for riskier exposures. It is also quite clear that almost all new banks find logic in such a strategy. In short, retail lending will be favored over lending to lower rated companies. Perhaps, it is this factor that has made new banks remain at the forefront of the explosion in lending to the retail sector. However, their profitability from retail lending will be determined by the quality of their retail assets. If the proportion of non-performing assets is higher than what has been accounted for by the banks in the pricing of their assets, then it could have a debilitating effect on the new banks' profitability. This may become evident only with time and there is a need to keep an eye on the rate of growth in non-performing assets of the new banks

3.10.2 (e) Size and Scale

Size was the advantage of the new private sector banks. They were small and it seemed they could grow faster by capturing market shares from the public sector banking behemoths. However, if growth faltered then size could no longer be an advantage. It could, on the other hand, prove to be a disadvantage. For example, without the rapid scaling up of operations, it may be difficult to break-even. In fact, loans may have been priced assuming a particular rate of growth. So, without adequate growth, profitability will be affected. Without adequate

profitability, the proportion of non-performing assets could rise and capital adequacy might become a problem, affecting future growth. Thus, the rapid scaling up of operations appeared to be a must to take advantage of their strengths as new banks. To a large extent, banks such as HDFC Bank, ICICI Bank, Centurion Bank and UTI Bank have been successful in ramping up operations since 1996 to 2001. The growth rate of loan assets at these banks has been impressive. In 2002, however, Centurion Bank has slipped up. In addition, only in HDFC Bank and ICICI Bank cases have the level of non-performing assets been relatively lower.

Growth at the other new banks has been less impressive although higher than the average for the banking industry. Other consequences of lower growth, such as relatively higher non-performing assets and lower profitability, have also been evident in other new banks. For HDFC Bank and ICICI Bank, faster growth helped attract capital at attractive rates, especially in HDFC Bank's case. This fuelled further growth. Inorganic growth through acquisitions has also been possible for these two banks because they were able to scale up and achieve adequate profitability. The future is predicated on continued ramp up in the scale of operations. The merger of ICICI with ICICI Bank may have already given them the necessary size. However, even for them, ramping up operations are necessary to hide the non-performing assets acquired from ICICI and diversify asset portfolios. HDFC Bank may have already become as large as Corporation Bank. Still, ramping up operations is necessary to compete with larger rivals such as the State Bank of India and ICICI Bank. Moreover, ramping up is necessary to convert new branches and new products into profit making centers. If growth is essential for ICICI Bank and HDFC Bank, it is even more so for the others. Banks such as UTI Bank and IDBI Bank have already started seeing rapid growth in operations. They may need to sustain the pace of growth and explore the inorganic route to achieve the necessary size and strength. They will also need capital infusions and, perhaps, the induction of a partner to achieve growth.

3.11 WHO IS THE BEST

As is evident from the Table 3.15, income as a percentage of total assets is lower for public sector banks. But then, you need to understand their compulsions to support all government

Table 3.15 Banking Statistics 2001

	Income as a % Total Assets	Other Income as % of Total Assets	Operating Exp. As % of Total Assets	Spread Income as a % of Total Assets	NPAs as a % of Total Assets	Contingent Liabilities as a % of Total Assets
PSU Banks	10.20	1.28	2.52	2.70	2.90	26.29
Old Pvt Banks	11.26	1.68	2.18	2.33	3.20	26.90
New Pvt Banks	9.19	1.66	1.42	1.87	1.10	78.04
Foreign Banks	12.47	2.60	3.21	3.85	1.00	342.01
Sector Average	10.39	1.43	2.49	2.72	2.70	52.63

Source: RBI Report "Trends & Progress of Banking in India", 2001

schemes, even schemes that do not make business sense, not by a long chalk. Would you believe that despite lending 40% of its assets to the priority sectors, SBI's manages to earn such high profits? (Mind you, SBI lends to the needy, unlike private banks that tweak the rules of priority lending.) Also consider the higher interest spread that public sector banks earn despite their compulsions to support pro-government policies. People will point to the lower non-fund-based income that these banks earn. But look a few more columns ahead in the table and you will notice contingent liabilities as a percentage of total assets. The new private sector banks look more like insurance companies. Profitability at what risk? It is a fact that the NPA levels and operating efficiencies of public sector banks are not that impressive. But then, these have to do with the environment in which these banks function. After all, the "PSU" label over a period of time has grown to signify not just ownership but also a lackadaisical attitude. While the label remains, the environment is fast changing, leveling the playing-field for the old nationalized banks and the new private banks. And the public sector banks are donning battle gear to not only ensure their survival but also to sustain growth rates.

The comparison between the PSBs and the private sector banks will continue to enthrall. If last year, private sector banks like UTI and HDFC topped the list, this year's honors go to the public

players. So have the PSBs outperformed the private players? The answer is in the negative as the private sector banks have done equally well; only they do not have the same percentage change in growth as that of the public sector banks. It is just that the PSBs had a small denominator to work on. For a loss making bank or a bank with low profits any marginal increase in profits would result in a larger percentage change in profits. For example, for HDFC Bank, the net profit this fiscal is Rs. 297 crore and in the last fiscal it was Rs. 210 crore. This resulted in a percentage change in the net profits of around 41 percent even though the absolute change is Rs. 87 crore. For IDBI Bank, the net profit this year is Rs. 52 crore and the net profit last fiscal was Rs. 19 crore; this would result in the percentage change of 171 percent even though the absolute change is only Rs. 33 crore. However, this logic does not hold good to some of the PSBs like Canara Bank, which have performed well. Do the PSBs have an advantage over the private sector banks. The PSBs already had well diversified portfolio investments, which came handy; besides they were able to collect deposits at a lower cost compared to the new generation private sector banks (even compared to the old generation private sector banks) and despite being a late entrant into the retail banking sector, they could do retail banking business at a higher rate of interest in the non-competitive areas where the private banks do not have a significant presence.

3.12 WHY THE DIFFERENCE: SOME CRITICAL ISSUES

With the liberalization of the Indian economy through the reforms initiated, the banking sector occupies a pivotal role in the process of achieving higher economic growth and also in improving social well-being. The public sector banks in India have the twin tasks of meeting social obligations and at the same time generating adequate profits to meet the costs associated with growth. At present, the public sector banks have dual markets to cater to. The two distinct markets are rural and semi-urban on one hand and urban and metropolitan on the other. Rural and semi-urban markets, with which the PSBs will be dealing predominantly, will have illiterate customers whose demands are relatively simple involving banking transactions of a simple nature. The PSBs will mainly perform the role of inculcating the savings habit in the rural and semi-urban segments and also the monetisation of the rural economy. In contrast, the PSBs are finding it tough in urban and metropolitan markets. The customers here are essentially sophisticated and vociferous in getting prompt and efficient customer service. The

markets provide the avenues for PSBs to improve their profitability position substantially as these activities are considered to be profit-spinning operations for the banks. In such a scenario, competition from private sector banks is also coming to the fore because of their strong foothold in the urban and metropolitan areas. It would be interesting to note how the public sector banks will be able to cope up with the competition they will have to face and also adjust themselves to changes in the banking environment in urban and metropolitan areas. These conflicting objectives in serving different markets efficiently explain why public and private sector banks cannot be compared.

With a lion's share in deposits, huge geographical spread of customers and continuous expansion in the number of branches, we observe that the public sector banks experienced a quantum jump in the volume of workload at the branches. The limited infrastructure and manpower were inadequate to serve a large clientele, thereby aggravating the problem. This led employment of a large number of people, who only later served to decline the profits of the banks, due to the rising employee costs. During this time, the efficient and personalized service rendered by some private banks was well appreciated by customers, whose frontiers of knowledge, awareness and expectations had grown over the years. Nevertheless the advantages of having a diversified network of customers and branches can never be ignored. Also we see that public sector banks have been quick to sense the changes and adopt technology to improve their efficiency. Also the recent voluntary retirement schemes, will help the public sector banks get their business to shape and this deadly combination of rise in the number of VRS offerings has made the public sector banks more robust in their operations. Presenting the other point of view, we observe that even though the lack of reach of private sector banks does not loom large, it will do so some day, and then the rejuvenated public sector banks will stand tall.

Another area of concern is, income as a percentage of total assets is lower for the public sector banks. But then we need to understand their compulsions to support all government schemes, even schemes that do not make business, not by a long chalk. It is important to realize that public sector banks like the SBI have a higher interest spread despite their compulsions to support pro- government policies and lending 40% of its assets to the priority sectors. However the private sector banks seem to have an upper hand in the non-fund based activities, which

enhance their profitability. In fact, non-fund based revenues for a large number of these banks are as high as 15% of their total revenues. Consequently their contingent liabilities are also high. Even though it is prone to the risks of an insurance company, these liabilities pertain predominantly to the outstanding forward exchange contracts and derivatives, where the risk of default is minimal.

Access to developed technologies also gives an enviable position for private sector banks. Technology gives banks a good reach without having to invest in the branch network and the private sector banks were the first to recognize this fact. They also provide the convenience of banking, i.e. anytime, anywhere banking through alternate channels. However nowadays even the public sector banks have taken the technology bandwagon and set to woo customers. Another hidden dimension to this fact is that, private sector banks are able to provide efficient and personalized services to the better-off clientele they serve, who are willing to pay higher service charges for a service also rendered by the public sector banks in India. Selectivity in luring lucrative customers and charging a high price for service rendered to them has enabled private sector banks to improve their quality of customer service significantly.

Therefore we realize that there is an array of issues, which makes the comparison of public and private sector banks difficult. When the private players first made their foray into the Indian banking sector, PSBs had an advantage, in terms of the brand image, infrastructure, and penetration across the country. The pressure of competition forced PSBs to take a serious look at their own expenses and at the ways and means to minimize them. Out of these deliberations came the much talked about VRS schemes, which at lest for the time being ahs worked wonders with the bottom lines of most of the PSBs. That aside, what is really heartening is the change in the attitude, work culture and profit orientation of PSBs. The fruits of healthy competition in the banking sector finally seem to be reaching out to the customers.

3.12.1 Long-Term Sustainability is the Key

The country is experiencing a slowdown and there are no signs of economic recovery in the near future. This means it would be difficult for corporates to pay back debt on time. This might result in a large portfolio of loans turning bad. Added to this are the tougher provisioning

requirements, which would come into effect soon. It is good that the PSBs have cut costs especially on the employee front. But they would have to work on hiring and retaining the key talent. It would be very difficult for banks to make such windfall profits and they have to concentrate on the core business of banking rather than on additional profitability sources. It is too early to say whether the PSBs are out of the woods (Kumar, 2001). To confirm this point these PSBs have to show clearly that it is the banking business, which is the contributor towards the bottom line. Unless there is a proactive approach from the management of banks to stand as viable entities rather than just pleasing the regulators, it becomes difficult for them to survive in the long run. As for the future of banking, it seems to be perfect. Whether the players are public or private, there seems to be just enough room for all of them.

3.12.2 On a Positive Note

When private players first made their foray into the Indian banking sector, PSBs had an advantage, in terms of the brand image, infrastructure, and penetration across the country. Logically they should have gone on to become the best players in the banking sector but the public sector legacy, mounting NPAs, huge man power costs lowered productivity of these banks and in the initial round they made a poor show losing out badly to new enthusiastic private players. The pressure of competition forced PSBs to take a serious look at their own expenses and at ways and means to minimize them. Out of these deliberations came the much talked about VRS schemes, which at least for the time being has worked wonders with the bottom lines of most of the PSBs. That aside, what is really heartening is the change in the attitude, work culture and profit orientation of PSBs. The fruits of healthy combination in the banking sector finally seem to be reaching out to the customer.

THE NON PERFORMING ASSETS SAGA

Chapter 4
THE NON PERFORMING ASSETS SAGA

4.1 INTRODUCTION

During the years after independence, the Indian Banking environment was insulated from the global context and was denominated by state controls of directed credit delivery, regulated interest rates, and an investment structure that did not participate in this vibrant banking revolution. Suffering from the dearth of innovative spirit and choking under undue regimentation, Indian banking was lacking objective and prudential systems of business leading from early stagnation to eventual degeneration and reduced or negative profitability (Kannan, 2001). Continued political interference, the absence of competition and total lack of scientific decision-making, led to consequences just the opposite of what was happening in the western countries. Imperfect accounting standards and opaque balance sheets served as tools for hiding the shortcomings and failing to reveal the progressive deterioration and structural weakness of the country's banking institutions to public view. This enabled the nationalized banks to continue to flourish in a deceptive manifestation and false glitter, though stray symptoms of the brewing ailment were discernable here and there. NPA is a brought forward legacy accumulated over the past three decades, when prudent norms of banking were forsaken basking by the halo of security provided by government ownership.

Non-performing Asset (NPA) has emerged since over a decade as an alarming threat to the banking industry in our country sending distressing signals on the sustainability and endurability of the affected banks. The positive results of the chain of measures affected under banking reforms by the Government of India and RBI in terms of the two Narasimhan Committee Reports in this contemporary period have been neutralized by the ill effects of this surging threat. Despite various correctional steps administered to solve and end this problem, concrete results are eluding. It is a sweeping and all pervasive virus confronted universally on banking and financial institutions. The severity of the problem is however acutely suffered by Nationalized Banks, followed by the SBI group, and the all India Financial Institutions. It is not wrong to have pursued

social goals, but this does not justify relegating banking goals and fiscal discipline to the background. But despite this extravagance the malaise remained invisible to the public eyes due to the practice of not following transparent accounting standards, but keeping the balance sheets opaque. This artificially conveyed picture of 'all is well' with PSBs suddenly came to an end when the lid was open with the introduction of the prudential norms of banking in the year 1992-93, bringing total transparency in disclosure norms and 'cleansing' the balance sheets of commercial banks for the first time in the country (Jalan, 2002). NPA has affected the profitability, liquidity and competitive functioning of PSBs and finally the psychology of the bankers in respect of their disposition towards credit delivery and credit expansion.

It is a fact that the problem of bad loans is plaguing the banking system for quite some time. The quantum of bad loans, called inelegantly as NPAs is a fairly high proportion of total loans. The percentage of net NPA to advances of scheduled commercial banks (SCBs) in India was 6.2 per cent on March 31, 2001, according to the Reserve Bank of India report on Trends and Progress of Banking in India. The relative level in the U.S. would be less than 2 per cent. Given the fact that the total capital and reserves of SCBs were around 5.23 per cent of total assets, one might jump to the conclusion that NPA was more than the capital and reserves. But, the net NPA amounting to Rs. 32,468 crores represents less than half of capital resources at Rs. 67,741.47 crores. This is because a good chunk of the assets of banks comprises investment in Government securities, which is fully realizable and risk-free. Further, all NPAs are not irrecoverable and banks do have some securities to back up the NPAs. Therefore, it is clear that the Indian banking system is basically safe.

In any comparison between India and China, except perhaps in the area of democracy, China comes out on tops. Certainly, in industrialization, export performance; in the level of discipline among the populace and adherence to law, China should rank better. Therefore, banks in China would, one might presume, be healthier than Indian banks. Facts portray a contrary picture. As per the Banker magazine (a sister publication of Financial Times of the U.K.), the level of NPA to total assets in the two biggest banks in China, Commercial Bank of China and Bank of China were 25.01 per cent and 28.8 per

cent respectively in 2000. As against this, NPAs of Indian banks were 2.5 per cent of total assets (not advances) as on March 31, 2001. Banks in India are thus in a much better state of health than their counterparts in China.

4.2 A BIRD'S EYE VIEW

To start with, let us take a look at the magnitude of the problem. In India non-performing loans (NPL) of the past have continued and further fresh cases of NPLs have led to increase in the NPA levels as shown in the table below:

Table 4.1: Net NPA as percentage of net advances

Year	Net NPA	Net NPA as % of net advances
1996	17,567	10.7
1997	18,297	8.9
1998	22,340	8.1
1999	23,761	7.3
2000	28,020	7.6
2001	26,596	7.0
2002	27,856	7.0

Source : http://eastindiavyapaar.com/trade/bank/bank_non_perf_assets.htm

As at 31.03.2002 the aggregate gross NPA of all scheduled commercial banks amounted to Rs.63,883 Crore. The Table below gives the figures of gross and net NPA for the last four years. It shows an increase of Rs.13,068 Crore or more than 25% in the last financial year, indicating that fresh accretion to NPA is more than the recoveries that were effected, thus signifying a losing battle in containing this menace

Table 4.2: NPA Statistics -All Scheduled Commercial Banks

Year	Total Advances	Gross NPA	Net Advances	Net NPA	%-age of Gross NPA to total advances	%-age of Net NPA to net advances
1998-1999	352697	50815	325522	25734	14.4	7.3
1999-2000	399496	58722	367012	27892	14.7	7.6
2000-2001	475113	60408	444292	30211	12.7	6.8
2001-2002	558766	63883	526329	32632	11.4	6.2

Source: www.indiainfoline.com

The apparent reduction of gross NPA from 14.4% to 11.4% between 1999 and 2002 provides little comfort, since this accomplishment is on account of credit growth, which was higher than the growth of Gross NPA and not through appreciable recovery of NPA. There is neither reduction nor even containment of the threat. The gross NPA and net NPA for PSBs as at 31.03.2001 are 12.39% and 6.74% are higher than the figures for SCBs at 11.4%and 6.2%.

4.3 GENESIS OF NPAs

NPA surfaced suddenly in the Indian banking scenario, around the Eighties, in the midst of turbulent structural changes overtaking the international banking institutions, and when the global financial markets were undergoing sweeping changes. In fact after it had emerged, the problem of NPA kept hidden and gradually swelling unnoticed and unperceived, in the maze of defective accounting standards that still continued with Indian Banks up to the Nineties and opaque Balance sheets. In a dynamic world, it is true that new ideas and new concepts that emerge through such changes caused by social evolution bring beneficial effects, but only after levying a heavy initial toll. The process of quickly integrating new innovations in the existing set-up leads to an immediate disorder and unsettled conditions. People are not accustomed to the new models. These new formations take time to configure, and work smoothly. The old is cast away and the new is found difficult to adjust. Marginal and sub-marginal operators are swept away by these convulsions. Banks being sensitive institutions entrenched deeply in traditional beliefs and conventions were unable to adjust themselves to the changes. They suffered easy victims to this upheaval in the initial phase.

Consequently banks underwent this transition-syndrome and languished under distress and banking crises surfaced in quick succession one following the other in many countries. "Since the mid-eighties, banking crises have come to the forefront of economic analysis. Situations of banking distress have quickly intensified and in the process, have become one of the main obstacles to stability to the financial system. According to Lindgren et. al. (1996), 73 per cent of the member countries of the International Monetary Fund's (IMF) experienced at least one bout of significant banking sector problems from 1980 to 1996. More importantly, such crises have resulted in severe bank

losses or public sector resolution costs. As Caprio et. al, 1996 observe, such costs amounted to 10 per cent or more of GDP in at least a dozen developing country episodes during the past 15 years. Recent studies by Honohan, 1996 provide the estimated resolution costs of banking crises in developing and transition economies since 1980 are pegged at US $ 250 billion reinforce this view." But when the banking industry in the global sphere came out of this metamorphosis to re-adjust to the new order, they emerged revitalized and as more vibrant and robust units. Deregulation in developed capitalist countries particularly in Europe, witnessed a remarkable innovative growth in the banking industry, whether measured in terms of deposit growth, credit growth, growth intermediation instruments as well as in network.

4.4 NON PERFORMING ASSET: DEFINED

According to the securitisation and reconstruction of financial assets and enforcement of security interest ordinance, 2002 "non-performing asset"(NPA) means "an asset or account of a borrower, which has been classified by a bank or financial institution as sub-standard, doubtful or loss asset, in accordance with the directions or guidelines relating to asset classifications issued by the Reserve Bank". In other words, an asset is classified as non-performing asset (NPAs) if dues in the form of principal and interest are not paid by the borrower for a period of 180 days. However with effect from March 2004, default status would be given to a borrower if dues were not paid for 90 days. If any advance or credit facility granted by bank to a borrower becomes non-performing, then the bank will have to treat all the advances/credit facilities granted to that borrower as non-performing without having any regard to the fact that there may still exist certain advances / credit facilities having performing status **(rbi.org.in).**

4.5 NPAs IN GLOBAL CONTEXT

4.5.1 Comparisons of NPAs in India and other countries

We take a look at Japan and China and other Asian nations in contrast. The total NPA in Japan is estimated at $1.26 trillions, equivalent to about 26% of Japan's GDP. In China it is $600 billions, that is 45% of its GDP in Malaysia 48% of its GDP, in Thailand 41% of its GDP, in Taiwan 27% of its GDP, Compare this with NPA at 4% of India's GDP. Where is

the comparison? Yet despite all pressure Japan has steadfastly refused to accept the NPA norms universalized by the west. But surprisingly we have. Universalized NPA rule is a western strategy to keep global banking and finances under its thumb. It is tailor made to suit equity-driven economies, that is, the Western ones. In the US where 55% of the households are linked to the stock market, equity constitutes most of business finance with debt playing only a limited role. In contrast in India less than 2% of household savings is invested in stocks. The result India is debt-driven with more than 2/3 of the business funds being provided by debt. It is the other way round in the US driven by high equity and low debt. Where, with such low debt, interest or principal remains overdue for more than 180 days, the debt may be automatically regarded as non-performing. In contrast in India where debt in business is two times the equity, if the large debt is not serviced for 180 days, it cannot be automatically labeled as non-performing without further appraisal.

4.5.2 Level of NPAs

India's NPAs are consistent with worldwide experience with public banks, which suggests that public banks find it difficult to lend without generating large non-performing assets. India's private and foreign banks have lower NPAs than the public banks, although their NPAs are also high by international standards. However the total level of NPAs is comparable with other countries. The various levels of NPAs across countries is compared in the Table 4.3

Table 4.3: Net NPA as percentage of net advances in the world

Particulars	Net NPA as % of net advances
Finland	18.7
India	7.6
Ghana	60.0
Mexico	18.9
Philippines	23.1
Spain	5.7
Sweden	10.8
USA	4.1

Source: www.indiastat.com

However, several points of differences with respect to NPAs across various countries have led to difficulty in comparisons. Five major areas are being discussed below:

4.5.3 Technique of classification of loans:

In India the bank loans are classified on the following basis.

- **Performing Assets**: Loans where the interest and/or principal are not overdue beyond 180 days at the end of the financial year.
- **Non-Performing Assets**: Any loan repayment, which is overdue beyond 180 days or two quarters, is considered as NPA.

NPAs are further classified into sub-standard, doubtful and loss assets. Most of the countries observe similar classifications. However the technique of classification (in days) of the above varies across various countries as is shown in the Table 4.4

Table 4.4: Technique of classification of Assets across various countries

Particulars	India	Brazil	Sri Lanka	Nepal	USA , Japan, Malaysia, Kuwait, France, Germany, Australia
Sub standard assets	180-720	30-60	180-365	720-1080	90
Doubtful assets	>720 & not identified*	60-180	365-540	1080-1800	180
Loss assets	>720 & identified	>60, >180 or >360 **	>540	>1800	365

(*'Identified' refers to recognized by the internal/external auditor of the bank or RBI.
**** depending on the type of credit)**

Source: www.financeasia.com

4.5.4 Level of minimum provisioning required

Banks and other FIs have to make the following provisions in their books for advances, which are considered NPAs. These norms vary across countries as shown in Table 4.5

Table 4.5: Level of minimum provisioning required in the world

Particulars	India (%)	USA (%)	Nepal (%)	Korea (%)	Malaysia, Kuwait, Sri Lanka, Bangladesh, Brazil, Indonesia (%)
Sub-standard assets	10	15	25	20	20
Doubtful assets	20-50,100*	50	50	75	50
Loss assets	100	100	100	100	100

*Upto 1 year old doubtful asset -20%,1 to 3 years -30%, over 3 years -50% for secured loans and 100% to the extent of which advance is unsecured.

Source: www.financeasia.com

4.5.5 Treatment of multi loan customer

If one loan is non-performing, the other loans of a multiple-loan customer are treated differently in various countries as shown in Table 4.6

Table 4.6: Treatment of multi loan customer

All loans treated as NPA	Countries
No	India, USA, New Zealand, Japan, Malaysia, Brazil, UK, Germany, Canada, Nepal, Sri Lanka, Bangladesh
Yes	Australia, France, Kuwait, Indonesia, Korea

Source: www.financeasia.com

The difference in such treatment of multiple loans often leads to comparison problem across the various countries.

4.5.6 Recognition of interest income on NPAs

Internationally the income statements do not contain accrued but unpaid interest/ principal while loan is non-performing except in France and Germany. The non-

recognition of interest on loans after they become NPA prevents further inclusion of such assets in the books of the debtor. The interest incomes do not always cease to accrue immediately after they are labeled as NPAs. The number of days in arrears after which interest income cease to accrue across the countries is given in the table 4.7

Table 4.7: Recognition of interest income on NPAs

Country	Days	Remarks
Brazil	60	-
USA, Australia, Indonesia, Nepal, Sri Lanka, Bangladesh	90	-
Japan, Kuwait, India, Malaysia	180	In Malaysia accrual has to be suspended to first day of default
United Kingdom	Varies	Decision by directors
Korea	Varies	Depends on credibility of debtors

Source: www.financeasia.com

4.6 A CLOSER LOOK

In the background of these complex changes when the problem of NPA was belatedly recognized for the first time at its peak velocity during 1992-93, there was resultant chaos and confusion. As the problem in large magnitude erupted suddenly banks were unable to analyze and make a realistic or complete assessment of the surmounting situation. It was not realized that the root of the problem of NPA was centered elsewhere in multiple layers, as much outside the banking system, more particularly in the transient economy of the country, as within. Banking is not a compartmentalized and isolated sector delinked from the rest of the economy. As has happened elsewhere in the world, a distressed national economy shifts a part of its negative results to the banking industry. In short, banks are made ultimately to finance the losses incurred by constituent industries and businesses. The unpreparedness and structural weakness of our banking system to act to the emerging scenario and de-risk itself to the challenges thrown by the new order, trying to switch over to globalization were only aggravating the crisis. Partial perceptions and hasty judgments led to a policy of ad-hoc-ism, which characterized the approach of the authorities during the last two-decades towards finding solutions to banking ailments and dismantling recovery impediments.

Continuous concern was expressed. Repeated correctional efforts were executed, but positive results were evading. The problem was defying a solution.

Table 4.8: Segment wise Distribution of Gross NPAs

Borrowing Segment wise Distribution of Gross NPAs	Gross NPAs as on March'31, 2002	
	Amount (Rs. Crores)	Percentage to total NPAs
Public Sector units	1334.05	2.44
Large Industries	11498.10	20.99
Medium Industries	8658.69	15.81
Other Non priority sectors	9516.62	17.37
Agriculture	7311.40	13.35
Small scale industries	10284.97	18.78
Other Priority Sectors	6169.33	11.26
Total	54773.16	100.00

Source: www.indiainfoline.com

The threat of NPA was being surveyed and summarized by RBI and Government of India from a remote perception looking at a bird's-eye-view on the banking industry as a whole delinked from the rest of the economy. A bird's eye view is distinct, extensive and even sharp, but it is limited to the view appearing at the surface or top-layer. It is a not an exhaustive or in-depth view. Restricted merely as a top-layer view it is partial and is not even a top-to-bottom view, where a bottom-to-top-view alone can enlighten the correct contributing factors. Flying at a great height the bird can of-course survey a wide area, but it perceives only a telescopic view of the roof- top and not the contents that exist inside the several structures. A simple look at the whole provides summarized perception. But it is not a homogeneous whole that is being perceived. RBI looks at the banking industry's average on a macro basis, consolidating and tabulating the data submitted by different institutions. It has collected extensive statistics about NPA in different financial sectors like commercial banks, financial institutions, RRBs, urban cooperatives, NBFC etc. But still it is a distant view of one outside the system and not the felt view of a suffering participant. Individual banks inherit different cultures and they finance diverse sectors of the economy that do not possess identical attributes. There are distinct diversities as among the 29 public sector banks themselves, between different geographical regions and between different types of customers using bank

credit. There are three weak nationalized banks that have been identified. But there are also correspondingly two better performing banks like Corporation and OBC. There are also banks that have successfully contained NPA and brought it to single digit like Syndicate (Gross NPA 7.87%) and Andhra (Gross NPA 6.13%). The scenario is not so simple to be generalized for the industry as a whole to prescribe a readymade package of a common solution for all banks and for all times.

4.7 FUNDAMENTAL REASONS FOR HIGH NPA LEVELS

As a first step to the analysis, the institutional and infrastructural factors that are fundamentally responsible for the problem are outlined:

4.7.1 The legal environment

The foundations of corporate governance mechanisms are the laws that provide protection to the suppliers of finance and legal institutions that enforce these laws. The former determine the power of the suppliers of finance and the latter the speed and efficiency with which they can be used. The results of a survey on NPAs in Indian banks conducted by Siddique et al (1999) showed that the legal environment has been hostile to banks. They found that 27 public sector and 6 private sector banks filed suits for the recovery of 46.38 per cent of their NPAs in 1999-2000 but were able to recover 4.32 per cent only and a significant portion of suits have been pending for more than a decade. The legal route for recovery of dues is longer when cases are referred to the Board for Industrial and Finance Reconstruction. This is because special provisions of the sick Industrial Companies Act, 1985 (section 22) bar banks from taking action in such cases.

4.7.2 Public ownership of banks and market discipline

Cheryl W.Gray, then Interim Director, Public Sector in the World Bank's poverty Reduction and Economic Management Network, outlined three aspects of a well functioning legal system for a market economy (Gray, 1997). In addition to enacting market friendly laws and establishment of a broad set of efficient supporting institutions Gray emphasizes creating a demand for laws and efficient institutions. Credit friendly laws and efficient supporting institutions are ineffective unless banks demand them. Repeated bails-out by the government through recapitalisation or bad debt buyouts

destroy the incentive for banks to use friendly laws and efficient institutions. A recent example of a similar phenomenon is found in the Southeast Asian currency and banking crisis. Implicit guarantees provided by the government to banks for their lending to the corporate sector led to inadequate credit appraisal and risk management by banks. This created a financial sector vulnerable to external shocks. Though, theoretically, the public controls state firms, de facto the control rests with the bureaucrats. These bureaucrats have control rights but no rights to cash flows generated by the firm resulting in little concern for performance .The lack of managerial incentives to control NPAs in public sector banks owing to state ownership also creates the danger that banks may not make use of friendly laws and institutions. The Indian public sector banks suffer from this syndrome. A market mechanism to deal with this problem is to allow the public sector banks to approach private investors for equity. Already concerns about high NPA levels have seen bank stock prices suffer on the stock market in the recent past.

4.7.3 Political interference

The Indian banking system has been extensively misused for political reasons in the past. A large part of their bad debts are a legacy of this misuse. As shown in Table 4.9, the NPAs in priority sector advances of public sector banks are 46 to 49 per cent of their overall NPAs while priority sector advances form only 30 to 32 per cent of their total advances. The first Narasimhan committee report refers to the dangers of the micro credit guidance imposed on banks in the area of directed credit and suggests that directed credit be phased out gradually. Micro credit guidance erodes the ability of banks to manage credit risks. And directed credit places obstacles in efficient management of portfolio risk. In addition the large –scale loan write –offs ordered by politicians promote a culture on indiscipline and lawlessness among borrowers. This adds to the problems of banks already functioning in a hostile legal environment.

Table 4.9: Contribution of Priority Sector NPAs to overall NPAs in public sector banks

	1997-98	1998-99	1999-00	2000-01	2001-02
% of priority sector advances to total advances	32.04%	34.8%	34.6%	35.3%	33.02%
% of Gross NPAs in priority sector advances to total Gross NPAs	46.40%	44.8%	43.76%	44.16%	42.32%

Source: www.rbi.org.in

4.7.4 Competition, liberalization and gambling

V. Sunderarajan, Deputy Director, Monetary and Exchange affairs department, IMF suggested that all liberalization steps be subject to a systemic stability test (IMF survey, 1999). The test consists of answering the following questions:" what are the structural institutional measures that are needed to protect the financial system against various risks and sources of instability that are foreseen in the short to medium term given the planned liberalization?" Liberalization of interest rate controls and entry conditions often aims at improving the efficiency of banks by generating competitive pressures. However, that can lead banks to take excessive risks. Every bank has the option of investing in a "prudent asset" that yields relatively little or in an inefficient "gambling asset" that yields high returns if the gamble pays off and imposes costs on the depositors and deposit insurers if it fails. A bank can offer higher deposit rates and attract additional deposits .it can then invest in the gambling asset to achieve a higher growth rate. Demirigiic- Kunt et. al, (1998) studied the empirical relationship between financial liberalization and financial sectors crises in a number of developed countries. They reported that banking crises are more likely in a liberalized environment a few years after liberalization has begun.

The Indian Banking industry has gone through both interest rate and entry conditions liberalization. Sarkar et. al, (1998) studied the impact of the structure of the banking industry in efforts to increase competitive efficiency through deregulation. They found that the large branch network of Indian public sector banks serves as a non-regulatory barrier to competition. They reported that after the entry of new private sector banks in

India the market share of foreign banks in the market for deposits suffered. This was because the new entrants were primarily competing with these banks. In this context the recent trends in the NPA profile of the players is interesting. In the past 3 years the NPAs of the public sector banks have been falling while those of private and foreign banks have been rising. It appears that intense competition in a small segment of the market is pushing private and foreign banks to take excessive risks. A more definite picture on this trend will emerge over the coming years. However, the "systemic stability test" points towards the dangers of excessive competition and the need to be cautious.

4.7.5 Inadequate Risk Management Practices

The foregoing discussion has focused on systematic issues. The level of NPAs varies greatly among banks. It is obvious that some banks are better able to manage credit risks in the fact of existing constraints than others. This underscores the importance of internal, risk management systems in banks. Risk management should be proactive rather than reactive. Information networking among banks can further improve their risk management abilities.

4.7.6 Lack of prudential regulation

Risk management practices can be effective only when financial statements present accurate picture of the level of risk. The income recognition norms being followed by banks prior to 1992-93 involved recognition of income earned on bad debts in their book on an accrual basis. Thus, their financial statements did not reflect the level of bad debts and presented a misleading rosy picture of their health. This allowed the situation to degenerate considerably before it was detected.

4.8 NPA in INDIAN BANKS- THE PUBLIC VS PRIVATE BANKS DEBATE

4.8.1 Background

In this part of the chapter we attempt to explore a very common issue of discussions on various economic forums. The issue is about the NPA levels in Public and Private sector banks and trying to test the validity of the argument that the private banks have outperformed the public sector banks when it comes to the NPA levels. The private banks, especially the new generation private banks have been here for almost a decade now and it would be just appropriate to see their levels of NPAs. Time and again it has been said that when it comes to the level of Non Performing Assets, the private sector banks have managed to keep it down to a respectable level. With their team of professional managers and the state of the art credit appraisal systems, they have been able to keep a check on the NPA level. The public sector bank because of their faulty credit practices and no sound credit appraisal system already carried a huge legacy of NPAs and it came to the surface only when the Narsimham Committee on financial reforms made it mandatory for all banks to disclose their non performing assets according to the international practice of NPA accounting. Also the public sector banks were forced to lend to sectors such as Small-scale industries and other priority sectors which had a higher chance of default given the very nature of these loans.

The private banks on the other hand are just a decade old and are mainly driven by market. They are technology savvy and with a profit motive have been able to perform very well in their earlier years just after inception. Although the market share that they have cornered for themselves is still very nominal but then their target customers have been the niche segment. The most disturbing thing about these private banks is that although they are so new, they have already been saddled with lots of Non Performing assets. It is quite reasonable for a public sector bank to have such a high level of NPAs given their style of functioning and the overall business objectives but for a private banks to have such levels of Non performing assets and that too in such quick time is really alarming and a cause of concern for policy makers at these banks. In this part of the chapter we try to look at this very aspect of NPAs wherein an attempt would be

made to see is the picture really gloomy for Public banks and how Private banks are only marginally better when it comes to NPA levels (Swain, 2001).

According to the **Economic Survey** for 2002-03 tabled in Parliament, the gross and net non-performing assets (NPAs) of commercial banks have been declining as ratios of advances and total assets across all bank groups. During 2001-02 gross NPAs stood at Rs.70,905 crore and net NPAs at Rs.35,546 crore which were 10.4 per cent and 5.5 per cent of the gross advances respectively. They have been lower than gross NPAs at 11.4 per cent of advances and the net NPAs at 6.2 per cent of advances in the previous year i.e. 2000-01 and 12.7 per cent and 6.8 per cent respectively in 1999-2000. The NPAs across all commercial banks have also been declining when compared with their total assets. During 2001-02 gross NPAs were lower at 4.6 per cent of the assets against 4.9 per cent in 2000-01 and 5.5 per cent in 1999-2000. The net NPAs to the assets also declined to 2.3% in 2001-02 from 2.5 per cent in 2000-01 and 2.7 per cent in 1999-2000. The gross NPAs of public sector banks at 11.1 per cent of gross advances and 4.9 per cent of assets were higher than those of private sector banks and foreign banks in India. The private banks had 9.6 per cent NPAs to their advances and foreign banks had 5.4% at the end of 2001-02. The gross NPAs of these banks were 4.4% and 2.4 per cent of their assets respectively. The gross NPAs of Banks increased by Rs.7,164 crore to 70,905 crore in 2001-02 from Rs.63,741 crore in previous year. The Survey noted that this increase was mainly on account of the inclusion of an amount of Rs.4,512 crore in the gross NPAs consequent to the merger of ICICI with ICICI Bank.

