

**IMPACT OF NEW ECONOMIC POLICY ON BANKING SECTOR  
IN KERALA - AN ANALYSIS WITH SPECIAL REFERENCE TO  
THRISSUR DISTRICT.**

*Thesis*

*Submitted to the University of Calicut*

*for the award of the degree of*

**Doctor of Philosophy in Economics**

**By**

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## DECLARATION

I, Savithri. N, do hereby declare that this written account on "*Impact of New Economic Policy on banking sector in Kerala, An Analysis with special reference to Thrissur district*" is a bonafide record of research work done by me under the guidance of Dr. U. T. Damayanthi, Professor in Economics, University of Calicut.

I also declare that this has not been submitted by me earlier for the award of any degree, diploma, title or recognition.

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## ACKNOWLEDGEMENT

*I take this opportunity to express my gratefulness and indebtedness to one and all that have helped me in this effort. First and foremost, let me offer my thanks to the supreme power guiding from above without whose benevolence nothing is possible. I would specially like to express my gratitude to Prof. Dr. U.T Damayanti (Dept of Economics, Dr. John Mathai Centre) for her valuable guidance and support at different stages of my work. Even her small suggestions made big differences in my dissertation. Thank you, madam, for your abounding help and care.*

*I express my sincere thankfulness to Prof. Dr. K.R. Lakshmi Devi for her valuable correction and advices. I also thank Prof. Dr. K.P. Mani for having read my dissertation and pointed on the required corrections. All the members of the faculty were of great help. They were available and could be approached when ever required. I thank the administration and the library staff of Dr. John Mathai centre for their sincere help.*

*I express my heartfelt thanks to Dr. Sunanda C. (Domain Expert, VUAT) without whose assistance; this project would not have been possible. I also thank research scholar Sindhu for her help in doing analysis and computations.*

*I also take this opportunity to thank my mother without whose blessings and prayers, this project would not have materialized. Last but not the least, I thank my family for their great help and encouragement in the realization of my goal.*

Savithri. N

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# CHAPTER 1

## INTRODUCTION

A search for opportunities in the middle of difficulties resulted in the formation of the new economic Policy in 1991. Fifteen years of Economic liberalization was triggered by a major macro economic crisis in 1991. India has managed an impressive take off since the inception of reforms. The spectrum and speed of our achievements were unparalleled in the history. Financial sector reforms were part of the new economic policy. One of the most successful components of reform programmes was in banking. The highly regulated and directed banking system was transformed into one marked by openness, competition and vigilance. The robustness and soundness of Indian banking sector was evident in the absence of systemic crisis, bank closures and bank runs. How the financial system responds to changes in the real sectors is vital, since monetary sector is the money image of the actual economy. At this juncture it is appropriate to take stock of accomplishments in the banking sector, because this sector serves as an important channel for achieving growth in the real sector. It is imperative that we comprehend past attainments, monitor present performances and look out for future developments.

History of commercial Banking in India can be traced to the pre-independence period. Bank of Madras, Bank of Bombay and Bank of Bengal constituted the Presidency banks. The Royal Charter governed the three presidency banks. Their business was confined to

the requirements of the East India Company. The pre independence period also saw the failures of many private sector banks. When India became independent in order to protect the interests of the depositors, the regulation and supervision of the banking system was entrusted to Reserve Bank of India in 1949. During this period commercial banks were under the ownership and control of big industrial houses reflecting oligopolistic characteristics. Agriculture and small-scale sector were neglected. The socialistic objectives of the government found realisation in the nationalisation of important commercial banks in 1969 and 1980. Nationalisation of Commercial banks was a mixed blessing. There was a shift of emphasis from industry to agriculture. Class banking gave way to mass banking with increased number of branches spreading to every nook and corner of the country. However, nationalisation created its own problems like excessive bureaucratization, red tapism and disruptive tactics of trade unions. We had a system of credit allocation administered and different interest rates for different purposes and automatic monetization of fiscal deficit and financial repression. The role of technology was minimal and quality of service was not given adequate importance. Banks did not follow proper risk management system and prudential standards were weak. All these led to poor asset quality and low profitability.

The difficulties continued in terms of unresolved non performing assets, poor management skills and continued adverse operating performances. The Sukhmoy Chakravarthi Committee (1983) and the Vaghul Committee Report (1987), initiated the process of financial reform even before 1991. The present set of reforms is based on Narasimham Committee Report I (1991) and II (1998). The

financial sector Policy was fabricated out of strands taken from Narasimham Committee Reports.

Recommendations of the Narasimham Committee are summarised into four major groups.

1. Overall monetary policy issues
2. Measures for strengthening banks
3. Steps to increase free competition in the financial sector
4. Issues relating to regulation and supervision over the financial sector

The second Narasimham committee suggested various measures, which are included in the second-generation reforms. These include the following broad interrelated issues.

1. Steps to strengthen the foundation of the banking system by improving the capital base.
2. Up gradation of technology and solving related problems.
3. Structural changes in the system which includes problems of consolidations, mergers etc.

On the Basis of the recommendation of Narasimham Committee various broad based internal and external reforms were undertaken. These measures are classified into Macro level and Micro level policy changes. Macro level measures included elimination of automatic monetization, reduction in SLR(Statutory Liquidity Ratio) and CRR(Cash Reserve Ratio), and deregulation of interest rates.

Independence of monetary policy and Central Bank has been restored since the reforms . There was also a consequent shift from direct to indirect instruments of monetary policy. Micro level policies included the introduction of competition enhancing measures and operational autonomy and partial disinvestment of public ownership in public sector banks. The entry of new private and foreign banks was another development. The reforms included measures to strengthen the institutional framework of banking sector. Banking reforms included steps for technological up gradation.

The central banks however retain the power of supervision and monitoring. Steps were taken to strengthen the institutional framework of banking system. Capital adequacy norms were to be strictly observed by banks. Reforms in the legal framework and setting up of banking ombudsman were other measures taken up by the monetary authority.

The reform measures were introduced in two phases. The first phase aimed at providing necessary platform to the banking sector to operate on the basis of operational flexibility and financial autonomy. An opportunity was created to enhance efficiency, productivity and profitability. The policies initiated in the first phase led to the consolidation of banking system, congregation of universal banking and re-organization of weak public sector banks and adoption of scientific tools for management of risks. The second phase of reforms underway relates to the introduction of sophisticated financial instruments and rationalization of banking system . Strengthening capital base of banks and acceptance of international prudential norms are other measures included in the second stage of banking sector

reforms .As a result of these reforms the face of Indian Banking systems has undergone a marked transformation compared to a decade ago. A strong and efficient financial system is important to the attainment of the objective of creating a market driven productive and competitive economy. It is necessary to support higher investment and higher economic growth. Banking is the principal segment of the financial system and plays a decisive role in the development of the economy. A healthy banking system provides the necessary framework for facilitating economic growth . It serves as a strong vault of resources for development. The reform in the banking sector reflects a deliberate, gradual, vigilant and steady process of significant transformation into a sophisticated, diverse and flexible system. ‘Slow and steady wins the race’ seemed to be the guiding principle of banking sector reforms.

Prime Minister Manmohan Singh has made the following comment on the nature of banking sector reform in India, “The steady and phased approach to reform had brought Indian Banking out of the woods<sup>1</sup>”. The pace and direction of banking sector reforms are best articulated in the statement of VY Reddy, Governor of RBI (Reserve Bank of India). “The central banks are now taking baby steps, sometimes more frequent steps, and at other times after a long gap and in both directions in response to ripples rather than huge waves in the sea of economic activity<sup>2</sup>”. The reform process has unfolded gradually touching different departments of the banking sector. It will be useful to identify the beneficiaries and benefactors of the New Economic Policy at this juncture.

The banking sector has shown tremendous growth in magnitude and complexity during the last two decades. Significant progress has been made in various aspects. Capital adequacy and asset quality have improved. The banks have achieved high level of competitive efficiency. Despite the substantial advancements made by the banks, there are various compelling issues in the financial sector which need our attention. There are changes taking place in the pattern and trend of monetary variables and ratios. Whether these developments are beneficial or not is a matter of debate.

Secondly the advent of technological revolution in all walks of life combined with globalization is transforming the banking sector in India. The banks are compelled to adopt methods of financial intermediation based on information technology. What is the level of technological progress of commercial banks and whether it has any impact on the magnitude of financial intermediation and profitability of bank, is also an important concern demanding our attention.

Thirdly doubts are expressed with respect to the inability of banks to include the vast segments of population, especially the under privileged. What is the fate of social banking in the post reform period is another topic of relevance. A study of the impact of new economic policy encompasses the above subjects.

### **1.1. Need and significance of study**

Financial shackles in the past resulted in damaging distortions in many economies. Financial liberalization is accepted by all as the way out of the mayhem. The efficacy of the policy depends on the adeptness of the financial systems. Years of control and bondage have

left many economies unfit for such changes. The impact of the New Economic Policy on the Banking sector in India is an important case study, in this respect. Only financial systems closely interwoven with the underlying fundamentals of the real economy can accommodate changes effectively. The success story of banking sector reforms in India, where large parts of the economy still lie outside the monetary net work, is worth analyzing, and will be informative. An empirical analysis of banking sector attainments can help and guide future management of financial sectors. The weak points of Monetary Policy can be identified and required rectification can be made. Future policies can be formulated and designed so as to fit in with the condition of the Indian monetary System.

Financial liberalization has not diluted the significance of social justice in Economic Policies. The need of the hour is the alliance of efficiency and social justice. Economic growth without equity will be accompanied by social and political turmoil. The prospect of social banking in India in the context of market oriented reforms is a matter which demands serious attention.

A study of the different dimension of technological development of commercial bank will be of great use. Individual financial institutions are exposed to changing domestic and international environment. Banks have to attain greater competitive efficiency. It is in this context banks are adopting new technologies and other customer centric policies. The extent of progress made by banks in these lines is worth studying.

Banking sector in Kerala has accomplished far reaching developments in the post reform period. An analysis of the remodeling

of banking sector in Kerala is of great value for various reasons. Kerala is a state which has achieved rapid growth in the service sector, which includes banking. This is a state which continues to enrich our country in terms of foreign exchange reserves.