4.8.2 The Public Sector Banks: On a sticky wicket

The gross non-performing assets – loans defaulted by borrowers – of all commercial banks (including public and private) soared to a whopping Rs 58,554 crore during the year ended March 2001from Rs 50,815 crore in the previous year, indicating the rising level of loan defaults, economic slowdown and poor performance of the banking sector. Of this, NPAs of public sector banks (PSBs) have crossed the Rs 50,000 crore mark and shot up to Rs 51,710 crore in 2000-2001 from Rs 45,653 crore in 1999-2000, the Reserve Bank of India said in a report released today. The whopping Rs 6,000 crore jump in gross

NPAs of last year was one the steepest rises in the recent years. A lion's share of the NPAs was accounted by the State Bank of India (SBI) group. The largest commercial bank reported a Rs 3,000 crore rise in NPAs to Rs 18,641 crore from Rs 15,525 crore. However, the RBI report did not give individual NPA figures of other commercial banks. ``The high level of NPAs is really a cause for concern. The quantum of rise in NPAs last year was more when compared to previous years. The RBI and banks need to do take measures urgently to bring down NPAs," admitted a banker.

Although our analysis will primarily focus on Private Sector banks, we will start with Public sector banks and their problem of NPAs to get a comparative picture. Here is a look at the NPA levels of few PSBs. Public sector banks (PSBs) have always been viewed as the poorer cousins of their private sector counterparts. These banks are likely candidates for the government's new asset reconstruction program.

Table 4.10: NPA and other related Statistics for some Public Sector Banks

					2001-2002
BANKS	Current market price Rs	Net NPAs as % of total advances	NPAs Gross Rs crores	NPAs Net Rs crores	Capital adequacy ratio %
Dena Bank	12	16.3	1996	1227	7.6
Bank of India	32	6.0	3722	2304	10.7
State Bank of India	241	5.6	15485	NA	NA
Punjab National Bank	49	5.3	4139	1810	10.7
Bank of Baroda	59	5.1	4489	1913	11.3
Oriental Bank of Commerce	46	3.2	951	453	11.0
Andhra Bank	16	2.5	524	237	10.6
Corporation Bank	116	2.3	587	253	17.9

Courtesy: Business Standard, Capital Market, (March, 2002)

According to the report on **Trend and Progress of Banking in India for 1998-99**, the net NPAs moved up from Rs 21,232 crore in 1997-98 to Rs 24,211 crore in 1998-99. ``The declining trend of NPAs of commercial banks witnessed till the year 1997-98 could not be sustained in 1998-99," the report said. Analysts said many companies defaulted on their loan repayments due to the industrial slowdown in the last two years. Many projects are stuck and promoters were finding it difficult to raise fresh resources to

complete their projects. However, the gross NPA as a fraction of total assets declined to 6.7 per cent in 1998-99 from 7 per cent in 1997-98, while net NPAs as a percentage to total assets declined from 3.3 per cent in 1997-98 to 3.1 per cent in 1998-99. The rise in NPAs indicates that various measures undertaken by the banks and the RBI to eliminate the menace of NPAs have not made any impact. The setting up of quasi-judicial body, Debt Recovery Tribunals has also failed to make any progress in bringing down NPAs.

The **RBI report** claimed that there has been a marked improvement in the loan portfolio of public sector banks in the category of `priority sector'. ``Sector wise analysis of NPAs of PSBs indicates that the share of NPAs of priority sector has declined from 50 per cent at end March-1995 to 43.7 per cent at end March 1999," the report said. During the year 1998-99, the RBI report says, the level of gross NPAs to gross advances declined to 15.9 per cent in 1998-99 from 16 per cent in 1997-98 mainly on account of a marginal reduction in sub-standard and doubtful assets and concomitant increase in standard assets. According to the report, while the NPAs of public sector banks showed a marginal decline, an increase was witnessed in all other bank groups. ``During the year 1998-99, number of PSBs with net NPAs up to 10 per cent increased by one to 18 and the number of banks with net NPAs in the range of 10 per cent to 20 per cent declined by one to eight, with one bank continuing to show NPAs above 20 per cent," the report said. The RBI's annual report on banking trends also pointed out that in case of foreign banks, those with net NPAs up to 10 per cent declined from 34 to 27 over the year and those above 20 per cent stood at 3 as against 2 in the last year. The number of foreign banks with net NPAs ranging between 10 to 20 per cent increased to 11 from 6 in the preceding year. For old private sector banks, the number of them with the net NPAs below 10 per cent was 17 as against 21 in 1999-2000 while those above 20 per cent were 3 as against nil in the last three years. An analysis done by the RBI shows that NPAs of different bank groups showed that with the exception of public sector banks, the other bank groups – private sector and foreign banks witnessed increases during 1999-2000.

Therefore, in some respects, the problem of NPA of public sector banks is more acute than private banks, but the picture is somewhat blurred. The NPA was 6.7 per cent of advances for public sector banks against 5.4 per cent for private sector banks and 2.2 per

cent for foreign banks in 2001. However, for the older private sector banks, that is, other than those that started in the 1990s, the NPA was 7.3 per cent that is higher than the public sector banks. These are average figures. Looking at figures of individual banks, some of the private and foreign banks reflect a pathetic figure as compared to the public sector. The highest level in public sector bank was in Dena Bank (18.29 per cent) and four others have higher than 10 per cent. The highest figure among all banks was for a foreign bank, Bank International Indonesia at 50.75 per cent and four other foreign banks have more than 20 per cent. Among them Dresdner Bank, a German bank with 24.05 per cent also figures. Three Indian private sector banks have more than 20 percent, the highest being 23.70 per cent for Benares State Bank Ltd. Thus, public sector banks have been able to manage their loans better than the private sector, including some of the foreign banks.

4.8.3 Is Ownership Important

Of the total non performing stock of 66.4 thousand crore in 2002, 56.5 thousand crore was carried by Public sector banks, almost 85%. The PSBs share in the total advance was only 75%, so clearly PSBs continue to perform worse than other groups. But, in terms of their incremental performance since 1999, they have actually out shown domestic, privately owned banks. Incremental NPLs of PSBs between 1999 and 2002 amounted to only 2.6% of their incremental gross loans during the period. As compared to this, non-nationalized domestic banks, excluding the new banks of the post reform period, had incremental NPLs amounting to 7% of incremental loans. The corresponding percentage for newer privately owned banks is even higher, but is muddied by the merger. Thus, although public ownership gave the PSBs an inherited albatross of NPLs, their response to the new regulatory environment has been better than that of the non-nationalized banks. That this should be so is not altogether surprising. The connectedness that gave rise to the problem in PSBs in the first place could, in obverse enable easier correction, at least initially. By extension, although such dilution of public ownership as has taken place is clearly welcome, it is not clear that acceleration of privatization is necessarily the way to go (Kamesan, 2002).

The **Report on Currency and Finance** provides figures on sample sets of five PSBs that remain fully government owned, and a set of divested five that have successfully accessed capital markets during the nineties. The divested PSBs at 10.03% gross NPLs in 2002, outperformed even old private sector banks which remained at 11%. Although the Report takes care to acknowledge that non-divested PSBs experienced the sharpest decline in NPLs, it concludes, "It was found empirically that in the case of Indian banking sector, ownership did impinge on the efficiency of banks". There is an implied causality, running from divestment to performance, which is not supported by the selection process for divestment. Causality ran from performance to selection, certainly in the sample of five divested banks, which includes star performers of the PSB group such as Oriental Bank of Commerce and Bank of India. OBC in particular, had consistently outperformed the old generation private sector banks and astonishingly some of the new generation private banks as well. The non-divested sample of fives on the other hand includes United Bank of India, UCO Bank and Punjab and Sind Bank, which are cases for poor performance.

4.8.4 On A Positive Note

Although public ownership gave the Public sector banks an inherited albatross of Non Performing Assets, their response to the new regulatory environment has been better than that of the corresponding Non – nationalized banks. Clearly, there is general lack of confidence about the efficiency with which these banks perform their intermediation function. As long as these banks are unable to bring down their stock of non performing loans, lending rates will be have to be pitched high enough to cover non receipt of income from the default component. It is too soon to know the impact of landmark June 2002 ordinance for recovery from defaulters, which has since become law. In the ***Report on Currency and Finance*** of the Reserve Bank of India, issued in March 2003, comparative figures are given of the percentage of Gross Non performing loans in India, against figures for other countries in Asia and Latin America. The comparison dates back to 1999, when the Indian figure stood at 14.7%. Even runaway Brazil was at a more respectable 11%. Only Thailand at 48% made India look good by comparison. From the 1999 level, gross NPLs came down quite sharply to 10.4% of advances by March 2002.

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However the percent decline goes with a rise in the absolute levels of NPLs from 58.7 thousand crore in 1999 to 70.9 thousand crore in March 2002. The latter figure includes an extra 4.5 thousand crores on account of the merger of some of the new privately owned banks with the financial institution that spawned them. Even if this unwelcome transfer is subtracted, there remains an absolute stock of 66.4 thousand crore of gross NPLs in March 2002, implying an addition of 7.7 thousand crores of non-performing loans since 1999. The beast is yet far from tamed.

4.8.5 Poor Cousins: Old Generation Private Banks

The emergence of NPAs left these banks busy fire-fighting through the late 1990s. That was when the best banks from both the public sector and the newly licensed segment crafted strategies to grow rapidly. These banks invested in technology, stealing a march over others, including the old private banks. The old private banks now look like poor cousins of the successful new private sector banks such as HDFC and UTI Bank. The woes of these banks stem from:

- **Cost of funds**: This is higher than that of public sector banks by 75-100 basis points. The cost for such new entities as HDFC Bank is even lower. Importantly, their cost of funds has also not been as flexible to the falling interest rate regime as the cost of funds for public sector banks. Low-cost deposits accounted for nearly 23 per cent of the total deposits for old private banks. The ratios, for instance, were higher at 36 per cent for SBI and 41 per cent even for a new bank such as HDFC Bank.

- **Wage costs**: These are only marginally lower than that of public sector banks while being substantially higher than that of the new generation banks.

- **NPAs**: The level of net NPAs is similar to what is seen in many afflicted public sector banks. At the end of March 2002, only J&K Bank and Vysya Bank had a net-NPA-to-net-advances level of less than 5 per cent. For City Union Bank,

Dhanalakshmi Bank, Federal Bank , United Western Bank, Lakshmi Vilas Bank and Nedungadi Bank, the NPA level was more than 8 per cent.

- **Lower technology penetration**: The result is that the ratio of fee-based income to operating income is low. Banks are dependent on fund-based activities. In addition, ATMs are helping new banks add saving bank customers and reduce the cost of funds.

- **Lower business per branch**: Business per branch is around 30 per cent lower than that of public sector banks. The historical factor of larger proportion of branches in the semi-urban and rural areas is beginning to haunt the old private banks. In fact, growth in operating income was on an average lower than even SBI's in the year ended March 2002. This can only be attributed to the spread of branch network in the semi-urban and rural areas that are practically recording no growth because of the poor industrial climate.

Table 4.11 NPA Analysis of Indian Banking System

	Gross NPAs (Rs million)	Gross NPAs as a % of Total loans	Net NPAs as a % of Total loans	Provision* Coverage
Private Sector Banks				
ICICI Bank	4,210	6.0%	2.2%	63.4%
HDFC Bank	1,468	3.2%	0.4%	85.9%
UTI Bank	2,258	4.7%.	3.8%	19.7%
IDBI Bank	1,500	4.8%	3.1%	36.0%
Public Sector Banks				
SBI	1,58,470	14.0%	6.0%	56.9%
Corporation Bank	4,847	5.6%	2.0%	64.7%
BOB	41,860	15.3%	6.8%	55.8%
Financial Institutions				
ICICI	59,880	9.9%	4.9%	50.2%
HDFC	3,001	2.3%	0.9%	62.4%

* % Of cumulative provisions made on Gross NPAs
Source: www.equitymaster.com

It is quite evident from the above table and the discussions before that it is the new generation private banks that have out performed everybody in the race to bring down

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It is quite evident from the above table and the discussions before that it is the new generation private banks that have out performed everybody in the race to bring down

NPA levels. Except for ICICI Bank, which has to face huge NPAs because of the reverse merger with its parent, all other banks have managed to keep it below 4%, which is comparable with International standards. But the other side of the picture is not so rosy. If you look in absolute terms, these new generation private banks have already accumulated more than Rupees 9 billion worth of NPAs and they have just completed a decade. Going by just this fact, it is not a good sign for times ahead because these banks were all professionally managed, had the best of technology and with almost no government and political interventions. With all the freedom a bank would be looking for, if still you pick up such high levels of NPAs, it's not a positive signal. Moreover their incremental NPA levels have been increasing, a cause of worry for most of these banks.

4.9 READING BETWEEN THE LINES

Thus we see that the scenario of NPAs is not so healthy when it comes to Indian banking although the worldwide picture is even gloomier. The amount of NPAs our banking system is saddled with is a reason for concern. We have also seen the reasons behind these huge levels and find out that the main culprits are Loans to petroleum sector (Rs 29000), to steel sector (Rs 22000 crores), and to the infamous Enron power project (Rs 9000 crores). These portfolios have to be restructured. Once restructured, they will disappear from the NPA radar. However the money sunk in Enron is gone. Eventually, for all its sins, the government will have to offer this amount as a subvention or as subsidy. Deducting these loans, the resulting balance Rs. 60000 crores (over $12 billions, is within 10% of the total commercial credit of banks and financial institutions. This is less than 4% of our GDP as compared to The total NPA in Japan is estimated at $1.26 trillions, equivalent to about 26% of Japan's GDP. In China it is $600 billions, that is 45% of its GDP in Malaysia 48% of its GDP, in Thailand 41% of its GDP, in Taiwan 27% of its GDP.

Another fact that has come to the fore is that when the Indian economy is not performing; can non-performing accounts in banks be avoided? Cannot be. Another point. Many western scholars are coming round to the view that the infamous

Washington consensus, which is the mother of idea of globalized NPA norms, is a failure. They now say that domestic finance should be based on counter cyclical approach, that is, if the economy is under performing there should liberal financing to lift the economy. Today's NPA policy is precisely the other way round. Yet despite all pressure Japan has steadfastly refused to accept the NPA norms universalized by the west. But surprisingly we have. Universalized NPA rule is a western strategy to keep global banking and finances under its thumb. It is tailor made to suit equity-driven economies, that is, the Western ones. In the US where 55% of the households are linked to the stock market, equity constitutes most of business finance with debt playing only a limited role.

In contrast in India less than 2% of household savings is invested in stocks. The result India is debt-driven with more than 2/3 of the business funds being provided by debt. It is the other way round in the US driven by high equity and low debt. Where, with such low debt, interest or principal remains overdue for more than 180 days, the debt may be automatically regarded as non-performing. In contrast in India where debt in business is two times the equity, if the large debt is not serviced for 180 days, it cannot be automatically labeled as non-performing without further appraisal. Yet once a borrower is unable to pay interest for more than 180 days his account is to be regarded as non-performing and the new rule will deny him further credit, which he needs most then. With banks handling over 60% of national financial savings and the government handling the balance, where else will needy businessmen turn of funds? Thus, starved of funds, businesses, which are only weak, turn sick.

However when it comes to individual categories of banks in India, the new generation private sector banks with the likes of HDFC Bank, UTI Bank etc have emerged as a clear winner. Not only they have managed to keep the NPA levels low to be comparable with international standards but they are also increasing their credit off takes gradually. The old generation private banks are good prospects of being taken over by foreign as well as domestic banks but they need to clean their NPAs first to make themselves attractive for a possible take over. The public sector banks have surprised everybody by bringing

down their NPA levels in the post reform period (the incremental NPA levels have dropped to as low as 2% for some banks in this category). Actually some of them have performed even better that these old generation private banks. However the analysis also suggests a case for further divestment of nationalized banks and more teeth to them when it comes to asset recovery. With the passage of SARAFESI Act, 2002 the times ahead are going to be very promising for these banks and if the government removes the legal hurdles and the ARC concept does click, these banks will be the banks of future. However this does hold true for only some PSBs like Oriental Bank of Commerce, SBI, Corporation Bank etc whereas the remaining like the UCO Bank, Indian Bank etc would be a serious drag to these PSBs bringing down the overall performance of this category.

4.10 NPA MANAGEMENT... MILES TO GO

The gross non-performing assets (NPAs) of SCBs stood at Rs.70, 904 crore as on March 31, 2002 as compared with Rs.63, 741 crore at the end of the previous year. The gross NPAs for end-March 2002 include an amount of Rs. 4,512 crore on account of merger. During the same period, net NPAs increased by 9.5 per cent to Rs.35, 546 crore from Rs.32, 461 crore at end-March 2001. For PSBs, gross NPAs stood at Rs.56, 507 crore as at end of March 2002, comprising 79.7 per cent of the sticky loans of SCBs.

Table 4.12 NPAs of Public, Private and Foreign banks during the period 1999/2002

	% of Gross NPAs to Gross Advances	% of Gross NPAs to Total Assets	% of Net NPAs to Gross Advances	% of Gross NPAs to Total Assets
Public Sector Banks				
1999	15.9	6.7	8.1	3.1
2000	14.0	6.0	7.4	2.9
2001	12.4	5.3	6.7	2.7
2002	11.1	4.9	5.8	2.4
Old Private Sector Banks				
1999	13.1	5.8	9.0	3.6
2000	10.8	5.2	7.1	3.3
2001	10.9	5.1	7.3	3.3
2002	11.0	5.2	7.1	3.2
New Generation Private Sector Banks				
1999	6.2	2.3	4.5	1.6
2000	4.1	1.6	2.9	1.1
2001	5.1	2.1	3.1	1.2
2002	8.9	3.9	4.9	2.1
Foreign Banks				
1999	7.6	3.1	2.9	1.1
2000	7.0	3.2	2.4	1.0
2001	6.8	3.0	1.8	0.8
2002	5.4	2.4	1.9	0.8

Source: Report on Trends and Progress in Banking, 2002

The table above shows that the NPAs of Public Sector banks have been falling. However, the NPAs of scheduled commercial banks as a whole has risen over the past two years. The facts presented are worrisome for three reasons. First, the level of NPAs is still high by international standards. Levels of NPAs in USA, Japan Hong Kong, Korea, Taiwan

and Malaysia ranged from 1 to 8 percent in 1994-95 and 0.85 to 3.9 per cent in 1995-96. Second, the pace of reduction in NPA is slow. The second Narasimhan committee set a target of bringing the gross NPA level of banks with an international presence to 5 percent by year 2000 and 3 per cent by year 2002 (**Report on Trend and Progress of Banking in India, 2001-2002**). Against these benchmarks, the pace of reforms is very slow. The two leading banks with an international presence, Bank of Baroda and State Bank of India, had gross NPAs of 16.03 and 15.56 per cent at the end of March 1998-99 respectively. Third, the trend of reduction in NPAs for scheduled commercial banks as a whole has reversed in the past two years. These facts demonstrate that eight years after the commencement of reforms in 1992 the problem is still far from being solved.

In this part of the Chapter, we examine the hypothesis that the problem of NPAs of Indian banks remain unsolved because of improper sequencing of reforms. The importance of proper sequencing is being stressed by researchers and institutions such as IMF and the World Bank. The interim committee of the Board of Governors of the IMF, constituted in the aftermath of the Southeast Asian currency and banking crisis, issued a communiqué in 1998.This communiqué stressed the importance of "orderly and poorly sequenced" liberalization in reducing the vulnerability of financial systems to potential shocks. In a conference organized under the aegis of the IMF in July 1999 participants deliberated on the issue of sequencing financial sector reforms. One of the speakers at this conference, Gerard Caprio the then Director, Financial Policy and strategy Group and Head, Financial sector Research, World Bank, opined that reforms involving building institutions and improving the entire infrastructure that influences the behavior of the participants of the financial sector should be carried out first. This is because these are fundamental reforms and take a long time to complete. According to him, reforms carried out in the absence of these institutions and infrastructures are like a structure built without pillars. Thus, the proper sequencing of reforms is vital to their success.

4.10.1 Analysis of Relevant Reform Measures

Stijin Classens, lead Economists of the World Bank's Financial Sector strategy and Policy Department, outlined the "phases of distress" that mark the efforts to restore the health of an ailing banking sector (IMF, 2001). These are: a containment phase when steps are taken to halt the spread of the problem: a restructuring phase when institutional, rehabilitation and recapitalisation steps carried out: and, a fundamental reforms phase when the deeper causes are addressed through long-term fundamental reforms. The reforms carried out in the restructuring phase aim at cleansing their balance sheets. On the other hand fundamental reforms aim at creating conditions that ensure that the crisis doesn't recur. Viewing these "phases" in the context of Caprio's views on reform sequencing, it can be inferred that the "fundamental reform phase" should be started along with the "restructuring phase". This is imperative because fundamental reforms have a long gestation period .If restructuring is attempted without fundamental reforms there is a good possibility that restructuring will be needed repeatedly in the future. The liberalization and reform measures undertaken in India to reduce the incidence of NPAs from 1992-93 have been analyzed on the basis of Classens' "phases of distress."

The measures classified under "restructuring" category are primarily related with recapitalisation of banks, gradual reduction of the capital base and restructuring of the existing debt. Those classified as "fundamental reform" are related to the legal environment, reduction of political interference and better risk management techniques. The analysis of restructuring reforms shows that recapitalisation measures have continued right from 1992-93 to 1998-99 but no effort has been made to cleanse the banks' balance sheets of bad loans. Normally, recapitalisation is accompanied by bed debt resolution. Recapitalisation assures banks of government assistance in form of capital infusion and repeated posturing on the formation of an asset reconstruction fund gives the impression that their bad debts will be magically resolved by someone else.

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A look at the fundamental reforms shows that bank legislation has not yet been reformed. The crucial Sick Industrial Companies Act Amendment Bill is being given a

re-look for the third time in the past few years. In the aftermath of the bad debt problems faced by Indian Banks in the early part of this decade, special debt recovery tribunals (DRTs) were set up to give them speedy legal redress. These too have proved ineffective owing to inadequate infrastructure. Of the 11,700 cases referred to the DRTs since their establishment only 1,045 had been settled till the end of June '97. (Siddiqi et al 1999). Though the DRTs have been ineffective but since this reform was started early they can now be streamlined and improved on the basis of past experience. Since the long delays inherent in the legal system were well known, guidelines for settlement advisory committees (issued in1998-99) for out of court settlement should have been issued earlier. This would have helped tackle NPAs in the absence of legislative reform. Another positive aspect of the sequencing of reforms has been the very early implementation of strict income recognition, assets classification and provisioning norms.

Though some initiative has been taken to delegate credit approval powers to banks, directed credit continues to exist. The definition of directed credit has been widened very recently (1998-99). Political compulsions make it difficult to phase out directed lending entirely, but the widening of its definition could have been attempted earlier. The banking industry still remains vulnerable to political interference in the form of loan write-offs. Risk Management practices in Indian banks have long been outdated and guidelines for proactive risk management have been issued recently in 1998-99.The groundwork for setting up a credit information bureau has been started late in 1998-99. The decision to allow public sector banks to tap the capital markets was taken fairly early and was accompanied by implementation of better accounting practices and enhancement of rights of the private investor. However, 14 out of 19 nationalized banks were still owned by the government at the end of March 1999. One reason for this is their high NPAs, which make it difficult for them to approach the market. Another positive aspect of the sequencing of reforms has been the very early implementation of strict income recognition, assets classification and provisioning norms.

The magnitude of NPAs in Indian banks continues to remain at a worrisome level. Moreover, the trend of reduction in NPAs has reversed in the past two years .An analysis of the sequencing of reforms measures carried out post 1992-93 reveals that a large part of the fundamental reform required to tackle the problem of bad debts has either just commenced last year or still on the anvil. It should have been scheduled much earlier in the reform process since such fundamental reforms take a long time to implement. This improper sequencing is precisely the reason why the NPAs' problem has become chronic in Indian banks. This analysis throws up suggestion for future action by regulators and policy makers. One, legislative reforms are needed both to contain the level of existing NPAs and to prevent building up of large NPAs in future. Two, infrastructure reforms are needed to make DRTs effective. Three, a time reduction in directed credit is required. The inclusion of new sectors in directed credit is required .The inclusion of new sectors in directed credit in 1998-99 is a step in the right direction. Four, enactment of legislation against loan write-offs is needed. Five, the government should announce a long term policy on capitalization of banks which should aim at a gradual withdrawal of government assistance. These are measures that create an environment conductive to preventive buildup of NPAs in the future.

Along with the above fundamental reform measures, the resolution of existing NPAs in banks should be carried out through appropriate vehicles. If the setting up of as asset reconstruction fund is not planned the government should announce an alternative plan of action.

4.11 TRIMMING THE NPA.... THE SARAFESI ACT, 2002

The Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Ordinance, 2002, puts lending institutions in control when it comes to recovering money from defaulting companies. This ordinance establishes powers for secured creditors to take over management control of a borrower company upon default and sell assets without the intervention of courts in cases where 75% of secured creditors decide to do so. This means that the ordinance takes the judicial system out of the loan recovery process for banks thus reducing the difficulties and delays associated with debt recovery. Moreover, the ordinance puts an end to references made to BIFR under SICA i.e. strengthening the hands of the lending institutions. This ordinance has also provided a well–defined recovery timeline. In case of a default, and classification of an asset as a NPA, the lending institution can notify the defaulting company in writing to fully discharge their liabilities within the next 60 days after which it can explore other options including management change and asset disposal. Moreover, if the promoters have given personal guarantees for the loans, their assets can also be attached and sold. The borrower can appeal in DRT, against the order but only after depositing 75% of the amount claimed. This ordinance also provides lenders wide ranging powers for recovery through different means. The ordinance is not applicable in cases where the value of the security interest is less than Rs. 100,000/- and the amount due is less than 20% of the principal and interest thereon (www.rbi.org.in).

The Act deals with three aspects.

1. Enforcement of Security Interest by secured creditor (Banks/Financial Institutions)
2. Transfer of non- performing assets to Asset Reconstruction Company **(ARC),** which will then dispose of those assets and realize the proceeds.
3. To provide a legal framework for securitisation of assets.

Source: www.rbi.org.in

4.11.1 Working of an Asset Reconstruction Company (ARC)

Banks can set up asset reconstruction companies (ARCs) to take over their NPAs at an appropriate price, relieving them of the hassle of carrying worthless assets on their balance sheets. Moreover, they will have the power to seize and sell assets held as collateral, making loan recovery. The ARC reportedly would buy the problem assets of banks and issue units equal to asset value will be placed with the banks The units will be carried in the books of the bank at face value which will be the appraised value of the loan. These units will carry 100% capital requirements. Will the banks be able to write back provisions on loans transferred? Since the loan would move from its loan portfolio to its investment book. The ARC units have to be carried at book value until such time that they are redeemed. Will there be capital gains for then ARC if they collect the NPA and the recovery is over and above the appraised value of the loan.

The loans taken over by the ARC will not be loss assets but primarily doubtful and sub-standard assets and companies in working condition. ARC will take on corporate loans above a certain size, hence excluding the small loans whether retail or business A big burden of collecting loans will be lifted off the backs of banks and they can concentrate their efforts on marketing loans and tackling intense competition for assets and liabilities that confront the banking sector today. The ARC would then use its infrastructure like people, recovery agents, and the law courts to recover the outstanding against the loan. They are talking of Rs.50000 million worth of assets from the banking sector going to the ARC. The cost of administering these loans will be booked as an expense in the profit and loss statement of ARC. The capital Income from interest if any will be booked as income and recovery as a profit on sale of asset?

The collections from loans recovered will go to redeem the units. If the recovery is above the price at which the asset was bought then the ARF will make a tidy profit and plough it back to buy more problem loans.

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4.11.2 Issues to be Addressed

1. As per one argument, banking is a high risk industry –commercial banks themselves should bear all the risks arising from their operations and must provide adequate provisions for possible loan losses. It is hard to justify the use of taxpayers' money for the clean up of NPAs.

2. All ARCs suffer from moral hazard .It is simply this: If I know that my bad debts will be taken off the books, then I have no incentives to focus on good loan appraisal and prompt recovery. In effect, ARCs insure banks from the market driven downside of poor performance. This moral hazard gets exacerbated for government –controlled public sector banks and FIs. In neither milieu, where neither is performance rewarded nor non –performance punished, an ARC is like candy to diabetics. This is particularly true for the three weak banks: Indian Bank, United Bank of India and UCO Bank. For them, an ARC will create spuriously clean finances and a false picture of health while the organizational cancer continues to spread.

3. An important issue that may crop up here is the issue of pricing, or fixing a realizable value on the assets. The pricing of NPAs is a critical issue. There are two ways in which NPA can be sold to an ARC company –at book value or according to what the market can bear. While the former is good fro banks, it good also mean huge losses to the ARC. Mostly, no ARC would be willing to take on bad debts on book value unless forced to do so. Book value transfers would only shift the losses from the banks to the ARCs. As a book value transfer will result in huge losses to the ARCs, transferring the assets at a discount at realizable market prices will aggravate problems related to fixing a market price. If the financial institutions are allowed to retire off their debts, and then continue with the same old practice, these problems will not only continue but will take much broader dimensions. So, what about transferring at realistic market prices, which are, discounts to book value. But can anyone in India say with any certainty that the CBI, CAG and the CVC will not question such transactions. That being so, why should a much harassed and short tenured Chairman of a Public sector bank take the risk.

4. What is the realizable value of the underlying asset that is being transferred. This is particularly important in the case of banks, especially the three weak ones for which ARCs are to be panaceas. Banks usually lend working capital against inventories and work-in-progress. Portfolio that are expected to be transferred to an ARC are loans that have been NPAs for several years, where the companies concerned are bankrupt with current liabilities vastly in excess of current assets. To give an example: On March 31,1998,for 347 private sector listed companies, current liabilities exceeded current assets by Rs.5392 crores. Their short term bank borrowing was Rs.3, 531 crores. In effect, there is no positive price for selling these NPAs because there is no collateral worth recovering. Here, the Financial Institutions are somewhat better off, they have first charge on plant, machinery and fixed assets, which erode less than inventories. Their NPAs might command better valuation.

5. ARCs mean precious little given the state of bankruptcy and recovery procedures in India. It takes BIFR four years to decide on a case. Defaulters get permanent stays from creditors' claims under section 22 of SICA. Recovery processes are fraught with delays. Debt Recovery Tribunals are overloaded with cases. Judges with little or no commercial Competence grants adjournments as a matter of course. Liquidation takes at least 10 years –and that too with great luck. In India, the transfer price of NPAs will be determined by the payoffs from 'out of court 'settlements. Those payoffs aren't very attractive.

INTERNET BANKING

Chapter 5
INTERNET BANKING

5.1 INTRODUCTION

In the five decades since independence, banking in India has evolved through four distinct phases. During Fourth phase, also called as Reform Phase, Recommendations of the Narasimham Committee, 1991 paved the way for the reform phase in the banking. Crucial initiatives with regard to the reform of the banking system were taken in this phase. Important among these have been introduction of new accounting and prudential norms relating to income recognition, provisioning and capital adequacy, deregulation of interest rates & easing of norms for entry in the field of banking. Entry of new banks resulted in a paradigm shift in the ways of banking in India. The growing competition, growing expectations led to increased awareness amongst banks on the role and importance of technology in banking. The arrival of foreign and private banks with their superior state-of-the-art technology-based services pushed Indian Banks also to follow suit by going in for the latest technologies so as to meet the threat of competition and retain their customer base. Indian banking industry, today is in the midst of an Information Technology (IT) revolution. The future of banking and finance hinges around exploiting the opportunities thrown up by the technology explosion. This requires the combined efforts of all participants in the financial system. The collective goal should be to make use of synergies between technology and finance to maximize the benefits to society.

The IT revolution has brought about a fundamental transformation ushering in, as Alvin Toffler describes it, the fourth wave. Perhaps no other sector has been affected by advances in technology as much as banking and finance. It has become the most important factor for dealing with the intensifying competition and the rapid proliferation of financial innovations. It has enabled, in general, raising the efficiency of financial intermediation in the face of ever-rising volumes of transactions, falling margins and more empowered customer expectations. IT has basically been used under two different avenues in Banking. One is Communication and Connectivity and other is Business Process Reengineering. IT enables sophisticated product development, better

market infrastructure, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets. In view of this, technology has changed the contours of three major functions performed by banks, i.e., access to liquidity, transformation of assets and monitoring of risks. Further, IT and the communication networking systems have a crucial bearing on the efficiency of money, capital and foreign exchange markets.

5.1.2 Background of IT Applications In Indian Banking Sector

The Indian Banking system has been operating successfully over the last two centuries. It was in 50s that the Government of India evolved the policy of using the Banking system as an instrument of economic development and social change and, as a first step, nationalized the then Imperial Bank of India and re-christened it as State Bank of India. (SBI). The SBI was given the mandate of a massive branch expansion program and was asked to open branches in far-flung unbanked areas and assist in their development. This resulted an explosion of sorts in volumes of transactions and posed a severe strain on all resources. More particularly, the inter-branch reconciliation became one area that defied manual handling. It was in this background that the first steps towards mechanization were taken by installing what was known as ICL 40-column punched card equipment in late 50s/early sixties in the Calcutta office of the SBI for the reconciliation of inter-branch transactions. The pace of branch expansion was so fast that by early sixties this equipment was also considered inadequate and the Bank went in for the first computer - an IBM 1401 supported by a battery of about one hundred 80-column punched card machines for data input. The whole system of reporting and reconciliation of transactions was revamped and modernized. Other larger nationalized banks also followed suit.

Interestingly, at that time, no immediate need was felt for automation of Branch and customer related activities or for that matter head office/corporate office operations. The banking system went in for massive employment drives. Most of the banking being of mandated kind, quality inputs in the form of analyzed data were neither envisaged nor considered necessary. Management Information System was still in its infancy. RBI &

SBI made some efforts to develop MIS in the area of deposits and advances through use of Uniform Balance Books etc., which finally matured in the form of Basic Statistical Returns (BSRs). By 70s though Committee reports like Tandon committee had started talking in terms of industrial databases. Another significant development that had a bearing on the bank computerization was the advent of Personal Computers (PCs) in the 80s and their easy availability. As time passed, volumes increased further and manual handling of these volumes led to dwindling customer service and increasing complaints. With increased trade unionism and rather restrained handling of available human resources, a realization grew that unless computerization of customer accounts and other banking services like remittances etc. at branch level was resorted to, things will go out of hand. However, mechanization of any kind was opposed by the Unions and resulted in slowing down of computerization drive in Indian Banks.

Like most of other activities in banking RBI got into the act for IT also and set up two committees in quick succession to hasten the pace of mechanization of operations in the banking sector. In the early 80s, a high level committee was formed under the chairmanship of Dr. C Rangarajan, then Governor of the Reserve Bank of India, to draw up a phased plan for computerization and mechanization in the Banking Industry over a five year time frame of 1985-89. The focus by this time (justifiably) was on customer service and two models of branch automation were developed and implemented. Having gained experience in the earlier mode of computerization, the second Rangarajan Committee constituted in 1988 drew up a detailed perspective plan for computerization of in Banks and for extension of automation to other areas like funds transfer, electronic mail, BANKNET, SWIFT, ATMs etc.

The introduction of the computer supported the business strategies to certain levels. In the beginning the computers only aided one portion of the Banks branch operations like that of the ledger posting operations. Introduction of local area network automated the branches in preparation of general ledger and cashbook. The further advancement of the IT in connecting one branch with another through telephone lines and satellite connection has made the IT the enabler of the business instead of Just a tool. It increases the productivity and efficiently of the business. The advancement in the communication

and digital technology have made revolution/ dramatic changes in the way of the day to day life and business, Businesses and consumers started increasingly to use computers to create, transmit and store information in the electronic form instead of traditional paper document, Information stored in electronic form had many advantage. The cost of it being cheaper, easier to store, retrieve and speedier to communicate was advantageous to business and other people. The basic difficulty of requiring the documents in writing with signature for legal recognition made many people reluctant to conduct business or conclude any transaction in the electronic form.

In particular, there are four or five key areas in which the financial system has experienced the benefits of the technology revolution: product development, market infrastructure, risk control and market reach. The interaction of technology with globalization has contributed to the expansion of financial markets beyond national borders, heralding the end of geography. In the process, technology has changed the contours of three major functions of financial intermediaries: access to liquidity, transformation of assets and monitoring of risks. The Indian financial system is quickly adapting itself to these developments and is acquiring a customer-centric focus. The proliferation of Automated Teller Machines (ATMs), networking of these ATMs and Shared Payment Network based ATMs is a feature that has been welcomed by the banking public. Other innovations already within the domain of banks and financial systems in India include Internet Banking, Electronic Funds Transfer and 'Anywhere/ Anytime Banking', all of which have a high level of technology embedded in the systems offering these services. Many of the older banks are migrating towards the implementation of Core Banking or Clustered Solutions, which would contribute significantly towards increasing customer satisfaction.

In all this, business process re-engineering becomes an essential concomitant to ensure best results in technology upgradation. In recent years, the Reserve Bank has assigned priority to the upgradation of technological infrastructure in the Indian financial system. Efforts have been made to modernize clearing and payment through MICR based cheque clearing, Electronic Clearing Services and Funds Transfer (ECS and EFT) and the Centralized Funds Management System. For the traditional paper-based cheque

systems, introduction of cheque truncation and imaging of cheques is envisaged to reduce the time lags in realization of cheques. Substantial efforts have gone into developing what has been described as the 'plumbing' in the financial architecture - a modern, efficient, integrated and secure payment and settlement system for the financial services industry in India. Significant milestones in this path are the Negotiated Dealing System for transactions in government securities and the Clearing Corporation of India.

In order to establish an efficient, cost-effective and dependable communication backbone, the INFINET has been set up. About 150 banks, primary dealers and mutual funds have become members. Structured Financial Messaging Solutions are being implemented for secure message transfers across members of the INFINET (Indian Financial Network). Common inter-bank application software has been designed, taking into account the security requirements. The medium-term goal is the operationalisation of Real Time Gross Settlement, which would enable real time funds, transfers across different banks and thereby the optimal utilization of funds. Critical to the future of the payment and settlement system of the country is the ongoing research in the IDRBT on messaging systems, security and design specifications for RTGS. Adequate security is a prerequisite for a modern, technology-intensive payment and settlement system, especially one functioning in a highly networked environment. Legal changes to deal with electronic data interchange and legal wherewithal for participants in the payment system are on the anvil. These changes are intended to enable the benchmarking of our payment and settlement system against international standards such as the Core Principles for Systemically Important Payment Systems of the Bank for International Settlements.

5.2 AREAS WHICH GOT EMPHASIS IN IT PLANS

Connectivity of banks, Risk Management, Asset Liability Management systems and core banking will rank high in plans of Banks (Ram, 2001). Asset-Liability management and Risk management have gained importance after liberalization and globalization, getting the data updated on real time basis for the organization is of prime importance. Establishing a WAN for connecting all the branches and moving towards Core Banking

Solution is the prime business need (Panse, 2001). In view of RBI's policy this year, Inter-bank payment systems are poised to move to a much higher degree of advancement during the year. With impending arrival of RTGS, all banks will have to gear up for it. While Multi-application smart card pilot has been indicated in the policy, its active usage is still quite some time away. The earlier Smart Card project of RBI had met with a limited success. National Settlement System will enhance the efficiency of funds management, which can now be centralized in a much better way (Bhai, 2002). The Policy announcements on the payment systems will pave the way for the establishment of the legal framework, for electronic settlements. The technology initiative taken by the RBI for setting up RTGS will have far reaching impact As follow up to the electronic clearing ECS, the move for an RTGS is logical extension. The standards for inter operability of smart cards will enable multiple applications on a single chip. Currently smart cards are used for select applications. The technology for integrated applications is available but unless the volume of transactions is large, it is not an attractive proposition (Ramani, 2002).

RBI's initiatives and encouragement to the Banks to implement payment and settlement systems in a secured environment is surely the first logical steps towards the introduction of the electronic funds transfer mechanism in a big way. Banks that are not geared up for the networking should fear to be left behind. Implementations of the Core Banking solutions are to be planned by banks as part of their strategy to align with the RBI initiative (Mankikar, 2002). In all there are few significant areas where application of IT in banking is either evident or is being carried out in a phased manner by almost all banks in the country. The key areas, which will get the emphasis in IT plans/Strategy of banks, are networking of branches; Secure Messaging for launching funds transfer products, Integrated Treasury Management System, Focus on technology based initiatives for Intra-day liquidity Management and Core Banking Solution implementation.

The customers will have faster and cheaper instruments of movement of funds across the country as well as quicker realisation of cheques, but banks will be left with lower

levels of float funds. For customers it will mean availability of faster and cheaper instruments of movement of funds across the country as well as quicker realization of cheques. For the Banks the increased efficiency of funds movement and settlement will mean shrinking of available floats and partial/ significant cannibalization of some of the existing products (e.g. Cash Management Services). Special electronic funds transfer (SEFT) opens up a significant business opportunity large trading and distribution firms can effectively implement e- procurement systems with settlement of transactions across the banking system taking place under the SEFT. Large public sector Banks and the new generation private sector banks who have made substantial investments in the IT infrastructure have an opportunity to offer a wider range of services through multi-channel delivery systems backed by the RTGS and SEFT for funds settlement (Ramani, 2002)

5.3 INTERNET BANKING/ ELECTRONIC BANKING

The Internet banking is changing the banking industry and is having the major effects on banking relationships. Even the Morgan Stanley Dean Witter Internet research emphasized that Web is more important for retail financial services than for many other industries. Internet banking involves use of Internet for delivery of banking products & services. It falls into four main categories, from Level 1 - minimum functionality sites that offer only access to deposit account data - to Level 4 sites - highly sophisticated offerings enabling integrated sales of additional products and access to other financial services- such as investment and insurance. In other words a successful Internet banking solution offers

- Exceptional rates on Savings, CDs, and IRAs
- Checking with no monthly fee, free bill payment and rebates on
- ATM surcharges
- Credit cards with low rates
- Easy online applications for all accounts, including personal loans and mortgages
- 24 hour account access
- Quality customer service with personal attention

Areas of Use of the Internet in Financial Institutions

Generally we may distinguish four classes of Internet use in financial institutions:

- Information presentation
- Information presentation together with two way (asynchronous) communication (e.g. email to request further information)
- Interaction with user (e.g. execution of programs with individual customer data)
- Transaction banking (e.g. electronic payments).

5.3.1 Internet as a Distribution Channel

Distribution channels are physical capacities to build up customer contacts in a systematic way in order to inform, counsel and sell products and services. Combined

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with self-service terminals and telecommunication equipment electronic distribution channels are technical channels within the class of media distribution channels. Another example for a media distribution channel is direct mail. Today, media distribution channels are an important way of distributing information and managing standard transactions. The worldwide web is the most well known and most important Internet service. A standard user interface to be able to address a large number of users was one of the development goals of the WWW. The WWW is a world-wide network consisting of a large number of various computers. The client/server-architecture forms the basic implementation platform of the WWW. The server software responds to inquiries from WWW-clients and sends files to the clients. The files may be static on the server or build up dynamically by means of parameters. The client interprets the files and presents the information on its screen. In modern browsers features allowing execution of application modules on client computers are implemented.

5.3.2 Information Presentation

Information may be provided in connection with one or two way communication. One-way communication means that the institution uses the Internet only as a presentation medium for its products and services. The simplest way to use two-way communication is to allow users to send electronic mails to the server in order to ask for further information or make suggestions with respect to the Internet site. Interaction with customers requires quick information exchange. Information provided by the user controls the information offered by the server. If the customer is identified and authenticated connecting to operative systems of the financial institution may be possible. Then, often very little information has to be provided by the customer since data stored in the databases of the financial institution may be used. Presentation of product information may be used to initiate new contacts. Implemented product models permit the construction of optimal insurance or financing contracts by using simpler components. Using mathematical models the customer may analyze his portfolios. To do so, he may use simulation techniques, what-if-analysis and other similar techniques. Most Internet presentations by financial institutions fall into one of these three categories.

5.3.3 Internet Transactions

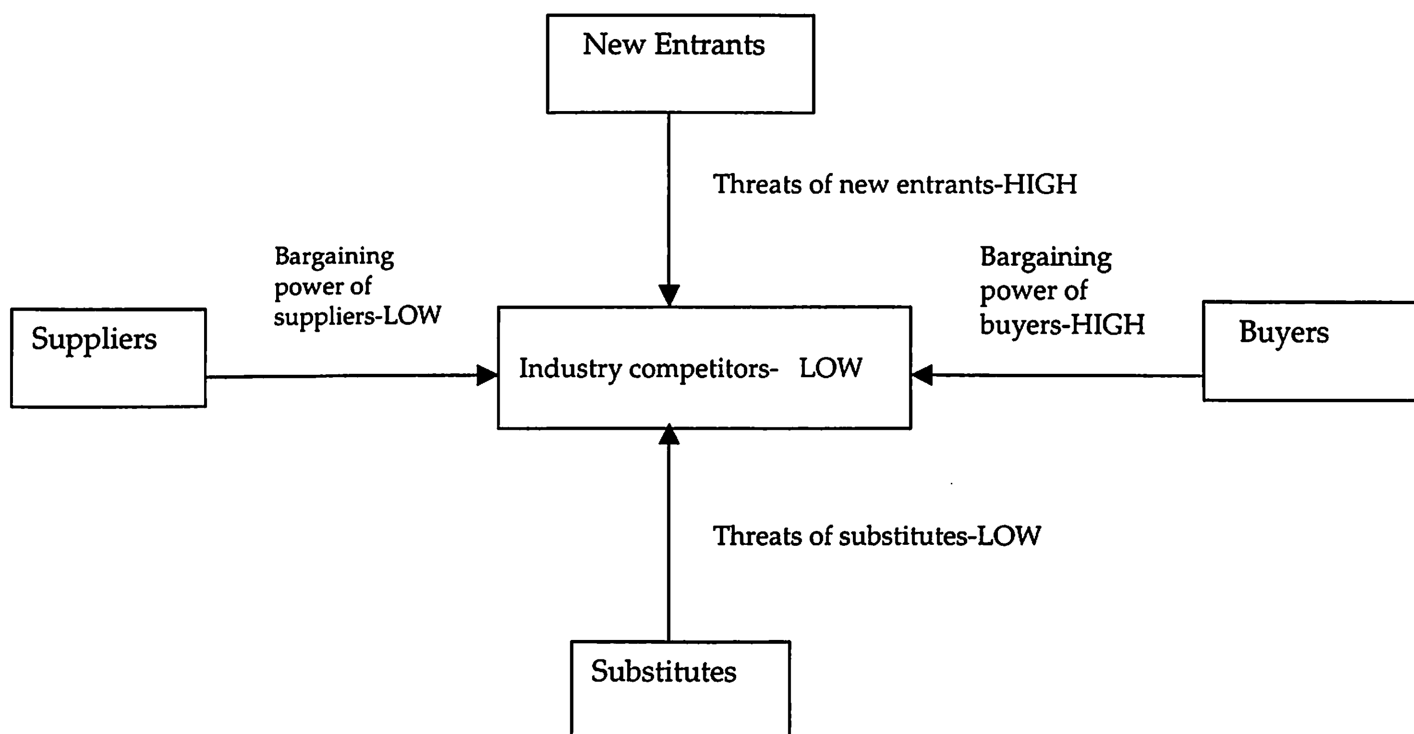
There are a large number of different financial transactions, like e.g. customer payments, securities transactions applications for loans or insurance acquisitions. Due to the structure and the intention of the Internet to be an open network high security risks are involved with financial transactions. Today, various techniques and standards are offered in order to control or even avoid these risks. Basic requirements are as follows:

- Customer and financial institution have to authenticate each other.
- Private data have to been coded. Cryptographic algorithms used need to have certain characteristics.
- No third party should be able to quickly get access to messages or even to divert financial transactions.
- A digital signature is necessary to get binding legal contracts. These digital signatures have to secure the integrity of signed documents. It needs to be guaranteed that sender and receiver have the same intentions.

5.4 DRIVING FORCES IN ELECTRONIC BANKING/ LITERATURE REVIEW

The business strategist Michael Porter identified five competitive forces which tend to drive down the profitability of any industry as comprising: barriers to entry, many small suppliers, many small buyers, few substitutes and few competitors (Hubbard et al, 1996). Applying this version of Porter's Five Forces Model (Porter, 1985) to the banking industry, (Li, 1997) observed that one of the critical factors – barriers to entry – no longer exists in banking. (Foster *et -al*, 1999) observe that competitors can come from any industry to "disintermediate" banks (i.e., eliminate banks as the interface between customers and suppliers). Product differentiation is very difficult for banks, since most of the products sold in retail banking are constrained by legal or industry regulations and, in any case, are readily imitated (Nemzow, 1999). Most countries have de-regulated their banking sector (Lyell, 1997, Carew 1998, Lucia, 1998) so government policies no longer form an entry barrier to banks' competitors. Technological know how in banking also provides little protection to existing banks (Stemper, 1990). As Li (1997) argues the only significant entry barrier is likely to be the brand name of the service providers in

retail banking. However, as Morath (2000) observes, many non-banks, but identifiable, names such as Microsoft are entering the banking arena, posing a major competitive threat.



(An application of Porter's Five Forces model to the banking industry)

Griffin (1996) observes that since the 1980s, banks have been merging to remain significant in terms of assets, and to ensure that there are a small number of significant players in the industry. Theoretically, the bargaining power of suppliers would be high in this industry, as there are a small number of fairly large players in the industry (Kotler, 1997). However, the tendency of banks to amalgamate, rationalizing operational costs (Cronin, 1998) and thus diminishing the number of banking organizations in any country, is being offset by means of the development of online banks and financial intermediaries in areas such as home lending (Fellenstein et. al, 2000). As (Mishra, 2001) observes, the Internet has leveled the playing field. By contrast, the bargaining power of consumers is increasing. Switching costs are becoming lower (with Internet banking gaining momentum) and consumer loyalties are harder to retain (Nemzow, 1999). The threat of substitutes to banking in terms of competition from the non-bank financial sector is increasing rapidly. As (Viermetz, 1998) observes, the major credit card issuer in

the US is not a bank but rather Dean Witter of Discover Card fame. Attitudes are also shifting from direct transactions to savings and investment, as the baby boomers reach their forties and fifties (Carew, 1998).

The application of Porter's model to the banking industry shows clearly that this sector, which has now reached the mature stage of its lifecycle, is under threat. Dial (1995) points out that banking demonstrates the typical attributes of an oligopoly – such as risk avoidance and relatively undifferentiated customer service – which have made it susceptible to encroachment by software giants such as Microsoft, who are attempting to replace banks as intermediaries (Kalakota et. al, 1998). Some specific factors, which have conspired to create the new competitive environment for banking, include: changing consumer needs and perceptions, globalization, technological innovations, and competition from non-banking entities (Aveling 1989, Kalakota et. al, 1997, Morath 2000). Increasingly, consumers expect online services from their financial institutions (Constantine 2000). The trend toward electronic delivery of products and services is particularly important to the financial services industry, where the shift is partly a result of consumer demand, but is also partly a result of the ruthlessly competitive environment (Geyer, 1997). Banking institutions are countering their competitors by leveraging eCommerce technologies and various service offerings online (Morath, 2000).

Electronic banking was first introduced by large companies to simplify the management of their salary and payroll problems (Crede 1995, Kalakota and Whinston 1997, Carew 1998). By contrast, home banking is a comparatively recent concept, which is essentially a 'spin-off' of the Web (Stamoulis 2000). Though many banks offered 'home banking services' from a PC during the 1980s and 1990s, the concept was initially a failure due to the lack of a critical mass of PCs and computer literate customers, as well as to the somewhat limited user interfaces initially available (Lucia and Peters, 1998). Home banking, however, is gaining in popularity with increasingly literate consumers and a wider installed PC base (Stemper, 1990, Carew 1998, Wood and Fellenstein, 2000). Banks initially used dial-up services or provided software, which was both expensive to customers and lacking in user-friendly features (Kalakota et. al, 1998). Later, on-line services were set up from retail branches to provide subscriber-based online services,

although these still lacked generic features and a user-friendly interface (Denny, 1998). With the evolution of the Internet and the World Wide Web, online banking become crucial to growth in the sector (Sathye, 1998). (Seitz et. al, 1998) note that consumer behavior in banking changed partly as a result of changes in the amount of spare time available to individuals. They observe that mobility; independence of time and place, and flexibility has become key words in consumer banking. (Stamoulis, 2000) points out that the Internet is increasingly considered a strategic weapon by banks, which are leveraging it as a distribution channel to offer complex products at the same quality they can provide from their physical branches, at a lower cost, to more potential customers, without boundaries. (Timmers, 2000) supports this view, highlighting the key features of the Internet – such as 24-hour availability, almost immediate access, and the absence of physical borders. Indeed, the Internet has been one of the key drivers in promoting eCommerce in the banking sector (Jeevan, 2000).

5.5 INTERNET BANKING IN INDIA

The banking industry in India is facing unprecedented competition from non-traditional banking institutions, which now offer banking and financial services over the Internet. The deregulation of the banking industry coupled with the emergence of new technologies, are enabling new competitors to enter the financial services market quickly and efficiently. Indian banks are going for the retail banking in a big way. However, much is still to be achieved. This study, which was conducted by students of Indian Institute of Management, Lucknow shows some interesting facts:

- Throughout the country, the Internet Banking is in the nascent stage of development (only 50 banks are offering varied kind of Internet banking services).
- In general, these Internet sites offer only the most basic services. 55% are so called 'entry level' sites, offering little more than company information and basic marketing materials. Only 8% offer 'advanced transactions' such as online funds transfer, transactions & cash management services.
- Foreign & Private banks are much advanced in terms of the number of sites & their level of development.

5.5.1 Public Sector Banks: In a fix

Unfortunately nationalized banks have been unable to evolve as fast as most private sector and MNC banks. As a result, in many organizations there may be a mix of automated systems and manual systems, with both systems running parallel, and using half-baked applications created by smaller vendors, which run in certain departments. This creates a chaotic scenario. Network management is a nightmare, the legacy systems may buckle any moment, new users and locations keep coming up, and there are also issues of security and consolidation.

This is a typical situation at a usual nationalized bank:

- A very large network of branches nationwide growing fast
- Lack of connectivity in remote locations
- A very large base of customers increasing fast
- 75-80 percent automation in main branches with less automation in remote cities and smaller branches
- Large amount of legacy equipment which doesn't integrate well with other systems
- Inefficient and outdated applications in some departments which are not flexible and don't integrate well with other applications
- Slow-to-change mentality of an Indian customer who is used to dealing with a human teller

5.6 INTERNET BANKING: WHERE DOES INDIA STAND- A STUDY

The Internet has already had a seismic effect on the way the financial services industry conducts business in the west. It has permanently altered the way customers perceive value, how value is delivered, and the profitability it can produce. However, coping with internal and external environmental disturbances, Indian banks have fell far behind to prepare them for this challenge that requires them to urgently and radically restructure their business model. This work is an attempt to identify opportunities so that banks can secure their positions and set an agenda for the financial business

without barriers. For the purpose of easy interpretation, the study has been divided into two parts. In Part I through an extensive analysis of all the sites of Banks operating in India and by personal interviews, we examine the market's current state of development and analyze the prospects for future growth. The strategic implications on key product and service areas and the various options available to banks are also discussed.

This study in Part II explores how banks in India have changed their ways in the conduct of retail banking businesses with the implementation of Internet banking, and how these changes have affected the bricks-and-mortar distribution channels of banks. Based on interviews with four banks in India, it was noted that banks view the Internet as being a supplementary distribution channel for their products and services in addition to other forms of distribution channels, such as automated teller machines (ATMs), phones, mobile phones and bank branches. Basic transactions and securities trading are the most popular types of operations that customers carry out in Internet banking. There are no limits to the kinds of products and services that a bank can provide to their customers with Internet banking. However, in order to fully realise the cost savings from the lower transaction costs, the bank needs to build up a critical mass of customers. The role of traditional bank branches are changing and are moving from the traditional teller transaction processing centres to that of relationship centres offering personal financial planning and complex transactions, such as unit trust investments. The banks need to be able to fully integrate their distribution channels such as phone, Internet banking and branches to provide a seamless medium for their customers to access their products and services.

5.6.1 Indian Banks on Web

<u>PART I</u>

This study is an effort to understand the strategic impact of the Internet on the financial services industry in India.

5.6.1 (a) The Methodology

This study examines the rapidly growing Internet Banking market with an Indian perspective. Extensive research has been put to explore all the banking sites of the banks available in India. These sites have been evaluated, analyzed and classified as Entry, Basic, Intermediate or Advanced depending upon the content or the facilities they provide on the web. The results are studied separately for Public, Private, Foreign and Co-operative Sector banks. Apart from banking sites, various researches on Internet banking already on or completed have also been studied and an effort has been made to project the shape of net banking for India in the times to come. Views of several banking executives have been taken as an attempt to gauge Indian banking Industry's preparedness for the future challenges.

5.6.1 (b) The Findings

- Throughout the country, the Internet Banking market is in the earliest stages of development.
- Only 51 banks are currently offering any kind of Internet Banking services.
- In general, these Internet sites offer only the most basic services.
- 55% are so-called "entry level" sites, offering little more than company information and basic marketing materials.
- Only 8% offer "advanced" transactional services, such as online funds transfer, transactions and cash management services.
- In general, the Foreign and private banks are far ahead of Public Sector or Co-operative Banks in terms of the number of sites and their level of development.
- The private banks, with futuristic management and net-pro mindset seem all prepared to continue the "pathfinder" role in Indian Internet Banking.
- By the year 2003, a large sophisticated and highly competitive Internet Banking Market will develop.
- Several factors will drive the increase
    - There is a lot of room to expand

- Increase in internet usage to drive demand side pressure
- Emergence of open standards for banking functionality
- Growing customer awareness and need for transparency.
- Global players in the fray

- The number of Internet Banking sites should increase to over 200 by the year 2004.
- Entry-level sites will fall from 55% to less than 10%.
- Advanced sites should increase from 8% of the total to 33% of the total, which means a total of 60-70 fully functioning Internet Banks across the country.

5.6.1 (c) Other Interesting Points

- Most of the Internet Banking sites have been developed with the Non Resident Indian perspective.
- The growth and shift towards Indian customers is rather slow.
- While the world has seen Corporate Banking as the first choice for net-bankers, India seems to be reversing the trend and most of the initial developments seem to be in retail banking area.
- Punjab National Bank site provide a link to its other competitor banks also. Is it a move towards Co-optition.

5.6.2 Strategic Issues Related to Internet Banking

PART II

The aim of this part of the study is to explore how Indian banks have changed their ways in the conduct of retail banking businesses with the implementation of Internet banking, and how these changes have affected the bricks -and-mortar distribution channels of banks. Two local banks, namely HDFC Bank and ICICI Bank, as well as two foreign banks, namely Citibank NA and Standard Chartered Bank (SCB), were selected for this study. HDFC Bank and ICICI Bank are the two largest private banks in India Goldman Sach's research has also noted that HSBC and ICICI Bank are two banks well

worth for monitoring in its execution and pan-Asian e-banking opportunities (Ramos, et al, 2000). ICICI Bank was chosen for the study as it was the first domestic bank to market in India with the full suite of Internet and mobile phone banking capability (Ramos, et al, 1999). Citibank was chosen as it has used the Internet as a creative revenue and marketing tool. This has given it significant scope to gain market share in Asia. The main issues examined in the study include: (1) Is the Internet used as a strategic device to re-invent the business of banks or is it just another distribution channel used to support existing infrastructure? (2) How have Indian banks been using the Internet in enhancing banking product and service to meet customer needs? (3) What are the stages of Internet banking adoption by banks in India using the framework introduced by Parsons (1996)?

5.6.2 (a) Methodology

The case study approach was used in this study and it was conducted in two phases. The initial phase consisted of secondary data research through journal publications and reviews of the Internet banking web sites offered by the four selected banks. This was meant to form an idea of the latest Internet banking development and strategies adopted by each bank. The second stage of the study consisted of four in-depth interviews conducted in Delhi with the managers of the four selected banks. Lists of questions were used during the interview sessions. The questions were modified from Yakhlef's interview questions (Yakhlef, 2001). The duration of the interview varied from half an hour to an hour and the response from the interviewees was recorded during the interview. The aim of these interviews was to confirm the observations made in the initial stage of the study as well as to understand the current development and impact of Internet banking on the distribution channel, types of products and services in Indian banks. This is similar to the study of the role of Internet as a new distribution channel by DeYoung (2001). The practitioners' opinions were sought for answer to questions including: (1) Are the banks embracing the Internet as a marketing tool or as another distribution channel? (2) What are the changes to the business model, distribution strategies and resources in view of the implementation of Internet banking? (3) Which products and services are most suited for Internet banking and what are the new

products and services offerings? (4) How are the banks' customers adopting Internet banking and what are the factors influencing such adoption? The interview results from the banks were compared to reflect the similarity and differences in the observations. These were used to reflect the strategies adopted by the banks as well as the impact of Internet banking on the distribution networks, products and services.

5.6.2 (b) Findings and Discussions

Purpose for Introduction of Internet Banking

Standard Chartered Bank and Citibank stated that the demand by their existing and new customers for Internet banking product and services was the main reason for the introduction of Internet banking. ICICI Bank and HDFC Bank's main motivation was to enhance the bank's reputation for innovation. Other reasons include protecting and enhancing the organization's reputation for innovation, imitating competitors launching services online and developing mass customized services. This was similar to findings in the study by Daniel and Storey in 1997 on the UK banks. Indian population is still not receptive to Internet banking in a big way due to the existing culture and education. However, there is an emerging Internet savvy group of customers, especially from the younger generation. They are currently receiving education and are widely exposed to the Internet. This generation would likely drive up the usage of Internet banking. The Internet can be used as a way to change banks' image to move away from traditional-bound institution to an innovative and dynamic form of organization, which capitalizes on technology. ICICI Bank, SCB and Citibank shared this view. The banks wanted to build and maintain a brand image of being a technology innovator and embraced Internet banking as part of their business strategy.

Internet banking is being viewed as more than just a new lower-cost distribution channel. Online banking has presented an answer to many inherent disadvantages of a traditional branch. Although Internet banking in India is still in the early adoption stage, All the four banks believed that Internet banking, in the long run, can be an enabling technology for lower costs, product bundling and closer customer relationship between the banks and consumers. However, HSBC and SCB expressed different views with

respect to the significant transaction cost saving predicted in previous study by Brickers (1999). They noted that in view of the huge investment cost involved in implementation of Internet banking, the cost benefit could only be fully realized if they can obtain the necessary critical mass of customers. As a result, the main short-term objective for the banks is to increase the customer base to build such a critical mass so as to lower the operating cost and to realize the full cost benefits.

Stages of Development

Before 2000, most banks in India were perhaps wary of the impact of Y2K on personal computers and hence were reluctant to implement Internet banking. According to the RBI, there was an increase in the number of banks that implemented Internet banking once the Y2K fear had subsided. Currently there are about 25 major banks in India that have implemented Internet banking. Using Parsons *et al.*'s (1996) framework, the four banks under this study have already gone passed the first two stages of Internet banking development at the end of 2001. SCB, ICICI Bank and Citibank emphasized the important of the second stage i.e. the transaction stage. The three banks noted that the important element in this transaction stage is the experience encountered by customers while performing transactions at the bank's website. This is a key factor in determining customers' loyalty. Standard Chartered Bank and Citibank are ahead of the others in the introduction of new and innovative Internet banking products. HDFC Bank, on the other hand, was comparatively slower in the introduction of Internet banking products. They explained that they had adopted a wait-and-see approach to learn from the mistakes of other banks.

Some key success factors in launching Internet banking have been identified. These include characteristics such as banks being truly committed to Internet banking; using the Internet as a competitive edge instead of just a low-cost distribution channel; viewing the Internet as an enabling technology for bundling and cross-selling of products as well as personalizing customer relationships on a mass scale and deepening customer loyalties. Citibank was found to be the best positioned to gain significant market share in Internet banking in India as it has an image of the most innovative bank

in Asia. Among the local incorporated banks, ICICI Bank has been noted for being the first to offer innovative electronic banking products in India. As such, ICICI and Citibank were considered ahead of the curve in the introduction of good Internet banking products. In addition, Citibank has consciously been targeting the high- value and Internet savvy customers. Therefore, when it launched its Internet banking, it had a ready group of customers. On the other hand, ICICI Bank commented that they have a significant number of customers, particularly the older generation, who are not Internet-savvy. All the four banks mentioned their commitment of resources to Internet development. They have created separate e-banking units in their banks. However, their focuses were different. HDFC Bank set up an e-banking division comprising of newer and younger staffs to encourage innovations and to create an enterprising corporate culture. The staff in the division would later be integrated into the existing corporate setup. Its focus, therefore, is on transaction efficiency, as it wants its customers to have the best experience when using its Internet banking. SCB mentioned similar focus on transaction efficiency. ICICI Bank and Citibank, on the other hand, focused on the ability to product bundle in order to create customer stickiness and continuous excitement.

Internet as a Marketing Tool

The Internet has the advantages of hosting advertisements and other marketing campaigns without incurring any incremental cost for prolonged exposure as compared to the traditional media. The designed Web-based advertisements are hosted in the Internet server and would be available at any time everyday. Investments are limited to the initial development cost while the maintenance costs are far less than the traditional media. The banks are making full use of the ability to advertise promotions on their banks' website while also advertising on the tradition media such as television, radio and newspaper. All the four banks collect customer transaction data and perform data mining of the customers' profile and usage pattern. This information is being used to promote their products and services through the Internet. For example, HDFC Bank uses emailing to inform and alert customers of existing and new products / services.

Changes in the Distribution Channel

In some ways, the introduction of the Internet banking channel parallels the introduction of ATMs two decades ago. ATMs did not introduce any new financial services, but they offered customers more convenient access to a limited array of existing financial services, primarily the safe-keeping of deposits, liquidity services, and information on account balances. The Internet offers itself as another appropriate distribution channel for retail banking. Basic banking services such as account enquiry and fund transfers are common transactional services offered on the websites of all the banks studied. It was noted that not all banking products, and not all banking customers, adapt well to the Internet channel. Fund transfers, bill payments, and credit card applications do not require personal contact or the presence of a physical branch and are therefore well suited for Internet channel delivery. However, closing of a home mortgage and personal financial planning are complex transactions, which typically require a secure physical space and/or person-to-person communication. It is also impossible to get cash over the Internet and cash withdrawal will still have to be done via bank branches or ATMs. Because of such limitations, Internet banking forms a supplementary distribution channel for the banks and most banks do not rely on it entirely. At the same time, it is not likely that traditional brick and mortar banks would retain a large market share in the long run without offering their customers an Internet banking option. This is because of the customers' increasing expectations for the availability of Internet banking. Today, it is difficult to imagine a successful retail bank that operates without a transactional website.

The Internet may affect the banks' business strategy and model in yet more fundamental ways. It could be expected that the first and immediate bank response to launching Internet banking is the reduction in the numbers of branches and employees since its online customers conduct more and more of its own administrative work. Because transactions over the Internet are increasing at the expense of face-to-face, branch-based transactions, the banks are predicting major changes in the division of labor. As noted by Citibank and SCB, the roles of bank branches are changing and are moving from the traditional teller transaction processing centers to that of relationship centers offering

personal financial planning and complex transaction such as unit trust investments. The skills of bank staffs are also required to be upgraded from transaction processors to financial advisors. Banks encourage their customers to perform the basic teller transactions through the self-service machines, ATMs and Internet banking and have changed the layout of their branches to add more self-service machines while reducing the number of teller service counters. Furthermore, the atmosphere of the branches is also cozier and friendly such that customers are more relaxed when they are discussing personal financial plans with the banks' staff.

All the banks shared the opinion that the merger and acquisitions of banks as well as interest rate deregulation in India were the major factors for the reduction in the number of bank branches rather than the introduction of Internet banking. Banks, however, would necessarily need to review the distribution of the network of the bank branches with the implementation of their new Internet banking channel. As noted by ICICI Bank, Internet banking appeals to the technically savvy customer group but there are the older generation customers who are fearful of the technology and would only feel comfortable to perform banking transaction with bank tellers. Banks, therefore, will need to relocate or reposition their branches to meet the requirements of its customers and their own business needs.

Products and Services Best Suited for Internet Banking

Based on the interviews with the banks, it was noted that basic transactions such as funds transfer and balance enquiry form the majority of transaction over the Internet. Securities trading through the Inter net are also relatively popular with around 20-25% of the overall transactions. Most of the products and services that banks offered over the Internet were direct duplication of its existing branch services. However, the Internet has allowed banks to introduce some new initiatives. For example, Citibank is using the Internet to offer account aggregation, which organizes in one place all the data from the customer's multiple relationships with affiliated banks, insurance companies, and brokerage firms. Before the financial deregulation, customers tended to have relationships with fewer financial institutions, so account aggregation was less necessary. With the Internet, the logistics of collecting data and sending it to customers

are cost-effective and easy tasks. ICICI Bank and Citibank do not see any limit to the kind of products and services (not only financial services) that they can provide nor in the number of new markets they can tap. They are looking for ways to extend their capabilities by forming partnerships and consortiums with companies in other industries so as to offer, among others, the ability to allow customers to settle their monthly bill payments online.

5.6.3 Analysis of the Study

The four banks view the Internet as a supplementary distribution channel to the traditional distribution network. A key challenge for the banks is to find what works uniquely on the Internet and to blend with the advantages of brick and mortar to form the clicks and mortars. Although the banks are seeing an increasing number of customers access financial services online, over the phone and though ATMs, branches will continue to be an important distribution and sales channel. It may be concluded that the conventional bank branches will not disappear altogether in the near future. The role of the branches will, however, continue to evolve. With the ever-changing patterns in customer demand, banks have to continuously monitor and change the branch layout or to relocate, and spread their products and services among their various distribution channels. ICICI Bank is well positioned to increase its Internet banking market share in India because of its progressive approach to using the Internet. It has the brand advantage and the right profile of customers to kick-start its Internet banking initiatives.

Citibank uses the Internet as a gateway to new customers and lower pricing because it reduces the problem of capacity constraint and can tap into a broader market segment.
Some major banks are still struggling with legacy issues such as upgrading their hardware systems. This has created a window of opportunity for ICICI Bank. ICICI Bank's approach embodies a lot more that just investing in technology. It has changed its operating paradigms as well, like not insisting that any new product offerings have to be profitable from day one. Technology has enabled customers to be able to obtain information about financial products and services quickly, compare prices instantly and switch banks more easily. As a result, the inconvenience of moving accounts can no

longer be considered a key driver of customer loyalty. The brand name of a bank takes on a more important differentiating role among the banks. Customers will go to banks that are progressive and trustworthy. In theory, stand -alone Internet banks should have low overhead expenses, and thus should be able to charge better prices (lower fees, higher deposit rates, lower loan rates) and still earn normal profits. If these cost savings materialize, stand-alone Internet banks could use them to attract new customers. But in practice, it is the traditional click-and- mortal banks, which have well-known brand names that perform better. Stand-alone Internet banks are still serving a certain segment of the population, but in the face of high customer acquisition costs, lack of critical mass, and lack of profitability, their future existence may be in doubt. The major banks should realize that they have some strength that the Internet per se can never take away or automatically confer. These include the ability to assess credit risk, customer relationships and trust, and the advantage of staying power that size, history and solid balance sheets confer. These findings are consistent with the results of a previous study by DeYoung (2001).

5.7 CONCLUSION

The Internet facilitates cross-selling, cross-selling leverages the investment in Internet banking made by the institution, and that leverage increases profitability. New revenues from cross-selling services -- cash management, consumer and mortgage loans, ecommerce portal fees -- is the single most important factor impacting the profitability of an on-line bank, above and beyond the substantial savings realized from Internet-enabled back office, customer service, operations and infrastructure enhancements. In conclusion, the key drivers to achieving profitability for an institution implementing electronic banking are the ability to increase site traffic to increase cross-sales and transaction activity. This is influenced by the "site stickiness" value of an institution's e-banking Web site and by the successful adoption of target marketing tools and data mining techniques, migrating simple, but labor-intensive banking activities to the Web -- including funds transfer, account balance and rate inquiry, stop payment, check ordering, address change requests, etc., increasing on-line bill payment penetration, streamlining the loan application and fulfillment process, utilizing a portal to provide

pro-active services to Web users who tend to be an institution's most profitable customers and cost effective target marketing.

The question raised at the beginning of this report was whether or not Internet banking is profitable. Clearly, the answer to the question depends on a variety of factors, and it is not possible to blindly state that Internet banking is always profitable. Very small institutions (with fewer than 15,000 customers) only offering a limited set of Internet banking services are not likely to achieve profitability unless they are able to persuade a very substantial portion of their customers to bank online. However, above this size, the indications for profitable Internet banking are good. With relatively conservative assumptions about customer uptake, increased customer retention and cross selling potential and savings through lower transactional costs, we have found that, in the majority of cases, Internet banking is profitable.

CUSTOMER RELATIONSHIP MANAGEMENT

Chapter 6
CUSTOMER RELATIONSHIP MANAGEMENT

6.1 INTRODUCTION

Customer has always been at the center stage of any business organization. Its capacity to keep the lifeline running of business houses can never be undermined. But, of late, as an aftermath of opening up of economy and liberalization the customer is getting more and more attention and focus of all businesses is now on customer's satisfaction. Reasons for this are very much visible and based on certain principles. The markets are being driven through the forces of demand and supply. And in the wake of liberal import policies and open doors for Foreign Investment the market scenario of businesses has turned from that of sellers' market to buyers' market. The growing expectations of the customers, fast changing preference and opportunities available to him as consumer have made him the king in true sense. Retaining old customers and winning new ones is proving a tough challenge. As a result, customer satisfaction is a growing concern for the organizations that want to grow in this competitive world of today.

Satisfaction of customers is of paramount importance for any business organization. It determines the future cash inflows to the business. The organization has to depend on its existing as well as new customers to keep itself growing. Attracting new customers involves considerable acquisition costs - such as advertising, promotion, follow up and setup costs. The operating cost is also higher than for existing ones. The longer any business keeps a customer; the more profits are likely to flow in. In case the customer is not adequately satisfied and defects, the business not only incurs a loss due to unrecovered costs but it also misses an opportunity to make profit (Sheth et.al, 1995). The defection rate of the customers is a major determinant of the profitability of any business. Higher the defection rate, lower the average length of the relationship, with the customers leading to losses or reduced profits. Satisfied customers improve the businesses' bottom line not only through continued relationship but also through referrals and positive word of mouth feedback.

6.2 LITERATURE REVIEW

`RELATIONSHIP MANAGEMENT' is the name of the game in the banking industry today and customers never had it so good before. In a savings-driven economy like ours, banks have finally come of age and the emphasis is now on making the customers feel that he is the king. With newer platforms emerging everyday to facilitate banking services, ranging from the, internet, mobile commerce to higher-end technology applications such as WAP etc, the traditional role of the bank which used to be that of `money lending' has assumed broader dimensions. Public sector banks which are trying to shed their ancient garb often associated with bureaucracy and red-tapism, are going all out in becoming technology savvy and orienting their staff to be more customer friendly. There is no other way to face the growing competition from their private sector compatriots. Banks are segregating their business in terms of retail and corporate customers. Some banks offer their high net worth depositor's special services, for example ICICI Banks `Select', or HDFC Banks `preferred'. Consolidations within the banking industry with mergers and acquisitions between public and new private sector banks have heralded in a new age of business in the banking arena.