The strategic location of Kerala, good communication net work, high human development indices are features of Kerala which make it suitable for any investigation. It is a state which has potentials in the developments of tourism and bio-technology based industries. Highly educated man-power is another important virtue of Kerala. Kerala has got a sound banking infrastructure. There are formal and informal financial institutions flourishing in Kerala. Commercial banks play a leading role in accepting deposits and lending money. A scrutiny of variations in the monetary structure of Kerala will be of use in this context

Thrissur District is a semi urban locality. Kerala is a state which mainly consists of semi urban localities. Thrissur was a centre of financial activities, even during the period of Maharaja of Cochin state. Agriculture and tourism are the main occupations. There are over 32 medium and large scale industries in the district. Three of the major private sector banks have their head quarters in Thrissur. They are Catholic Syrian Bank Ltd, Dhanalakshmi bank Ltd, and south Indian Bank Ltd. In 2006, there are 31 commercial banks in Thrissur. Canara Bank is the Lead Bank in Thrissur. Including Co-Operative banks, there are 668 bank branches in this district. Again this is one of the districts which is sponsored, promoted and patronized by the Non-resident Indians. A study with respect to Thrissur district can correspond to a study of the state of Kerala to a great extent.

The success or failure of reforms can be verified in the case of Kerala. An overall view of the banking sector in Kerala will be of great applicability in making future decisions.

## **1.2. Statement of the problem**

A break through in the banking sector is a necessary condition, crucial for the betterment of an economy. Kerala is a state blessed with skilled labourers, moderate climate and plenty of funds in the banks. A change in the mind set of Commercial Banks can generate diverse positive reverberations throughout the states economy. The reform process has altered the volumes and compositions of monetary variables in the state.

The principal monetary variables to be analysed are credit and deposit. The problem of low credit deposit ratio in Kerala is a topic of discussion. The present debate is centered on the relatively low level of credit deployment by commercial banks in Kerala. The issue of mobilizing large amounts of funds from the State and not being ploughed back into the State in the form of credit is a matter of concern for everybody. The trend of credit deposit ratio in the post reform period is worth scrutinizing along with other important banking ratios. A distinguishing feature of commercial banks in Kerala is the success of banks in mobilizing deposits especially that of Non-resident Indians (NRI). Whether the banks continue to give prominence to deposit mobilization is another question which has to be answered.

The impact of information technology on the banking sector is of great consequence. The mode of financial transactions is changing

fast. The relative success of public sector and private sector banks in incorporating new technology can be investigated. The impact of new technology in profitability and efficiency of banks are worth evaluating.

Another issue or concern is the impact of new economic policy on social banking. Social banking takes the form of priority sector lending and micro credit. The volume and pattern of priority sector credit can make clear the present position of social banking in the country. The prospect of micro credit as an alternate tool of social banking can also be investigated. The impact of reform is felt on the way in which banks are executing their social responsibilities. The wind of change has revamped the pattern of credit allotment. These are some concerns befitting our scrutiny and attention.

### **1.3. Objective of the study**

The objective of the study is to examine the influence of financial sector reforms on the banking sector. Banking sector reforms are multifaceted. There are divergent policies influencing diverse sections of the banking systems. Only some of the important amendments and their consequences are studied here. With in this broad framework the study has laid down the following objectives .

1. To analyse the structural changes in the banking sector in Kerala since reforms
2. To examine the extent of new technology adopted by commercial banks and its impact on their performance.

3. To study the impact of banking sector reform in the banking habits of people.
4. To assess the relative position of social banking parameters in the post reforms period.
5. To identify the managerial and operational constraints in the implementation of reforms.

#### **1.4. Hypotheses**

The performance of banking sector will be mirrored on the variation in the trend and pattern of monetary variables. It is generally accepted that the accomplishments of banking sector in the post reform period are commendable. The hypothesis is that performance of banking sector in Kerala has improved since banking sector reforms.

A second hypothesis is with respect to the impact of reforms on technological advancements of bank. Technology based banks perform better than traditional banks. Customer perception of reforms is favourable to the banks is a related hypothesis.

The third hypothesis is with respect to the social commitment of banks. Provision of credit to agriculture and small scale sector is indicative of the social responsibility of banks. The hypothesis is that market orientation has reduced the social commitment of banks.

#### **1.5. Data and Methodology**

A brief account of the methodology used in the study is given. Data were compiled from both primary and secondary sources.

Secondary data were acquired from “Hand Book of Statistics on Indian Economy” and Trend and Progress of Banking Sector, published by RBI. Economic Review published by State Planning Board. Various publications of SLBC( State level Bankers committee) and CMIE (Centre for Monitoring Indian Economy) are other sources of data.

Secondary data were employed for the following purposes

(a) to study the changes in volume and pattern of credit and deposit (b) to examine the relative position of rural and urban areas in financial progress (c) to look into the relative changes in the important contents of financial resources of Kerala (d) To inspect the relative ratios like credit deposit ratio, per capita credit, credit per branch, and deposit per branch (e) to compare the performance of banks at different levels of technological up gradations (f) to relate the performance of banking sector in Kerala to attainments of banking sector in other southern states.

Primary data were utilized to assess the progress of technology in Banking. The data were gathered through a survey of bank branches in Thrissur district. The sample consisted of 30 Public sector bank branches and 30 Private sector bank branches in Thrissur district. Various aspects of technological up gradation were investigated. The relative performance of branches which are fully computerized and which are partially computerized was examined. The performance of branches with respect to credit and deposit was looked into. Bankers were personally contacted to give their opinion on technological up gradation. Percentages and ratio were used in the research on technological up gradation.

Primary data were also applied to study changes in the banking habits of the customers. The customer perception of banking sector reforms was analysed by conducting personal interview of 100 customers belonging to different banks in Thrissur district. Customers were asked to give their opinion on the changes taking place in the banking sector. Likert scale was used to construct customer perception index.

The study thus employs the following analytical tools (a) ratios (b) Likert scale (c) statistical methods like averages percentages, rate of growth and simple regression. Granger causality is another method used in the study . Herfindahl Index was constructed to make a comparative study of the progress of southern states in the banking sector. A composite index of important monetary ratios was constructed to evaluate the performance of southern states.

## **1.6. Scope of the study**

### ***Temporal scope***

The time period of analysis mainly includes two decades. They are 1985-1994 and 1995-2004. Financial sector reforms were initiated in 1992. Different policy measures were introduced in subsequent years. The impact of reforms is studied from the year 1995 as a time lag exists between the introduction of a policy and its impact.

### ***Spatial scope***

The study focuses mainly on the Banks and customers in Thrissur District. Analysis of the financial variables at the national and state level is also done.

## **1.7. Plan of the study**

The study is arranged in the following manner. The introductory chapter explains the need and significance of the study, statement of the problem, hypotheses, objectives, data sources and methodology and limitations of the study. The second chapter presents a review of literature. The third chapter studies structural changes in the banking sector in India. The fourth chapter examines the structural changes in the banking sector in Kerala in the post reform decade. The fifth chapter studies the level of technology adoption by private sector and public sector banks. A comparison is made between the performance of banks which are fully computerized and which are partially computerized. This chapter includes an analysis of consumer perception of changes in the banking sector. The sixth chapter traces the progress of the social banking in the post reform period. Seventh chapter includes a summary of findings and policy implications of the analysis.

## **1.8. Limitations of the study**

The study relies on secondary and primary data. The limitations of these data constitute the limitations of the study. The period of analysis is in between 1985 to 2004 with respect to monetary variables in Kerala. In the case of certain variables the data were available only from a later period which constitutes one of the limitations of this study.

Besides, the impact of reforms fall on various aspects of banking. In the present study, it was not possible to analyse in detail

all those aspects, certain important issues were isolated for the convenience of the study.

## **Notes and References**

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<sup>1</sup> Manmohan Singh (2005) ,Inaugural address of State Bank of India's bicentennial celebrations, The Hindu, June 5<sup>th</sup>

<sup>2</sup> V.Y. Reddy (2006), "Globalization, money, Finance, uncertainties and Dilemmas", RBI Bulletin ,October , P5

## **CHAPTER II**

### **REVIEW OF LITERATURE**

This chapter is devoted to review the major contributions in the field of financial sector development analysis. The contributions are classified as follows.

- a) Theory of financial liberalization
- b) Studies on the banking sector accomplishments in India
- c) Studies on the performance of banking in Kerala
- d) Social banking

#### **2.1. Theory of financial liberalization**

Mckinnon and Shaw (1973)<sup>1</sup> have criticized the restrictive nature of the monetary policies of less developed countries. Their thesis is that there is complementarity between money and capital. This implies that large and fast growing real cash balances contribute to rapid growth in investment and in aggregate output.

Government intervention in the financial system including the setting of the interest rates, the imposition of high reserve requirements and quantitative restrictions on credit allocation is a features of financial repression. This practice was challenged by Mckinnon (1973) and Shaw (1973).<sup>2</sup> According to them this was responsible for low savings, credit rationing and low investment. Financial liberalization involved freeing financial markets from government intervention and letting the market determine the price and allocation of credit.

According to their theory financial repression affects how efficiently savings are allocated to investment. Financial repression also affects equilibrium level of savings and investment. In this framework investment suffers not only in quantity but also in quality terms since bankers do not give credit according to the marginal productivity of investment projects but according to their own discretion. Under these conditions the financial sector is likely to stagnate. The low return on bank deposits encourages savers to hold their savings in the form of unproductive assets such as land other than the potentially productive bank deposits. Similarly high reserve requirements restrict the supply of bank lending. Directed credit programmes distort the allocation of credit since political priorities are not determined by the marginal productivity of different types of capital.

The Policy implications of the theory are removal of interest rate ceilings, reduction in reserve requirement and abolition of directed credit programmes. Liberalization of the financial market lets the free market determine the allocation of credit. When real rates of interest are adjusted to the equilibrium level, low yielding projects would be eliminated. Overall efficiency of investment will increase.

As the real rate of interest increases savings and the total supply of real credit will increase inducing a higher volume of investment. Economic development would be stimulated not only through increased investment but also due to increase in the productivity of capital. The effects of lower reserve requirements will increase the supply of resources with the banks. Abolition of directed credit program would lead to an even more efficient allocation of credit. This will increase the average productivity of capital.

Stiglitz and Gruwad (2003)<sup>3</sup> reflected on the principles of the new paradigm of financial liberalization. Many developing countries have been placed under strong pressures to open up their financial system. A closer look at the impact of such reforms on the domestic banking system and the flow of credit to small and medium size enterprises suggest that there are many circumstances in which these policy reforms have adverse consequences. According to him local monetary authorities may subsidize local banks and in doing so may stimulate local lending and local economic activity. Stiglitz has demonstrated how improving the opportunities for the poor to access formal finance can lead to reduction in poverty. He has addressed the causes of financial market failures. A symmetric information and high fixed cost of small scale lending are problems addressed in a developing country.