Relationship marketing is emerging as the core marketing activity for businesses operating in fiercely competitive environments. On average, businesses spend six times more to acquire customers than they do to keep them (Gruen, 1997). Therefore, many firms are now paying more attention to their relationships with existing customers to retain them and increase their share of customer's purchases. Worldwide service organizations have been pioneers in developing customer retention strategies. Banks have relationship managers for select customers, airlines have frequent flyer programs to reward loyal customers, credit cards offer redeemable bonus points for increased card usage, Telecom service operators provide customized services to their heavy users, and hotels have personalized services for their regular guests.

Until recently, most marketers focused on attracting customers from its target segments using the tools and techniques developed for mass marketing in the industrial era. In the information era, this is proving to be highly ineffective in most competitive markets. Slowing

growth rates, intensifying competition and technological developments made businesses look for ways to reduce costs and improve their effectiveness. Business process reengineering, automation and downsizing reduced the manpower costs. Financial restructuring and efficient fund management reduced the financial costs. Production and operation costs have been reduced through Total Quality Management (TQM), Just in Time (JIT) inventory, Flexible Manufacturing Systems (FMS), and efficient supply chain management. Studies have shown that while manufacturing costs declined from 55% to 30% and management costs declined from 25% to 15%, the marketing costs have increased from 20% to 55% (Sheth, 1998). The practice of relationship marketing has the potential to improve marketing productivity through improved marketing efficiencies and effectiveness (Sheth et. al, 1995).

Still relationship marketing appears to be an expensive alternative to firms practicing mass marketing due to the relatively high initial investments. Firms would adopt relationship marketing only if it has the potential to benefit them. The benefits come through lower costs of retention and increased profits due to lower defection rates. When customers enter into a relationship with a firm, they are willingly foregoing other options and limiting their choice. Some of the personal motivations to do so result from greater efficiency in decision-making, reduction in information processing, achieving more cognitive consistency in decisions and reduction of perceived risks with future decisions (Sheth et. al, 1995). In the context of service, relationship marketing has been defined as attracting, maintaining and in multi-service organizations enhancing customer relationships (Berry 1983). Here attracting customers is considered to be an intermediary step in the relationship building process with the ultimate objective of increasing loyalty of profitable customers. This is because of the applicability of the 80-20 rule. According to empirical evidence, the top 20% of typical bank customers produce as much as 150% of overall profit, while the bottom 20% of customers drain about 50% from the bank's bottom line and the revenues from the rest just meeting their expenses.

Berry (2000) recommended the following five strategies for practicing relationship marketing:

- Developing a core service around which to build a customer relationship,
- Customizing the relationship to the individual customer,
- Augmenting the core service with extra benefits,
- Pricing services to encourage customer loyalty,
- Marketing to employees so that they will perform well for customers.

Developments in information technology, data warehousing and data mining have made it possible for firms to maintain a 1to1 relationship with their customers. Firms can now manage every single contact with the customer from account management personnel, call centers, interactive voice response systems, on-line dial-up applications, and websites to build lasting relationships. These interactions can be used to glean information and insights about customer needs and their buying behavior to design and develop services, which help create value for the customers as well as the firms. Although customized as well as off the shelf technological solutions are available in the marketplace, businesses need to do a lot more than just adopt these solutions to implement customer relationship management (CRM) practices. Successful implementation of CRM requires a strategic approach, which encompasses developing customer centric processes, selecting and implementing technology solutions, employee empowerment, customer information and knowledge generation capabilities to differentiate them, and the ability to learn from best practices.

6.3 THE INDIAN CRM MARKET

Indian industry is coming to terms with "Customer Power," albeit slowly. Call centers are beginning to emerge for domestic use. However, there are more seats for American business than domestic. Service facilities are being upgraded. The focus on the customer shopping experience has seen significant gains. And good sound customer-centric processes are emerging from an otherwise customer-insensitive mindset. Unfortunately, client acquisition continues to be a greater focus than client retention, involving both the creation of increased reach and new variations of customer channels. While potential appreciation is increasing, live deployment continues to be slow. Some of the driving factors to the movement include fragmented consumerism, multiple layers of intermediation, a low level of penetration in

many product categories, and a new found business appreciation for the power of information (which at present is not available). There is an old Indian saying: "You appreciate the virtues of the shade, only when you are in the sun." India is now realizing the virtues of data, a presence yet to truly be felt.

6.3.1 Casting light on Data Starvation

An abysmal level of data availability is the primary problem behind data starvation in India. The practice of CRM assumes a hierarchy of data needs—much like the need hierarchy theory of the famous psychologist, Maslow. This need starts with the basic development of a customer database and moves through to predictive consumer behavior. The syndrome of data starvation is a condition of little or insignificant level of data, making it impossible to build any meaningful CRM practice. This syndrome in many ways, while acting as the "top inertia," also dictates the priority for corporate India in terms of a CRM roadmap. Data is key (Kumar, 2003). Its use differentiates leaders from followers. In India, the majority of businesses are realizing the gaping hole in this area and the need to build some form of data conduits as the first step to a CRM practice. India should potentially realize numerous innovative approaches over the next year as it attempts to bring high integrity data as close to the consumer as possible. Empowerment and automation of sales processes and leverage of the power of call centers will be top on the agenda.

The customer relationship management (CRM) market in India is likely to grow by 48.3 percent, from $8.9 million in calendar 2002 to $13.2 million this year, according to research conducted by Frost & Sullivan. According to Frost & Sullivan, the banking and insurance sector is expected to witness very high spending initiatives on deployment of CRM solutions from 2002 onwards. Among other sectors that are expected to drive the CRM market are the automotive, utilities, pharmaceutical, outsourcing call center segment, high-tech manufacturing, and retail. In India, there are about 10 to 12 CRM vendors and implementing partners in the CRM market, however, not all are active players. Management consultancies like Price waterhouse Coopers and Ernst & Young and systems integrators such as Tata Infotech, IBM, Logix Microsystems and Atos Origin are some companies implementing the CRM solutions from multiple international vendors. These implementation relations are not exclusive in the Indian market, according to Frost & Sullivan. For example, Siebel Systems

has tied up with Logix Microsystems and IBM in India. Amdocs has tied up with Bitech System, Pivotal and Onyx have tied up with HCL Infosystem, Cincom has tied up with Global Tele-Systems, Netscape Communications and Fonet Pvt Ltd in India to offer CRM solutions.

6.3.2 The CRM Market Size...

- The Indian CRM Market can be sized at Rs. 200-250 Crores
- The CRM Market can be segmented into the market for Software and Services
- The Services segment includes Outsourced CRM Services, Integration, Training, and Consultancy
- The market for CRM Services is considerably larger than the market for CRM Software

6.3.3 CRM Market Segments

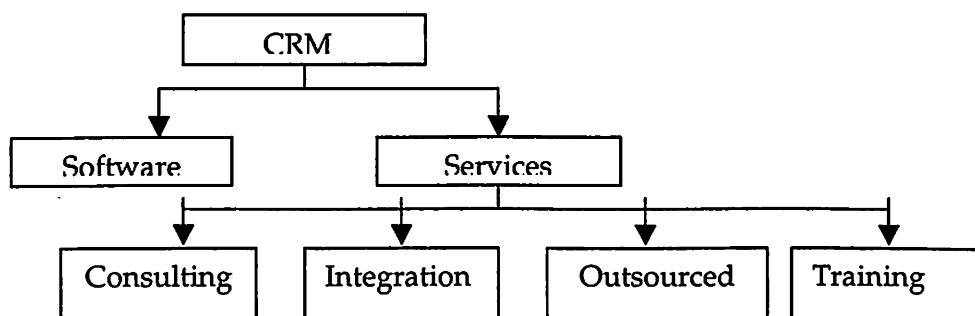


Figure 6.1 Customer Relationship Management Market (Source: IDC Report, 2002)

The breakup between revenues from various segments in the Indian context is not expected to vary from global market to a significant degree. With this assumption, the size of the market for CRM implementations (including Software, Integration, Consulting and Training) in India lies in the 150-200 Crore range (Figure 6.1). Given the small market, a local vendor looking for business is going to find himself up against tough competition. Majority of the CRM solution providers in India do not have a product but act as consultants and integrators for software like Siebel, Oracle, SAP etc. providing consulting, software deployment and integration, and training. Outsourced CRM Services has the maximum potential for growth, but the number of players entering this market is growing at a significant rate.

Telemarketing Firms, Direct Marketing Firms, Data Collection firms, Market Research firms, and even Advertising Agencies have begun to add the CRM tag to their services. With the Call Center market finding the international market tough going, they are increasingly turning to the domestic market to supplement revenues.

6.3.4 Market Prospects

While there has been a great deal of attention on CRM technology and practices in recent times, when it comes to putting it in practice, the market is in a very early stage of evolution. Indian firms were either unaware, or unconvinced about the benefits and applicability of CRM. The overall sentiment when it comes to growth prospects is upbeat in the sense that people are convinced that it shall take off, albeit slower than anticipated. Signals for Solution and Service providers are that they are going to have to stick through this early stage till the market matures in terms of awareness and acceptance, and the number of implementations increases. Media reports have put the annual growth rate for the CRM Software market in India at 25- 30%, and Services market at about 50-60% (Figure 6.2). However we feel the going shall be slower than projected.

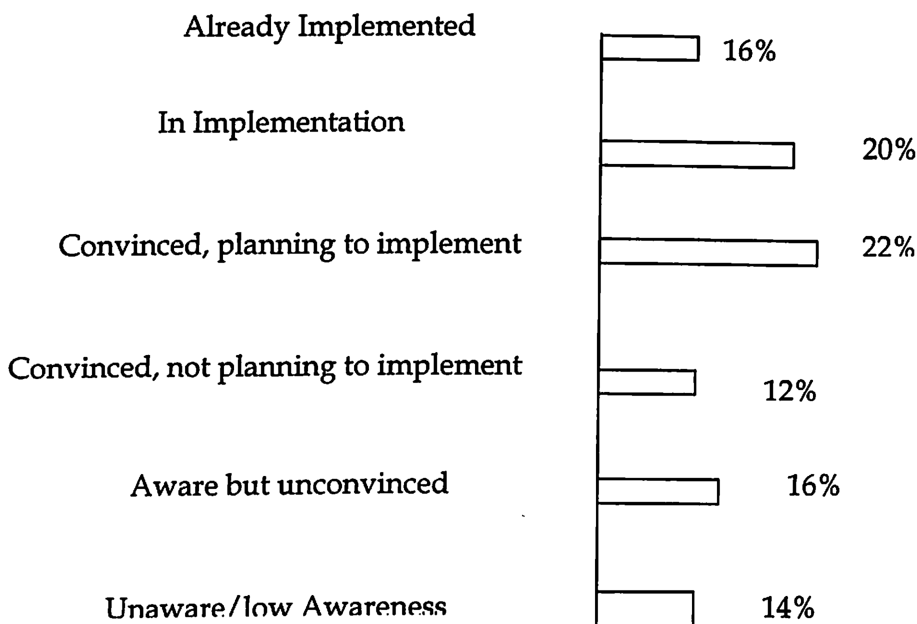


Figure 6.2 Market Prospects (Source: Icicle Consultancy Report, 2001)

6.3.5 Market Drivers and Inhibitors

A need for improved Customer Service shall be the main driver for Industry sectors that depend on the quality of their customer interactions to retain existing customers and win new ones (Figure 6.3). High global adoption is likely to drive the MNCs to adopt CRM first in line with Global implementations. While the first hurdle holding back the market is a lack of awareness, the high cost of implementation is the main inhibitor (Figure 6.4). Complete and comprehensive CRM packages such as those of Siebel and Oracle costing in the range of Rs 1.0 to Rs.2.5 Crores (and more) are too expensive for most Indian firms. However, with software vendors bringing down prices and offering relatively affordable packages bundled with integration and consulting services, this could soon change. In the Indian context, lack of customer orientation and poor existing IT infrastructure can prove major factors. Firms need to evolve their customer thinking by a significant extent before they accept CRM as the strategic imperative it is, and internal systems and database management practices need to be upgraded before in the study was that Indian firms lack the skills and strategic vision required to successfully implement CRM.

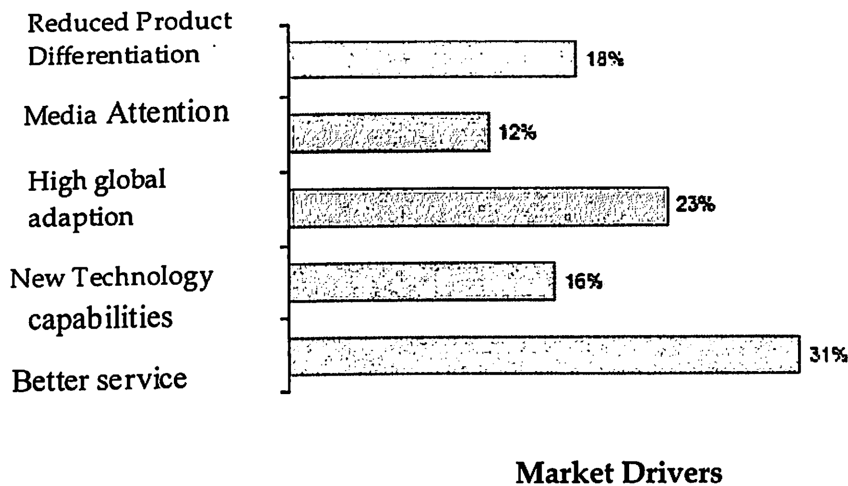


Figure 6.3 Market Drivers (Source: Icicle Consultancy Report, 2001)

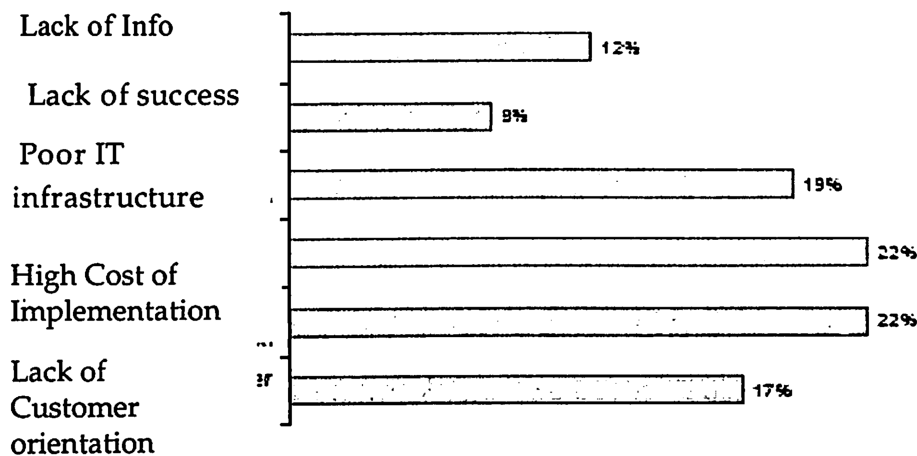


Figure 6.4 Market Inhibitors (Source: Icicle Consultancy Report, 2001)

6.4 CRM IN BANKING

6.4.1 Background

In simpler days, it was easy to select your bank. You chose the local bank, where the teller was your neighbor's sister-in-law, the branch manager knew you by name, and your family had conducted business for years. All else being equal, customers chose an institution because it was convenient and personal. Banks earned customers' loyalty on the basis of personal relationships, trading on history and mutual loyalty, and on face-to-face interactions and long-term knowledge of the customer as a person, not just an account number. Technology, commoditization, deregulation and globalization forever changed the face of banking. The model of the personal neighborhood bank is a quaint memory, replaced by national and multi-national service providers, ATMs, Internet banking, automated call systems and a proliferation of product choices, none of them fettered by traditional ties of geography and familiarity. For consumers, this competitive scene has brought a wealth of choices, yet it has eliminated the personalized nature of traditional banking. No matter, say consumers, who have traded loyalty for the ability to pick and choose from the latest deals-of-the-day that appears, pre-approved, in the mailbox. For banks and other financial institutions, this competition makes it difficult or impossible to show competitive differentiation, and harder than ever to show profit. A typical financial institution has thousands of local, regional, national and global competitors. Customers, faced with an increasing array of financial products and services, are expecting more from providers in terms of customized offerings, value, ease of access, and personalized service. For example, it

is now more difficult for companies to differentiate their products solely on price. Forward-looking financial industry executives wanting to keep pace with the rapid changes are seeking to better understand, respond to, and anticipate the challenges of the new marketplace.

In this increasingly fragmented industry, most players hold a relatively small and unreliable market share. Customers stick around until enticed by the latest short-term interest rate or direct mail offer. This new order calls for a new mindset. Retail bankers have to behave more like retail merchants, focusing on ways to gain customers, keep them and maximize profitability from each — all while streamlining product costs and customer contact channels. Banks have been doing that all along, right? They spend large advertising budgets on television and print ads to lure new customers. They wage ambitious campaigns to cross-sell services to existing customers. They constantly monitor and seek to increase sales in each product line. So what's the problem? The problem is that these measures fall short of the potential to truly maximize value from existing customers, and can even be self-defeating. Banks need to reconsider their traditional focus on product lines. It's time to adopt a comprehensive view of the customer as part of a continuum, not just a sale, and to manage the *life cycle* of the relationship, not just a series of transactions. Increasing competition, deregulation, and the internet have all contributed to the increase in customer power. Technology has reduced barriers to entry and exit for the customer, making it easier to switch banks or brokers without feeling the pinch in the wallet. Retaining customers and minimizing churn are both major concerns for financial services institutions, and financial companies need to effectively leverage existing customer relationships and make better use of customer information across the enterprise

6.4.2 Strategic Issues Involved in CRM in Indian Banks

6.4.2 (a) Using Customer Relationships Effectively for Success

A financial institution using its greatest asset—knowledge of the customer—can turn the customer relationship into a key competitive advantage by retaining those customers who represent the highest lifetime value and profitability. Financial institutions develop customer

relationships across a broad spectrum of touch points—branches, kiosks, ATMs, internet, electronic banking, smart cards, call centers, and phones. The shift of focus to all aspects of customer interaction has brought demand for systems that range from marketing and lead generation, to sales process automation, customer information systems, and customer service management. The full integration of these systems, their associated business processes, and the methods for which information is extracted and used forms the basis for customer relationship management or CRM. A CRM system links together the disparate customer data residing in transaction systems into a single, logical customer repository or several repositories that feed into one system. The goal of CRM is to manage all aspects of customer interactions in ways that enable companies to maximize the profitability of every customer relationship. But to be successful today, a company needs more than the ability to handle customer service calls. It needs a comprehensive CRM strategy—an integrated solution that involves every department in the company. This includes not only call centers but also sales, marketing, and support working as a team and sharing information to provide a single view of the customer to anyone in the company with appropriate security permission.

CRM can streamline this process, by enabling agents to access an insurance customer's information over the web via a browser. Employees and customers using CRM systems want assurance that every conversation will be referenced against all previous contacts and channels, whether through phone or fax or a web-based interaction. The key to successful interaction is to understand the overall relationship the organization has with the customer. This can be accomplished with the aid of software that is easy to use and that accurately tracks all aspects of the relationship so that the customer receives a consistent experience no matter which interaction method he or she chooses. A customer should be able to initiate contact with the organization through one channel, such as the internet, and then complete the interaction through another, like the call center, with seamless transfer of information between the different underlying technologies. The challenge for any CRM solution is to help identify the point at which customer value balances shareholder value. Having an integrated view of customer profitability, acquisition costs, management costs, and lifetime value can provide such an answer. The aim is to define an appropriate positioning strategy and to

build competitive advantage by targeting appropriate customers with appropriate products at the points in their economic cycles when they would be most receptive.

6.4.2 (b) Turning Customer Data into Profitable Actions: Three types of CRM

With the rise in customer power in the 1990s, customer relationship management software has evolved from operational to collaborative to analytical, as shown in the figure on the next page. Operational or traditional CRM, followed by collaborative CRM, grew out of the desire to gain a more complete picture of the customer. Operational CRM focuses on combining service, marketing, and sales automation. An operational CRM system gathers data from customer interactions such as service calls, sales transactions, and website activity. (For example, operational CRM can tell a financial retailer how well the call center or help desk is performing.) Collaborative CRM joins together the multi channel contact centers and touch points that drive eCommerce in the Internet age. The next evolution of CRM, where the demand is growing today, combines operational and collaborative CRM with more versatile analytics software to get a true 360-degree view of the customer. Business intelligence applications, or "analytics," turn operational data into strategic information that is used by decision makers to analyze, plan, communicate, and measure business performance as it relates to the customer. CRM analytics can easily link data from any Enterprise Management or CRM system to analyze customers' buying habits and navigate buyers through eCommerce transactions.

For example, analytical CRM applications can correlate and report on information like the customer's past, present, and future revenue total (drawn from one database) with customer satisfaction levels (drawn from another database). Companies can evaluate the customer data for patterns that can help craft marketing campaigns and build targeted sales pitches. In this way, companies can gain key insight into the information they need to acquire new customers, effectively support existing customers, and build long-lasting, profitable customer relationships. Information about the customer, such as profitability scores from individual customer records, can be displayed to anyone with appropriate access to the customer's profile (e.g., screen pops displayed to a telesales agent in a call center or to a customer relationship manager). This allows a company to create different service levels based upon a customer's overall value to the organization. For premium customers, a

company may want to offer live service or a personalized web page where customers can easily access their account balances and view their bank statements and investment information. For less profitable customers, the company may opt for providing automated service only. CRM analytics addresses channel and product profitability and the interplay of product, channel, and customer. Because a company's relationship with its customer is valued over a lifetime, organizations can use CRM analytics to migrate unprofitable customers to more profitable products or to less costly channels.

6.4.2 (c) Categories of software that a Company will want to consider:

DATA WAREHOUSING: This includes tools for consolidating data from different account, sales and other systems in your organization (also known as ETL or Extract Transfer Load tools). Also included will be warehouse server tools such as Oracle or SQL Server.

MARKETING AUTOMATION: These are tools that will help you customize and automate direct mail and e-mail campaigns to your customers. Some SFA tools have some of this functionality built-in (or available as an add on) -- you'll need to decide if your SFA vendor's options are adequate for your needs. Marketing automation solutions are available from a number of companies including e.piphany, Prime Response, Exchange Applications and Unica.

DATA MINING: This category includes a number of sub-categories. In essence, these tools are for everything from distributing reports about your customers around the organization, to segmenting your customers, to predicting which customers are likely to want which product/service next. MicroStrategy, SAS, Brio, Angoss and SPSS all produce tools in this category.

WEB PERSONALIZATION: From a quick review of your web site, I am guessing that you already have some content management software in place -- oftentimes these systems also include web personalization capabilities. Options are available in this category from: BroadVision, Net Objects and Vignette.

SERVICE/CALL CENTER SOFTWARE: Depending on what kind of services you want to offer through a call center, this may simply be an extension of your SFA tool. At times, however, you will need a different set of capabilities in the call center (i.e. automatically routing inbound service request e-mails, tracking service requests, etc).

6.5 THE CRM INITIATIVES AT PUBLIC SECTOR BANKS

It will be a mini-revolution at the slow-moving Bank of Baroda. And it will come in the form of a 41-year-old IIM graduate who is about to become the bank's chief of marketing. The new recruit, who has worked at leading advertising agencies and financial institutions, will earn four or five times more than the bank's chairman. More radically, it's the first time the bank has ever felt the need to sell its services to the public. It's a buyer's market and bank has to find customers. For this, they need people with experience and focus and unless they pay market salaries banks won't get the best talent. The Bank of Baroda isn't the only public-sector bank that is taking a drastic new look at the way it treats customers. Public-sector banks are turning the spotlight on the customer and offering quicker, better service. That includes everything from ATM machines and computerized branches to never-before-seen marketing initiatives. Even once-dowdy branches are being modernized and turned into symphonies of chrome and glass.

These changes are taking place at a slew of banks including the State Bank of India, Corporation Bank, Indian Bank, Bank of Baroda and the Union Bank of India. Take Indian Bank. The 96-year-old bank has just turned some executives into marketing officers at most of its 1,300 branches. To boost its selling efforts it pulled in 265 MBA students to market the bank's products during their summer training. It has also introduced 24-hour customer care centres in Mumbai, Chennai and Bangalore. Competition has added to pressure. Banks can no longer confine themselves to selling the traditional way. Bank of Baroda's plans for the future are equally ambitious. The new marketing head will have the tough task of kick-starting a marketing department and turning it into an aggressive force. Also, the bank will back these marketing efforts by computerizing its branches in about two years' time.

Then there's the monolith SBI. For a start, SBI is refurbishing key branches in a phased manner, to smarten up and give itself a more customer-friendly look. By next April the

makeover will have taken place at about 20 to 30 key branches. The bank is also turning customer friendly in other ways. It is developing customized loan packages like Doctor Plus and Teacher Plus and has tied up with companies like Maruti. Apart from this, SBI has opened 69 Personal Banking Branches in key cities especially to cater to retail customers. Public-sector banks are doing what they never did before -- cater to the individual customer. Today the customer is the key. Also, the bank is trying to simplify systems so work is completed fast. The bank claims that from taking over a month for a loan sanction, today loans are disbursed within a week. Also, by the end of this year, under a business process re-engineering plan, the bank will have a more focused marketing team. SBI has computerized nearly 41 per cent of its branches and has 1,700 networked ATMs located in 176 centers. By next April, it plans to computerize all its branches and install 3,100 ATMs.

While the banks have started responding to the changing market, it will be a slow process. Retail lending was earlier a prohibited area. So it also requires a huge mindset change for conservative bankers. Union Bank of India is gradually changing the look of its big branches and pumping in Rs 25 lakh (Rs 2.5 million) to Rs 30 lakh (Rs 3 million) for each one. Smaller ones will undergo Rs 10 lakh (Rs 1 million) refurbishments. Already, 800 branches out of 2,020 have a new look. And, from launching around one product in a year about six years ago, this year it has launched close to 30 new products. The idea is to follow a pull strategy. If banks have good products, they will attract more customers as well as cross-sell to existing customers. UBI also plans to increase the number of marketing officers. In 2001, for the first time 117 marketing officers were put in place in key branches. By the end of this year, there will be around 250. To give itself a uniform look, in 2001, the bank changed its signage and its logo. Today all the branches sport the same boards. The bank spent close to Rs 11 crore (Rs 110 million) on mass media advertising last year. This year the budget will go up 20 per cent.

Similarly there are banks like Andhra Bank, which is using mass media advertising to highlight its ATM network and products. And there's Corporation Bank, which is no longer leaving marketing to the branch manager. Every employee is made to sell, right down to the chairman. There is a fixed-target- achievement approach that every employee has to follow. It has also introduced Internet banking and has 506 ATMs. What has driven this change?

Clearly, public sector banks have woken up to competition. Post liberalization, several new-generation private sector banks changed the face of the industry. Customers no longer had to stand in long queues or make 10 trips for loans to be sanctioned. Private sector banks brought in concepts like customer relations officers focused marketing teams and single-window banking. Moreover, with new technology, private-sector banks like ICICI Bank and HDFC Bank could offer customers services like ATMs, phone banking, Internet banking, automatic money transfers and computerized monthly statements.

By contrast, the public-sector banks were mired in the past and unions called the shots. The focus remained on industrial credit, which was slowing down. Lending to corporates meant higher margins for banks. As interest rates came down corporates began to consider alternate sources of funds. Banks then began to explore possibilities like retail lending. While exact figures are hard to come by, industry estimates state that roughly 12 per cent to 15 per cent of public-sector bank customers shifted to private-sector banks in the late nineties. Now public-sector banks are finally getting their act together. Still holding 82 per cent of the lending market, they are cashing in on their strengths. In the metros, the emphasis will be customer retention, in mini-metros and cities it will be retention and acquisition, while in the interiors it will be just acquisition.

Public sector banks now claim that customers who shifted to private-sector banks are slowly coming back. They have found that while apparent costs are low, hidden costs are high. Banks are also trying to cut costs by sharing networks rather than deploying their own. So, UBI will be part of 'CashTree' along with Bank of India, Syndicate Bank and four other banks. Customers from each of these banks will be able to access 1,200 ATMs across the country. What has this meant for public-sector banks? Business per employee in most banks has gone up. UBI reported a 16.28 per cent increase in business per employee from Rs 2.15 crore (Rs 21.5 million) last year. Indian Bank's business per employee also went up from Rs 158.75 lakh (Rs 15.9 million) last year to Rs 178.93 lakh (Rs 17.9 million) this year. Overall retail lending and deposit business is expected to go up substantially. But there are still roadblocks. For one, while a new marketing head can be brought in, he will need higher levels of computerisation, supporting infrastructure, open-minded and better trained

employees for his plans to yield results. When that happens, private-sector banks will face the heat.

6.6 RELATIONSHIP MARKETING AND SERVICE QUALITY OF BANKING SERVICES

This study highlights the changing dimensions of Marketing of Banking Services in Public Sector Banks and Private Sector Banks in India after liberalization in 1990s.

6.6.1 Background

The Financial Sector, the world over, is growing enormously in terms of size, innovation, diversity, complexity and sophistication. When one examines the structure of the developed and developing economies over the past 20 years the most striking feature perhaps is the growth of Service Sector and relative decline of Manufacturing Sector. The most striking feature about this trend is the significant increase in the share of employment in Service Sector experienced by all the countries. The employment structure in the Indian Economy is also moving along the similar lines. The Service Sector has grown from 40.99 percent in 1981 to 51.16 percent in 1999 **(Table 6.1).** The Service Sector real growth rate in GDP **(Table 6.2)** is 8.20 (1992-93 to 2000- 01) as compared to other sectors like Agriculture Sector 3.3 and Industry Sector 6.5. Within the Service Sector the Financial Sector holds a most important place. Financial, real estate and business services growth is 8.8 (1992-93 to 2000-01) as compared to Trade, hotels, transport and communication 8.3 and community, social and personal services 7.4.

TABLE 6.1

Structure of India's GDP(in Rs. Crore)
Figures in brackets indicate percentage share of different sectors and sub sectors
Figures for 1994-95 onwards are on a changed base (1993-94=100), so they show huge increase compared to the preceding period

Industries of Origin	1998-1999	1997-1998	1996-1997	1995-1996	1994-1995	1993-1994	1992-1993	1991-1992	1990-1991	1980-1981
Agriculture	298381 [26.83]	277418 [26.44]	280179 [28.05]	256096 [27.64]	255522 [29.68]	70464 [29.50]	68009 [30.19]	64118 [26.83]	65653 [30.93]	46649 [38.10]
Manufacturing	244819 [22.01]	234131 [26.83]	220227 [22.05]	206336 [22.27]	182342 [21.18]	59426 [24.88]	55117 [24.47]	298381 [26.83]	53867 [25.38]	25601 [20.91]
Services	569005 [51.16]	537642 [26.83]	298572 [49.91]	463980 [50.08]	423200 [49.15]	108974 [45.62]	102142 [45.34]	298381 [26.83]	92733 [43.69]	25601 [40.99]

Source: Studies by Reserve Bank of India

TABLE 6.2

Sect oral Real Growth Rates In GDP (at Factor Cost) Growth

Percentage Change over the previous year

Item	1980-1981 1991-1992	1992-93 2000-01	1993 1994	1994 1995	1995 1996	1996 1997	1997 1998	1998 1999	1999 2000	2000 2001
I. Agriculture and allied	3.9	3.3	4.1	5.0	-0.9	9.6	-2.4	7.1	0.7	0.9
II. Industry	6.3	6.5	5.2	1.02	11.6	7.1	4.3	3.4	6.4	6.6
1. Mining and Quarrying	8.4	4.0	1.4	9.3	5.9	0.5	9.8	1.3	1.7	4.5
2. Minning	6.1	7.4	8.5	12.0	14.9	9.7	1.5	2.5	6.8	6.4
3. Electricity, Gas & Water	9.0	5.9	-0.8	9.4	6.8	5.4	7.9	6.4	5.2	5.6
Supply	5.2	5.7	0.6	5.5	6.2	2.1	1.2	6.1	8.1	8.7
4. Construction										
III. Services	6.4	8.2	3.3	7.1	10.5	7.2	9.8	8.2	9.6	8.3
5. Trade, Hotel, Transport and Communication	5.5	8.3	7.1	10.4	13.3	7.8	7.7	7.1	8.0	8.0
6. Financial, Real Estate & Business Services	9.4	8.8	13.1	5.6	8.2	7.0	11.6	8.4	1.01	9.6
7. Community, Social & Personal Services	5.6	7.4	3.5	3.2	7.9	6.3	11.7	9.9	11.8	7.6
IV. Total GDP	5.4	6.4	5.9	7.3	7.3	7.8	4.8	6.6	6.4	6.0

Source : Economic Survey, 2000-2001, Economic Division, Ministry of Finance, Government of India, pp 5.

Relationship Oriented Marketing practices is not new in the business circles. It is argued that the technological development in collection and use of marketing information have led to a change in the marketing paradigm itself away from Transactional Marketing and towards Relationship Marketing. This is concerned with all activities directed towards Attracting, Developing and Retaining Customer Relationships. Relationship exposures of different companies with their customers go on differing from one company to another. These Relationship Marketing levels: Basic— Reactive—Accountable—Proactive—Partnership, play important role in increasing the profits of companies. Indian Banking Sector has never taken Relationship Marketing-a "new Paradigm", seriously. It is only after liberalization in 1990's that Banks are moving towards "Customer Centric Approach". The core of Indian Banking System – Public Sector Banks, is facing lot of competition from Private Sector Banks and Foreign Sector Banks; hence the relevance of Customer Relationship Marketing is of prime importance.

This study highlights the changing dimensions of Marketing of Banking Services in Public Sector Banks and Private Sector Banks in India after liberalization in 1990s. It is divided into four sections. The **first** section focuses on the Emerging Banking Scenario particularly in Liberalization Era in Indian Banking. In the **second** Section an attempt has been made to do literature review on changing dimensions of marketing of banking services. In the **third** Section a study has been carried out to study the comparison of Customer satisfaction rendered by Private sector banks and Public sector banks. The final section deals with suggestions and recommendations for enhancing customer services in banks.

6.6.2 Emerging Bank Scenario in Liberalized environment after 1990s

In the recent past the Banking Industry has undergone major changes. These are financial sophistication, disintermediation, deregulation of controls in trade, foreign exchange, and industry to improve the efficiency and diversification in products and services. Due to liberalization and deregulation, the banks will be free to choose their segments, products/ services and customers. Similarly the customers are also free to choose products/ services from alternative sources. This will increase the competition and more risk for effectively dealing with which bank will have to be innovative as a result there will be more reliance on Relationship Banking rather than on Transactional Banking. Banks are moving towards new and innovative techniques to attract more and more customers and are moving into new directions along with their traditional banking.

The survival of the banks has become more difficult. The opening of economy has resulted into lot of competition from Foreign Banks and Private Banks. The Indian market is not as much of a watertight compartment as it was in the earlier years. These banks would start with the advantage of a lean organizational structure and necessary technology back up. These banks are setting standards in Marketing of Banking Services to general as well as corporate clients. Non- Banking Financial Institutions are also giving tough competition to the banking sector in providing quality banking services to their clients. The Internet and new technologies have changed the rules of the game putting the power in the hands of customers. Foreign banks and private banks are redefining the business of banking strategy, customization of the product, innovative distribution is helping them to forge ahead.

All banks are of the view that Relationship Marketing is the key to success in banking sector but it has remained more of theory than practice. The trend in the market shares of different categories of Commercial banks is set out in the table below. It is evident from the Table 6.3 that maximum growth is in Private sector banks (10%).

Table 6.3 Number of Scheduled Banks in India in different categories

Scheduled Commercial Banks	1989-90	2001-02	Increase +)/ (Decrease (-)
Nationalized Banks	60	46	-14
Foreign Banks	6	8	+2
SBI & Associates	27	29	+2
Private Banks	7	17	+10

Source: Reserve Bank Of India Bulletin, (Various Issues)

6.6.3 Literature Review on Relationship Marketing

In 1990 the concept of Relationship Marketing has emerged strongly. The focus has been changed from Transaction Marketing to Relationship Marketing. In Transaction Marketing, the focus is on single sale, orientation on product features, short timescale, little emphasis on customer service and limited customer commitment, whereas, in Relationship Marketing, the focus is on customer retention, orientation on product benefits, long timescale, high customer service emphasis and high customer commitment. Relationship Marketing is a philosophy of doing business that focuses on keeping and improving current customer rather than acquiring new customer. Building on this assumption and the fact that it is usually much cheaper to keep a current customer than to attract a new one. "Customer becomes partner and the firm must make long- term commitment to maintaining those relationships with Quality, Service and innovation". (Berry, 1983) states "The primary goal of relationship marketing is to build and maintain a base of committed customer who are profitable to the organization. To achieve this goal the firm will focus on attraction, retention and enhancement of customer relationship." The relationship marketing helps the customer on one hand and the service provider on the other hand. (Parasuraman, et. al, 1985, 1988) suggested that the criteria used by customers are important in molding their expectations, perceptions and hence satisfaction, fit ten dimensions. These are Tangibility, Reliability, Responsiveness, Communication, Credibility, Security, Competence, Courtesy,

Understanding and Access. Later they have been condensed to five categories viz. Tangibility, Reliability, Responsiveness, Assurance and Empathy.

(John Prete, 2003) emphasized the importance of Relationship Marketing and argued that the future of Marketing depends on maintaining relationships, which are essentials for long-term profits. (Edmeister, 1982) discussed the importance of employee-customer relationship. He expressed that, as the employees are the representatives of the service provider their encounter with the customer would help in maintaining the positive relationship with customer and make him loyal towards the service provider. (Golterman, 2003) suggested that long-term orientation in buyer-seller relationship is important, as it is the function of two things: mutual dependence and trust between them. Both these parameters help in bonding of buyer and seller thus improving their relationship. (Nair, 1999) theorizes that successful relationship marketing requires relationship commitment and trust and gave the model of relationship commitment and trust as key mediating variables. An attempt has been made to study the customer satisfaction level in Private Sector banks and Public sector Banks.

6.6.4 Research Design

The research is based on the Commitment-Trust theory of Relationship Marketing. The basis for the survey is SERVQUAL: A Multi-Dimensional scale for customer perception and Expectation of service Quality (Parasuraman *et al.* 1988). The research design used in the study is Exploratory and Analytical. It is Exploratory as it probes into the various factors that influence the Customers Relationship Marketing Strategies. It also probes the various factors which influence Employees of the banks in providing Quality Service to the Customers thus developing Relationship with the Customers and by which the customers can reciprocate the same.

6.6.5 Data Collection

The Primary Data is collected from the respondents through personal interview method. The collection of the data is done with the help of a questionnaire. The questionnaires is Non-Disguised and well structured. Close-Ended questions with multiple-choice answers are used. Few "Yes", "No" type questions are also used. Few Open-ended questions are also

used to give freedom to the thought of the respondents. For Attitude measurement in the questionnaire, Scaling method is used. The scaling method helps in the measurement of Emotional feelings, beliefs and behavioral responses. For measurement 10 Point Numerical Scale of percentage (1-2-3-4-5-6-7-8-9-10) is used, indicating, "not at all satisfied" to "Completely satisfied".

6.6.6 Sample Design

The universe of the study consists of the Customers of One Public Sector Bank and One Private Sector Bank in Varanasi. The banks are selected on the basis of their Deposits and are leading banks in the region. Twenty customers in each category (Saving Bank Account, Fixed Deposit, Credit Card, ATM and Locker) are chosen, thus total number of respondents are 200. The response rate is 89% (178 Questionnaires). Banks chosen for survey are: Public Sector Bank- State Bank of India and Private Sector Bank- ICICI Bank.

6.6.7 Results of the study

The Result of the study is given in the form of **Table 6.4**. It shows that the Private Sector Bank is doing fairly well in –

(1) **Credibility** tested on trustworthiness of bank, consistency of the bank service, believability and honesty of bank. The average rating is 6.68 and in Public Sector banks 6.16. This is the negative factor for the Public Sector Banks and this is eroding the customer base.

(2) **Access:** Access is tested on approachability and ease of contact. The average rating of Private Sector Banks is 6.65 and in Public Sector Banks 5.65. Although the Public sector banks have more branches but still people find the services of Private Sector bank better than Public Sector banks.

(3) **Communication:** Communication is tested on listening to the customers and keeping them informed in the language they can understand. The average rating of Private Sector banks is 6.88 and in Public Sector Banks is 4.71. This is a negative aspect of the public sector bank. They do not communicate frequently with the customers.

(4) **Understanding the Customer:** The "Understanding of the customer" is tested on the making efforts to know customers and their needs. The average rating of Private Sector

Banks is 6.95 and a Public Sector bank is 4.68. Public Sector banks are not empathetic towards the individual and people are moving towards the Private Sector Banks.

(5) **Tangibles:** The tangibles are tested on the appearance of physical facilities, equipment, personnel and communication material. The average rating in Private sector banks is 7.35 and in Public sector banks is 4.61. Public sector banks have not yet realized the importance of the physical setting of the Banks.

(6) **Reliability:** The reliability is tested on the ability to perform the promised services dependably and accurately. The average rating in Private Sector banks is 7.25 and in Public sector banks is 6.08. The private sector banks score more on reliability because of induction of latest technology in banking.

(7) **Responsiveness:** The responsiveness is tested on the willingness to help customers and provide prompt service. The average rating in Private sector banks is 7.42 and in Public sector banks is 5.44. Customers are treated as individuals in Private sector banks and the problems are sorted out immediately.

(8) **Competence:** The competence is tested on possession of the skills and knowledge required to perform the services. The average rating in Private sector banks is 6.68 and in Public sector banks is 6.09. New technologies etc., have given the edge to the private sector banks to learn and understand the happening around the world in banking sector.

(9) **Courtesy:** The courtesy is tested on politeness, respect, consideration and friendliness of contact persons. The average rating in Private sector banks is 7.56 and in Public sector banks is 4.49. People in private sector banks are more courteous than public sector banks and this gives the sense of satisfaction to the customers of private sector banks.

(10) **Security:** The only parameter in which the Public Sector bank is leading is 'security'. The security aspect of the banks is tested on the security of freedom and danger, risk or doubt of the customers' money. The average rating of Private sector bank is 5.54 and Public sector Bank is 7.19. Public Sector banks still command the trust of the customers and they believe that the public sector banks are more secure for their money.

Table 6.4 Private Sector Banks Vs. Public Sector Banks –Service Quality Rating

Parameters	Private Sector Bank						Public Sector Bank					
	SB	FD	CC	ATM	Locker	Mean	SB	FD	CC	ATM	Locker	Mean
Credibility	6.10	7.05	7.38	7.00	5.88	6.68	6.10	6.13	7.21	6.75	4.60	6.16
Security	4.34	5.55	6.80	6.01	4.99	5.54	8.02	7.10	7.15	5.66	8.03	7.19
Access	7.15	7.10	6.21	6.78	6.00	6.65	7.11	6.05	6.15	4.10	4.85	5.65
Communication	7.34	8.02	7.11	6.82	5.13	6.88	4.35	5.00	5.05	4.05	5.11	4.71
Understanding the customer	8.10	7.02	6.22	6.85	6.54	6.95	4.25	4.31	5.02	4.65	5.18	4.68
Tangibles	7.76	8.00	7.05	7.10	6.87	7.35	4.10	5.05	4.03	4.85	5.00	4.61
Reliability	7.20	7.25	8.01	6.80	7.00	7.25	6.03	5.12	6.21	6.18	6.85	6.08
Responsiveness	7.80	7.20	8.11	8.25	5.75	7.42	5.15	5.15	5.24	5.90	5.85	5.44
Competence	7.22	7.20	7.18	6.00	5.82	6.68	6.05	6.05	6.18	6.25	6.95	6.09
Courtesy	8.10	7.50	7.32	6.83	8.03	7.56	4.30	4.30	5.02	4.02	4.00	4.49

6.6.8 Analysis of the Survey Findings

1. There is a need to improve the trustworthiness, believability and honesty of banking services. This would improve the credibility in the public sector banks. This can be achieved by having consistency of services.

2. Communication is the key to success. The public sector banks should lay more emphasis on the communication with the customers on regular basis by means of customer meet, appraising them with the latest schemes, advising them of investments etc., through newsletters, circulars, news articles in the newspapers etc.

3. The concept of total Quality Management is to be introduced at each level in the bank. This can be very effectively achieved by going for customer surveys at regular intervals. If there are certain complaints those must be addressed immediately to the satisfaction of the customers. With the concept of internal marketing most of the problems could be sorted out.

4. The public sector banks must work hard to improve the internal and external servicescapes. Better servicescapes would have a positive effect on the customer psyche. The employees should be given guidelines for extending courtesy to the customers.

5. The whole emphasis should be on providing quality services so that the Relationship with the customers can be developed.

6. It is very important for the public sector banks to view the "Customers" as most important constituent of Business. Every attempt should be made to satisfy the customers. Only the satisfied customers would say positive word of mouth, and this helps in the profitability of the bank. So there is need for developing service attitude in Public sector banks.

6.7 CONCLUSION

Relationship Marketing has never been the given importance in Public Sector Banks in India. With the liberalization in 1990 onwards, the competition started increasing in Public Sector Banks and Private Sector Banks. The innovative technologies, better understanding of customers, better servicescapes and provision of quality services to the customers are giving edge to the private Sector banks in India. People have shifted the focus from the Public Sector banks to Private Sector banks thus improving the business and profits of the Private Sector banks in India. This has generated trust and commitment and loyalty among the customers. Good Relationship Marketing strategies like better segmentation, enquiry management, welcoming the customer, getting to know the customers, customer development, managing problems and winning back the customers have contributed to the growth and market share of Private Sector Banks in India. **(Table6.5)** Business per employee and profits per employee: Private Sector Banks vs Public Sector Banks). The Public Sector Banks have started looking at Relationship Marketing as the only strategy for survival, but there is still a long way to go.

TABLE 6.5

	Deposits (Crores)	Branches (In Numbers)	Business per Employee (Rs.In lakhs)	Profit per Employee (Rs.In Lakhs)
Public Sector Banks **(SBI)**	196821	9043	111.20	0.87
Private Sector Banks **(ICICI)**	9866	81	597.99	7.83

Source: IBA Bulletin, Special Issue, Vol. XXIII, No. 3, March 2001, pp 223, 244, 245.

THE
FUTURE OF BANKING

Chapter 7
THE FUTURE OF BANKING

7.1 INTRODUCTION

In developed as well as developing countries, the banking sector has been characterized by deregulation, globalization, progress in technologies, diversification, mergers and acquisitions as well as changing economic and social environment. In India, as we have seen in the preceding chapters, the banking sector, its structure and its development are essentially in the first phase of transformation. Privatization and entry of foreign players has already brought in a paradigm change in banking and future banking model is certain to witness numerous changes. Actually the present stage is so fluid, nothing concrete can be predicted as to what will be the shape of our future banks. Most of the strategies being adopted are in testing stage and it will be some time before one can really comment upon the success of the strategies. Internet Banking is just one example where every bank has jumped upon but it remains to be seen whether this additional delivery channel is really sustainable or it is just another fancy idea waiting to burst.

The objective of this chapter is to look into the factors, which are forcing the banks to change popularly known as "driving factors". Identification of these factors will be followed by in depth analysis of the factors as to how suddenly they have assumed such a significant magnitude. After this, banks strategic response to these changes will be dealt with and finally based on various logical predictions, an attempt will be made to generate a future-banking model. Whereas no definite answers can be obtained, it is clear that these changes that have been affecting banks globally will also have impact on Indian banks. However, before any attempt is made to actually study and suggest the future of Indian Banking, the scope of the study needs to be identified. This study is carried out mainly in the urban areas with more reference to retail banking. Investment and Rural banking have different dynamics that have not been incorporated in this study.

7.2 THE CURRENT BANKING SECTOR: LITERATURE REVIEW

The financial services industry is restructuring and consolidating at an unprecedented pace around the globe. Particularly, in the United States and Western Europe transactions are numerous and breathtaking. But restructuring is also going on in Asia. Most striking is probably the ever-escalating scale of reforms in Indian banking. A competitive banking sector is one of the prerequisites for successful integration into World financial market structures with respect to stability, performance, profitability and legislative and regulatory harmonization. Over the past 15 years, the Indian financial system has seen tremendous changes. Interest Rates have been largely deregulated, new banks have been allowed to enter the market and competition has been allowed across a variety of different product lines including loans, insurance, credit card, mutual funds and corporate banking services. These changes have resulted in a transformation of the competitive environment. New leaders have emerged and old players are in the process of adapting.

A parallel phenomenon is the broadening of scope of many banks. Even banks that traditionally followed well-motivated focused strategies now seem to give in to this trend. For example, ICICI Bank with its activities aimed at the corporate market, now puts itself in the arms of a scope expanding universal bank. Scope-expansion also originates from investment banks. Major investment banks are redefining their domain by offering traditional commercial banking products like commercial and industrial loans and by moving into retail brokerage. As commercial banking becomes more competitive, banks need to examine all possible ways to wring inefficiencies out of their cost structures. One way to do this is to merge with other banks and realize efficiencies of scale through elimination of redundant branches and back-office consolidation. Moreover, the diminishing margins in commercial banking invite banks to look outside their traditional domain. Some non-banking activities may offer higher margins and make scope expansion attractive. These higher margins may come in part from the value customers attach to "one-stop shopping".
However, these popular explanations are inadequate. The empirical evidence on scale and scope economies in banking is far from conclusive (Shaffer et.al, 1991, Cornett et.

al, 1992, Mester, 1992, Mitchell et. al, 1996 and Clark 1996). It is questionable whether these economies are large enough to justify banking consolidation and scope expansion (Berger, 1995) and (Berger, et al., 1993). Moreover, ample research in corporate finance points at the existence of a "diversification discount". On average diversification does seem to destroy value. There is also evidence that improvements in operating performance and stock returns have been experienced by firms that have refocused (John et. al, 1995) and (Comment et. al, 1995). Therefore, the important question is why there are so many mergers and acquisitions taking place in the industry.

A recent survey paper (Berger et. al, 1999) offers the same line of thought and is of substantial help in this study. An important question is whether the existing empirical (Shaffer et. al, 1991, Cornett et. al, 1992, Mester, 1992, Mitchell et. al, 1996 and Clark, 1996) evidence can be used to explain the current consolidation wave. While it can be concluded that the existing evidence is of some value, there are doubts about whether it is really helpful for understanding the current restructuring in banking. Several issues play a role here. Apart from econometric and sample –selection issues, and possibly fundamental changes in underlying "state-variables", *the* important issue is that *strategic* considerations are the driving force behind the current consolidation wave. As is evident, these considerations may have little to do with true scale or scope economies. Strategic positioning might be the rule of the game, and be an optimal response to the uncertainties and rapid (and unpredictable) changes facing financial institutions today. Consolidation might then be an evolutionary phenomenon and be followed by a new type of repositioning when the uncertainties become more manageable.

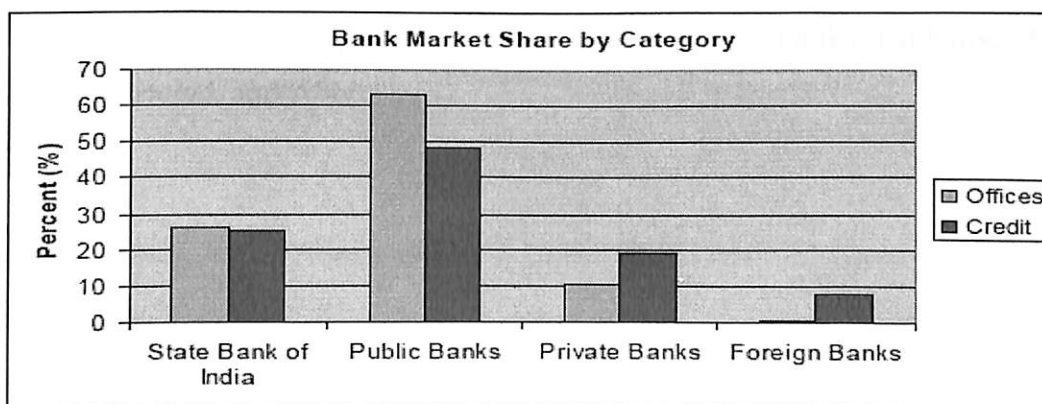
7.2.1 The Indian Scenario

The industry is currently in a transition phase. On the one hand, the PSBs, which are the mainstay of the Indian Banking system, are in the process of shedding their flab in terms of excessive manpower, excessive Non Performing Assets (NPA's) and excessive governmental equity, while on the other hand the private sector banks are consolidating themselves through mergers and acquisitions. During the year 2002, the

State Bank of India (SBI) and its 7 associates accounted for a 25 percent share in deposits and 28.1 percent share in credit. The 20 nationalized banks accounted for 53.2 percent of the deposits and 47.5 percent of credit during the same period. The share of foreign banks (numbering 42), regional rural banks and other scheduled commercial banks accounted for 5.7 percent, 3.9 percent and 12.2 percent respectively in deposits and 8.41 percent, 3.14 percent and 12.85 percent respectively in credit during the year 2002.

Further, the banking system is still nominally dominated by the public sector banks, which account for nearly 90% of the branches and 73% of the credit in the banking system. Of the public sector banks the State Bank of India and its seven regional subsidiaries are by far the largest players controlling nearly 25% of the market. The other public sector banks represent a diverse group of players. Canara Bank, Punjab National Bank, Bank of Baroda & the Bank of India are the four largest players in the area representing collectively around 25% of banking assets. PSBs, which currently account for more than 78 percent of total banking industry assets are saddled with NPAs (a mind-boggling Rs 830 billion in 2000), falling revenues from traditional sources, lack of modern technology and a massive workforce while the new private sector banks are forging ahead and rewriting the traditional banking business model by way of their sheer innovation and service. The PSBs are of course currently working out challenging strategies even as 20 percent of their massive employee strength has dwindled in the wake of the successful Voluntary Retirement Schemes (VRS) schemes.

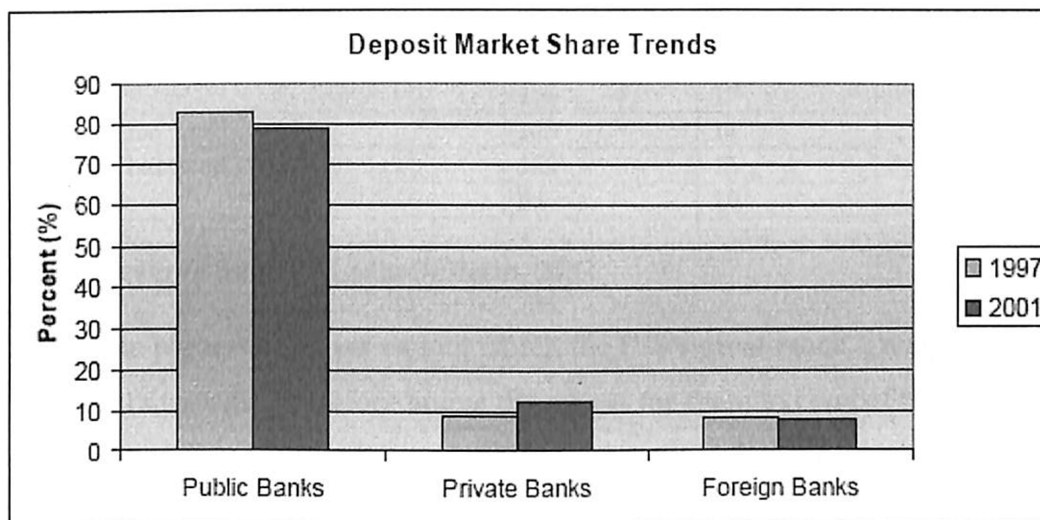
Table 7.1 Bank market share by category



Source: www.indiainfoline.com

While the public sector banks still dominate the nominal space, private sector banks and foreign banks are very strong players and have gained considerable momentum through the deregulations of the past decade. Since 1997 alone, Private Sector Banks have grown from representing 8.8% of bank assets to 12.6% of assets and 19.0% of credit at the end of 2001. The largest private banks in India are ICICI, HDFC, J&K, UTI & Vysya Bank. These five banks control 42.2% of the private sector bank assets as of the end of 2003.

Table 7.2 Deposit market share trends



Source:www.indiainfoline.com

Finally, as of the end of 2003, there were 42 foreign banks operating in India presenting 7.9% of the banking assets and 7.8% of bank credit. Of this amount, nearly 70% of the foreign market presence is accounted for by 4 banks, Citibank, HSBC, Standard Chartered, and ABN Amro.

Table 7.3 Competitive Landscape as on March 31, 2003

	Assets	Income
5 largest Public sector Banks		
State Bank of India	3156	300
Canara Bank	664	65
Punjab National	635	67
Bank of Baroda	633	65
Bank of India	596	62
5 largest Private sector Banks		
ICICI	197	15
HDFC	156	14
J & K	127	12
UTI	108	11
Vysya	102	10
5 largest Foreign sector Banks		
Citibank	194	23
HSBC	156	17
Standard Chartered	123	14
Standard Chartered Grindlay	122	15
ABN Amro	84	10

Source: Reserve Bank of India Bulletin, 2003

The private players however cannot match the PSB's great reach, great size and access to low cost deposits. Therefore one of the means for them to combat the PSBs has been through the merger and acquisition (M&A) route. Over the last two years, the industry has witnessed several such instances. For instance, HDFC Bank's merger with Times Bank; ICICI Bank's acquisition of ITC Classic, Anagram Finance and Bank of Madurai. Centurion Bank, Indusind Bank, Bank of Punjab, Vysya Bank are said to be on the lookout. The UTI bank- Global Trust Bank merger however opened a Pandora's box and brought about the realization that all was not well in the functioning of many of the private sector banks. Private sector Banks have pioneered Internet banking, phone banking, anywhere banking, mobile banking, debit cards, Automatic Teller Machines (ATMs) and combined various other services and integrated them into the mainstream banking arena, while the PSBs are still grappling with disgruntled employees in the aftermath of successful VRS schemes. Also, following India's commitment to the WTO agreement in respect of the services sector, foreign banks, including both new and the existing ones, have been permitted to open up to 12 branches a year with effect from 1998-99 as against the earlier stipulation of 8 branches.

Talks of government diluting their equity from 51 percent to 33 percent has also opened up a new opportunity for the takeover of even the PSBs. The FDI rules being more rationalized may also pave the way for foreign banks taking the M&A route to acquire willing Indian partners. Meanwhile the economic and corporate sector slowdown has led to an increasing number of banks focusing on the retail segment. Many of them are also entering the new vistas of Insurance. Banks with their phenomenal reach and a regular interface with the retail investor are the best placed to enter into the insurance sector. Banks in India have been allowed to provide fee-based insurance services without risk participation, invest in an insurance company for providing infrastructure and services support and set up of a separate joint-venture insurance company with risk participation.

7.3 SOME OTHER BASIC TRENDS IN THE INDIAN BANKING SECTOR

In the previous section, we have pointed out some significant changes happening in the banking sector, most of which is still inconclusive in the terms of their effectiveness and long-term effects. By and large, the Indian banking sector is seeing the same kind of restructuring and reengineering, which their counterparts in the West are witnessing. Our analysis of the Indian banking sector leads us to expect a strengthening of the sector's stability in the medium term. Alongside improvements to the regulatory framework, the groundwork has been laid for the sound development of the banking sector, free of any major problems of a systemic nature. Most of the deregulation and liberalization effected in the banking sector reforms carried out in two phases starting from 1991 have begun to show their effects. In the next part, we take a look at some of the other major trends to which the banking sector has been exposed, which will be then followed by how have the banks in India have reacted to these trends.

7.3.1 A continuing process of concentration of the banking sector

The process of concentration through mergers and acquisitions is governed by the need to be competitive and to cut costs. Most active in this respect in the Indian banking sector are private banks and to a smaller extent, some public sector banks also. Small and medium-sized banks usually take advantage of gaps in the market and

specialize in particular banking products or specific groups of customers. In South East Asia , concentration is closely bound up with the privatization process. The concentration process in the Indian banking sector is visible mainly in the growing significance of medium-sized banks, which are gradually expanding their activities. The results of the concentration process in the Asian countries is also affecting the Indian banking sector, via mergers and acquisitions of banks that are now part of the domestic banking sector.

7.3.2 The development of new products and services

The trend towards offering clients a widening range of products and services is becoming a significant factor of competition in the banking sector. Non-banking financial and non-financial companies, intermediaries and sellers are competing with banks in some products and services. In expanding the range of products and services they provide, banks are relying on financial groups and are making use of economies of scope and increased market segmentation and offering combined products. The product range derives from the life cycle, the changing needs of clients and the economic conditions. In the Indian banking sector, the emphasis is placed on offering a wide range of products from the areas of asset management and private banking, products associated with the ageing of the population, and risk-mitigation products. As for specific products, bancassurance continues to develop apace. Despite developing dynamically in recent years, the domestic market has yet to take full advantage of the current possibilities. On top of the traditional range of banking products and services, we can expect to see new investment-banking products as well as financial insurance and consultancy products and combinations thereof. In retail banking, new innovated banking services in the credit, deposit and payment instrument areas will be introduced. The development of banking products on the basis of knowledge transfer will be an important factor as regards competition in the sector.

7.3.3 New technologies in distribution networks

The development of distribution networks varies from country to country, depending on how conservative clients are and how able they are to embrace new technology. A

convenient around-the-clock service is becoming the general standard. Direct (electronic) banking offers the advantages of cost savings and the acquisition of target client groups. However, branch networks will remain indispensable, especially in retail banking. In the Indian context, most clients use the banks physical branch for their direct banking. In the future, greater use of mobile telephone networks and, in particular, the Internet can be expected. Banks are encouraging their clients to use the new distribution channels mainly by means of their pricing policies. The rapid development of electronic banking is creating conditions that will allow the domestic banking sector to converge towards the international level in the use of diversified distribution networks. This convergence is conditional on increased Internet accessibility in the medium term and the elimination of concerns about data being misused when banking transactions are performed via the new distribution channels.

7.3.4 A continued leading position of the banking sector in the financial sector

The banking sector plays the most important role in the overall financial sector in the Indian Republic, accounting for around 80% of total assets of the financial sector. Although the non-bank financial sector is displaying dynamic growth, it is still underdeveloped by comparison with the EU and other western countries. Relative to the other candidate countries, the Indian non-bank financial sector has a fairly high share, but here too there is considerable room for growth. The second most important segment in most of the candidate countries' financial sectors is the insurance industry, which accounts for second largest contribution to the financial sector's total assets. . The growth potential in India lies chiefly in bancassurance, life insurance and a diversified range of life-cycle related insurance products.

7.3.5 Continuing development of financial groups

As elsewhere around the world, there exist financial groups in the Indian banking sector. They are led, as a rule, by banks that are already part of supranational financial groups. These banking financial groups generally comprise an insurance company, a pension fund, an investment company, a unit trust, a leasing company, a factoring

company and suchlike. In some cases, these companies are among the most significant on the relevant domestic market. In this way, banks can increase their effectiveness, make use of retail networks within the financial group, increase the benefits for clients by providing a comprehensive service and offering combined products, and develop cross-selling of the group members' products. Banks thus have a share in the results of other financial market entities. By being part of financial groups, banks can diversify both their activities and their risks.

7.3.6 Prudent lending to corporate clientele

The only modest growth in lending expected in the period ahead is due not to a shortage of funds, but primarily to continuing cautious behavior of banks. This takes the form of a rigorous selective approach to lending based on the soundness of corporate clients. This development has been fostered in part by the slowdown in economic growth and by the banks' continuing problems with recovering debts. Banks have been unable to find sufficient opportunities on the lending market with acceptable credit risk. As regards sources of financing for the corporate sector, borrowing has been supplemented with high volumes of intercompany debts, foreign currency loans through external commercial borrowings route, foreign investment inflow and other alternatives to bank loans. The capital markets still play a significant role in financing the corporate sector.

7.3.7 Growth in retail banking

The lack of opportunities for effective allocation of loans to corporates and the strengthening effect of non-bank competition, along with the relatively low indebtedness of the population, has led banks to offer a wider assortment of loans to individuals. However, despite vigorous growth in recent years, their share of the total volume of loans granted remains relatively low (14.3% as at 30 June 2002). Household indebtedness in India (9.4%) is much lower than in the western countries (50%). This suggests considerable room for further growth, something that an ever-growing number of banks on the Indian banking market are declaring in their strategies. Providing loans to private individuals is generally considered less risky than lending

to corporate clientele. In the area of consumer credits, banks are facing quite stiff competition from financial and commercial companies offering personal loans, instalment sales, credit cards and so on. The key factor in this competition is the on-the-spot availability of such loans. The lending process is being streamlined, among other things, by a common database of loans provided to private individuals, through which banks can exchange information on the payment histories of their clients.

7.3.8 Improvements in loan portfolio quality, leading to a reduced need for provisioning

The stability of the banking sector has been considerably enhanced by a marked improvement in loan portfolio quality. Although the decline in the volume of classified credits is mainly due to past transfers of bad debts from the banks being restructured to the Asset Reconstruction Fund, the improved quality of new loans resulting from the banks' cautious approach is also starting to have a positive effect. Despite the many improvements, loan portfolio quality remains the biggest risk to the domestic banking sector. However, the still relatively high share of bad credits is largely due to a stricter classification methodology in the Indian banking sector, a low level of write-offs against provisions for tax reasons, and by the slow process of enforcing collateral. The potential risk from Non-performing loans is currently fully covered by provisions and reserves. Any further lowering of the volume of bad loans will depend on an increase in the level of write-offs of loss loans against already existing provisions and in particular on the banks' ability to provide recoverable loans. Portfolio quality and loan recoverability are also likely to be affected by comprehensive new procedures for managing lending transactions and credit risk.

7.3.9 Improved banking sector profitability

The stability of banks is conditional on their ability to generate sufficient profits. In 2002, banks carried on their activities against a background of low and still-falling interest rates on the inter-bank market, which considerably affect the interest rates announced by the banks. The main sources of profit from financial activities – interest and fees and commissions – are a stable component of profitability.

Profit from financial market operations – which may bring in an immediate profit or loss, but is not a stable long-term source of earnings – is a volatile component. The increase in profit again compared to 2001 is partly attributable to growth in interest profit, particularly from transactions with banks. Growth in non-interest profit, of which fees and commissions were the most significant component, was the decisive factor. The stable growth in profit from fees and commissions caused its share of the total profit from financial activities to increase to around one quarter, although this is still below the international average (30%). The reduced requirements to set aside provisions and reserves, coupled with the slower growth in administrative costs, led to relatively high net profitability of the banking sector. The domestic banking sector is expected to record rising profitability. It will achieve this by taking advantage of the potential for cost cutting and by generating new income based on expansion of business activities and on risk management. These developments will be driven by the desire of investors to increase the value of their investments.

7.3.10 Pressure to control administrative costs

The pressure to increase efficiency in the current climate of a slowdown in economic growth and stiff competition on the banking market is focused primarily on the cost components of banking business. Cost management – via further staff cuts, optimization of cost-benefit ratios and higher returns on capital – is the order of the day. Although administrative costs are growing in absolute terms, the growth rate is gradually slowing. Owing to the increases in efficiency and the introduction of new technology, more employees will be laid off from the banking sector, although this might be offset in part by growth in banking business. Organizational structures will be simplified and focused on banking business. In addition to ancillary and supplementary activities, risk management is now starting to be outsourced. There will be major organizational changes with regard to client services in branches. The situation is much the same in the other developing countries. This shows that the EU countries are able to manage a markedly higher volume of total assets with comparable operating costs, despite the fact that the candidate countries have an advantage in lower wages.

7.3.11 Maintenance of sufficient capital coverage

Capital adequacy, which is an indicator of a bank's financial stability, stood at a comfortable level in mid- 2002. This suggests that there currently exists considerable capital potential for the development of banking transactions. This is due mainly to the depressed lending activity and because banks are investing their free funds in T-bills and other government securities depositing them at other banks, i.e. in products with a lower risk weight. The ever-expanding range of products and services bearing specific risks is generating a need for continuous strengthening of banking regulation. The "New Basel Capital Accord" (NBCA) represents a change in the approach used to regulate banking risks. It emphasizes individualized procedures for measuring and managing risk and for assessing the risk profile of each bank (the "risk-based approach"). The existing approach to prudential regulation, which covers credit risk and market risks, has been expanded to include operational risk. The NBCA bolsters the role of market discipline and includes enhanced information disclosure requirements for banks. It also envisages the application of far more sophisticated supervisory methods and procedures, where these are warranted by the scope of a bank's activities or its risk profile. This will exert considerable pressure on regulators, as they will have to learn new skills and take on greater responsibilities. A qualitative shift in the performance of supervision can also be expected in the development of co-operation between regulators across the financial sector as a whole. The core banking legislation has been harmonised with international standards, and the regulatory framework is evolving towards the application of appropriate capital requirements covering all risks.

7.4 DRIVERS FOR CHANGE

The Indian banking industry has come a full circle. From being run as private companies to government-owned nationalized institutions since 1969, and operating in a highly regulated and protected environment, to be exposed to intense competition post-reforms since 1991. Every aspect of functioning of the banking industry, be it profitability, NPA management, customer service, risk management, human resource development, etc. has to align with international best practices. Managing these challenges effectively becomes the most important task. Some of the serious issues confronting banks need to be looked into before we jump into the banking sector response to these driving forces.

Key Challenges Confronting Banks Today

- **Increase profitability by**

1. Rationalisation of branch network & manpower
2. Use of latest technology in banking
3. Efforts to minimise NPAs
4. Reducing operational costs

- **Competition & Consolidation**

The following factors have made the banking environment more competitive

1. Deregulation in interest rates
2. Disintermediation
3. Emergence of new private banks

- **NPA Management**

Management of NPAs continues to be the foremost challenge of our banking system. Conscious and persistent efforts are on to achieve this by prescribing strict, objective norms for the identification & classification of NPAs.

- **Capital Adequacy**

An improved capital adequacy framework is intended to foster a strong emphasis on risk management and encourage ongoing improvements in the bank's risk assessment capabilities.

- **Risk Management**

The risk management practices of banks in the areas of credit, market and operations have to be upgraded by adopting sophisticated techniques like VaR, simulation, internal model-based approaches and credit risk-modeling techniques.

- **Human Resource**

Managing and leveraging human capital will be important In the context of change management. Skill inventory management, de-skilling & re-skilling, and training and competency management will be critical.

- **Customer Service**

Indian banking, realising the challenges thrown by global competition, is undergoing significant changes & improvements in customer service. This has been possible due to increased use of technology resulting in

1. Customer, product and channel profitability
2. Knowing your customer
3. Share of the wallet

- **Technology Issues**

IT has immense untapped potential in banking

1. Strengthening of IT in banks could improve the effectiveness of asset-liability management in banks
2. Building up of a related database on a real-time basis will enhance the forecasting of liquidity greatly even at the branch level
3. Strong analytics for better decision making

The challenges that Indian banks face can be classified into three broad areas viz.,

7.4.1 Regulatory and Enterprise Performance Challenges:

New Basel regulations are coming, and they promise to totally transform the way banks manage their business. Banks will be required to set aside capital for market, credit, and operational risks. A bank's very survival is at stake if it doesn't adapt to

these new practices. Enterprise Performance Management Systems address the various performance-related issues that banks face in today's scenario. These systems prepare the banks for oncoming regulatory requirements like Basel II. They also take care of various other performance parameters based on which the banks' performance is measured, like risk weighted capital, activity based management, analytic forecasting, asset liability management, planning and budgeting, customer behavior modeling, customer scorecard, enterprise scorecard, funds transfer pricing, global consolidations, portfolio management, supplier rating and workforce planning.

7.4.2 Technology Challenge: a TCS/IBA Survey

These challenges discussed in the previous sections are confronting the banking sector in a big way and banks are doing their best to develop some counter strategies to tackle them. However, when it comes to the top priorities for the banks, they differ from bank to bank depending on their location, existing customer base profile, target clientele and the resources available to fulfill technology related demands. For banks located primarily in metro cities and catering to upper middle class, the top priority would be customer satisfaction and offering new facets in banking like online banking and so on whereas a typical public sector bank catering to the whole of the country including rural areas will have wider network and larger customer base as its top priority. In this regard, a Survey on Priorities for the banking sector done in the year 2003 by TCS could be quite informative and sending the right signals to the policy makers.

A joint TCS/IBA Research survey of banking executives reveals that improving customer retention through online customer service is a top business and technology priority for banks in 2003. They surveyed 165 banking executives about their priorities for 2003.

• **Retaining customers are job one.** Retaining existing customers is the top business priority for retail banks in 2002. Not surprisingly, CRM is the most important technology priority, and customer retention is the top web site priority.

- **Service is the preferred path to success.** Enhancing online customer service functionality is the No. 1 Web site development priority, followed by improving site content.
- **Understanding customer needs is difficult.** Understanding customer needs was rated as the top Web site challenge firms face. Internal challenges like resource constraints, boosting ROI and prioritization were also significant.

- **Site traffic growth determines success.** More than 75% of the respondents listed growth in site traffic, followed by customer feedback and surveys.

7.4.3 The Liberalization, Privatization & Globalization challenge

In 1991 the Indian economy went through a process of economic liberalization. Recognizing the need for such reforms in the banking sector also, the government initiated a fundamental banking sector reform package in 1992. The banking reforms package was based on the recommendations proposed by the Narsimhan Committee Report (1992) that advocated a move to a more market oriented banking system, which would operate in an environment of prudential regulation and transparent accounting. One of the primary motives behind this drive was to introduce an element of market discipline into the regulatory process that would reinforce the supervisory effort of the Reserve Bank of India (RBI). As a consequence of this, banks were given freedom for several decisions and became quite autonomous in their functioning. For examples banks could now set their own interest rates and could decide for themselves, the holdings of individual items and inventories.

Further, the liberalization policy of the government, permitted entry to the private sector of the Indian banking industry. The major differentiating parameter that distinguishes these banks from all the other banks in the Indian banking is the level of service that is offered to the customer. The focus of these banks has always been centred round the customer – understanding his needs, pre-empting him and consequently delighting him with various configuration of benefits and a wide

portfolio of products and services. The popularity of these banks can be gauged by the fact that in a short span of time, these banks have gained considerable customer confidence and consequently have shown impressive growth rates. Most of the banks in this category are concentrated in the high-growth urban areas in metros (that account for approximately 70% of the total banking business). With efficiency being the major focus, these banks have leveraged on their strengths and competencies viz. Management, operational efficiency and flexibility, superior product positioning and higher employee productivity skills.

The emergence of these private players has not only acted as a catalyst for ensuring that the nationalized banks get their act together, but also the heightened competition among the private players themselves has ensured that they can no longer rest on their past achievements but need to constantly innovate to attract new customers and to retain the existing ones. Further, with the demolition of national barriers when it comes to trade and commerce, the globalization process too is considered to promote rapid changes in the business model of the current Indian banking model. With the entry of multi national banks, the customers are given services as per the American or European standards, which are much advanced to the Indian service levels and hence further extend the gap between the public sector banks and themselves. The foreign banks themselves are under immense pressure to perform in an extremely competitive environment, and thus there is a great push in all banks for continuous push for obtaining cost efficiencies, to increase service levels and to operate at par to strive to be the best in the market.