### **Studies on banking sector in India**

Rudra Sensarma (2005)<sup>4</sup> has examined cost and profit efficiency of Indian banks during 1986-2003. A technique of stochastic frontier analysis is used to estimate bank specific cost and profit efficiency. According to the study, cost efficiency of the banking industry increased during the period while profit efficiency underwent a decline. An interesting revelation of the study is that in terms of bank groups, domestic banks appeared to be more efficient than foreign banks. Further public sector banks have shown higher cost efficiency than Private sector banks. In the case of Profit efficiency private sector banks are ahead of Public sector banks. New Private and foreign banks exhibit the least efficiency in terms of both measures. Moreover cost efficiency improved during the period of study and Profit efficiency underwent a decline.

Saibal Ghosh Abhiman Das (2005)<sup>5</sup> have studied the problems of capital adequacy of banks in the new contexts of liberalization and globalization. Their study revealed that better capitalized banks experienced lower borrowing costs. They suggest that ongoing reform efforts at the international level should primarily focus on increasing transparency and increasing competition among banks. This analysis demonstrated that competitive forces motivate banks to select high capital adequacy ratios as a means of lowering their borrowing cost. The behaviour pattern of Public Sector banks was studied. Two main findings emerged. (1) Better capitalized banks experienced lower borrowing costs. (2) bank competition could not have substituted for capital adequacy regulation because of substantial systemic effects. Greater transparency on the part of banks made them less susceptible to banking crises.

Nachane, Saibal Ghosh, and Partha Ray (2005)<sup>6</sup> in their study indicated that presence of banker on the Board of Directors of Companies Seemed to exert a healthy impact on the Companies. Public limited Companies generally have banker representation in their Boards in the role of expertise providers. Their paper attempted to identify the factors influencing the inclusion of bankers on company boards and the implications of their presence. Bankers play the role of expertise providers on Boards of non-financial firms. Banks can ensure that their funds are not misappropriated.

Balasaheb Vikre Patil (2005)<sup>7</sup> studied the problems of localized Banking institutions in the context of banking reforms. During the last decade rural credit did not get the attention from the commercial banks which it was getting before the beginning of the financial sector

reforms. Commercial banks have failed in providing credit to agriculture. Instructions regarding 18% credit for agriculture was not complied with. The credit deposit ratios and the ratio of rural offices to total offices declined during the reform period. The rural branches have concentrated on mobilizing deposits. In the case of Regional Rural Banks, the credit deposit Ratio declined from 83% in 1990-91 to 45% in 2003. The number of rural borrowers has declined in commercial banks. Decisions required for revitalizing rural credit institution are being delayed.

Jasveen Kaur (2003)<sup>8</sup>, in his article “The changing scenario of Indian Banking Industry in the wake of Banking Sector reforms” has tried to focus on the new principles and guidelines leading the banks in their operations. The three thrust areas for the Indian Banking industry are size, speed and service. Changes are taking place in the working of private sector banks and also public sector banks. The speed of delivery of services in the banking system depends on technological up gradation. The quality of service, customer care and client servicing are all-important elements of success in the emerging financial sector. The banks have acknowledged that the customer is the king. The banks are tailoring their products to suit the customer’s requirements. On the one end we have millions of savers and investors who do not use a bank. At the other end metropolitan India is becoming familiar with (ATM) Automatic Teller Machine, E banking and the cashless economy. The challenge for any bank in India is to be able to work at both ends of the spectrum. One of the most visible changes in the banking sector today is the size of operations. Mergers and amalgamations are taking place so that banks are able to operate on a large scale. Banks are also operating at different stages of Internet banking. The different stages

are (1) Information Kiosks, (2) Basic Internet banking, (3) E-Commerce. The reforms currently underway in the banking sector represent a major structural overhaul of the financial system. The important characteristic of financial sector reforms is its gradualist process.

Raj Kumar (2003)<sup>9</sup> has studied one of the latest developments in Banking Sector, i.e. 'Bancassurance' Banks have entered the insurance sector directly and indirectly. In the process of what is known as Bancassurance banks are marketing a blend of banking and insurance products. The banks can act as agent of products of insurance companies. At higher organizational level banks can set up subsidiaries or work in collaboration with insurance companies. At still higher – level banks may take over an insurance company. Financial Sector reforms have to encourage the growth of universal banks integrating commercial banking, development banking, insurance and financial services. This can improve the profitability of banks. The linking of Banking and insurance Companies are beneficial to the players in the insurance market. They can have far reaching access to the insurable segments through the massive network of commercial banks. This is also an important area of social responsibility as insurance against risk is a highly welfare oriented product. According to the author, the regulations of financial system should focus more on consumer and investor protection rather than making direct policy interference affecting the practical conduct of business.

Rakesh Mohan (2005)<sup>10</sup> finds India's path of reform a measured , gradual and steady process. Gradualism is the mark of financial sector reforms. Economic reforms introduced across all sectors were planned in

such a way as to reinforce each other . That is why despite several changes in government there has not been any reversal of the financial sector reform process over the last 15 years. Another feature identified is the intentions of the authorities to move towards international best practices. Rakesh Mohan has divided Indian Financial reforms into four parts. (1) Banking reforms (2) debt market reform (3) forex market reforms (4) reforms in other segments of the financial sector. The Indian banking system has acquired a wide reach in terms of expansion of branches and the growth of credit and deposits. There has been improvement in efficiency of banking system, reflected in the reduction in interest spread, operating expenditure and cost of intermediation. There have been improvements in other areas like technological department and flexible human resource management. He has found that direct lending to disadvantaged segments of the economy under the priority sector advance remained high during the reform period. There has been considerable increase in the proportion of bank deposits to national income. There has been increase in per capita deposits and credits. There is an improvement in the average business per man. In the post reform period banks have maintained high rates of growth in their assets and liabilities. Deposits constitute 80 % of the total liabilities. On the asset side there is increase in the share of investments. An intensity factor noticed by Rakesh Mohan is that despite reduced regulatory requirement , the major increase in investment operations by Indian bank since in 1990s has been on account of their investment in government securities. This reflects the high fiscal deficit of the governments. According to him improved capitalization of public sector banking is another result of reforms. Another interesting fact noticed by him is that, the

recovery performance of public sector banks has been better than private sector banks . Foreign banks exhibited the best recovery performance and lowest( NPA) Non Performing Asset levels. The link between performances with ownership pattern in the context of Indian banking is thus interesting. Another feature is the increase in the share of Indian private sector banks especially new private sector bank in the total income and assets of the banking system. There is a general improvement in the profitability of banks across all groups. There is reduction in operating expenditure due to reduction in total staff strength. There has also been diversification of banks into non- fund based business and also emergence of treasury and foreign exchange business as profit centres, for Indian banks. There has been reduction in Staff Cost and increase in business per employee.

Nachiket Mor (2005)<sup>11</sup> in a study shows that the lack of access to financial services has a definite impact on growth, and poverty reduction. India needs to redraft its current approach in providing financial services. The paper compares Indian experience with other countries, specifically that of Brazil and South Africa. There are three broad areas of action. (1) Increased sophistication in the regulation of banks (2) Development of basic financial services infrastructure (3) Build an adaptive regulatory framework. The 500 million unbanked present an obvious opportunity for banks. If carried out in a commercially consistent manner, this attempt has the potential to offer a much higher risk adjusted return on capital. In South Africa the following steps were taken to notice the banking problem of the poor (1) permission is given to appoint banking correspondents (2) Encourage non-traditional providers such as community development

financial institution. (3) Development of a credit bureau so that the higher quality borrower can claim lower rates of interest.(4) Allow multiple channels to provide banking services by using technology in a sophisticated manner to address issues of privacy of contract. There should be Local Financial Institution (LFI) focusing exclusively on the business of local credit delivery. There should be large number of hybrid direct access channels in the form of internet kiosks, banking correspondents and insurance franchises to meet the demands of unbanked people. According to him steps of privatization and international entry and ownership are not necessary. Many suggestions are made by him in this context. They include expansion of the mission of RBI, (IRDA) Insurance Regulatory Development Authority and (SEBI) Stock Exchange Board Of India to include an explicit goal of universal access to financial services. Complete domestic deregulation of interest rates is recommended. There should be no distinction between advances and investments. Freedom should be given to reputed banks to appoint banking correspondents in a manner similar to Brazil and South Africa.

Amit Khandelwal (2005)<sup>12</sup> has studied the criticality of human resource reforms for public sector banks. The new private sector banks are able to attract customers from old public sector banks. The innovations in products and services and the quality and speed of responsiveness to the customer of these new banks are responsible for this. The reforms in the realm of human resources are still to come. The HR system of Public sector bank did not keep pace with the emerging requirements of the competitive market place. Another factor that puts PSB( Public sector Banks ) at a

disadvantage is compartmentalization of roles which severely inhibited flexible use of man power. PSB have to make HR (Human Recourse ) the central theme of their organizational transformation exercise. Then only they can bring differentiation and competitive edge in the race for technology enabled banking. Many measures are suggested in this context. The role of Board of directors and CEO(Chief Executive Officer ) of the bank should be well defined. There should be significant improvement in Employee productivity. There should be institutionalization and implementation of performance measurement and management system. Banks have to quickly create and nurture a supply system of leaders for critical roles. HR system should be aligned with business objectives. There should the implementation of Human Resource Management systems. The new order calls for a new organization model at the branch level centered on the customer. Another challenge is building leadership capabilities at the top and middle levels.

Mathur (2005)<sup>13</sup> after studying the working of financial system under the new set up in India emphasizes the role of state as a facilitator for market orientation. The state has to do the above task through (1) legislative measures, (2) competition enhancing measures, (3) Institution building (4) dispute resolution systems and (5) market deepening actions. He has found that among legislative measures undertaken by the government of India almost 50% are in the nature of facilitating the development of the financial sectors for providing a market orientation to the financial sector .The state in India has played a historical role and is now facilitating restructuring as well as consolidations. Providing functional autonomy and operational flexibility to public sector banks has been the main contribution of the

state in facilitating market orientation of banks. Again the role of state has been quite significant in facilitating resolution of disputes.

Narendr Jadhav, ParthaRay, Dhritidyuti Bose, and Indranit Sen Gupta, (2005)<sup>14</sup> have studied the impact of financial sector Reforms on the Balance Sheet of RBI. Firstly the uptrend in the size of the RBI Balance Sheet has halted. This is the effect of the increasing importance of indirect monetary policy instruments. There has also been a change in the composition of RBI balance sheet. There is a clear shift in favour of foreign currency assets. There is sustained decline in the rate of surplus of the RBI transferred to the government. The RBI Balance Sheet has become more transparent in line with international accounting norms.

Ram Mohan (2005)<sup>15</sup> has looked into various aspects which compel consolidation and amalgamations in the banking sector. According to him the public sector banks in India lack a Compelling rationale for consolidation. Indian banking system is the second most profitable in the world. There has also been appreciation in stock values. Against this background there is no compelling argument for consolidation. There is no proof that greater size is the key to further performance improvement. Banking the world over has been in the grip of consolidation among firms for the past two decades. Consolidation is expected to increase efficiency and promote diversification. Big firms are expected not to fail. Consolidation has been driven by many forces. They are deregulation, technology globalization and financial distress. Merger among domestic firms was a way of rescuing distressed banks. According to the authors the argument that Indian banks need size in order to compete with international firms is not correct. Size is not an

impediment in this respect. According to them mergers will not enable public sector banks to compete in the international market place in the near future. Their study showed that there is no correlation between the size of the public sector banks and their performance. Diversification benefit is there due to mergers. For PSB, the portfolios are diversified and additional gains from merger may not be significant. Mergers are not necessary to reduce cost. There is enormous scope for cutting costs even otherwise. There is sufficient scope for growth on an organic basis.

According to Rupa Rege Nitsure (2005)<sup>16</sup> Indian banking sector needs to look at Basel II norms as an opportunity to keep its own banking system in order. It is a necessary frame work to improve the stability and resistance of our rapidly growing banking industry. According to the author, it will be best for the RBI and the banks to move at a measured pace. There should be a timetable appropriate to our circumstances. There is also a doubt that too much regulation under Basel II will adversely affect the "risk appetite" of our banks and their lending to credit starved sectors. The author has stressed the need to negotiate strongly for the interests of emerging economies in international forum. Basel II norms can be implemented only if the fundamental of an economy are strong.

Sunanda Sen and Soumya Kanti Ghosh (2005)<sup>17</sup> have examined the effect of implementation of Basel Norms on credit to small-scale sector and the poor. They have noticed the following trends in the structure of banking industry. There is a trend of growing concentration in the banking industry. There is also a steady erosion of strength of public sector banks. State Bank of India and its associates are still the major

players. The new private sector banks are in a position to expand business at the cost of other nationalized and old private sector banks. Basel norm consider loans to small-scale sector and the poor as risky. SMES(Small and Medium Enterprises) are trying to approach banks by grouping into clusters. An important development for small sector in India has been the cluster approach to lending. Another way of extending loans to SME is the relationship-lending rule. It is the scene of Micro credit. Their paper draws attention to the possible profiles of Basel II implementation. There can be adverse effects on priority sector lending. The result has been a drop in the proportion of bank credit reaching out to small and medium enterprises. These enterprises have potential for repayment capacity and growth. Finance from SIDBI (Small Industries Development Bank Of India) and co-operative banks are not sufficient.

Amiya Kumar Bagchi and Subhanil Banerjee (2005)<sup>18</sup> have analysed the arguments for bank merges in the context of banking sector reforms. The moves to effect merger of public sector banks are in accordance with the vision of the neo-liberal reformers. These authors are of the opinion that a consortium of big public sector banks will have all the advantage of a merger. According to them Indian banks are likely to be swallowed by ‘billion whales’ like Citibank and Bank of America. In the case of massive external invasion, no country outside the G7 bloc can protect itself against a balance of payments crisis. The official support for merger of banks should be resisted because it will benefit only a few rich. The move for merger seems to be based on bad reasoning and poor empirical evidence.

Abhiman Das, Asok Nag and Subhash C Ray (2005)<sup>19</sup> have studied the relationship between ownership and efficiency in Indian banking in the context of liberalization. They have empirically estimated and analysed efficiency score of Indian banks. Indian banks are not much differentiated in terms of input or output oriented technical efficiency and cost efficiency. But they differ sharply in respect of revenue and profit efficiencies. Bank size, ownership and being listed in the stock exchange are some of the factors that have a positive impact on average profit efficiency. On the ground of technical efficiency there is not much to differentiate between various banks. In terms of cost efficiency, most banks fall in the highest efficiency range. Over the years there has been noticeable improvement in the profit profile of banks. On the whole banking sector reforms had a positive effect on the banking system in India . Indian banks are becoming sharply differentiated in terms of revenue efficiency and profit efficiency.

Mishra (2001)<sup>20</sup> has made useful comparison of Indian commercial banking in the pre reform and post reform period. Overall deposits and credits witnessed rapid increase. Advances to priority sector presented moderate growth. There has been a meager growth in the number of branches. However fast changes are taking place in the field of customer service. The banking sector in the country has to be reorganized and revamped keeping customers at the center. After implementation of reforms the qualitative performance of banking sector in India has improved. Another disturbing feature is the decrease in the credit given to Agriculture. Facilities to customers have improved from manual operation to computerization, from limited working hours to 24 hours service, obliging the customer by visiting their homes.

Nachane and Saibal Ghosh<sup>21</sup> studied in detail the off balance sheet services(OBS) in banking. Financial innovation is leading to increased OBS activities of banks. It is only recently that OBS activities have gained prominence in the Indian context. Through the increased use of OBS items, there has been a Notable shift towards capital market instruments. These instruments are Euromarkets, contingent banking instruments and derivatives. Financial intermediaries are becoming global in their coverage and universal in their functions. OBS activities picked up only in the mid-nineties. Available data revealed that foreign banks have generally been dominant in terms of the OBS activity followed by new private banks and nationalized banks.

Karamjit Singh (2003)<sup>22</sup> has studied in detail Deregulation and emerging changes in Indian Banking. The challenges for the banking sector are enormous. Banks can successfully meet these challenges only if they make knowledge the engine of growth. Knowledge can be converted into products. Connecting different knowledge sources will lead to the creation of innovative products. According to the author knowledge management is basically application of common sense. Banks are looking a lot healthier now in the preview of liberalization than they were in the years of total control. The impact of financial sector reforms is studied by taking into account the following parameters.

(1) Share in total assets (2) Trends in Banks Profitability (3) Share of rural branches (4) Branch size based on deposit amount (5) balance sheet activities (6) level of NPA (Non Performing Assets) (7) Focus on technology. Banks should strive to achieve significant changes in their productivity efficiency and profitability. The banks

should restructure and re-organize towards thinner and leaner offices. There should be closing down of unviable branches. There can be strategic alliance to take advantage of the geographic spread of branch network. There should be customer concentration and professional management. Public sector banks should raise capital of their own.

Padwal (1995)<sup>23</sup> has a view of information technology from the top of the banking scenario. In future banking without IT( Information Technology ) would be inconceivable. It provides new avenues for innovations and cost controls in the long run. IT can also help in customer service improvements and also help banks generate income from non-fund based services supported by technology. Bank has to face new dimensions of financial services competition, financial intermediations, decreased customer loyalty , changing interest rates ,technological changes and new competitors. Major changes in banking were brought about by innovations in information technology. The entire world has become a single financial market. The new banking products services are Electronic Fund transfer, Message test Image transfers, International payment settlements, Credit cards, payment of Social security pensions etc. Information technology is providing financial sector diversification. Indian commercial banks have undergone computerization for application of IT. A large number of officers and operating staff will have to be trained in skills and knowledge.

Rangarajan and Narendra Jadhar (1992)<sup>24</sup> have examined various issues in financial sector reforms in India. The Indian Financial development according to them is a classic illustration of 'supply leading' phenomenon. In this, financial institution come into existence

first and then creates the demand for their services. The financial institutions were working under a strait jacket of an externally imposed rate structure and a pre-emphasis of their funds for giving credit at concessional rates to priority sectors. Giving credit to the poor should not be at the expense of viability of the banks. There should be least external interference. The system of automatic monetization of the deficits of the government is not a healthy practice for the economy. When the real sector becomes competitive the financial sector will have to meet the new needs. The essence of their suggestions was that financial institution should become autonomous and accountable.

Trivedi (1998)<sup>25</sup> has suggested that Indian Banks have to create an exclusive department for marketing as in Western countries. Bank personnel involved in launching new products have to educate the field staff about the special features of the proposed products. A branch manager has to articulate the marketing strategies and communicate them effectively to his team of staff to reach the prospective customers. He has to point out the need for studying market opportunities before designing the products.

Kannan Subramanian (1992)<sup>26</sup> examines the relevance of capital adequacy especially for banks operating outside India. His study attempts to find out how much capital is adequate. The following questions are sought to be answered. (1) What are the risks for which bank capital should act as a protection fund (2) Would maintaining sufficient capital insure a bank against crashes (3) What should be the relevance of capital adequacy norms for Indian Banks operating abroad. The study is done in the light of empirical evidence. He has come to the conclusion that the banks should strengthen their capital base.

## **Studies on banking sector in Kerala**

Ommem (1976)<sup>27</sup> has studied in detail the origin and development of banking in Kerala. He explains the origin of banking in Kerala among the Christian community in Thiruvalla in Travancore and Thrissur in Cochin. The Christian centres developed banking and commercial agriculture in those days . The early institutions were of unit banking type. The banks were located mostly in villages receiving deposits from small savers and giving credit to small peasants and traders .Advances were unsecured or secured by land .

Biju (1995)<sup>28</sup> has done an analysis of customer satisfaction in co-operative banks in Thrissur district. The age and education of customers are directly related to better levels of satisfaction and awareness. Most of the customers preferred other commercial banks to co-operative banking indicating low levels of customer satisfaction in co-operative banks.

Preetha Menon (1997)<sup>29</sup> has conducted a study with the objectives of assessing the performance of Kerala based scheduled banks during 1989-1996. The study was based on secondary data. The analysis has revealed a fall in the credit deposit ratio in Kerala during the period. The objective of the study was to scrutinize long-term refinance to the state of Kerala and to examine the working of the rural infrastructure fund in Kerala. The rate of growth in refinances disbursement in Kerala is relatively higher than that of at the all India Level. The Performance of Kerala was better than other South Indian States in the building up of rural infrastructure development fund.