7.4.4 The Customer Challenge

The old cliché, "Customer is King!" is coming back to haunt the entire banking sector! Banking, traditionally had taken customers for granted. The service levels in the PSB's were appalling. However, with the emergence of the new banks, these old generation banks were also forced to rethink their strategies and started offering better services to their customers. The Cost Based Pricing Value Chain can

summarize the traditional model for the services offered by the banks of the past. This model is represented below:

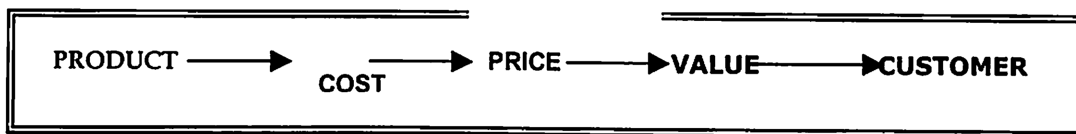


Figure 7.1: Cost Based Pricing Model

In reversing the information flow, it is now the customer who is at the beginning of the value chain. This is the basis of the Value Based Chain, which can be summarized as below.

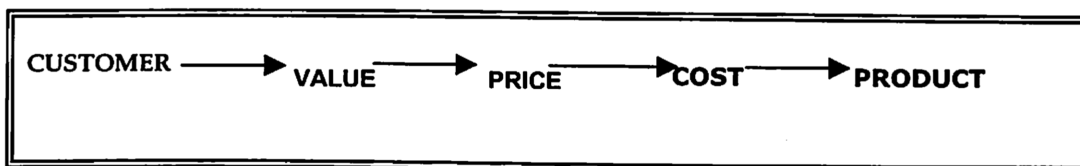


Figure 7.2: Value Based Pricing Model

It is no longer possible to deliver a product and then expect that customers will want it. The above phenomenon is now ailing the entire market, and banks are no exception to this rule. Banks no longer enjoy a monopoly with respect to both payments and lending products. Rather, banks (as is the case with other industries) must offer a product that delivers value to the customer. Banks can no longer rely on just providing products that customers like today; rather, it has become important to be more proactive and less defensive by determining what is going to be the value product/service that the customer will demand tomorrow. Currently banks are struggling at not only gaining a new customer base but also retaining that base once in place. With the traditional brick and mortar banks of the past, customer retention was not such a difficult task but with the many new products and services currently afforded the consumers today; banks need to be more conscious of the value-based model. Customers have wireless banking, electronic banking, electronic cash, mobile banking and ATMs (to name but a few innovations) at their disposal and even though they may have a primary bank where they do business, this does not negate the use of other facilities. Customer loyalty is also becoming one of the prime

problems being faced by most banks. Customers are no longer loyal to one bank. Thus customers will go where they can receive the highest return.

The following are some of the major trends that have been identified in the banking customers:

- Customers are more familiar with computer and online access
- Increased simplicity in the accessing of online resources
- Increased level of transaction automation (ATMs, Phone Voice Response Services)
- High customer expectations in terms of services with easy access
- Greater number of transactions due to easy access and lower transaction costs

Whereas this information was compiled for customers in the developed countries, the changing demographic of the Indian customer is ensuring that he too is a party to the trends outlined above. The Indian customer is not averse to the use of technology. The increase in the number of Internet users, and also the massive usage of mobile phones offers a plethora of opportunities for the Indian banks. True, the percentage of people utilizing these devices for accessing their bank accounts might be low, but the opportunity in this sector is immense. Further, ATMs are slowly proving to be successful as more and more customers are adopting the use of ATMs for banking services.

Tabulating the above discussion, we can see the following key determinants of a bank's competitive position and the impact on the customer:

Table 7.4 Key determinants of Customer banking

KEY DETERMINANT	IMPACT ON BANKING CUSTOMER
Relative Choice of Products	Increasing
Buyer Switching Costs	Decreasing
Buyer Information	Increasing
Ability to backward integrate (Do work himself/herself)	Increasing

An article in the Economic Times (*New Age Banking*, Feb 12, 2003), highlights the fact that in the coming years, bulk of the banking business will be coming from individuals under the age of 35 years, and therefore banks will have to remodel their strategies to suit the needs of this segment. It is expected that by the year '06-07, the population of

people under the age of 30 will be about 50 crores, and it will be this segment of the people that will constitute the major chunk of the consumers in the next 20-30 years. Therefore, their values, needs, aspirations and expectations from banks would be the major basis for emergence of new financial products in the financial market. It would be incumbent upon banks to develop a clear understanding of the psyche of this generation to innovate products, and hence remain competitive.

7.5 FUTURE OF BANKING

Banks with which we are all familiar will not exist in 10, maybe five, years' time. In fact, the banking industry to which critics often refer has been dead for some time. Bill Gates is famous for saying that he may need banking but he doesn't need bankers. He's half right. It is just that the banker he will be using in 10 or 20 years' time will bear little resemblance to the one you see before you today. What, then, is the future of banking? Three little words, but a huge picture. It is tempting to spend time on new technology – on cash machines working by voice recognition, internet banking and the control of your finances from the comfort of your arm chair. This is an exciting area, but what we want to do here is draw out some of the principles and issues which are of concern to public policy makers and we want to start by speculating what banking will look like to the customer in a decade's time. Although there are differences in practice throughout India and between India and the rest of the world, at the level of principle the issues are precisely the same.

The future of Indian Banking represents a unique mixture of unlimited opportunities amidst insurmountable challenges. On the one hand we see the scenario represented by the rapid process of globalization presently taking shape bringing the community of nations in the world together, transcending geographical boundaries, in the sphere of trade and commerce, and even employment opportunities of individuals. All these indicate newly emerging opportunities for Indian Banking. But on the darker side we see the accumulated morass, brought out by three decades of controlled and regimented management of the banks in the past. It has siphoned profitability of the Government owned banks, accumulated bloated NPA and threatens Capital Adequacy of the Banks and their continued stability. Nationalized banks are heavily

over-staffed. The recruitment, training, placement and promotion policies of the banks leave much to be desired. In the nutshell the problem is how to shed the legacies of the past and adopt to the demands of the new age.

All the welcome changes towards competitive and constructive banking could not however, deliver quick benefits on account insurmountable carried over problems of the past three decades. Since the 70s the SCBs of India functioned totally as captive capsule units cut off from international banking and unable to participate in the structural transformations, the sweeping changes, and the new type of lending products emerging in the global banking Institutions. Our banks are over-staffed. The personnel lack training and knowledge resources required to compete with international players. The prevalence of corruption in public services of which PSBs are an integral part and the chaotic conditions in parts of the Indian Industry have resulted in the accumulation of non-productive assets in an unprecedented level. The future of Indian Banking is dependent on the success of its efforts as to how it shakes off these accumulated past legacies and carried forward ailments and how it regenerates itself to avail the new vistas of opportunities to be able to turn Indian Banking to International Standards. PSBs in India can solve their problems only if they assert a spirit of self-initiative and self-reliance through developing their in-house expertise. They have to imbibe the banking philosophy inherent in de-regulation. They are free to choose their respective paths and set their independent goals and corporate mission

The extent of competition in the financial services sector today is driven by a host of issues, such as deregulation, globalisation, advances in technology, financial innovation and customer demands. The struggle to remain competitive in this environment has led to focused cost management and a drive for improved efficiency. As a result, there is a distinct trend towards cost reductions, mergers, specialisation to gain economies of scale, and the disaggregation of financial services. Having said this, the path is still not very clear and distinct as the banking industry is still not able to figure out how exactly things will finally shape in the next decade and it remains to be seen as how these banks develop future strategies.

Keeping the above discussion in mind, banks will have to formulate strategies to address the issues and challenges that were outlined. The following are some of the responses that banks will need to come up with to ensure that they can remain competitive in the future:

- Consolidation
- Aggregation of services
- Resource Sharing
- Outsourcing
- Personnel management
- Customer Relationship Management
- New products markets and distribution channels
- Adoption of Technology
- Internet Banking

7.5.1 Consolidation

The consolidation that is witnessed in the banking sector is primarily a direct consequence of the deregulation and liberalization of the banking sector. Globalization too has impacted the need for banks to have presence in several nations to enable their customers get service anywhere and anytime. This reason coupled with the increasing pressure of competition has forced banks to look at new ways to boost their returns. The consolidation process involves the collaboration of two or more banks via the following mechanisms:

- Mergers and Acquisitions
- Reverse Mergers
- Alliances and Tie-ups

This trend of consolidation in the banking industry is not new and has been prevalent in the western economies. Before a study of the consolidation scene in India is considered, the motivation behind consolidation will be discussed in brief. Exploitation of scale economies emerges as one of the biggest motive for consolidation within industries. For example, a bank with 200 branches, may want to merge with another bank with 150 branches, and thus exploit the concept of economies of scale.

Consolidation across industry segments (for example merger of a bank with an insurance company) is done with an attempt to enhance revenue by providing a one-stop shop to customers. Further, big participant benefits help large banks close better deals in the financial matters. Further, one school of thought believes that the higher size of assets and liabilities tend to be diversified over a group and hence they tend to minimize risks. Consolidation of banking services also assists in achieving cost efficiency in operations. Competitors become collaborators and co-opetition has become the order of the day. For foreign/new players entering a market, it becomes difficult to establish an entire branch network right from scratch, and hence it becomes important for the new bank to establish a presence by means of mergers. Thus essentially consolidation is one of the preferred ways for banks to expand geographically to the areas where they are not currently located.

In India, the old private sector banks as well as the nationalized banks have been long seen as inefficient, and may not be able to match the level of service offered by the new players. To be competitive in such a scenario, it becomes necessary for these banks to consolidate and emerge stronger. The future will thus witness a large number of consolidation related activities that shall create a few "Universal Banks" that will survive and perform. The smaller banks might just disappear and there might remain just a few large truly global players. Not only mergers and acquisitions but strategic alliances with organizations that offer complementary products and services or have different strengths. In the words of Mr. A.K. Purwar, Chairman SBI, *"Consolidation is the crying need of the Indian Banking Sector. Four to five large players must emerge like State Bank of India and ICICI Bank. We need to be able to export our banking services to the outside world."* (Business Line, September 30,2003).The merger of ICICI with ICICI Bank was a case in point of consolidation activities that have been undertaken by the Indian banking sector players.

The following are some of the examples that illustrate the growth in the consolidation of the Indian banking sector.

Table 7.5 Examples of Consolidations in the Indian Banking sector

S.N.	DATE	EVENT
1.	20.11.2003	IndusInd Bank is tipped to acquire Centurion Bank and a non-banking financial company – Ashok Leyland Finance & Leasing. (HBL)
2.	29.10.2003	Clearance for merger of Centurion Bank and Bank Muscat obtained. (ET)
3.	20.08.2003	Possible reverse merger with IDBI Possible merger with UTI Bank Possible acquisition by Kotak Mahindra Bank (HBL)
4.	14.08.2003	Introduction of Bill to set into motion the government's plan to encourage the merger of smaller banks with strong regional ones. (ET)
5.	14.08.2003	Federal Bank looking to pursue the M&A route for attaining 16% capital adequacy in 2004-05. (BS)
6.	12.06.2003	Bank of Punjab stock rises - as a contender for M&A(FE)
7.	24.04.2003	Vijaya Bank considering acquisition of Bank of Punjab (BS)
8.	12.04.2003	PNB considered a potential acquirer of IFCI (ET)
9.	20.02.2003	Bank of Baroda on the lookout for another bank to acquire within a year of acquiring Benaras State Bank
10.	11.01.2003	HDFC Bank ready for acquisitions (BS)

The above table indicates that the M & A activity in the Indian Banking sector is definitely on the rise. Further, banks like Central Bank of India are also consolidating their branches by merging their branches. Banks like IOB, ICICI, HDFC, etc. are also making forays into the international market and have opened international branches. Thus, Indian banks are no longer restricting their operations in India and are trying to reach out to the world. Further, the merger of Standard Chartered with ANZ Grindlays created a banking powerhouse. Also the reverse merger of ICICI with ICICI Bank has created what is considered as the first "Universal Bank", a concept that is discussed in detail in the next section. Banks are also trying to obtain synergy by collaborating with each other for their ATM networks. This shall be dealt under the section on resource sharing. The above table gives a small outlook of the banking consolidation scene within the banking sector. However, another set of consolidation is the one that involves strategic alliances with organizations offering complementary services to enable the banks to offer increased products and services to their customers. The table below summarizes this aspect of Indian Banking:

Table 7.6 Examples on strategic alliances in the Indian banking

S.N.	DATE	EVENT
1.	31.10.2003	Royal Sundaram and Lakshmi Vilas Bank tie up for distribution of a wide range of insurance products of the former by the branches of the latter. (HBL)
2.	12.08.2003	UCO Bank signs MoU to market LIC schemes (HBL)
3.	01.08.2003	Karnataka Bank has a tie-up with US based Met-Life Insurance for distribution of life insurance products (ET)
4.	25.07.2003	Maruti Udyog Ltd ties up with State Bank of Hyderabad for selling car finance schemes. (HBL)
5.	08.05.2003	Birla Sun Life MF tie-up with Karur Vyasa Bank for distribution of the formers mutual fund schemes. (FE)

These activities of the banks not only provide them with an opportunity to foray into activities that were previously considered as non-banking activities; but also enable these banks to earn fee based revenue which needs to contribute to a greater extent to a bank's income. In the present scenario, the contribution of non-interest income in the banking sector is quite low. Thus consolidation in the banking sector, a process that has already started will continue till the banks reach a common platform and a common level of performance. The gap in the current set of banks in terms of performance and service will be definitely bridged in the years to come.

7.5.2 Aggregation of Services

As a consequence of consolidation, a concept called the "Universal Bank" is coming to the fore. The concept of economies of scale has been expanded to include the concept of economies of scope, which means that banks now have a larger product offering under the same roof. Simply put, a universal bank is a supermarket for financial products. Under one roof, corporate houses can get loans and avail of other handy services, while individuals can bank and borrow.

The concept of universal banking includes the following:

- Traditional Banking Services
- Investment Banking
- Securities Trading
- Trusteeship and Agency Functions

- Insurance (Bancassurance)
- Real Estate
- Investment Consultancy

Universal banking is contrasted with specialized banking wherein separate players carry out the separate functions and services outlined above. Whereas Universal Banking is not something that is extremely popular in the U.S.A. where the regulations stress on specialized banks (a trend likely to change soon), the rest of the world, particularly Western Europe has been quick to embrace this concept.The main advantage of universal banking is that it results in greater economic efficiency in the form of lower cost, higher output and better products, and also increased level of service comfort to customers who now get a "one-stop shop". Primary disadvantages could be that the bigger these institutions, the bigger will be the impact on the system in case of a failure. Further, another fear is that by virtue of their sheer size, these banks could gain a monopoly in the market which could have an undesirable effect on the economic efficiencies. The Narsimham Committee II suggested that Development Financial Institutions (DFIs) should convert ultimately into either commercial banks or non-bank finance companies. The feedback on the discussion paper indicated that while the universal banking is desirable from the point of view of efficiency of resource use, there is need for caution in moving towards such a system by banks and DFIs. To convert itself into a universal bank, an entity has to negotiate several regulatory requirements. Therefore, universal banks in the Indian context have been in the form of a group offering a variety of services under an umbrella brand such as ICICI or HDFC. However, now almost all banks are aggregating their services and are set to become Banking Supermarkets by cross-selling the various financial products and services.

The following are some of the banks in India that can claim to be "Universal Banks":

- ICICI Bank
- SBI
- Kotak Mahindra Bank
- HDFC Bank

It is expected that with increasing consolidation, more banks shall enter into the realm of "Universal Banking" which is definitely going to be a trend that is going to be a commonly observed trend in the future.

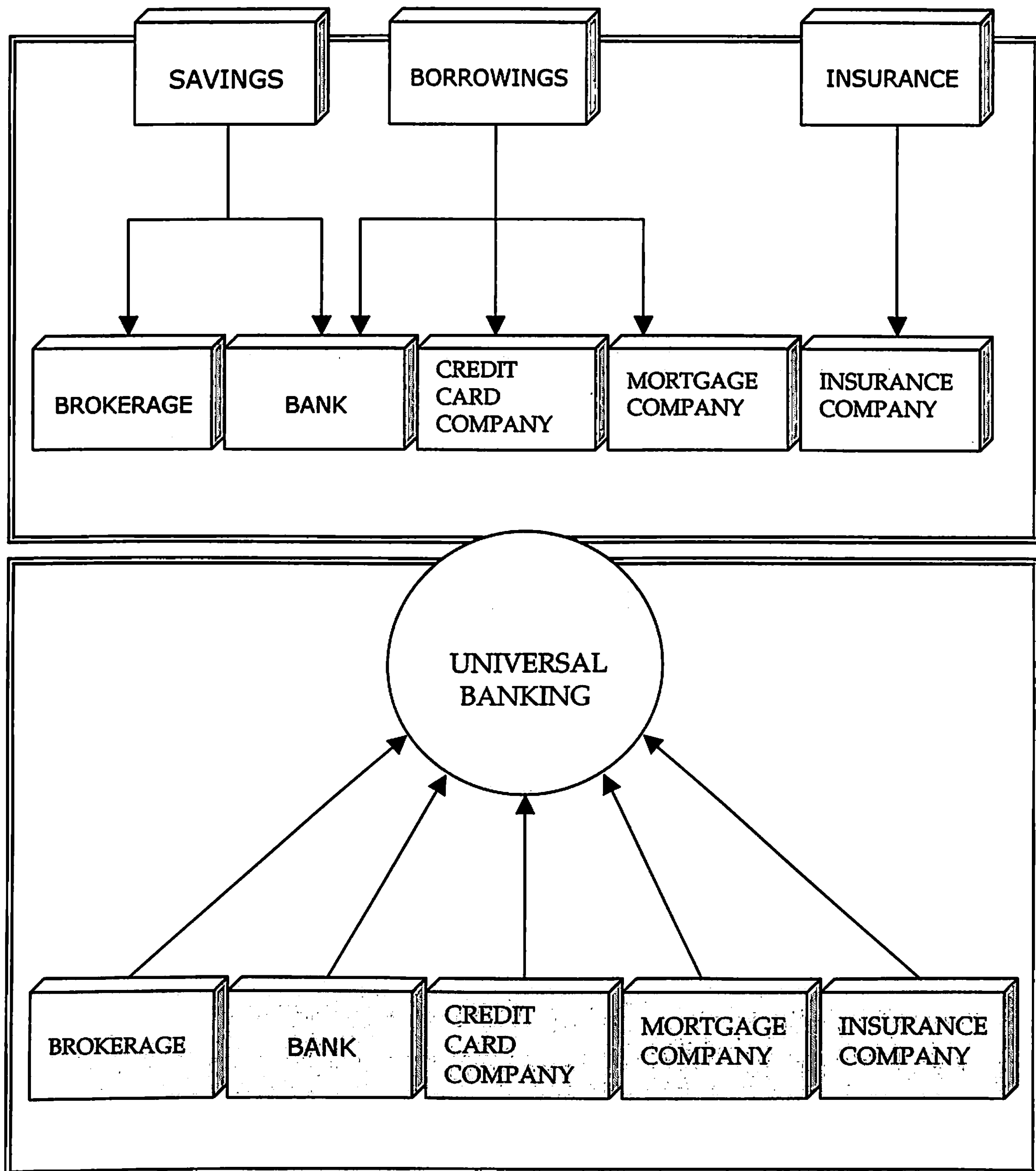


Figure 7.3 Universal Banking

However, there is also a flip side to this story where it is also held that disaggregated approach is a better approach to banking where specialized players operate in individual fields. This theory suggests that being the 'Jack of all trades' may not

necessarily be the best solution for ensuring banking efficiency; rather mastering a domain is what will lead to financial efficiencies. Disaggregating also lowers the economic barriers to competition, creating greater choice of potential financial service providers. It enables financial institutions to examine the core elements of their business on individually, rather than as a necessary part of an integrated business.

Arguments in favour of universal banking are based on the concept of economies of scale and scope. Whereas no research is carried out in an Indian context, studies in European markets have shown that the advantages of scale economies are perceived only by the smaller players as they grow, for the much bigger players, economies of scale may not be attained. Similar analysis is obtained from the study of economics of scope. European studies have identified that there is no evidence on the cost side that banks can become more efficient in their domestic operations by increasing their scale. There are also no cost-side arguments for the increase in efficiency due to the various consolidation schemes to obtain economies of scope. Rather, in some cases, the bigger banks displayed diseconomies of both scale and scope and hence there is a suggestion that smaller specialized banking institutions, e.g. "narrow" banks, might be more competitive.

A contrary study however shows that the universal banking for non-German European countries has revealed that operational efficiencies are realized with conglomerate banking. This clearly shows that no generalizations can be made about the superiority of either system if actual data on the country is not available. So should the Indian banks continue their progress towards a Universal Banking concept or will the future see Specialized Banking as the model for Indian Banking. The future can thus be considered to have a period where consolidations will continue up to a point that there are a few large banks offering various aggregated financial services under one umbrella. Subsequent to that there might be a transition from this umbrella banking to specialized areas of banking being held by different companies. Banks may also consider these as strategic business units, but whether a cost advantage is obtained or not remains to be seen. Only when a proper study of the efficiency

advantages and disadvantages is done for an Indian scenario will the future plan of action unfold. Studies, which compare the performance of the Universal Banks with the specialized bank in an Indian context, are hence essential for actual future predictions. In conclusion, the short-term future is bright for universal banking, but in the long-term, whether specialized banking or universal banking emerges, depends solely on the conclusions obtained from the study.

7.5.3 Resource Sharing

Apart from the consolidation and the aggregation of services, for banks to cut costs and obtain operational efficiency the redundancy approach will need to disappear. It was a commonly observed pattern that banks initially in the race to capture the best locations for ATM's disregarded reason. This resulted in a situation where 4-5 ATM's were seen located within a radius of 5 meters. This clearly reflected a lack of maturity on the part of the banks and slowly banks are beginning to see the advantages of sharing resources with other banks. Further, banks are also branding and marketing their products in a mutually beneficial manner. This is illustrated in terms of the co-branding of products and services that is done by the banks.

The table below demonstrates the hectic activity in the resource-sharing scenario since October 1, 2003:

Table 7.7. Examples of resource sharing in Indian banking sector

S.N.	DATE	EVENT
1.	14.11.2003	UTI Bank signs an MoU with SBI for sharing of ATMs
2.	11.11.2003	Corporation bank, ING Vysya bank in ATM sharing tie up
3.	26.10.2003	ICICI Bank and Federal Bank offer co-branded credit card and also share ATM Network
4.	19.10.2003	ICICI and Andhra Bank in ATM Network sharing deal
5.	09.10.2003	Punjab National Bank, Indian Bank, Oriental Bank of Commerce, UTI Bank and Global Trust Bank join hands for sharing ATMs under the banner MITR.
6.	08.10.2003	SBI, HDFC Bank and ICICI Bank in a mega ATM sharing pact considered the largest till date.
7.	07.10.2003	Andhra Bank ties up with IDBI for ATM sharing

When Kotak Mahindra Bank, the youngest in the country, began operations from scratch this year, it was able to provide customers free access to a nation-wide network

of ATMs by simply tying up with UTI Bank. Earlier this year, when a rumor sparked a major run on ICICI Bank's ATMs across the country, several banks especially public sector ones opened their currency chests across the country to allow ICICI Bank to deal with the demand from panicky depositors. ICICI Bank was able to cope with the situation, once it was apparent that the bank had enough funds to meet the demands of depositors. CitiBank has for years been running a highly successful cash management business through a tie-up with Mangalore-based Corporation Bank. This alliance allowed Citi to leverage Corporation bank's presence to get its throughput. Corporation bank's large presence in the country made this alliance successful. On the business front Indian banking has moved from a near cartelized operation to cut-throat competition in less than a decade. Now, cut-throat competition among even public sector banks is forcing lending rates to new lows. But on the operations front it is a different story. Banks are realizing the huge gains to be realized by pooling infrastructure resources. The biggest gainer is the consumer who is now getting the best of many worlds.

Co-opetition a business strategy based on a combination of co-operation and competition was a buzzword of the IT industry during the dot-com boom. The significance of co-opetition is visible not just in the strategy papers of bank executives; it's a ground reality today. Banks are co-operating in areas such as ATM sharing, cash management services, remittances and currency chests. This is way beyond the traditional concept of correspondent banking, which helped banks to draw on their relationships with other banks to offer services such as demand drafts to customers. How the concept is put into practice can best be described by looking back at one of the crisis situations that took place not so long ago. In mid-April, ICICI Bank was in trouble when it faced a sudden run on it deposits. An SOS went out to RBI and other commercial banks. RBI, in its role as the country's central bank, agreed to provide liquidity support and be the lender of last resort. Still, the situation was grave as cash was fast running out in ICICI Bank's ATMs, primarily in states such as Gujarat, where the run on the bank originated. When customers found ICICI Bank's ATMs running out of cash, they hit the ATMs of other banks to withdraw money using debit cards.

What saved the day were other banks opening up their treasury chests for ICICI Bank. This may have been a one-off situation, but in day-to-day life, the biggest beneficiary of such co-operation is the bank customer.

Banks are providing cash management services to customers, who have a large flow of funds from out-station centers. This involves the collecting of out-station cheques and providing detailed information on cheques deposited, and handling accounting, reconciliation and query resolution for the same. Even here, it makes good sense for banks to co-operate. This is because even with a nation-wide presence, most banks see a gap in their network. In centers where they do not have a presence, they can let another bank collect cheques for their customers. The arrangement ensures the quicker realization of cheques and timely credit of cash in customer accounts. The first major ATM sharing agreement was signed two-and-a-half years ago between UTI Bank and BNP Paribas (which eventually exited retail banking). Soon, banks were working out bilateral deals for this purpose. MULTI-bank alliances for ATM sharing began to emerge this year. IDBI Bank, Citibank, Stanchart and UTI Bank have come together to set up a shared ATM network ""Cashnet"" managed by Euronet, the US-based provider for electronic financial transactions solutions. This network provides customers of these banks access to 1,500 ATMs across the country. Recently, five public sector banks Union Bank of India, Central Bank of India, Uco Bank, Indian Overseas Bank and Canara Bank tied up to launch ""Cash Online"", with a modest size of over 600 ATMs. The fourth called ""CashTree"" has Bank of India, Syndicate Bank, United Bank of India and Union Bank of India.

Inter-dependence is also visible in matters such as handling of cheques and funds. As per RBI guidelines, banks need to compulsorily offer their currency chests to other banks. The services are for a modest fee, but the convenience to the availing banks seems worth it. Cash management services (CMS) is another business which operates due to banks teaming up. Here bank set up correspondent arrangements with others. So, a bank with no presence in the northeast may tie up with a PSU bank for collection of cheques for its client in that region. HDFC Bank and Citibank are the major players

in this segment. ""Foreign banks have the technology, but not the coverage. It's the opposite for PSU banks, who may have the coverage but not the technology. Corpbank, which began offering services with Citi, has been trying to establish its own exclusive clientele, but a bulk of its CMS volumes still come from the Citibank tie up.

On the face of it, co-opetition among banks seems successful. Tie-ups have led to a substantial rise in throughput for cash management. In the coming days, as banks' dependence on each other grows in scope, it seems likely that as competition led to survival of the fittest, co-opetition will compel competitors to collaborate and give each their fair share of the pie. Thus, clearly the future will see banks not co-operating with each other or competing with each other, but shall be seen in a co-opetition environment. Finally, banks can also utilize ATMs to generate revenue by sharing their network with not only banks but also other organizations. Services like sale of movie tickets, stamps, coupons etc, are picking up pace in the developed countries. ATM cum beverage dispensing machines has also been developed and more of these will be visible in the future. This signifies that the ATM machine shall cease to be a simple cash-dispensing machine but will also gain significance in other walks of life. IDBI Bank has initiated a process of providing information on cricket scores, movies and news headlines. UTI Bank, for instance, is providing recharging facilities to prepaid mobile phone users. Other areas of interest include online ATM bill payment. Thus, the future will see a host of services being offered by the ATM machines, which shall play a much larger role than the current cash withdrawal model.

7.5.4 Outsourcing

For financial services providers, "outsourcing" is typically associated with technology, since banks often turn to outside vendors to handle their back-office processing and Internet delivery functions. These are the arrangements that usually get heralded in press releases and news stories. Outsourcing covers more than high-tech services, however. Just as with Web design and payroll processing, many bankers prefer to delegate these tasks to outsiders so they can focus on customers and what bankers were trained to do. In this area of branch facilities management, practices vary widely

by institution. While some banks outsource practically everything branch-related, others manage many of these functions in-house. There is a movement, however, toward a third approach in which outsourcing decisions are handled on a highly selective, or "mix-and-match," basis. "In the past, you outsourced everything or you outsourced nothing. Now tasks are viewed more as components, says Aditya Puri, MD, HDFC Bank.

As part of the drive for focused and rigorous cost management, many financial service organizations have decided to outsource certain functions both locally and internationally. We can briefly characterize outsourcing as the detaching of ancillary activities, these activities then being performed in the framework of a separate company, in which the company has complete or partial representation. The main reasons for outsourcing were to achieve economic and efficiency gains. Financial institutions are under constant pressure to appraise their functions and comparative advantages, and decide which functions they can or cannot conduct efficiently. Outsourcing is used by financial institutions as a way of streamlining the operations of non core activities. The range of outsourcing within the financial services industry is extensive. Services and processes that are now outsourced include information technology development and IT operations, mortgage processing, mortgage servicing, credit card processing, legal services, finance and accounting, funds management, treasury management and human resource management.

There are a number of reasons why organizations choose to outsource. Key applications include those processes that are non-strategic, and which lend themselves to economies of scale that cannot be achieved internally. Outsourcing enables management to focus on core or strategic issues and to improve overall business efficiency. The following figure outlines the operational and strategic motivators for outsourcing:

Table 7.8 OUTSOURCING MOTIVATION

OUTSOURCING MOTIVATION	
Operational	Strategic
Reduce Cost	Means of gaining expertise
Overcome Resource Constraints	Improve focus on core activities
Seek productivity gains	Improve quality
Convert fixed costs to variable costs	Divest non-core activities
Moving to efficient business areas	Extend global reach
Accelerate re-engineering process	Maximise return
Attain economies of scale not attainable internally	Access to world class quality and skills

The primary driving force behind the spurt in outsourcing activities is the cost saving involved. Outsourcing to third parties can result in cost savings of up to 30-40 percent as compared to doing the same work in-house. Over a period of five years the cost savings vis-à-vis in-house work can be as high as 50 percent. According to PWC, some of the value propositions for banks from an outsourcing model include hedging against technology obsolescence, access to best-of-breed software, freedom from specific IT operational responsibilities and a rapid IT deployment time-frame. This in turn reduces the total cost of ownership (TCO) and enables the bank to focus on its core business area of banking.

Another advantage that a bank derives from outsourcing is the ready availability of adequate skill sets and manpower expertise, without the headache of retaining and maintaining a huge IT staff strength. Thus, clearly there are clear-cut advantages for banks to outsource non-core activities. The global outsourcing craze has made India the hottest Business Process Outsourcing (BPO) centre. Most foreign banks are establishing their call-centers in India, with an aim to cut down costs. The latest entry in to India for such outsourcing activities has been HSBC. HSBC is exploring the possibility of carrying out some of its research, internal audit and training activities from India for its global operations. Thus banks all over are clearly outsourcing their non-core activities to specialized countries.

Indian banks are also slowly catching up to this practice. The following examples are the examples of this outsourcing policy being adopted by primarily the new age private banks:

- UTI Bank has outsourced its recruitment jobs to an online headhunting company Monsterindia.com. This is considered to be a "smarter way to handle recruitments"
- HDFC Bank is considering outsourcing of its IT requirements to IBM for a $100 million 5 year contract
- Union Bank of India's payroll and HRMS will be managed by TCS
- UTI Bank planning to have a separate call-centre for managing its phone banking facility
- HDFC out sources its mobile phone applications to Reliance India Mobile
- Travelex has entered into a service outsourcing tie up with IndusInd Bank to provide money exchange solutions for the Indian market

Further, state owned banks at times may find it profitable to out source their ATM network requirements to third party vendors. The bank just needs to pay a fee based on the number of daily transactions. Bank of India has signed a deal with Indian Switch Company to set up and maintain its ATM network. Of the total number of ATMs operational, only about 3% are managed by the outsourcing model. This means that a large number of banks would in the future prefer to outsource their ATM requirements rather than manage their own networks. Thus, the banks in the future will need to outsource more and more of the non-core activities so that they can concentrate on their main activities. This augurs well not only for the banks but also for the companies to whom the services are out sourced.

7.5.5 Personnel Management

There are clear indications that inefficient workers shall be a thing of the past for banks. The public sector banks are plagued with the problem of non-performance of their staff. This is contrasted to the exceedingly efficient employees in the private sector banks. PSB's are realizing the need to realign their HR practices to narrow the

gap between current practices and the sector benchmarks. The future of banking thus shall see a dramatic change in the recruitment policy of the public sector banks which should ensure that they hire the best management talent from the best business schools.

Headhunters are being hired by banks to obtain the right kind of people for their operations. UTI bank hired MonsterIndia.com for its recruitment needs. New age banks are doing away with the fixed pay schemes and variable pay components are being introduced just like the ones seen in software industry. Taking a cue from foreign banks that profess performance-linked bonuses, the new-age HDFC Bank and ICICI Bank are punishing complacency and inefficiency and rewarding performers in an era of meritocracy. Compensation packages are constantly evolving. Banks will need to design the packages so as to attract the best talent and at the same time to derive maximum productivity from the employees.

Training of banking professionals is another area that was not considered very important. However, training is certain to become an integral part of the banking professionals growth pattern. Traditionally, behavior training was restricted only to marketing and sales professionals. But as a departure, ICICI bank is now making it mandatory for even middle and senior management professionals to attend behaviour training programmes. Accordingly, to initiate leadership acumen among managerial professionals the bank has come up with a middle management leadership model. ICICI Bank has also defined several mentorship programs for providing its younger professionals a chance to learn from the experience of its older executives.

Thus it is clear that banks (especially the private ones) have begun to realize the importance of their manpower. It is therefore important that the HR policies that are followed are such that they attract and retain the best talent. The challenge is much more greater for the public sector banks who have a legacy to shed and move forward, but for these banks to be competitive, they shall need to rationalize their work force and at the same time develop programs which will motivate and train their employees to not only satisfy the customers but to exceed the customer expectations and delight

them. Banks in the future will hence HR practices similar to that of software firms with variable compensation schemes; with great stress on individual development to ensure that every employee of the bank contributes to the best of their potential.

7.5.6 New Products and Delivery Channels

Banking sector innovations in the future will not just be limited to improved service levels, but new financial products and advanced delivery channels will also develop. Some of these are outlined below. The actual products will be essentially based on advanced technology and will be designed in a manner so as to provide increased convenience to the customers. One of the most radical changes expected is that in the essence of money itself. It is not only commercial banks, but also the monetary authorities of states that must wrestle with this change. The development of technology brings with itself new types of money electronic, digital, and cybernetic. Already today the trend is noticeable of a move away from paper money to money in the form of data.

With the development of wireless communications there are already arising so-called intelligent cards, which enable an encrypted row of digital streams to be received and sent remotely. There will no longer be necessary the contact of a payment card with an EFT POS terminal, or ATM. It will simply be enough to from a remote point confirm and settle the payment in question. Although this does not mean that through this process cash money will soon become redundant, it does mean that the intensity of its use will be set on a gradually decreasing course. Further, it is expected that cheques etc., which have been the mainstay of Indian banking, will disappear. New techniques like RTGS (Real Time Gross Settlement), which have already been proposed, will make post-dated cheques obsolete. In the future, standardized financial products will be replaced by highly customized, built-to-order solutions that personalize not only financial solutions but also service delivery.

A barrier to building customer-centric solutions is the structuring of most financial services companies around traditional lines-of-business (savings, loans, mortgages, life

insurance, pensions, etc.). This tends to facilitate deployment of single product "point-solutions" and inhibit integrated service delivery across a customer's entire relationship with an institution. Financial services companies will reorganize around customer segments rather than traditional lines-of-business in an effort to focus on customer needs and preferences. One of the most likely aspects of personalization will be tailored pricing of services. The use of customer information and advanced technology will let financial services organizations dynamically price (like airline tickets) and tailor products to individual customer characteristics.

Customisation on the basis of customer information will become the order of the day. Banks will have the infrastructure and willingness to maybe create products for single customers also. Banks will also need to stress on non-interest based income and start more fee-based services. Services like on-line train and air travel bookings will add to this revenue. Further, banks will also step into the domain of consultancy and advice on the myriad financial products that will be available at that point of time. Standard Chartered India has already started a corporate advisory service section. More and more banks are expected to follow this route. In terms of the delivery channels, several channels are available even now for the customers. Other than actual transactions at the individual bank branches, customers can use cards (debit/credit), EFT, ATM, etc. So the trend is towards a self-service model where the customer prefers to interact with a virtual entity rather than an actual bank representative. Banks should gradually change into virtual organizations, which represent specialized interactive networks for the exchange of information. Their complete work places (other than registered offices) need no longer be located in the most expensive areas in large towns, but will shift to localities with lower expenses rent and workforce. Also the number and operations of branches and sub-branches should decrease. More use should be made of fully automatic service centers and alternative ways of accessing customers (ATMs, e-Banking, m-Banking, phone banking).