Samanjith (2000)<sup>30</sup> has analysed the management of NPA of commercial banks. He has scrutinized the non-performing assets

situation of South Indian Bank. The source of most of the NPA of South Indian bank originated in Bombay. The NPA situation of south Indian Bank in Thrissur was very low.

Kishore sharma (2000)<sup>31</sup> has studied in detail the credit deposit ratio of commercial banks in Kerala. He has examined the pattern and trend in the behavior of credit deposit ratio(CD) of commercial banks in Kerala. He has identified the major determinants of CD ratios in the State. Deposits increased faster than advances since 1992. The non-resident component of deposits also increased. The CD ratio declined in the 1990's in Kerala.

Arya (2001)<sup>32</sup> has studied the role of commercial banks in providing priority Sector credit in Kerala The study revealed the fact that trade and service sector received more than half of the priority sector credit plan. The share of commercial banks in priority sector credit disbursement is less than that of co-operatives.

Deepesh (2001)<sup>33</sup> looked into the customer satisfaction aspect of automatic teller machines. The study was conducted with the objective of analyzing customer satisfaction in relation to customer expectations with regard to ATM services. The study was conducted in Ernakulam district. The usage of ATM facility is more popular among the young and the middle aged. Salaried people dominated the card users.

Shaiju (2002)<sup>34</sup> investigated the profitability of scheduled commercial banks in Kerala. Secondary data were used. Federal bank was performing well with comparatively higher consistency and average profitability.

Devika (2002)<sup>35</sup> has made a comparative analysis of the performance of Kerala based banks. The study was conducted with the

objective of comparing the performance of Kerala based public, private and co-operative sector banks, comparing their relative efficiency and examining their role in agricultural banking. The author has found the declining trend of C.D ratio in Kerala. The profits of Kerala based banks are low due to non-performing assets. The banks which have come to the forefront are basically agricultural financiers. Hence agricultural finance as such does not affect performance as in generally believed.

Devi (2003)<sup>36</sup> has analysed different investment strategies of commercial banks in Kerala. She has studied the investment of Kerala based South Indian Bank. The south Indian Bank has invested mostly in government securities and other approved securities. The investment in share is very low.

Pushpagadan's (2003)<sup>37</sup> analysis brings out the fact that commercial banks have not played any significant role in the intermediation of the huge surplus generated by foreign remittance for the growth observed in Kerala in the 1990's. The CD ratio was low during the period. The source of credit for the growth of the service sector has come either from the informal sector or from own funds.

Jeromi (2003)<sup>38</sup> has identified two major features of working of commercial banks in Kerala. One is their success in deposit mobilization especially that of non-resident Indians. The second feature is to comparatively lower disbursement of credit. Jeromi has pointed out various reasons for the low credit deposit ratio in Kerala. The low level of credit deployment is attributed to the following reasons. Lack of development strategy, low credit absorption capacity owing to weak state of agriculture and industry, poor investment climate, labour problems and weak infrastructure and limited space for large industries.

Narayana (2003)<sup>39</sup> has looked into the emerging inequalities in credit deployment in Kerala .Kerala is a land of small-scale industries. This is one reason for the low credit absorption capacity of Kerala. The construction, food manufacturing and processing industries report low amount of credit per account. He has categorically denied any possibility of negative attitude by banks.

Ajith Kumar (2004)<sup>40</sup> examined the role of self help groups in reducing poverty. The study was based on secondary data. Almost all beneficiaries were marginal and small farmers in the Pathanamthitta district. About 90% of the members repaid the loan amount in time.

Kumar (2004)<sup>41</sup> going along new avenues in Banking found the transformation of banking industry from an exclusive seller's market to one of buyers. There is a wide range of competing choices and the banking industry in the state is on the verge of a make over involving comprehensive changes.

Nair (2004)<sup>42</sup> finds the number of credit account per thousand population in the state higher than that of other states . The banks were extending credit to relatively more number of people but the amount of credit per account has been low.

Mani (2005)<sup>43</sup> has studied the present situation of institutional investment credit in agriculture and has found that the share of institutional credit for agriculture has fallen. He has pointed out the fall in the share of gross capital formation in agriculture.

Sangeena (2006)<sup>44</sup> has analysed the use of innovative banking products among traders. The study was based on primary and secondary data. The analysis revealed that respondents were not aware of all

innovative products offered by banks. The major factors influencing the preferences of the respondents included convenience, low service charges and simple procedural formalities.

Kannan, and Hari (2002)<sup>45</sup> found in their studies that by the early nineties remittances to the Kerala Economy assumed a significant share of state income. Kerala's per capita income including remittances was 49 per cent above the national average by the end of nineties. The modified state income was relatively high. Kerala Economy benefited from exchange rate liberalization.

Zachanria , Gopinathan Nair and Irudaya Rajan (2001)<sup>46</sup> : looked into the savings habits of imigrants from Kerala. The study included the financial costs of and benefits from migration. Most of their foreign savings have been used up for subsistence , buying land and constructing houses etc.

## **2.2. Social Banking**

Rajaram Das Gupta (2005)<sup>47</sup> examines the growth of the new path of credit to the poor and underprivileged i.e., the Micro credit . Credit given to SHG(Self Help Group) has increased mainly in the Southern states. Micro finance is a financial service of small quantity provided by financial institutions to the poor. He has found that per capita credit to the poor has increased . For better monitoring and planning a good management information system needs to be developed. One of the reasons identified by Rajaram Das Gupta for the poor performance of both Public and Private Sector banks is their high level of NPAs. The growth in SHG credit has been uneven. The southern states have progressed more in this respect. Micro finance has to be the focal point

of social banking. All the scheduled commercial banks and foreign banks must then be brought under the ambit of micro credit. Formal Financial Institution (FFIs) should be given free hand in designing delivery mechanisms, formulating personnel policies and fixing the interest rates without interference.

Indira Misra (2003)<sup>48</sup> after examining the problem of poverty in India looks into the role which banks can play to solve the problem of poverty. Micro credit if expanded can have a Macro impact on poverty. The poor do not need charity. They need resources such as small credit which can be put to use. Micro credit is the simple, cost effective and magic formula for the poor. It will promote dignity and self-reliance. The author warns against considering micro finance as just another welfare programme. Micro finance must chart the road map to all round development. Poor should be able to make their small savings which in course of time will help them to achieve much larger sums.

Satish (2005)<sup>49</sup> studies the mainstreaming of Indian Micro Finance. A significant feature of micro finance in India is that it has been built upon the existing banking infrastructure. Thus there is no need for the creation of a new institutional set up. Financial resources are being sourced from regular banking channels as well as member's savings. The Self Help Group acts as a collateral substitute. Micro credit overcomes the intractable problem of collateral provision by the poor. Micro finance should also become an instrument for development. The mainstreaming of Indian Microfinance has been facilitated by an environment created by the Central bank. India is aiming at the expansion of micro finance and it is the large bank network which is going to supply micro finance. The concept of providing financial

services through groups offers many advantages.

Tara .Nair (2005)<sup>50</sup> Micro Finance is now considered as a new solution to the old problem of poverty. The author says any effort at up scaling micro credit needs to be viewed with caution as it could lead to increased failures and credit indiscipline. There is a visible trend of the commercialization of micro finance .Non Governmental Organization (NGO) are transformed into regulated financial institutions or non banking financial companies. Micro credit is also given for non farm sector activities. Development of agriculture is the ultimate answer to the progress of rural areas. There is also no conclusive evidence to prove that micro credit infusion in rural areas automatically leads to livelihood diversification. It is not clear whether the non-agricultural activities supported by micro credit are dynamic and growing. Another feature noticed by the author in the field of microfinance is the formal and informal convergence. The commercial prospects of micro finance are recognized. by non-banking financial intermediaries. ICICI(Industrial Credit and Investment Corporation of India) bank is one of the first new generation banks to move into the micro credit market. The new banks are experimenting by developing partnership with NGOs. This is the convergence of formal and informal sectors. The formal sector has adequate financial resources. The informal sector has the capacity to streamline the grass roots delivery of services.

Sri Ram (2005)<sup>51</sup> reviews the performance of formal institutional channels of micro finance and discusses the emergence of new forms of collaborations in the delivery of micro finance. NABARD (National Bank for Agriculture and Rural Development) has played an important role in the promotion of micro credit. There

are two different approaches in the evolution of the microfinance . The Latin American Model is called the commercial model. This is aligned with the formal financial system. The South Asian model is focusing on social and community development. The second model has its spot light on women and poverty. In India the industry has grown under two different systems of patronage. The Self Help Group (SHG) linkage programme anchored by NABARD has the patronage of the state and formal banking institutions. There is also a parallel system depending on subsidized external grants. Both target the women and poor . Development of infrastructure and support mechanism for the poor, prioritization and planning of activities need to be done in consultation with elected representatives of the local area. The fund available with them can be pooled with other micro funds. There has to be professional assessment of risks involved in micro credit .Incentives should be general in nature and can be directed towards recovering high transaction cost. It should not deal with accounts of individual customers and write offs. One of the most successful programmes supported by the state in the microfinance sector has been the bank linkage programme. Around seven lakh groups were linked to the banks and around five lakh groups were refinanced by NABARD by 2003. The linkage programme is skewed in favour of the southern states.

Mahendra Varman (2005)<sup>52</sup> has studied the impact of SHGs on formal banking habits. Banking habits determine the sustainability of banks .Mahendra Varman makes an attempt to see whether there is any association between the growth of SHGs and the increase in female bank deposit and whether SHGs have a tendency to influence account holding in formal banks. His study has

revealed that microfinance SHGs in India help formal banks by increasing the number of accounts by inculcating banking habits in rural people, especially the women. The analysis also revealed that being a member in SHGs and more importantly having leadership experience in SHGs greatly influences the bank account holding. If the leadership position of each SHG is systematically rotated, such that each one in the group has a leadership experience people will have more exposure to formal banking system. This can inculcate banking habits at a higher magnitude.

Frances Senha (2005)<sup>53</sup> has also made a study regarding the access use and contribution of micro finance in India. Micro finance is making a significant contribution to both the savings and borrowings of the poor in the country. However it has not significantly affected the terms and conditions of different informal credit providers. The main use of micro credit is for direct investment. The performance of the SHG model is exceptional in providing a savings based mechanism for internal group credit to meet household needs. The mechanism serves to facilitate access to credit by poor clients. In terms of accessibility, capability to provide loan to meet borrower's demand, willingness to lend without security and flexibility of repayment schedules micro finance institutions are behind other informal credit providers. According to the author another reason, why micro finance has not been able to make a significant mark on local financial landscape is their relatively low out reach to population and credit needs.

Malcom Harper (2005)<sup>54</sup>, Andreas Berkhof and .Ramakrishna made an attempt to study the role of co-operatives in the SHG bank linkage. They have found that agricultural credit societies and co-

operative banks have played a limited role in the field of micro credit. Co-operative credit societies are best suited for the development of micro credit. Their enquiry suggests that it is in the interest of both customers and banks if SHGs are linked to primary agricultural credit societies. It is also important to ensure the safety of the savings of SHGs through proper deposit insurance.

Sukwinder Singh Arora (2005)<sup>55</sup> and Jeremy Leach study the experience of South Africa in the developments in social banking. South Africa has followed a market led approach. Unless the provision of financial services to the poor is profitable, it will be difficult to provide incentives to the private sector to serve this section of the population. The experience of South Africa proves that the states role is in facilitation and efficient regulation rather than control and ownership of delivery institutions. The South African Financial sector charter (FSC) was released in 2003 after over a year of debate among the principal financial service institutions. A key feature of FSC is its voluntary nature. Under the charter the financial sector aims to provide retail financial services, affordably priced and through accessible physical and electronic infrastructure by 2008. The sector aims to provide 80 % of the people with access transaction and saving products and services. A charter implementation committee has also been appointed to finalize mechanisms to measure and achieve these goals. The government has only a facilitating role.

Ramachadran and Swaminathan (2004)<sup>56</sup> found a clear and explicit reversal of the policy of social and development banking. According to them, financial reforms have led to extreme deprivation

and distress of the rural poor in India. They are critical of the new definition of priority sector.

## CONCLUSION

The review of literature on the performance of financial sector in India was highly informative. These studies have covered different aspects of the working of the financial sector and looked into the problems faced by the banking sector in India and Kerala. An overall picture of the banking sector scenario in the post reform period is absent in most of the literature examined. However, these studies throw light different aspects of the progress of banking sector in the country.

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## **CHAPTER III**

### **IMPACT OF FINANCIAL SECTOR LIBERALIZATION ON THE BANKING SECTOR IN INDIA**

India has crossed the threshold of reforms leading the economy to become market oriented and price regulated. Changes in the real sectors are amply mirrored in the sustained growth of India's financial sector. Banking system forms the core of the financial sector in India providing a meeting ground for savers and investors. The successful implementation of various financial sector reforms has given a new dynamism to the banking sector. The direction of change is clearly laissez-faire oriented and the pace of transformation is gradual. There has been up gradation of skills and technology and restructuring and reorientation of financial intermediation. An extensive banking net work has been established in the last thirty years. In terms of numbers, Indian banking system is one of the largest in the world. Indian banking sector is also closely associated with India's development efforts .The diversification and development of our economy was due to the active role played by banks in financing economic activities in different sectors.

There are three distinct phases in the history of Indian Banks.

- i) Early phase from 1786 to 1969
- ii) Post nationalization period.
- iii) New phase of India's banking with the advent of reforms.

The first phase was the traditional phase of Indian banking. The advent of banking system of India started with the establishment of first joint stock bank, The General Bank of India in the year 1786. After this, Bank of Hindustan and Bank of Bengal came to existence. In the Mid 19<sup>th</sup> century, the East India Company established 3 banks, The Bank of Bengal in 1809, The Bank of Bombay in 1840 and Bank of Madras in 1843 . These banks were independent units and they were called presidency banks. These three banks were amalgamated in 1920 and a new bank, The Imperial Bank of India was formed. Later many Commercial banks like Canara Bank came into existence. Establishment of The Reserve Bank of India in 1935 was a land mark in the development of banking in India. The first phase of the history of banking was characterized by slow growth and periodic failures. Commercial banks were privately owned on regional and sectarian basis. The development was on ethnic and provincial basis. These institutions did not play their role in the planned development of the economy. Deposit mobilization was slow. Public had little confidence in the banks due to frequent bank failures. Credit was advanced mainly for black marketing and hoarding. The short comings of the first phase led to the nationalization of banks.

Indian banking developed and got established in the early part of the 20<sup>th</sup> century under religious and regional set up. Particular communities and regions started banks to serve their own individual requirements. There was no national perspective for these banks. The commercial banks were nationalized in 1969. Nationalization started with the takeover of the Imperial Bank of India and the formation of the State Bank of India. Major process of nationalization was carried out on 19<sup>th</sup> July 1969 when Prime Minister Mrs. Indira Gandhi announced the

nationalization of 14 Major commercial banks in the country. One more phase of nationalization was carried out in the year 1980 when seven more banks were nationalized.

At that time commercial banks had in the aggregate, less than 5000 branches and had deposits of about Rs.5300/- crores, for the entire banking system<sup>1</sup>. The nationalization was adopted to increase the number of branches in rural and semi urban centres and to mobilize the savings of the small units. Another intention of nationalization was to provide credit for agricultural production and for the employment generating programmes. The mission of commercial banks was to provide finance to retailers and small business men.

The policy has resulted in the creation of the massive network of the banking structure in the country. During the period of nationalization there was 800% increase in the number of Public sector branches. Deposits increased by 11,000 % and credit jumped by 9000% (Statistics in 1993<sup>2</sup>)

Nationalization of banks saw expeditious expansion of banking facilities in the country. There was ten fold increase in the number of branches by 1991. Branches spread to rural and semi urban areas. Green revolution in agriculture and white revolution in dairy development were supported by the banking system. There was large scale financing of exports, small industries and self employed professionals in the country. Post nationalization also saw a period of falling profits and efficiency of banks. Parameters of healthy development banking were abandoned; high level of corruption in public services affected the banking sector .The banking system suffered from the various handicaps. Lack of capital base, inadequate provisioning, defective nature of investment, poor quality of

asset management, lack of staff and poor commitment of officials and nature of government interference were some of the draw backs. These factors en masse resulted in the decay and decline of banking in India . Many banks started showing losses and their capital base was unstable. .It was in this back ground reform were undertaken.

Economic reforms were successful in bringing about remarkable changes in the Indian Economy. The whole world is appreciating India's accomplishments in the economic field since reforms. The economic liberalization of 1991 was introduced by former Prime Minister P.V. Narasimha Rao and the then finance Minister Dr.Manmohan Singh in response to a balance of payment crisis. The reforms did away with License Raj, scraped many public monopolies and allowed foreign direct investment in many sectors. Inward looking high cost import substitution policies were renounced. India is now straightening up with its millions of young people, reducing the absolute levels of poverty and reaching fourth place among the largest economies in terms of purchasing power parity. Macro foundations for a healthy environment have been laid. In response to a more competitive environment banking sector performance has improved. An overall view of Indian banking system in the present framework of financial sector reconstruction is tried out in this chapter. The advent of banking Sector reforms started the era of modern banking of global standards in the history of Indian Banking. Importance is given to efficient and prudential banking. Better customer care and customer service became the motto of banks . Major changes took place in the macro economic environment, policy and institutional framework. Internationally comparable prudential regulations and accounting standards were introduced. Entry of Foreign and new Private Sector

banks has made the banking environment more competitive. The reform process has led to the creation of banking expertise, new technology and competence. There is wider choice to the clients. Foreign investment in Indian banks can be expected in the near future.

Credit and Deposit are the twin monetary variables which are the important indicators of the performance of the banking sector. An effort is made to analyze the pattern and growth of credit and deposit in India. Credit content of agriculture and Industry is also looked into in order to comprehend the success of financial intermediation for productive purposes. Deposits are effective savings of the people. A scrutiny of deposits reveals the pattern of savings in India. NRI(Non Resident Indian) deposits form an important component of bank deposits. A pursuit of changes in the volume of Non Resident Indian deposits in India is also included in this chapter. A summary of the banking sector reconstruction in India includes a brief review of technological progress, profitability and NPA situation of commercial banks. A dissection of the above features of the banking system will throw light into the present situation of banking sector in India.

A financial sector reform everywhere has the theoretical background of Mackinnon Shaw theory of financial liberalization. The financial situation in India since reforms is compared to the conclusions of the theory of financial liberalization with this chapter. Whether financial liberalization in India has yielded the results predicted by the theory in a matter of great interest.

### **3.1. Deposits and Credit**

Deposit and credit are the two financial streams that keep the economy financially vibrant. Both these variables have shown huge

increase in the post reforms period as revealed by the following tables. Banks were playing an effective role in mobilizing deposits and extending credit. The growth of Bank deposits and credit expansion is examined below.

In 1991, the total deposit in the commercial bank in India was Rs. 198698 crores. It has increased to Rs. 1788174 crores into 2004-05. In 1991, the total credit extended by commercial bank in India was Rs. 116301 crores. It has increased to Rs. 1100428 crores in 2004-05.

The average rate of growth of deposit during the period 1991-2004 is 57.14% and that of credit is 60.44 %.

**Table 3.1.**

**Compound growth rate of aggregate deposit and total credit**

Year	Aggregate deposit	Total credit
1985-94	16.31%	14.20%
1994-2004	14.64%	15.79%

Source: Computed from Handbook of Statistics on the Indian Economy. 2004-05, published by RBI

According to the above table the compound growth rate of deposit in the period 1995-04 is 14.66. It is slightly less than the decades before. There is no substantial difference in the compound growth rate of aggregate deposit and aggregate credit in the last two decades.

The compound growth rate of credit in the decade 1995 -04 is more than the compound growth rate of credit in the previous decade.

### **3.2. Pattern of deposit and Credit**

Deposits are broadly classified into time deposits and demand deposits. The preference of the people to have term deposits indicates the

faith of the people in the stability of the monetary system. Term deposits have dominated among different types of deposits.

The share of demand deposits to the total has decreased from 19.18% in 1985 to 14.45 % in 2004-05. The share of time deposits has increased. In 1985 the share of time deposits was 80.82 % of the total deposits. It has increased to 85.55% of the total by 2004-05.

From the table 3.2 it is clear that the rate of growth of demand deposits has come down in the period 1995-04 compared to the previous period. There is not been much difference in the rate of growth of time deposits in the last decade compared to the previous decade.