Research has shown different preference levels for self serviced models and traditional distribution methods. People in the US prefer the automated self-service models,

whereas those in Europe prefer banking through the people based channels. India has been a predominantly relationship based society and hence the chances for people adopting a complete virtual distribution channel are remote. This the future is bound to observe an increase in the technology assisted self-service model but the people based delivery models will not be reduced greatly. The future will thus see a great deal of customization and at the same time self-service in terms of banking services will be prominent.

7.5.7 Customer Relationship

As described above, the customer will be at the centre of the bank's activities and hence the bank's relationship with the customer will be an important determinant. As mentioned earlier, customer's buying power is increasing but at the same time customer loyalty has reached new lows. For banking to succeed in such an environment, the banks shall have to take a few lessons from the retailing business. The retailing business is founded on customer service. The best retailers build relationships with their customers by meeting and exceeding their expectations over a long period of time. But like banking, retailing is undergoing a transformation. The rise of online shopping is changing retailing from a bricks-and-mortar business to a hybrid, "bricks and clicks" environment.

Successful bricks-and-clicks retailers are rationalizing their on-land outlets and aligning their systems and processes to ensure that the customer experience is seamless — and consistently excellent — across all channels of distribution. And now that they are operating in a world in which customer satisfaction is imperative, they are refining their measures of performance accordingly. Similarly, banks will also need to create relationship with their customers such that the customer can be retained. Banks will thus have to rely heavily on CRM techniques to not only capture information about their customers but also identify their likes and dislikes and hence offer them services that shall ensure that they do not move away to other banks. The banks that will be able to address the issue of customer loyalty will be the ones that will ultimately emerge as the leaders.

Banks of the future will thus have to be pro-active rather than reactive and will need to have different strategies for different customers. Future banks will need to develop schemes similar to airlines reward schemes (frequent banking points) to ensure customer loyalty as customers will tend to switch between banks. Banks will also have to resort to ideas like sales promotion and aggressive advertising. Hence customer relations and customer retention shall be some of the major issues that will need to be addressed by the Indian banks of the future. Private banks like Kotak Mahindra, ICICI have already begun work on CRM techniques to prepare for the future. Further, banks like ABN Amro are redefining the banking experience for the customer. The emergence of the *BanCafe* combines the experience of a bank and a café where customers will not only be able to perform their banking transactions but will also be able to relax. Further, some banks in USA are trying to make banking an entire family affair by providing play space for children. The banks of tomorrow could thus be seen as a cross between the traditional bank and a McDonald's Restaurant with maybe Wal-Mart style greeters.

7.5.8 Technology Adoption

Rapid advancements in computing and telecommunication technologies, particularly the internet have profoundly changed the dynamics of financial markets. As mentioned earlier, banks are being compelled to adopt strategies that have technology at the centre.

Banks traditionally had an in-house department called IT that would take care of the technology-oriented needs. In a 'brick and mortar' kind of a scenario, this worked fine. However, now with technology being the strategy with banks, most of these banks are simply outsourcing their IT related activities to specialized professional organizations. So what essentially are the drivers for adoption of technology? These were discussed earlier and are summarized in the following points:

- Information is the key determinant of a bank's success. Technology hence becomes essential to harness this information.

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- Information is the key determinant of a bank's success. Technology hence becomes essential to harness this information.

- Customers are looking at better, faster, reliable and easily accessible delivery channels and hence the use of technology is necessary.
- Cost efficiency and operational efficiency can be achieved by using technology to carry out the banking activities.

Having understood the need for the technological advancements, it is necessary to understand the current technologies that are being used by banks:

- Internet banking (e-Commerce)
- Mobile banking (m-Commerce)
- Phone banking
- ATMs
- Debit/Credit Cards

Apart from the use of technology in creating delivery channels for the customer, technology is also being extensively used to create a network so that every bank is connected by a central database and the concept of a 'home' branch is dying soon. Customers can withdraw money from any location in the country and on some occasions even any location in the world using that same account number! Technology is also used in capturing and analyzing customer information. Large data warehouses are created to capture customer information and then data mining techniques are used to find and predict behavioral patters. Data mining is what converts the data to information. Based on this information, a customer is offered a product after considering the likelihood that he/she will be willing to buy it. Thus each product will have a match in terms of potential product and all this is becoming possible only due to the ease of data capture and analysis.

Thus, the drivers for technology are clear. And banks in the future will necessarily need to embrace and stay ahead of the advancing technologies to offer the best services to the customers. However, the relationship between the adoption of technology and increase in productivity is not clear. Even in developed countries, where technology adoption rate is much higher than in a country like India, the cost reduction has not been clearly visible. There is a common belief that the adoption of

technology reduces costs of products, goods, and services, which in many cases is true. Banks, however, are finding that this is not the case. For example, although the cost of computers has been falling with increasing speed over the past decade, the cost of implementing an entire computer system is rising dramatically. Trying to maintain a hotchpotch of systems with 30,000 end-users in 100 different departments and 500 different functions is very expensive indeed. It has been estimated that the cost for owning a personal computer in a corporate environment is approximately four times the actual purchase price.

Internet banks do have higher non-interest expenses, which includes the cost of Web site development and promotion, data processing costs, and employee training. Although these increased expenses do not necessarily equate with lower profits, an interesting paradox has occurred nonetheless. Although investment in IT has increased dramatically over the past two decades, productivity has not changed much at all. Further, not only has cost reduction not occurred, but also bank costs are actually increasing in many cases. Banks expected that general and administrative (G&A) expenses would be reduced through technology adoption since electronic transactions are by definition cheaper than delivery by physical channels. Unfortunately, though, most customers do not like to totally relinquish use of the branch and phone. Thus banks have been unable to close as many branches as originally anticipated. Added to this is the need for additional advertising promoting the Internet banking system. In essence customers want both the clicks and bricks.

This is not to say that technology is too expensive and should not be undertaken. That is simply not an option for banks if they wish to remain competitive. It is just important to remember that technology is not equivalent with cost savings; rather, it is usually a high-cost expense due to the need to hire knowledgeable and well-educated individuals to manage the technology unit. (This now is being increasingly outsourced, but obviously at a cost.) This cost needs to be added to the bank's operations and this is why it should be undertaken as part of a strategic-decision making process. Therefore banks should not adopt technology if cost savings and

operational efficiencies are what they are looking for. Developed countries have shown that these are not realized by technology. However, technology will be a differentiator for different companies, and the success or failure of banks to attract new customers and retain existing ones.

To see this discussion in an Indian context, it becomes necessary to understand a few issues that are relevant to the Indian scenario.

- PC and Internet penetration in India is still considered very low
- Issues in security, and technology safety issues need to be addressed in India before customers will migrate to these advanced platforms
- India's corruption culture will make it difficult for people to regain their confidence if some technological scams, etc. occur.

Further, it is difficult to gauge whether the internet banking model has been a success or a failure based on the fact that no data is available on the number of transactions and the volume of transactions being carried out using internet as the medium.
However, one thing is for certain, in the near future the emergence of only online banks in India seems remote and customers will not be comfortable dealing with these kinds of banks, therefore the *bricks and clicks* model is the model that Indian banks are going to follow.

Public Sector Banks however have a great deal of catching up to do if they want to compete with the new technology savvy players. Most banks have taken the first step forward and have created an online presence (almost all banks have websites now!). The numbers of banks that are extending Internet banking are also increasing at a rapid rate. It is the customer information management that will be something that all public sector banks need to look at. Development of low costs ATMs (developed for Rs. 30,000 by the IITs as compared to the current Rs. 7 lakhs) will come as a boon to the Indian banks that will be able to achieve similar services for much lesser the price.

7.6 FUTURE BANKING MODELS

Having discussed almost all facets of banking and its likely future, lastly we try to build a model which tries to inbuilt if not all, at least some of the possible scenarios predicted above. The extent of competition in the financial services sector today is driven by a host of issues, such as deregulation, globalization, advances in technology, financial innovation and customer demands. The struggle to remain competitive in this environment has led to focused cost management and a drive for improved efficiency. As a result, there is a distinct trend towards cost reductions, mergers, specialization to gain economies of scale, and the disaggregation of financial services. In short, bankers no longer try to 'make' everything for everyone. Instead, they are focusing on the cost/benefit relationship of 'make-or-buy' decisions in determining how best to meet the product or servicing needs of their target markets. There is no doubt about the fact that most of the banking models which may emerge out of this will be more technology driven, customer centric and in all likelihood a combination of brick and click model which will cater to both the conventional methods of banking as well as at the same time offering a new transaction channel through the net.

7.6.1 The Conventional Model

Under the conventional model, financial institutions were viewed as vertically integrated if they provided each of the subcomponents of particular services and products. They engaged in all aspects of providing financial services across what they broadly defined as their core business. They originated mortgages, funded loans through their deposit-taking activities, retained and managed the portfolio of loans on their books and serviced the loans until maturity (see figure 7.6).

The banks held a virtual monopoly over these functions. Competition was limited because there were large entry barriers such as cost and distribution infrastructure. The traditional aggregated cost structure makes it difficult for banks to determine among themselves who has the cost advantage in any particular function. This means there are limitations in decisions on joint ventures and outsourcing. Moreover, in the

case of mortgage lending where a mortgage loan is held for its lifetime, there are limitations or constraints on liquidity, interest rate risk, and the extra cost for capital and reserves.

Figure 7.6: Integrated Approach

7.6.2 The Non-conventional Model

Under this model, financial services are decomposed into their component functions. Services are then provided separately by firms which have a comparative advantage in a particular function and so can supply that service at a lower cost. Financial institutions facing intense competition choose to outsource particular components of service production and delivery to such a specialist provider. For instance, as shown in figure 7.7, once a loan is originated, the subsequent funding, managing and servicing is contracted out to a specialist who would have the scale to do this more efficiently than an integrated provider.

Figure 7.7: Disaggregated Approach

Disaggregation of financial services has the benefit of making our financial markets and system more efficient. A significant benefit is greater economic specialization, as banks and other financial institutions are able to create market niches in cash management, investment management, or originating and servicing of loans. Disaggregation also lowers the economic barriers to competition, creating greater choice of potential financial service providers. It enables financial institutions to examine the core elements of their business on individually, rather than as a necessary part of an integrated business.

7.7 ROI MODEL FOR INTERNET BANKING

RETURNS

- Customer likely to be lost without Internet banking
- Customer likely to be gained with Internet banking
  - From Competition
  - From Cross Selling to existing base

- Additional Revenue stream per customer
  - Service Fees
  - Basics
  - Alerts
  - Transaction Fees
  - EBPP
  - Fund Transfer
  - Interest on Increased Deposit balance
  - Interest income on increased credit card balances
  - Income from higher brokerage transactions

- Cost saving per transaction
  - Application Processing STP
  - Balance Enquiry
  - Statement Request
  - Bill Payment/ Fund Transfer
  - Chequebook request
  - Address change request
  - Pin change request
  - Credit card repayment/collections
  - Credit card delayed payments write off
  - Loan delayed payments write offs

INVESTMENTS

- Software cost
  - Upfront License
  - Recurring License
  - Implementation
  - Customisation
  - Support

- Operations Cost
  - Operations/Administration
  - Data Centre
  - Call Center/ Help Desk

- Infrastructure Cost
  - Hardware Cost
  - Third party software cost
  - Firewall hardware & Software

Figure 7.8 A BANKING MODEL:

PRODUCT CENTRIC TO CUSTOMER CENTRIC BANKING

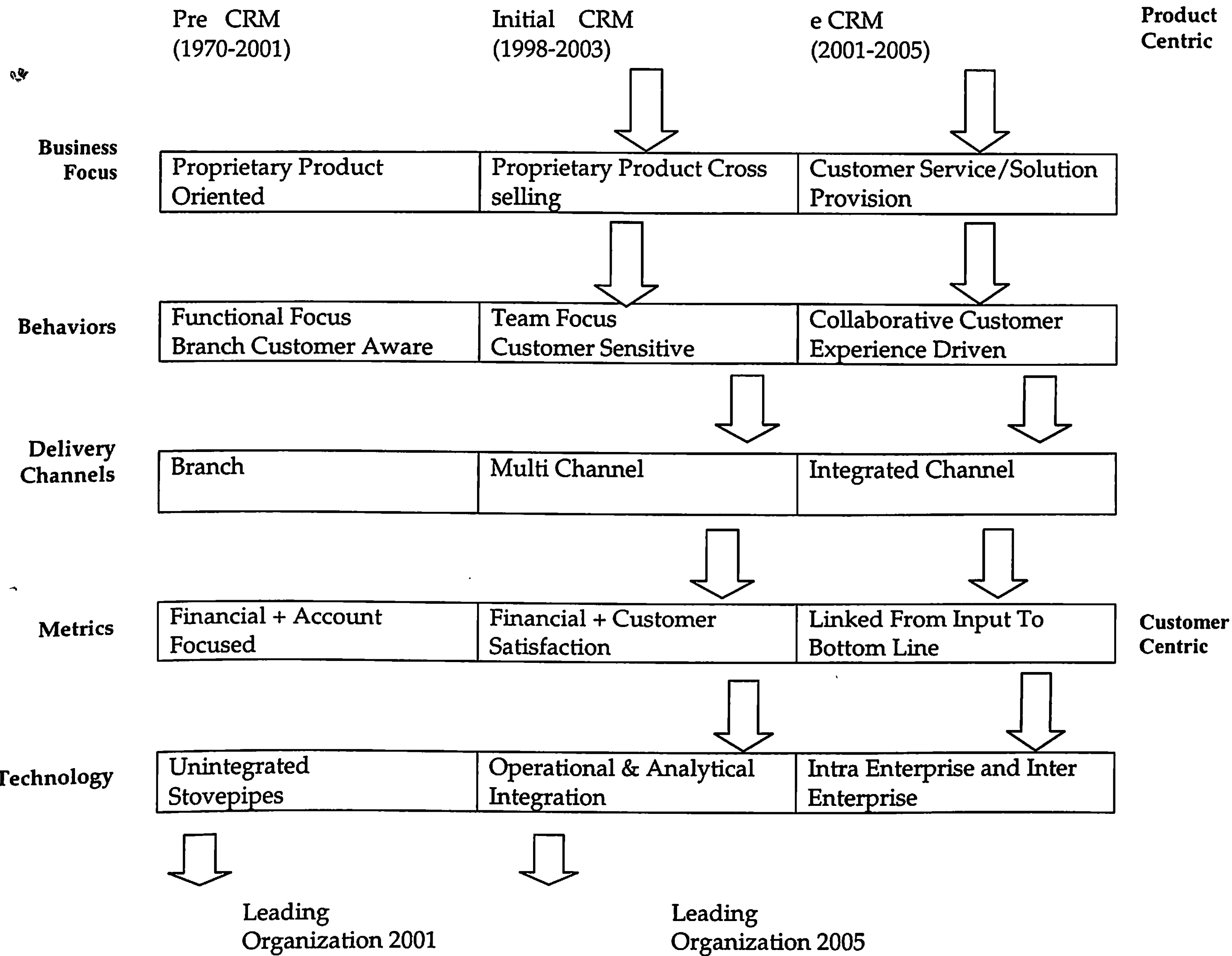
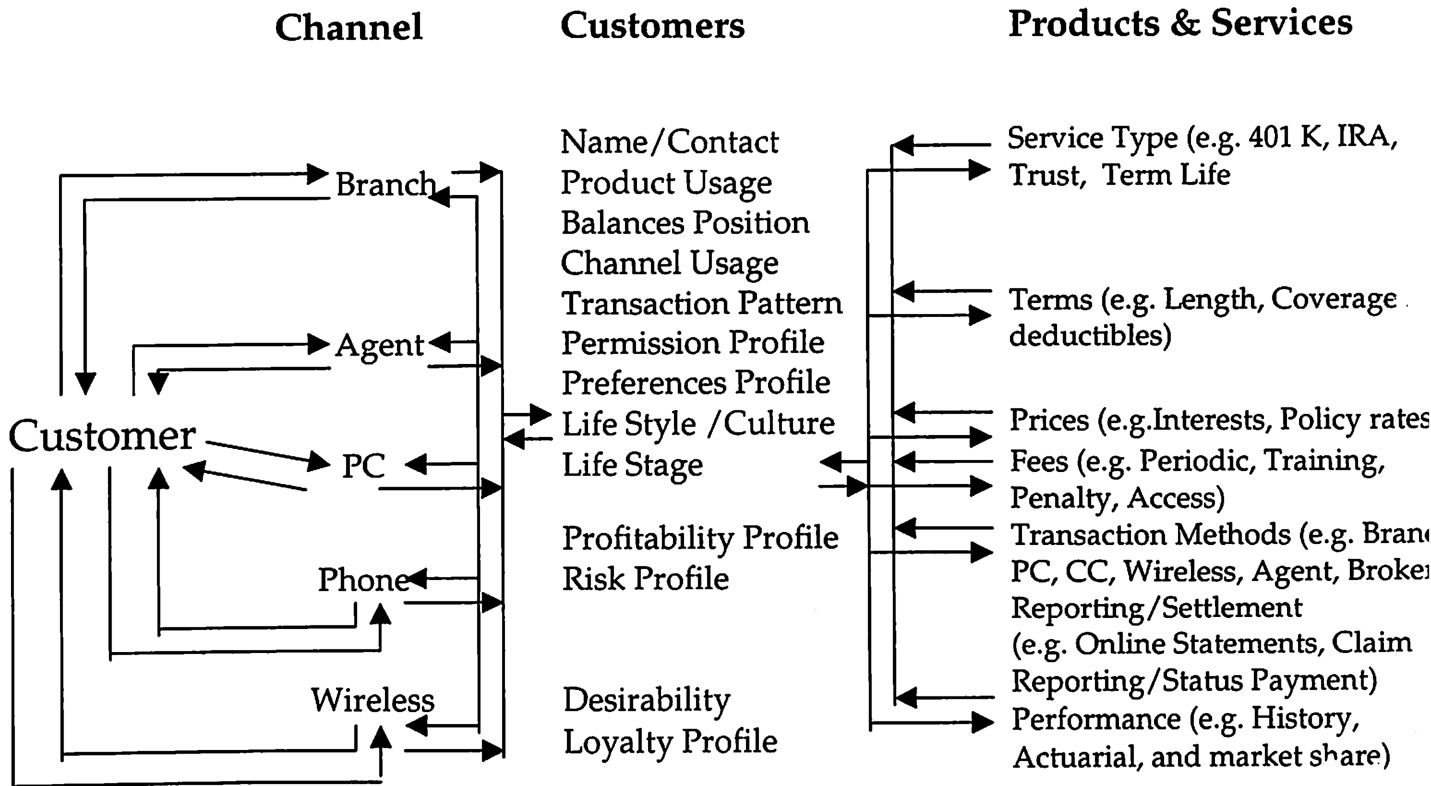


Figure 7.9 ANOTHER INTERPRETATION OF FUTURE BANKING MODEL



CONCLUSION

Chapter 8
CONCLUSIONS

8.1 MAJOR FINIDINGS/ OBSERVATIONS

If we look back to the objectives behind the present study, the primary aim was to analyze and evaluate the operations and performance of banks in India with a special emphasis on New generation private sector banks in the post liberalization era and through a study of the technological innovations and other path breaking trends in the field of banking, suggest an ideal banking model, which will find it competitive in the New Millennium. The banking sector reforms have completed more than a decade and it was an opportune time to test the efficacy of these drastic reforms unleashed in 1991.

8.2 EFFICACY OF REFORMS

In the first chapter, the first hypothesis regarding the efficacy of reforms was tested through regression analysis of the whole banking sector including public and private sector banks besides the foreign banks for the year 1993-2000. The analysis used data from the Prowess database for 1993-2000 compiled by the Centre for Monitoring Indian Economy Pvt. Ltd., which includes most of the major banks in India.

In order to find out the overall impact of financial reforms on the Indian banking sector, the main hypothesis was broken into several hypotheses to give it a more comprehensive and balanced meaning.

- The first hypothesis is that the degree of concentration in the banking sector has been declining in the reform period.
- The second hypothesis is that the performance of public-sector banks may have deteriorated initially during the adjustment period, but performance improved later on.
- The third hypothesis is that banks' engagement in foreign exchange and securities business improves their performance

- The fourth hypothesis is that investment in government securities has worsened banks' performance since it limits the realization of the diversification effect.
- The fifth hypothesis is that lending to priority sectors and the public-sector has lowered banks' performance.
- The sixth hypothesis is that foreign and private domestic banks have performed better than public-sector banks, and thus have contributed to an improvement in overall banking sector performance.
- The seventh hypothesis is that new banks perform better.

Since the financial reforms of 1991, there have been significant favourable changes in India's highly regulated banking sector. The first chapter assessed the impact of the reforms by examining seven hypotheses. It concludes that the financial reforms have had a moderately positive impact on reducing the concentration of the banking sector (at the lower end) and improving performance. The empirical estimation showed that regulation (captured by the time variable) lowered the profitability and cost efficiency of public-sector banks at the initial stage of the reforms, but such a negative impact disappeared once they adjusted to the new environment. In line with these results, profitability turned positive in 1997-2000, cost efficiency steadily improved over the reform period, and the gap in performance compared with foreign banks has diminished. Moreover, allowing banks to engage in non-traditional activities has contributed to improved profitability and cost and earnings efficiency of the whole banking sector, including public-sector banks. By contrast, investment in government securities has lowered the profitability and cost efficiency of the whole banking sector, including public-sector banks. Lending to priority sectors and the public-sector has not had a negative effect on profitability and cost efficiency, contrary to our expectations.

Further, foreign banks (and private domestic banks in some cases) have generally performed better than other banks in terms of profitability and income efficiency. This suggests that ownership matters and foreign entry has a positive impact on banking sector restructuring. The above results suggest that the current policy of restructuring

the banking sector through encouraging the entry of new banks has so far produced some positive results. However, the fact that competition has occurred only at the lower end suggests that bank regulators should conduct a more thorough restructuring of public-sector banks. Given that public-sector banks have scale advantages, the current approach of improving their performance without rationalizing them may not produce further benefits for India's banking sector. As 10 years have passed since the reforms were initiated and public-sector banks have been exposed to the new regulatory environment, it may be time for the government to take a further step by promoting mergers and acquisitions and closing unviable banks. A further reduction of SLR and more encouragement for non-traditional activities (under the bank subsidiary form) may also make the banking sector more resilient to various adverse shocks.

The empirical evidence on the first hypothesis, namely the banks are more efficient now than they were prior to liberalization and reforms is rather inconclusive. However there are indications that banks are endeavoring to become more profitable in the long run.

8.3 PUBILC VS PRIVATE BANKS

The second hypothesis was related to the comparison of public sector banks with their counterparts in the private sector. The study used the available published data for the years 1995-2000 compiled by the Indian Banks' Association (IBA) and Reserve Bank Of India Report. As per this database, in the year 2000-2001, there were 27 public sector commercial banks, 34 private sector commercial banks and 42 foreign banks. Of these 103 banks, the data on some of the inputs and outputs of nine banks (1 private sector and 8 foreign) were not available. Hence these banks were excluded from the sample and due to data availability problem at the individual bank level some more banks got excluded. The final sample thus had 27 public sector commercial banks, 20 private sector commercial banks and 21 foreign ownership banks. Thus, the total observations consisted of 68 banks. Time series data on all the outputs and the inputs from 1995 to 2000 was used in the Empirical Analysis. DEA Technique was used to find out the overall efficiency levels of banks. Two separate tests were conducted, in the first test; we used Investments and Advances as Outputs and Deposits, Labor and Physical Capital as

Inputs whereas in the second test interest expenses, non-interest expenses/operating expense are inputs and net interest income/spread and non-interest income outputs.

Foreign banks as a group appear to be more efficient users of input quantities to produce a given output as compared to the public sector banks and private sector banks. This means that there are inefficiencies in use of these two inputs (deposits and staff numbers) between the public sector and private sector banks, which these banks need to remedy to achieve increased efficiency. On the other hand, foreign banks need to focus on pricing aspects (interest and non-interest income and expenses) of their inputs and outputs to achieve higher efficiencies. The lower scores for public sector banks in both the models could be because these banks are in the transition phase and could have higher amount of fixed assets employed which have not generated good returns because of political interference and other issues while the private sector banks need some more time to improve upon their advantages and with more mergers and consolidations happening in this sector, the inefficiencies due to scale will be reduced and the gap between private and foreign banks will be narrowed down further.

The banks have taken steps to lower the ratio of non-performing assets, which has been brought down from 20 per cent in 1995-96 to 12 percent in 2000-2001. This would help in increasing interest income. The banks need to continue their efforts to reduce the percentage of NPAs to improve efficiency. Another important reason affecting the efficiency of public sector banks, in particular, is the high establishment expenses as a percentage of total expenses. In the year 2000-2001, the ratio was 20.13 for public sector banks, 9.87 for private sector commercial banks and 7.66 for foreign banks. The public sector banks have introduced the voluntary redundancy scheme for staff, which is successful and has helped in bringing down this ratio and thus improve efficiency scores further.

Using published data, this paper worked out the production efficiency score of Indian banks for the year 2000-2001. The scores were calculated using the non-parametric technique of Data Envelopment Analysis. The study shows that as per the Models, the private sector banks have a higher mean efficiency score as compared to the public sector and foreign commercial banks in India have been the star performers. Most

banks on the frontier are foreign owned or private sector banks. The study recommends that the existing policy of bringing down non-performing assets as well as curtailing the establishment expenditure through voluntary retirement scheme for bank staff and rationalization of rural branches are steps in the right direction that could help Indian banks improve efficiency over a period of time so as to achieve world best practice.

Best and the Worst Performers in the year 2001

Best Banks	Worst Banks
ICICI Bank	Indian Bank
UTI Bank	UCO Bank
CitiBank	Credit Agricole IndoSuez
Bank of America	United Bank of India
Jammu & Kashmir Bank	Banque National De Paris

The empirical evidence on the second hypothesis, namely private sector banks have outperformed their counterparts in public sector is clearly visible in the study. Barring few public sector banks, most of them have fared badly on all fronts as compared to the new generation private sector banks, proving our second hypothesis.

8.4 NON PERFORMING ASSETS

The third hypothesis, which was tested in the current work, was related to the problem of NPAs and how have banks managed to overcome this problem given their constraints and the regulatory environment. What has been the fundamental reasons for these high level of NPAs and the net effect of the various reforms initiated since 1991 on the NPA levels of the banks and how far have the banks been successful in reducing these levels was analyzed. Attempt was also made to see whether the private sector banks have performed better than their public sector counterparts when it comes to NPA Management or is it just a myth. The findings related to the reasons behind the high level of NPAs suggested that it was primarily because of the legal environment, public ownership of banks and market discipline, Political interference (NPAs in priority sector

advances of public sector banks are 46 to 49 per cent of their overall NPAs while priority sector advances form only 30 to 32 per cent of their total advances), Competition, liberalization and gambling, Inadequate Risk Management Practices, and Lack of prudential regulation.

The magnitude of NPAs in Indian banks continues to remain at a worrisome level. Moreover, the trend of reduction in NPAs has reversed in the past two years .An analysis of the sequencing of reforms measures carried out post 1992-93 reveals that a large part of the fundamental reform required to tackle the problem of bad debts has either just commenced last year or still on the anvil. It should have been scheduled much earlier in the reform process since such fundamental reforms take a long time to implement. This improper sequencing is precisely the reason why the NPAs' problem has become chronic in Indian banks. This analysis throws up suggestion for future action by regulators and policy makers. One, legislative reforms are needed both to contain the level of existing NPAs and to prevent building up of large NPAs in future. Two, infrastructure reforms are needed to make DRTs effective. Three, a time reduction in directed credit is required. The inclusion of new sectors in directed credit is required .The inclusion of new sectors in directed credit in 1998-99 is a step in the right direction. Four, enactment of legislation against loan write-offs is needed. Five, the government should announce a long-term policy on capitalization of banks which should aim at a gradual withdrawal of government assistance. These are measures that create an environment conductive to preventive buildup of NPAs in the future. Along with the above fundamental reform measures, the resolution of existing NPAs in banks should be carried out through appropriate vehicles. If the setting up of as asset reconstruction fund is not planned the government should announce an alternative plan of action.

As far as the debate about the public –private banks goes in respect to NPAs, the fact is that when it comes to individual categories of banks in India, the new generation private sector banks with the likes of HDFC Bank, UTI Bank etc have emerged as a clear winner. Not only they have managed to keep the NPA levels low to be comparable with international standards but they are also increasing their credit off takes gradually. The old generation private banks are good prospects of being taken over by foreign as well

as domestic banks but they need to clean their NPAs first to make themselves attractive for a possible take over. The public sector banks have surprised everybody by bringing down their NPA levels in the post reform period (the incremental NPA levels have dropped to as low as 2% for some banks in this category). Actually some of them have performed even better that these old generation private banks. However the analysis also suggests a case for further divestment of nationalized banks and more teeth to them when it comes to asset recovery. With the passage of SARAFESI Act, 2002 the times ahead are going to be very promising for these banks and if the government removes the legal hurdles and the ARC concept does click, these banks will be the banks of future. However this does hold true for only some PSBs like Oriental Bank of Commerce, SBI, Corporation Bank etc whereas the remaining like the UCO Bank, Indian Bank etc would be a serious drag to these PSBs bringing down the overall performance of this category.

There is no doubt about the fact from our study that the overall level of NPAs have come down in the banking sector, although they are still at very high levels when compared to global standards. Secondly private sector banks have managed to keep their NPA levels well below the levels of public sector banks but given the short period for which they have been around, the same cant be said from a long term perspective. The third hypothesis stands proved true.

8.5 IT IN BANKING

The fourth hypothesis to be tested in the current study was related to banking industry's integration with technology. Since the liberalization of banking sector, which started in 1991, the banking sector has been a witness to sweeping changes on the technology front. No longer are the banks just satisfied with getting their office operations computerized, they are going for advanced integration of technology by fully automating not only their back end operations but also using banking software's to offer a completely hassle free banking to the customer. It was the private sector banks that took the lead in this arena and very soon we saw most of the public sector banks jumping in the fray. The findings of our study clearly show that when it comes to technology initiatives, no category of banks is showing any sign of complacency. The

arrival of foreign and private banks with their superior state-of-the-art technology-based services pushed Indian Banks also to follow suit by going in for the latest technologies so as to meet the threat of competition and retain their customer base. The new generation private sector banks have started with a bang putting in lot of money on the technology front and their counterparts in the public sector have also started showing interest in technology investments lately.

Information Technology has basically been used under two different avenues in Banking. One is Communication and Connectivity and other is Business Process Reengineering. Most of the bankers believe that Information technology enables sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets. The specific areas, which have got the maximum attention in most of the banks, are Interconnectivity of banks, Risk Management, Asset Liability Management systems and Core banking. However the major impediment or roadblock to the IT Road map was the cost involved. Our findings indicate that most of the bankers were seeing cost and cost escalation as a major constraint to their IT initiatives. The cost escalation was primarily because of the vendor's problem with the manpower commitment to the Project, which is normally not followed resulting in heavy loss for the vendor if the fees are fixed.

The developments in Indian Banking industry indicate that banks are following and are likely to follow the path of adoption of new technology thus proving our fourth hypothesis.

8.6 INTERNET BANKING

The next hypothesis was related to Internet Banking and through the current study an attempt was made to study the implications of Internet Banking for the banks in India. We tried to look at the level of penetration of Internet Banking in India and also as to what stage of Internet banking most of the banks have reached in India through a survey. We also looked at the reasons why most of the banks are offering Internet banking and whether it was really profitable for banks to do so. We also went on to analyze few Indian banks web sites or their Internet Banking channel and tried to make

a comparison. Most of the results matched with the hypothesis. Currently there are about 25 major banks in India that have implemented Internet banking. Throughout the country, the Internet Banking market is in the earliest stages of development. 55% are so-called "entry level" sites, offering little more than company information and basic marketing materials. Only 8% offer "advanced" transactional services, such as online funds transfer, transactions and cash management services. In general, the Foreign and private banks are far ahead of Public Sector or Co-operative Banks in terms of the number of sites and their level of development. The private banks, with futuristic management and net-pro mindset seem all prepared to continue the "pathfinder" role in Indian Internet Banking. Most of the Internet Banking sites have been developed with the Non Resident Indian perspective. The growth and shift towards Indian customers is rather slow. While the world has seen Corporate Banking as the first choice for net-bankers, India seems to be reversing the trend and most of the initial developments seem to be in retail banking area.

The second aspect of Internet banking as to what were the reasons for banks to offer this channel and their strategic implications were also more or less on the expected lines. Most of the banks stated that the demand by their existing and new customers for Internet banking product and services was the main reason for the introduction of Internet banking. Other reasons include protecting and enhancing the organization's reputation for innovation, imitating competitors launching services online and developing mass customized services. The banks wanted to build and maintain a brand image of being a technology innovator and embraced Internet banking as part of their business strategy. Banks are also increasingly using Internet as a Marketing channel. They collect customer transaction data and perform data mining of the customers' profile and usage pattern. This information is being used to promote their products and services through the Internet. Internet banking appeals to the technically savvy customer group but there are the older generation customers who are fearful of the technology and would only feel comfortable to perform banking transaction with bank tellers. Banks, therefore, will need to relocate or reposition their branches to meet the requirements of its customers and their own business needs.

In the evaluation or comparison of various banks websites, a survey was carried out and the web sites were evaluated on Technical and Business parameters. The results were again more on expected lines. The new generation private banks scored above most of the banks. The analysis rated ICICI Bank as the best website among those rated. Although ICICI Bank was average in the types of services they offered; their ranking was top in usability, design features, security, technologies used, educational services and strategy. This indicates e-commerce as a vital part of their overall business strategy. HDFC Bank's strength was in its services and ease-of-use. Although the absence of brick-and-mortar branches could be perceived as a weakness, they provided the user with workarounds to any difficulty this may cause. In addition, the depth of information and services was impressive and useful. State Bank and Corporation Bank rounded out our top five websites. UTI Bank impressed with the technologies it used. Offering search facilities, tutorials for online banking, and links to other sites of interest were considered strategies to engage the customers. HDFC Bank provided a glossary of terms and an extensive product listing that was easy to locate through popups.

Our study clearly suggests that most of the banks have started offering Internet banking as an alternate channel for customers although here also, the private sector banks took the lead mainly because of the cost factor but the impact on the bottom lines will be visible only after some time. Therefore the fifth hypothesis also stands proved.

8.7 CUSTOMER RELATIONSHIP MANAGEMENT

The final hypothesis was related to Customer relationship management and its implications in the Indian banking sector. Through the study, an attempt was made to see how much of this hype on CRM is real. In the last few years, CRM has been the most common buzzword in the industry circles and banking was no exception. Every industry went on a major marketing exercise to just bring out, how customer friendly they are. Companies were seen spending crores of rupees on buying CRM software's and trying to implement them as quickly as possible. Banking industry was no exception

and most of the banks in India also jumped on the CRM bandwagon. Here again, it was the new generation private sector banks that stole the show and forced other banks to follow the same path. We tried to look at the size of the Indian CRM market, the level of penetration, major drivers and inhibitors, major reasons for slow growth in India and their fallouts.

A survey was conducted to analyze the various aspects of Customer relationship by picking one bank each from Public and Private sector in India. The questionnaire was deigned in a manner that is exploratory and analytical. It is Exploratory as it probes into the various factors that influence the Customers Relationship Marketing Strategies. It also probes the various factors which influence Employees of the banks in providing Quality Service to the Customers thus developing Relationship with the Customers and by which the customers can reciprocate the same. The respondents were asked question related to relationship marketing factors like credibility, access, tangibles, understanding of the customer, communication, security, reliability, responsiveness, competence and courtesy.

The findings of the survey were on the expected lines. The private sector banks outperformed their public sector counterparts in domains of Credibility, Access, Communication, Customer understanding, Tangibles, Reliability, Responsiveness, Competence and Courtesy. The only parameter in which the Public sector banks performed better was security, which is more to do with the traditional psyche of average customers who still view Private Banks skeptically. However, one interesting feature of the result was that the Public sector banks score was very close to the Private bank on some parameters. In other words, these banks are also making all out effort to woo their customers by changing the employee mindset but it still a long way to go and only a sustained effort and commitment can bring them laurels in the long run.

The developments in the Indian banking industry indicate that banks are following and are likely to follow the path of Customer relationship management in a more vigorous manner in the future thus proving our sixth hypothesis.

8.8 FUTURE OF BANKING

Finally, we come to the stage where we try to test our last hypothesis regarding the future of banking in India. Having discussed almost all the aspects of banking ranging from the effect of reforms to the birth of relationship marketing in banking, we came across various aspects of banking which have gone for a paradigm shift. Things like Outsourcing, Resource sharing which nobody thought of as a possibility around a decade back are very much happening in the Indian banking scene now. Some of the more visible changes are a continuing process of concentration of the banking sector, development of new products and services, new technologies in distribution networks, continued dominance of the two large banks/ bank groups, growth in retail banking, Maintenance of sufficient capital coverage, Pressure to control administrative costs and Improved banking sector profitability.

The major drivers for this realignment have been the technology thrust, liberalization and globalization in the banking sector, the customer relationship imperatives, growth of retail banking and growing competition and dwindling margins in the banking sector. Our study clearly points out some strategic areas where there will be lot of activity particularly in the banking sector. These strategic domains are:

- **Consolidation:** The consolidation that is witnessed in the banking sector is primarily a direct consequence of the deregulation and liberalization of the banking sector. Globalization too has impacted the need for banks to have presence in several nations to enable their customers get service anywhere and anytime. This reason coupled with the increasing pressure of competition has forced banks to look at new ways to boost their returns. The consolidation process involves the collaboration of two or more banks through mergers or alliances.

- **Aggregation of services:** As a consequence of consolidation, a concept called the "Universal Bank" will be coming to the fore. The concept of economies of scale has been expanded to include the concept of economies of scope, which means that banks now have a larger product offering under the same roof. Simply put, a universal bank is a supermarket for financial products. Under one roof, corporate houses can get loans and avail of other handy services, while individuals can bank and borrow.

- **Resource Sharing:** Apart from the consolidation and the aggregation of services, for banks to cut costs and obtain operational efficiency the redundancy approach will need to disappear. Banks are realising the huge gains to be realised by pooling infrastructure resources. The biggest gainer is the consumer who is now getting the best of many worlds. Banks are co-operating in areas such as ATM sharing, cash management services, remittances and currency chests. In the coming days, as banks' dependence on each other grows in scope, it seems likely that as competition led to survival of the fittest, co-opetition will compel competitors to collaborate and give each their fair share of the pie. Thus, clearly the future will see banks not co-operating with each other or competing with each other, but shall be seen in a co-opetition environment.

- **Outsourcing:** As part of the drive for focused and rigorous cost management, many financial service organizations have decided to outsource certain functions both locally and internationally. The main reasons for outsourcing were to achieve economic and efficiency gains. Financial institutions are under constant pressure to appraise their functions and comparative advantages, and decide which functions they can or cannot conduct efficiently. Outsourcing is used by financial institutions as a way of streamlining the operations of non-core activities. The range of outsourcing within the financial services industry is extensive. Services and processes that are now outsourced include information technology development and IT operations, mortgage processing, mortgage

servicing, credit card processing, legal services, finance and accounting, funds management, treasury management and human resource management.

- **Personnel management:** There are clear indications that inefficient workers shall be a thing of the past for banks. The public sector banks are plagued with the problem of non-performance of their staff. This is contrasted to the exceedingly efficient employees in the private sector banks. PSB's are realizing the need to realign their HR practices to narrow the gap between current practices and the sector benchmarks. The future of banking thus shall see a dramatic change in the recruitment policy of the public sector banks which should ensure that they hire the best management talent from the best Business schools.

- **Customer Relationship Management:** the customer will be at the centre of the bank's activities and hence the bank's relationship with the customer will be an important determinant. As mentioned earlier, customer's buying power is increasing but at the same time customer loyalty has reached new lows. For banking to succeed in such an environment, the banks shall have to take a few lessons from the retailing business. The retailing business is founded on customer service. The best retailers build relationships with their customers by meeting and exceeding their expectations over a long period of time. But like banking, retailing is undergoing a transformation. The rise of online shopping is changing retailing from a bricks-and-mortar business to a hybrid, "bricks and clicks" environment.

- **New products markets and distribution channels:** Banking sector innovations in the future will not just be limited to improved service levels, but new financial products and advanced delivery channels will also develop. Some of these are outlined below. The actual products will be essentially based on advanced technology and will be designed in a manner so as to provide increased convenience to the customers. One of the most radical changes expected is that in the essence of money itself. It is not only commercial banks, but also the

monetary authorities of states that must wrestle with this change. The development of technology brings with itself new types of money electronic, digital, and cybernetic. Already today the trend is noticeable of a move away from paper money to money in the form of data.

- **Adoption of Technology:** Rapid advancements in computing and telecommunication technologies, particularly the internet have profoundly changed the dynamics of financial markets. As mentioned earlier, banks are being compelled to adopt strategies that have technology at the centre. Banks traditionally had an in-house department called IT which would take care of the technology oriented needs. In a 'brick and mortar' kind of a scenario, this worked fine. However, now with technology being the strategy with banks, most of these banks are simply outsourcing their IT related activities to specialized professional organizations.

- **Internet Banking:** This is one of the most significant trends in the banking sector which has attracted the maximum attention. At least 25 banks in India are offering full fledged internet banking service, although most of them are offering basic services, also called entry level services but this is one domain which is probably going to witness one of the most hectic activities in the coming years.

There is no doubt about the fact that the banks in future will be very much different from what they appear now, doing a host of things which nobody could think of even five years ago and the banking models will go for a complete transformation. There is enough evidence in the study showing that the shift has already begun. Our last hypothesis stands proved true.

8.9 SUGGESTIONS BASED ON RESEARCH FINDINGS

The present study has finally reached a place where after looking at the research findings, we are in a position to make some suggestions for the Indian banking sector. However since we have touched various aspects of banking, it will be proper if we go by one issue at a time. Most of the suggestions will be based entirely on our research findings and may be a bit biased because of the methodology and the data used for the methodology.

The first issue analyzed was related to the efficacy of reforms. There is no doubt about the fact that the banking sector reforms in India, initiated since 1992 has provided necessary platform to the banking sector to operate on the basis of operational flexibility and functional autonomy, thereby enhancing efficiency, productivity and profitability. The reforms brought out structural changes in the financial sector, eased external constraints in their working, introduced transparency in reporting procedures, restructuring and recapitalization of banks and have increased the competitive element in the market. We have also seen that the gradual speed of reforms have also been quite effective and this needs to be continued again in a phased manner gradually. However there are some specific issues which need to be addressed urgently:

- Government should divest its equity in PSBs
- Net NPA to be pegged down to the level of 5% by 2005 and then to the international standard of 3%.
- The capital adequacy norm of 8% must be increased to 10%
- The problem of high interest rates and debt recovery
- Banks have to be allowed to engage in non-traditional activities like merchant banking which has contributed to improved profitability and cost and earnings efficiency of the whole banking sector, including public-sector banks.
- By contrast, investment in government securities which has lowered the profitability and cost efficiency of the whole banking sector, including public-sector banks should be discouraged. Lending to priority sectors and the public-

sector has not had a negative effect on profitability and cost efficiency, contrary to our expectations.

- Our study suggests that ownership matters and foreign entry has a positive impact on banking sector restructuring and therefore the current policy of restructuring the banking sector through encouraging the entry of new banks has to be pushed further.
- However, the fact that competition has occurred only at the lower end suggests that bank regulators should conduct a more thorough restructuring of public-sector banks. Given that public-sector banks have scale advantages, the current approach of improving their performance without rationalizing them may not produce further benefits for India's banking sector. As 10 years have passed since the reforms were initiated and public-sector banks have been exposed to the new regulatory environment, it may be time for the government to take a further step by promoting mergers and acquisitions and closing unviable banks. A further reduction of SLR and more encouragement for non-traditional activities (under the bank subsidiary form) may also make the banking sector more resilient to various adverse shocks.

The second issue was related to public private banks comparison in the post liberalization era and most of the findings revealed that the private sector banks have scored over their public sector counterparts. Thus most of the suggestions for the public sector banks will come from the new generation private sector banks in the field of technology, array of products and services, multiple delivery channels, customer relationship and management of NPAs. However there are few lessons for the private and foreign banks too. Our DEA study suggests that there are inefficiencies in use of the two inputs (deposits and staff numbers) between the public sector and private sector banks, which these banks need to remedy to achieve increased efficiency. On the other hand, foreign banks need to focus on pricing aspects like interest and non-interest income and expenses to achieve higher efficiencies. The study recommends that the existing policy of bringing down non-performing assets as well as curtailing the establishment expenditure through voluntary retirement scheme for bank staff and rationalization of rural branches are

steps in the right direction that could help Indian banks improve efficiency over a period of time so as to achieve world best practice. The public sector banks have to go for a second round of restructuring where things like size, retail focus, technology, customer relationship and service channels will be the differentiators.

The issue of Non Performing Asset continues to give sleepless nights to most of the bankers even today. Although the level has come down drastically but it is in no way comparable to the world standards. What is more disturbing is the fact that the private sector banks that are hardly a decade old have piled up huge NPAs which is somewhat unexplainable. Over the years, the government has made various kinds of efforts to remove NPAs but the success rate has been not all convincing. What is required is a clearly defined time frame for bringing down their levels and some strict laws giving banks some teeth to recover their bad loans.

- The most important long-term measure in containing the growth of NPAs is radically altering the bankruptcy and recovery laws and procedures.

- A lasting solution to the problem of bank NPAs can be achieved only with proper credit assessment and risk management mechanisms, avoiding adverse selections and not compromising on asset quality. If the assessment of credit risk is better, the NPAs would go down, the cost of funds will also fall and borrowers may get credit at a cheaper rate. Overall, there will be rise in the value of the assets of banks resulting in higher valuation in the capital markets and better investor perception.

- Conciliation and negotiation to settle the realizable values of NPAs would be better in private sector ARCs. Private sector ARCs can be selected on the basis of competitive bidding if more than one party is interested, otherwise the bank management should be free to negotiate a suitable value for assets and terms of the bonds to be issued by the ARCs.

- ARCs might work for the better off banks and FI's, provided that the NPAs are transferred at an early stage of default when there are securities worth some recovery. Even so, an ARC needs to be structured very carefully like a professionally managed mutual fund.

- There is need to reduce stamp duty rates and make them uniform all across the states, which are currently varying from 7 to 12 percent . Further the stamp duty should be imposed in one stage rather than twice- firstly while transferring assets to ARC and secondly from ARCs to final buyer, else the purpose of ARC would be defeated.

- Rating of the loan portfolio before it is transferred to the ARCs. The pricing should also be based on the rating of the loan portfolio, as it will be an independent judgment of the portfolio.

- The realizable value of the NPAs should be a fair discounted value arrived at through consensus between the valuers acting on behalf of the bankers and the ARCs in a transparent manner. For loans that have been NPAs for several years, especially working capital loans without collateral worth recovering, the realizable value of the assets would be negligible.

- It is extremely essential to distinguish between the willful and non-willful defaulters. Both cannot be treated on the same footing.

- NPA linked to the future realization by the company under debt rather than just allowing the banks to retire the debts at a certain price to ARCs. The banks should be made a party in the realization of NPAs over and above the certain level. This not only will help in getting over the problem of pricing but it will also improve cooperation between the banks and ARCs in realization of debts.

- Developing secondary markets for these securitized instruments will help in bringing the much needed liquidity to the whole process.

- The political interference at lower level is a systematic problem, which will remain whatever steps we take. This should be addressed at grass root level and it can be controlled only if corruption can be controlled and proper credit assessment mechanisms are put in place at lowest levels. Professionalism at the grass root level is a must to tackle this problem.

The next issue we touched upon in the study was related to technology initiatives in banking and the birth of Internet banking. The information technology revolution has brought about a fundamental transformation ushering in, as Alvin Toffler describes it, the fourth wave. Perhaps no other sector has been affected by advances in technology as much as banking and finance. It has become the most important factor for dealing with the intensifying competition and the rapid proliferation of financial innovations. There will be some specific areas which banks have to focus on more intensely in the future like Networking of branches, Secure Messaging for launching funds transfer products, Integrated Treasury Management System, technology based initiatives for Intra-day liquidity Management and Core Banking Solution. Broadly, it is necessary that each public sector bank take the following steps :

Roadmap of banks to strengthen the existing financial infrastructure...

- Introduction of core banking system within the next 12 to 24 months.
- As an interim solution, networking of branches in the identified commercially important centers immediately and start funds transfer products.
- Immediate establishment of Registration Authority office for issue of Digital certificates for use in these funds transfer products.
- Establishment of an Integrated Treasury branch or in the interim proper reporting arrangements from major centers for effective management and maintenance of intra-day liquidity.

- Development of an interface with the RBI applications and the Core banking systems to enable STP.
- Establish a WAN connecting all the major branches.
- Introduce all the delivery channels in addition to the branch network.
- Move towards Core Banking Solution.
- Introduce data warehousing and data mining.
- Introduce Customer relationship Management.
- Move towards Integrated treasury management.
- Go in for Business Process Re-engineering.
- Have an aggressive HRD policy for retraining in IT skills.
- Take up restructuring/ reorganization for the entire bank.

Regarding Internet banking and its relevance in India our general observation was that most of the banks have some kind of presence in this arena although most of them are at "entry levels" and it will take some time before they actually start offering high end fund management services. Our suggestion would be that banks need to carefully look into their long-term strategy, budget constraints and the customer profile before offering Internet banking. It should not be done just because everyone else is doing. Look into the kind of customers you are largely catering to, your major geographical locations and most of all; carry out an extensive Cost- Benefit analysis before you join the bandwagon. Banks must today at least hedge by experimenting with the web business model. But it calls for profound organizational changes if it is to be executed successfully. It needs the banks to fundamentally re-assess their opportunities for adding value and hence re-define their roles in the new paradigm.

A short-term path

- Define Internet strategy
- Implement an Intranet to gain in-house experience with Internet technologies
- Pilot Extranets to support key product areas, e.g. Cash Management and Trade Services.

- Invest in a basic Corporate Internet infrastructure and the 'back-end' e-banking infrastructure targeting functionality.
- Increase functionality by successively adding Internet Banking products.
- Proactively manage customer migration

Requirements for long-term Success

Whatever be the strategy chosen and option adopted, certain key parameters would determine the Banks success on the Web:

- Adopting a webs mindset
- Catching on the First Mover's advantage
- Recognizing the core competencies
- Ability to deal multiplicity with simplicity
- Senior management initiative to transform the organization from inward to outward looking.
- Aligning roles and value propositions with the customer segments
- Redesigning optimal channel portfolio
- Acquiring new capabilities through strategic alliances.

Regarding CRM again, most of the suggestions would be similar to Internet banking. Don't jump into installing expensive CRM software just because everybody else is doing it. What is required is a long term CRM strategy that takes into account the following features:

- Create a Customer-Focused Organization and Infrastructure
- Gain an Accurate Picture of Your Customer Categories
- Accurately Assess the Lifetime Value of Your Customers
- Maximize the Profitability of Each Customer Relationship
- Understand How to Attract and Keep Your Best Customers
- Maximize Rate of Return on Marketing Campaigns

Specifically, if the bank is thinking of CRM software, it should have the following features.

- Establish a Data Architecture that Supports a Single View of the Customer
- Implement Analytics that Support Customer Segmentation and Profiling
- Implement Modules to Analyze and Predict Risk and Profitability
- Implement Modules that Maximize Cross-Sell and Up-Sell Initiatives
- Implement Customer Retention Modules in Your DSS
- Implement an Integrated Campaign Management System

Regarding the future of banking as has already been suggested, there will be few major strategic moves in the industry and most of the banks will move to those domains sooner or later. Issues like outsourcing, Internet banking, aggregation and convergence of financial services, consolidations etc will be the need of the hour and most banks will be hard pressed to do this.

8.10 LIMITATIONS OF THE STUDY:

The limitations of the study could be primarily because of the time and size domain. For the study, the time period considered was primarily from 1997 to 2002, which could have a bearing on the research findings. The banks considered while comparing the public and private sector banks for the study were by and large the major public and new generation private sector banks and most of the survey was carried out in metro cities. While trying to see the technology integration again the focus was more on the banks situated in metro that have really surged ahead with their technological suaveness. However the same cannot be said for all the branches of the same banks. Again most of the people questioned were from the upper middle class representing a portion of the customers banks are servicing and may not necessarily give a true picture. Lastly, the statistical techniques used for Data analysis like Regression Analysis and DEA have their own limitations.

8.11 SCOPE FOR FURTHER RESEARCH

Most of the findings of the current research have largely pointed out to the fact that the Indian banking sector is right now witnessing tremendous activity in almost all domains of bank working. However, most of these new developments like CRM initiatives,

Internet Banking etc which has seen the light only recently remain to be tested in the next 4-5 years to actually assess the profitability of these huge investments being made by most of the banks right now. Some of the key areas which can act as a signal point for future research in the Indian banking sector could be:

1. All this talk about consolidation, mergers etc have resulted into lots of activity in this domain particularly in the banking sector but whether this marriage of convenience turns out to be a win-win situation for both in the long run remains to be seen.

2. The concept of Universal Banking, which on the face of it looks a very attractive proposition, again remains to be tested in the larger context. The reverse merger of ICICI and ICICI Bank and the recent one of IDBI-IDBI Bank are surely an indication that the days of Universal Banking are very much here but whether this will be good for the overall economy and whether it indirectly promotes monopolistic markets are issues needed to be looked at in the long run.

3. CRM has caught the attention of every bank and each of them are doing something about it according to their capabilities. Whether CRM will be a serious business proposition or it will also pass on as just another business fad remains to be seen. At this stage no bank is really talking about the kind of ROI which they are generating form these huge CRM investments but in future there has to be simple economics behind doing such an expensive activity.

4. Internet Banking is another buzz word which has caught the whole industry in fancy. Most of the banks have made huge investments in trying to provide this extra channel to their customers. Is it at the end, just a "me too" phenomenon or banks have looked strategically at it and are really making money by cutting on transaction costs is a very debatable question. Again here also, no bank at this stage is willing to share the information about their Internet Banking venture and only time will tell whether they actually made money or it was another of the so called "business fads".

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APPENDICES

APPENDICES:

APPENDIX 1

Other studies applying DEA in Banking Industry

Author	Country of study and no. of banks	Input Variable	Output Variable
Sherman and Gold (1985)	USA (14)	Labor, expenses, space	Number of transactions
Parkan (1987)	Canada (35)	Labor, expenses, space, rent, terminals	Number of transactions, customer response, error corrections
Oral and Yolalan (1990)	Turkey (20)	Labor, terminals, number of accounts, credit applications	Number of transactions .
Giokas (1991)	Greece (17)	Labor, expenses, rent	Number of transactions
Sherman and Ladino (1995)	USA (33)	Labor, expenses, rent	Number of transactions
Athanassopoulo (1997)	Greece (68)	Number of employees, ATMs, computer terminals, interest costs, non-interest costs, approachability, location of branch, image of bank, product range, network size	Volume of loans, time deposit accounts, saving deposit accounts, current deposit accounts. non-interest inc
Bhattacharya, Lovel and Sahay (1997)	India (74)	Interest expense, operating expense	Advances, deposits, investments
Schaffnit, Rosen and Paradi	Canada (291)	Personnel (Teller, typing, accounting, supervision	Transactions (counter transactions, counter sales

(1997)		credit)	security transactions, deposit sales, commercial loan sales, personal loan sales), Maintenance (commercial and personal loan accounts)
Kantor and Maital (1999)	Mid-EAst (250)	Labor costs, services, area	Number of demand deposits, customer service transactions, credit cards, commission on import-export, commercial accounts activity
Golany and Storbeck (1999)	USA (182)	Labor, area, marketing	Loans, deposits, depth(average number of accounts per customer),satisfaction
Thanassoulis (1999)	Britain	Number of facilities, no. of sales persons, opening hours, market size estimate, existing customer base, transactions	Mortgage applications secured, insurance sales, saving accounts sales
Zenios et al (1999)	Cyprus (144)	Managerial personnel, clerical personnel, computer terminals, work space, current accounts, savings accounts, foreign currency accounts, credit applications	Total amount of work produced in time (hours)

APPENDIX 2

The List of Banks studied in DEA (2002)

1	Bank Of America (foreign)	24	State Bank Of Patiala (public)	47	Federal Bank (private)
2	IndusInd Bank (private)	25	Sakura Bank (foreign)	48	Chase Manhattan Bank (foreign)
3	Deutsche Bank (foreign)	26	Credit Lyonnais (foreign)	49	City Union Bank (private)
4	ANZ Grindlays Bank (foreign)	27	Bank Of Baroda (public)	50	Allahabad Bank (public)
5	CitiBank (foreign)	28	State Bank Of Bikaner &Jaipur (public)	51	Bank of Nainital (private)
6	ABN Amro Bank (foreign)	29	Dena Bank (public)	52	Oman International Bank (foreign)
7	HDFC Bank (private)	30	State Bank Of Saurashtra (public)	53	Bank Of Tokyo Mitsubishi (foreign)
8	Global Trust Bank (private)	31	Banque Nationale De Paris (foreign)	54	British Bank Of The Middle EAst (foreign)
9	Corporation Bank (public)	32	State Bank Oh Hyderabad (public)	55	Indian Overseas Bank (public)
10	American Express Bank (foreign)	33	State Bank Of Travancore (public)	56	Punjab & Sind Bank (public)
11	ICICI Banking Corp (private)	34	Punjab National Bank (public)	57	South Indian Bank (private)
12	State Bank Of Mauritius (foreign)	35	United Western Bank (private)	58	Central Bank Of India (public)
13	Sanwa Bank (foreign)	36	Societe Generale (foreign)	59	Bank Of Maharashtra (public)
14	Hongkong Bank (foreign)	37	UTI Bank (private)	60	Syndicate Bank (public)
15	KarurVyasa Bank (private)	38	Bank Of Madura (private)	61	Catholic Syrian Bank (private)

16	TamilNad Mercantile Bank (private)	39	Bank Of India (public)	62	United Bank Of India (public)
17	Oriental Bank Of Commerce (public)	40	State Bank Of Mysore (public)	63	Vijaya Bank (public)
18	Centurion Bank (private)	41	Union Bank Of India (public)	64	Nainital Bank (private)
19	Karnataka Bank (private)	42	Bharat Overseas Bank (private)	65	Credit Agricole Indosuez (foreign)
20	Jammu & Kashmir Bank (private)	43	Canara Bank (public)	66	UCO Bank (public)
21	State Bank Of India (public)	44	Abu Dhabi Commercial Bank (foreign)	67	Ganesh Bank Of Kurundwad (private)
22	Standard Chartered Bank (foreign)	45	Andhra Bank (public)	68	Indian Bank (public)
23	Bank Of Nova Scotia (foreign)	46	State Bank Of Indore (public)		

APPENDIX 3
Interview Schedule for Internet Banking

1. What is your opinion on the usage of internet in your bank, e.g. a new marketing tool, distributing channel, etc.

- Follow up questions depending on response/reply
- Do you see it as supplementing/complementing the bank branches or cannibalising the business done at the branches?
- How has/is the internet strategic adopted by your bank affecting/impacting the banks' business ? In what way?
- What are the consideration factors that resulted in the banks' internet banking strategy?
- In the long run, do you think that Internet banking will replace the bank branches? How would you compare the introduction of ATM and Internet banking (ATM was said to be able to replace the bank branches when it was first introduced)
- Checking if Internet is used as a strategic device or another distributing channel
- Get bank's view for going into Internet banking.
- Confirming factor for bank's adoption of Internet banking, i.e., cost saving, staying competitive (other have so I must have), new marketing tools, etc.
- Check bank's perception of the significance of Internet for their business.

2. What changes have been observed in the banks' business and operation since the implementation the internet strategy?

- Follow up questions
- How has the bank been positioning or re-positing resource to implement Internet banking, for e.g. number of branches, IT structure, training of staff, etc ?
- Were there any changes to the functions or services provided in the branches and what are the changes?
- Any cost saving?
- Any benefit or disadvantage for banks to go to internet?
- Stage of internet banking adoption : Resource used to support internet banking
- Any change in the focus at the branches and hence a need for new skills of staffs has hope to achieve with internet banking and to what degree has the bank been successful in achieving them?

3. How has your customer been responding to the internet banking service that you provided?

- Follow up questions :
- Has the bank observed any trend in the customer group who uses the Internet banking, for e.g. age group, educational level, etc?
- What are the types of internet offerings and services that are most used customer and in your opinion, what do you think have been the factors that made these offerings and services popular with the customers?
- Confirmation on our theory of the factors influencing for customer adopting internet banking.

- Based on the response, we can try to summarise the type of services that are popular and possibly ananlyse the characteristic of such service – can use this to suggest
- new service as well.

4. What service or which area of service do you think can be best served by the internet banking? Why?
   - Get practitioner's view on the informational, transactional and customer relationship internet offerings.
   - Does internet channel replace traditional channel?

5. What is your opinion of current regulatory in India with respect to internet banking, for e.g., are there sufficient regulation to facilitate this area of business?
   - Follow up questions :
   - What other regulations do you think will be helpful in promoting internet banking or facilitate the internet banking operation?
   - Gather opinion on banking regulation with respect to internet banking.

APPENDIX 4
QUESTIONNAIRE

SERVQUAL SCALE
(Note: These questions followed a nine point Likert type format with anchors of low (1) and high (9).)

When it comes to.........my perception of the bank service level is:

1. Modern looking equipment
2. Visually appealing physical facilities
3. Neat appearing employees
4. Visually appearing materials associated with the service (such as pamphlets and statements)
5. Keeping a promise to do something by a certain time
6. Showing sincere interest in solving a customer problem
7. Performing the service correct at the first time
8. Providing the service at the time the service was promised
9. Insisting on error free records
10. Employees telling customers exactly what services will be performed
11. Employees giving prompt service to the customers
12. Employees always being willing to help customers
13. Employees never being too busy to respond to customers request
14. The behavior of employees instilling confidence in the customers
15. Customers feeling safe in their transactions
16. Employees being consistently courteous with their customers
17. Employees having the knowledge to answer customers questions
18. Giving customers individual attention
19. Operating hours convenient to all other customers
20. Employees giving customer personal attention
21. Having the customers best interest at heart
22. The employees understanding the specific need of the customers

Dimensions

Statements	**7-8**	Credibility
Statements	**15**	Security
Statements	**12-13**	Access
Statements	**16-17**	Communication
Statements	**22**	Understanding the consumer
Statements	**1-4**	Tangibles
Statements	**5, 6, 9**	Reliability
Statements	**10, 11**	Responsiveness
Statements	**14, 15**	Assurance
Statements	**18-21**	Empathy

THE ACTUAL SERVQUAL QUESTIONNAIRE

Based on your experiences as a customer in a bank branch, please think about the kind of bank branch that would deliver excellent quality of service. Think about the kind of bank branch in which you would like to receive treatment. Please show the extent to which you think such a bank branch possesses the feature described by each statement. If you feel a feature leaves you *"Completely unsatisfied"* for an excellent bank branch such as the one you have in mind, circle the number 1. If you feel for a feature as *"Completely satisfied"*, circle 9. If your feelings are less strong, circle one of the numbers in the middle. There are no right or wrong answers - all we are interested in is the number that truly reflects your feelings regarding bank branch that would deliver excellent quality of service.

	Completely Unsatisfied								**Completely Satisfied**
1. Excellent bank branch with modern looking equipment.	1	2	3	4	5	6	7	8	9
2. The excellent physical facilities at bank branches are visually appealing.	1	2	3	4	5	6	7	8	9
3. Personnel at excellent bank branches are neat in appearance.	1	2	3	4	5	6	7	8	9
4. Materials associated with the service (such as pamphlets or statements) are visually appealing in an excellent bank branch.	1	2	3	4	5	6	7	8	9
5. Excellent bank branches which when promises to do something by a certain time they normally do so.	1	2	3	4	5	6	7	8	9
6. When a customer has a problem, excellent bank branch show a sincere interest in solving it.	1	2	3	4	5	6	7	8	9
7. Excellent bank branch which gets things right the first time.	1	2	3	4	5	6	7	8	9
8. Excellent bank branch which provide their services at the time they promise to do so.	1	2	3	4	5	6	7	8	9

9. Excellent bank branch which insist on error-free records.	1	2	3	4	5	6	7	8	9

	Completely Unsatisfied								Completely Satisfied
10. Personnel in excellent bank branch tell customers exactly when services will be performed.	1	2	3	4	5	6	7	8	9
11. Personnel in excellent bank branch give prompt service to customers.	1	2	3	4	5	6	7	8	9
12. Personnel in excellent bank branch are always willing to help customers.	1	2	3	4	5	6	7	8	9
13. Personnel in excellent bank branch are never too busy to respond to customers' requests.	1	2	3	4	5	6	7	8	9
14. The behavior of personnel in excellent bank branches is to instill confidence in customers.	1	2	3	4	5	6	7	8	9
15. Customers of excellent bank branch feel safe in their dealings with the bank branch.	1	2	3	4	5	6	7	8	9
16. Personnel in excellent bank branch are consistently courteous with patients.	1	2	3	4	5	6	7	8	9
17. Personnel in excellent bank branch will have the knowledge to answer customers questions.	1	2	3	4	5	6	7	8	9
18. Excellent bank branch always give customers individual attention.	1	2	3	4	5	6	7	8	9
19. Excellent bank branch have operating hours convenient to all their customers.	1	2	3	4	5	6	7	8	9

20. Excellent bank branch have staff who give customers personal attention.	1	2	3	4	5	6	7	8	9
21. Excellent bank branch have the customers best interests at heart.	1	2	3	4	5	6	7	8	9
22. The personnel of excellent bank branch understand the specific needs of their customers.	1	2	3	4	5	6	7	8	9

APPENDIX 5

FINANCIAL RESULTS: Source: PROWESS

PROFIT (Rs. Crores)	1996	1997	1998	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	356.05	846.48	793.13	1669.88	2411.47	1465.65	2676.86	2221.84
NATIONALISED BANK	-4704.99	269.3	-1164.5	1445.19	2567.27	1792.42	2437	2095.09
INDIAN PRIVATE BANK	131.5	408.82	546.24	688.75	841.89	708.71	1224.54	1162.25
FOREIGN BANK	573.82	697.89	745.71	665.77	629.95	693.36	1035.04	1019.91
TOTAL	-3643.62	2222.49	920.58	4469.59	6450.58	4660.14	7373.44	6499.09

TOTAL ASSETS (Rs. Crores)	1996	1997	1998	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	140972.79	156324.62	186767.97	204355.83	232747.14	285903.77	336326.55	402877.47
NATIONALISED BANK	237783.28	282534.99	319076.94	351904.99	416439.25	484417.1	554625.16	626892.12
INDIAN PRIVATE BANK	22774.73	38294.86	45645.59	60563.84	81032.28	103603.91	136566.48	163380.34
FOREIGN BANK	33418.1	37835.16	47677.36	55911.74	65287.67	76623.1	82849.84	101823.99
TOTAL	434948.9	514989.63	599167.86	672736.4	795506.34	950547.88	1110368	1294973.9

OPERATING EXPENSE (Rs. Crores)	1996	1997	1998	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	2518.29	3339.67	4307.51	4353.08	4675.32	5492.88	5926.4	7832.29
NATIONALISED BANK	4276.53	5237.76	6828.88	7278.43	7952.97	9346.77	10435.18	13142.76
INDIAN PRIVATE BANK	378.58	488.9	653.4	729.45	849.52	1028.91	1243.4	1286.35
FOREIGN BANK	281.97	338.6	467.56	591.56	618.28	769.88	862.4	989.99
TOTAL	7455.37	9404.93	12257.35	12952.52	14096.09	16638.44	18467.38	23251.39

OPERATING INCOME (Rs. Crores)	1996	1997	1998	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	11900.85	13862.07	17114.44	19923.03	21208.84	25126.15	29186.65	34016.86
NATIONALISED BANK	20560.49	23984.1	29505.81	33987.86	37857.99	44331.45	50273.06	56967.11
INDIAN PRIVATE BANK	2062.69	2933.52	4543.85	6398.38	7882.14	10004.01	11871.12	14496.36
FOREIGN BANK	3341.44	3749.38	4973.17	6184.88	6783.11	7857.12	8176.05	9470.79
TOTAl	37865.47	44529.07	56137.27	66494.15	73732.08	87318.73	99506.88	114951.12

OTHER INCOME (Rs. Crores)	1996	1997	1998	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	2007.73	2523.1	3452.32	3353.8	3662.25	4223.24	4827.92	5355.53
NATIONALISED BANK	2771.75	3015.57	3592.49	4006.38	4968.53	5169.51	6612.8	7159.41
INDIAN PRIVATE BANK	304.86	479.47	768.12	982.86	1566.82	1450.11	2286.26	2099.1
FOREIGN BANK	743.32	930.34	1117.43	1399.21	1914.23	1862.57	2152.18	2513.02
TOTAL	5827.66	6948.48	8930.36	9742.25	12111.83	12705.43	15879.16	17127.06

INVST IN GOVT. SECURITIES (Rs. Crores)	1996	1997	1998	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	33344.97	36588.66	39385.41	45405.47	52492.12	70163	91225.81	124274.92
NATIONALISED BANK	56235.29	62925.17	71736.45	87383.73	101421.66	118775.96	144127.98	165317.71
INDIAN PRIVATE BANK	5077.13	6901.06	8297.36	12730.59	17120.52	22072.69	31768.38	37694.84
FOREIGN BANK	8602.66	8324.36	8713.22	11290.43	13925.8	16870.67	18654.92	23302.49
TOTAL	103260.05	114739.25	128132.44	156810.22	184960.1	227882.32	285777.09	350589.96

CAPITAL (Rs. Crores)	1996	1997	1998	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	586.87	587.05	954.9	1007.19	1035.79	1035.79	1035.79	1035.79
NATIONALISED BANK	9672.19	14102.26	13176.79	12862.35	15034.79	13369.82	13197.88	13511.27
INDIAN PRIVATE BANK	120.41	1127.75	1386.28	1486.89	1689.02	1723.9	1972.03	1877.63
FOREIGN BANK	164.78	363.21	829.27	1221.53	1779.75	2072.01	2404.82	2670
TOTAL	10544.25	16180.27	16347.24	16577.96	19539.35	18201.52	18610.52	19094.69

RESERVE & SURPLUSES (Rs. Crores)	1996	1997	1998	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	4197.06	4970.54	6122.13	8806.08	10999.67	12169.28	14483.75	16359.3
NATIONALISED BANK	4524.06	6387.73	8145.04	10582.94	13698.66	15277.31	17334.97	18998.94
INDIAN PRIVATE BANK	570.62	1036.95	2001.61	2652.69	3599.51	4220.17	6342.16	6999.24
FOREIGN BANK	2183.15	3278.24	4252.61	5145.27	5705.89	5125.34	5673.25	6289.23
TOTAL	11474.89	15673.46	20521.39	27186.98	34003.73	36792.1	43834.13	48646.71

APPENDIX 5
FINANCIAL RESULTS OF BANKS: Source: PROWESS

PROFIT (Rs. Crores)	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	1669.88	2411.47	1465.65	2676.86	2221.84
NATIONALISED BANK	1445.19	2567.27	1792.42	2437	2095.09
INDIAN PRIVATE BANK	688.75	841.89	708.71	1224.54	1162.25
FOREIGN BANK	665.77	629.95	693.36	1035.04	1019.91
TOTAL	4469.59	6450.58	4660.14	7373.44	6499.09

INTEREST EXPENSE (Rs. Crores)	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	12819.44	13904.14	16982.83	19897.06	22903.1
NATIONALISED BANK	23519.14	26260.48	30856.92	35478.22	38789.64
INDIAN PRIVATE BANK	4616.22	5904.73	7841.44	8955.54	10691.02
FOREIGN BANK	3901.2	4222.26	5200.56	4986.2	5768.06
TOTAL	44856	50291.61	60881.75	69317.02	78151.82

OPERATING EXPENSE (Rs. Crores)	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	4353.08	4675.32	5492.88	5926.4	7832.29
NATIONALISED BANK	7278.43	7952.97	9346.77	10435.18	13142.76
INDIAN PRIVATE BANK	729.45	849.52	1028.91	1243.4	1286.35
FOREIGN BANK	591.56	618.28	769.88	862.4	989.99
TOTAL	12952.52	14096.09	16638.44	18467.38	23251.39

INTEREST INCOME (Rs. Crores)	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	19923.03	21208.84	25126.15	29186.65	34016.86
NATIONALISED BANK	33987.86	37857.99	44331.45	50273.06	56967.11
INDIAN PRIVATE BANK	6398.38	7882.14	10004.01	11871.12	14496.36
FOREIGN BANK	6184.88	6783.11	7857.12	8176.05	9470.79
TOTAL	66494.15	73732.08	87318.73	99506.88	114951.12

OTHER INCOME (Rs. Crores)	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	3353.8	3662.25	4223.24	4827.92	5355.53
NATIONALISED BANK	4006.38	4968.53	5169.51	6612.8	7159.41
INDIAN PRIVATE BANK	982.86	1566.82	1450.11	2286.26	2099.1
FOREIGN BANK	1399.21	1914.23	1862.57	2152.18	2513.02
TOTAL	9742.25	12111.83	12705.43	15879.16	17127.06

DEPOSITS (Rs. Crores)	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	147892.4	173602.84	219276.97	256288.02	312117.5
NATIONALISED BANK	301436.78	358125.73	417583.13	481024.96	547258.83
INDIAN PRIVATE BANK	51038.77	69515.78	86506.22	113669.65	136666.65
FOREIGN BANK	37395.63	42872.89	47453.33	49324.16	59190.47
TOTAL	537763.58	644117.24	770819.65	900306.79	1055233.5

ADVANCES (Rs. Crores)	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	82901.59	97566.64	108425.11	129033.62	150390.52
NATIONALISED BANK	137349.38	162308.06	188925.14	223075.67	264237.43
INDIAN PRIVATE BANK	28631.67	35420.43	42713.16	55742.2	68058.47
FOREIGN BANK	26751.97	29290.41	29506.74	35617.18	42996.54
TOTAL	275634.61	324585.54	369570.15	443468.67	525682.96

BORROWING (Rs. Crores)	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	7972.32	8850.9	10217.08	10608.95	11405.05
NATIONALISED BANK	5408.5	5068.68	8150.32	8865.05	8679.35
INDIAN PRIVATE BANK	2110.46	2084.97	5521.78	7046.67	8519.02
FOREIGN BANK	7952.87	9854.65	16359.01	18839.02	26817.6
TOTAL	23444.15	25859.2	40248.19	45359.69	55421.02

NET INTEREST INCOME (Rs. Crores)	1999	2000	2001	2002	2003
STATE BANK OF INDIA AND ASSOCIATES	7103.59	7304.7	8143.32	9289.59	11113.76
NATIONALISED BANK	10468.72	11597.51	13474.53	14794.84	18177.47
INDIAN PRIVATE BANK	1782.16	1977.41	2162.57	2915.58	3805.34
FOREIGN BANK	2283.68	2560.85	2656.56	3189.85	3702.73
TOTAL	21638.15	23440.47	26436.98	30189.86	36799.3