The graphs illustrate the relative position of important monetary variables. The increasing share of term deposits is clear from the graph.

**Table 3.2.**  
**Change in the Pattern of demand and time deposit (1985-86 to 1994-95)**

Year	Demand Deposit		Time Deposit		Total Rs(Crores)
	Deposit Rs (Crores)	% to total	Deposit Rs(Crores)	% to total	
1985-86	16674	19.18	70249	80.82	86923
1986-87	19723	19.05	83817	80.95	103540
1987-88	22196	18.25	99393	81.75	121589
1988-89	25757	17.94	117849	82.06	143606
1989-90	31357	18.34	139631	81.66	170988
1990-91	36422	18.33	162276	81.67	198698
1991-92	45299	19.38	188433	80.62	233732
1992-93	51577	18.70	224188	81.30	275765
1993-94	56841	17.79	262696	82.21	319537
1994-95	73310	19.18	308996	80.82	382306
1995-96	80278	18.46	354670	81.54	434948

(Contd...)

Year	Demand Deposit		Time Deposit		Total Rs(Crores)
	Deposit Rs (Crores)	% to total	Deposit Rs(Crores)	% to total	
1996-97	89745	17.58	420868	82.42	510613
1997-98	102244	16.88	503563	83.12	605807
1998-99	117190	15.86	621656	84.14	738846
1999-00	132348	15.25	735395	84.75	867743
2000-01	151826	14.89	867500	85.11	1019326
2001-02	167505	14.08	1022324	85.92	1189829
2002-03	183804	13.26	1202441	86.74	1386245
2003-04P	215868	13.82	1345857	86.18	1561725
2004-05P	258435	14.45	1529739	85.55	1788174
CGR 1985-1994	15.96		15.97		
CGR 1995-2004	12.40		15.74		

CGR : Compound growth rate

Source: Hand Book of Statistics on Indian Eco. 2004-05 Published by RBI

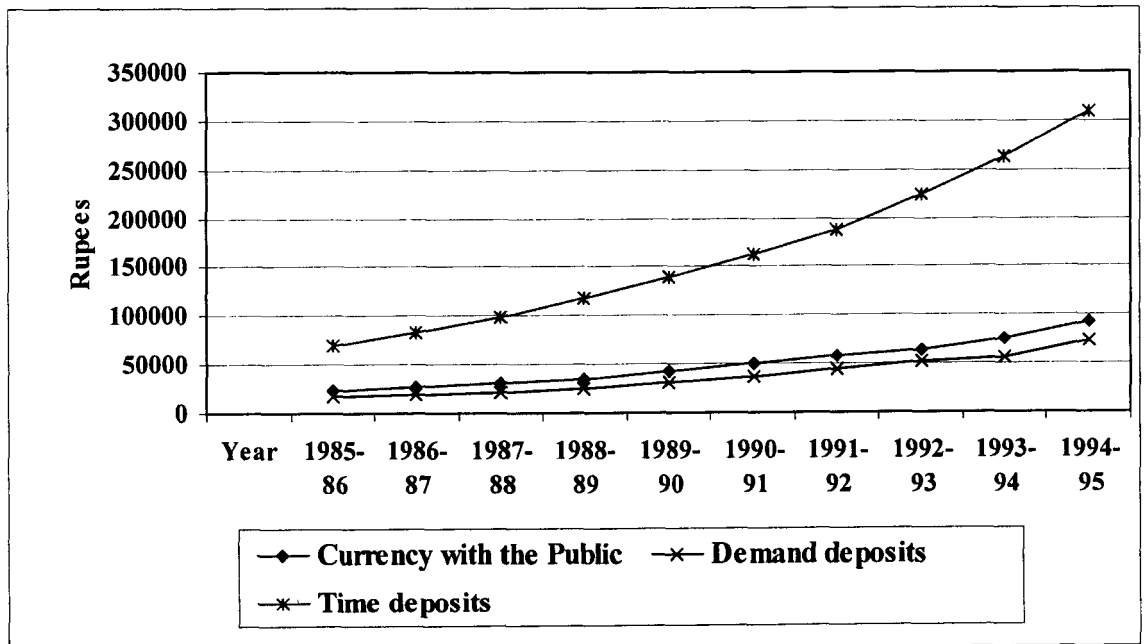
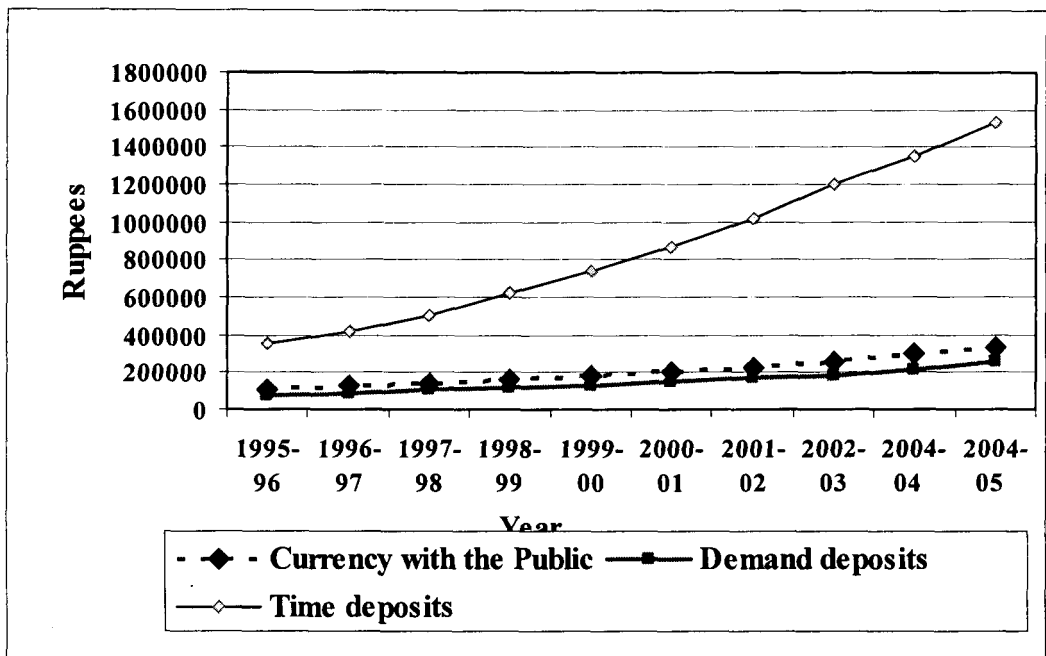


Fig. 3.1. Average monetary aggregates during the period 1985 to 1994



**Fig 3.2. Average monetary aggregates during the period 1995 to 2004**  
**Pattern of Credit**

There are different sectors in the economy competing among themselves for bank credit. Credit in India is broadly divided into food credit and non food credit. Non food credit includes agriculture, small scale industry, trade and export credit. The percentage share of each of the sector throws light into the credit accessibility of different sectors.

**Table 3.3.**

**Percentage of credit allotted to different sectors out of nonfood credit in India during 1985-94**

Year	Agriculture	Small scale industries	Industry (medium and large)	Trade (other than food procurement)	Export credit	Misc.	Total Non food credit
1985-86	18.23	15.73	37.08	6.17	4.85	17.93	100
1986-87	18.39	15.85	37.16	5.36	5.47	17.76	100
1987-88	17.64	15.90	36.95	5.29	5.75	18.47	100
1988-89	16.42	15.46	37.88	5.61	7.23	17.40	100
1989-90	16.42	15.44	38.01	5.44	8.19	16.51	100
1990-91	14.76	15.14	39.21	5.21	8.09	17.60	100
1991-92	14.96	14.96	38.81	5.07	8.48	17.71	100

(Contd...)

Year	Agriculture	Small scale industries	Industry (medium and large)	Trade (other than food procurement)	Export credit	Misc.	Total Non food credit
1992-93	14.22	14.26	41.76	4.96	10.94	13.85	100
1993-94	14.53	15.50	39.65	5.02	11.71	13.60	100
1994-95	12.98	14.96	40.43	5.28	13.56	12.79	100
1995-96	12.18	14.34	41.90	5.39	13.32	12.86	100
1996-97	12.51	14.30	40.81	4.91	11.94	15.54	100
1997-98	12.12	15.12	40.84	4.59	11.80	15.54	100
1998-99	12.19	14.91	40.13	4.29	11.04	17.44	100
1999-00	11.83	14.08	39.27	4.48	10.43	19.91	100
2000-01	12.10	13.05	37.94	4.16	10.09	22.66	100
2001-02	12.59	11.85	35.70	4.24	8.90	26.73	100
2002-03	11.86	9.74	37.93	3.64	7.94	28.90	100
2003-04	12.43	9.04	33.94	3.41	7.92	33.26	100
2004-05	13.14	8.17	31.15	3.63	7.08	36.83	100

Source: Hand Book of Statistics on Indian Eco. 2004-05 Published by RBI

The table 3.3 shows the relative shares of different sectors in the total non-food credit. The most noteworthy feature of the above analysis is the decreasing share of agriculture and small scale sector. The share of agricultural was 18.23% in 1985-86. It has come down to 13.41% in 2004-05. The share of small scale industries has fallen similarly. Its share was 15.73% in 1985-86. It came down to 8.17%. There is fall in the share of industry as well. Miscellaneous items which include personal loan, construction etc are receiving a major share. This is a feature which to be apprehended.

### **Credit Deposit Ratio (CD ratio)**

The CD ratio of banks mirrors the credit orientation of the bank. It is used as a credit efficiency indicator which can be used to analyze the role of banks in promoting productive sectors and contributing to growth

of the economy. The credit deposit ratio was 68.21 in 1985-86. Since then it has been declining. In 2004-05 it was 63.91.

**Table 3.4**  
**Credit Deposit ratio in India**

Year	CD ratio
1985-86	68.21
1986-87	61.23
1987-88	59.61
1988-89	60.32
1989-90	60.77
1990-91	60.40
1991-92	55.36
1992-93	56.32
1993-94	52.05
1994-95	54.69
1995-96	58.55
1996-97	55.06
1997-98	54.15
1998-99	51.66
1999-00	53.32
2000-01	53.51
2001-02	53.45
2002-03	56.90
2003-04	56.12
2004-05	63.91

Source: Money and Banking (Various issues), Centre for monitoring Indian Economy (CMIE)

### 3.3. Credit content of Industry and agriculture

Credit content of out put of industry and agriculture reveals the levels of financial support received by these sectors from the organized financial sectors.

**Table 3.5.**

**Credit allotted to Agriculture as a percentage of agricultural production (1985-96 to 1994-95)**

Year	Credit Rs(Crores)	Share of Agriculture to GDP in Rs (Crores)	Percentage of credit to agricultural production
1985-86	9058	76571	11.8295
1986-87	10570	82046	12.8830
1987-88	12009	91263	13.1587
1988-89	13950	113177	12.3258
1989-90	16526	124382	13.2865
1990-91	16750	145734	11.4935
1991-92	18157	170767	10.6326
1992-93	19963	191243	10.4386
1993-94	21208	221834	9.5603
1994-95	23983	255193	9.3980
1995-96	27044	277846	9.7334
1996-97	31442	334030	9.4129
1997-98	34869	353490	9.8642
1998-99	39634	406498	9.7501
1999-00	44381	422392	10.5071
2000-01	51922	423523	12.2595
2001-02	60761	463104	13.1204
2002-03P	73518	456369	16.1093
2003-04QE	90541	521538	17.3604

Source: Hand Book of Statistics on Indian Eco.2004-05 Published by RBI

**Table 3.6.****Credit allotted to industry as a percentage of industrial production  
(1985-86 to 1994-95)**

Year	Credit Rs (Crores)	Share of Industry to GDP Rs (Crores)	Percentage of credit to industrial production
1985-86	18422	53087	34.7015
1986-87	21356	59230	36.0561
1987-88	25153	66868	37.6159
1988-89	32185	80358	40.0520
1989-90	38262	97125	39.3946
1990-91	44508	112561	39.5412
1991-92	47090	123204	38.2212
1992-93	58636	143200	40.9469
1993-94	57865	164569	35.1615
1994-95	74672	201888	36.9868
1995-96	93053	246757	37.7104
1996-97	102604	278339	36.8630
1997-98	117530	300696	39.0860
1998-99	130516	331537	39.3669
1999-00	147319	350301	42.0550
2000-01	162837	390051	41.7476
2001-02	172324	412819	41.7432
2002-03P	235168	463823	50.7021
2003-04QE	247210	510389	48.4356
2004-05RE	290186	593790	48.8701

Source: Hand Book of Statistics on Indian Eco. 2004-05 Published by RBI

In 1985-86, the credit output ratio of industry was 34.7. In 2004-05, it was 48.87. There is thus increase in the credit availability to industrial sector in relation to output or production in the industry .

The credit content of agriculture in 1985-86 was 11.82% which declined to 9.73 in 1995. However credit content of agriculture increased to 17.36 in 2003-04. In the immediate post reform period the credit content of agriculture dwindled. The declining trend of credit content of agricultural out put in the post reform period is deplorable.

### 3.4. Change in the Composition of savings

**Table 3.7.**

#### **Change in the pattern of savings during 1985-05**

Year	Household sector		Private Corporate Sector		Public sector		Gross Domestic Savings
	Savings Rs (Crores)	% to Total	Savings Rs(Crores)	% to Total	Savings Rs(Crores)	% to Total	
1985-86	39795	73.47	5426	10.02	8946	16.52	54167
1986-87	45072	76.46	5336	9.05	8543	14.49	58951
1987-88	59157	81.14	5932	8.14	7819	10.72	72908
1988-89	70657	80.37	8486	9.65	8770	9.98	87913
1989-90	86955	81.28	11845	11.07	8179	7.65	106979
1990-91	109897	83.67	15164	11.55	6279	4.78	131340
1991-92	110736	76.95	20304	14.11	12868	8.94	143908
1992-93	131073	80.46	19968	12.26	11865	7.28	162906
1993-94	158310	81.76	29,866	15.42	5,445	2.81	193621
1994-95	199358	79.28	35,260	14.02	16845	6.70	251463
1995-96	216140	72.35	58,542	19.60	24065	8.06	298747
1996-97	233252	73.52	61,092	19.26	22917	7.22	317261
1997-98	268437	76.22	63,486	18.03	20255	5.75	352178
1998-99	326802	87.23	65,026	17.36	-17169	-4.58	374659
1999-00	404401	86.28	84329	17.99	-20049	-4.28	468681
2000-01	452268	92.29	86142	17.58	-48361	-9.87	490049
2001-02	513110	96.40	81076	15.23	-61912	-11.63	532274
2002-03P	574681	89.47	94269	14.68	-26652	-4.15	642298
2003-04QE	671692	86.51	114157	14.70	-9429	-1.21	776420

Source: Hand Book of Statistics on Indian Eco.2004-05 Published by RBI

There are three important sources of savings in the economy. They are the household sector, private corporate sector, and public sector.

Among the different sources of savings, house holds still remains the major contributor. Private corporate sector has also augmented total savings in India positively. But as is well known, public sector enterprises did not have any role in boosting the savings of the economy. In 1985, the

share of household sector in the total savings was 73.47%. The private sector share in 1985 was 10.02 and the share of public sector was 16.52. The share of household sector increased to 86.51 in 2003 and that of private corporate sector increased to 14.7. Public sector contribution however, was negative in that year.

### 3.5. Geographical Spread of Banks

Bank branches are classified into rural, semi urban and urban and metropolitan branches. Analysis of the deposit mobilization among these bank branches is relevant. This will throw light into the spread of banking facilities geographically.

**Table 3.8**

**Distribution of SCB's Deposit by Population in India during 1988-2003 (% share in total deposits)**

Year	Rural	Semi-Urban	Urban & Metropolitan	Total
1988-89	14.99	21.38	63.63	100
1989-90	15.26	21.16	63.58	100
1990-91	15.46	20.66	63.88	100
1991-92	15.08	19.65	65.27	100
1992-93	15.01	19.43	65.56	100
1993-94	15.23	19.46	65.32	100
1994-95	13.67	18.85	67.49	100
1995-96	14.39	19.52	66.09	100
1996-97	14.74	19.59	65.68	100
1997-98	14.54	19.39	66.08	100
1998-99	14.71	19.49	65.80	100
1999-00	14.67	19.72	65.61	100
2000-01	14.69	19.61	65.70	100
2001-02	14.19	19.14	66.67	100
2002-03	13.83	18.94	67.23	100
2003-04	12.91	17.75	69.34	100

Source: Money and Banking (Various issues), Centre for monitoring Indian Economy (CMIE)

Deposit mobilization in India takes place mostly in the urban and metropolitan areas. There is a cut in the share of rural and semi urban branches since the inception of reforms . Pro urban attitude of the banks in India is unambiguous. Moreover the entire financial hub is taking place only in few urban and metropolitan centers while the rural areas are languishing from lack of financial resources.

The share of rural branches in total deposits was 14.99% in 1988-89. It came down to 12.91 in 2003-04. But the share of urban and metropolitan increased from 63.63% in 1988-89 to 69.34% in 2003-04. The contribution of semi urban areas was 21.38% in 1988-89 which declined to 17.75% of the total deposits in 2003 in 2003-04.

### **3.6. Pattern of Savings**

Savings of the household include financial savings and physical savings. The proportion of financial savings reflects the financial development of the economy and the health of monetary system.

In the immediate post reform period there is remarkable increase in the share of financial savings. In 1994-95, 60 % of the household savings constitute financial savings. Latest figures present a declining trend in the contribution of financial savings. This can be attributed to the new policies of rate of interest

Financial savings which contributed 46.58% of total savings in 1985-86 rose to 60.56% in 1994-95. Later there was a fall in this proportion. In 2003-04, the share of physical savings of the households was more than that of financial savings.

**Table 3.9.****Change in the pattern of savings in household sector during 1985-86 to 1994-95**

Year	Financial Savings		Physical savings		Total Household Sector Rs(Crores)
	Savings Rs(Crores)	% to Total	Savings Rs(Crores)	% to Total	
1985-86	18538	46.58	21257	53.42	39795
1986-87	23336	51.77	21736	48.23	45072
1987-88	26820	45.34	32337	54.66	59157
1988-89	27183	38.47	43474	61.53	70657
1989-90	37998	43.70	48957	56.30	86955
1990-91	49640	45.17	60257	54.83	109897
1991-92	62101	56.08	48635	43.92	110736
1992-93	65367	49.87	65706	50.13	131073
1993-94	94738	59.84	63572	40.16	158310
1994-95	120733	60.56	78625	39.44	199358
1995-96	105719	48.91	110421	51.09	216140
1996-97	141661	60.73	91591	39.27	233252
1997-98	146777	54.68	121660	45.32	268437
1998-99	180346	55.19	146456	44.81	326802
1999-00	205743	50.88	198658	49.12	404401
2000-01	216774	47.93	235494	52.07	452268
2001-02	253964	49.50	259146	50.50	513110
2002-03P	254439	44.27	320242	55.73	574681
2003-04QE	314261	46.79	357431	53.21	671692

Source: Hand Book of Statistics on Indian Eco. 2004-05 Published by RBI

**3.7.Branch Expansion**

Post nationalization period saw substantial progress being made in extending the geographical reach of commercial banks. Financial

liberalization and market rules are forcing many banks to close down unviable branches especially in the rural areas.

**Table 3.10.**  
**Branch Expansion - Distribution of SCB Offices**

Year	Rural	Semi-urban	Urban	Metropolitan	Total
1985	30185 (58.7)	9816 (19.1)	6578 (12.8)	4806 (9.4)	51385
1990	34791 (58.2)	11324 (19.0)	8042 (13.5)	5595 (9.4)	59752
1995	33004 (52.9)	13341 (21.4)	8868 (14.2)	7154 (11.5)	62367
2000	32734 (50.0)	14407 (22.0)	10052 (15.4)	8219 (12.6)	65412
2005(p)	32108 (47.0)	15352 (22.5)	11444 (16.8)	9347 (13.7)	68251

Note: Values in the brackets are percentage of each group to total in that year

Source: Hand Book of Statistics on Indian Eco.2004-05 Published by RBI

In 1985, 58.71% of branches were in the rural areas. It has declined to 47 % in 2005. In 2005, the share of urban and metropolitan branches in the total number of branches was 30.5%. There is visible escalation in the apportionment of urban and metropolitan branches.

### **3.8.NRI funds**

Success of financial sector reforms reflects in the flow of funds from outside. A study of principal financial resources of a bank cannot be done without understanding the course of NRI deposits.

**Table 3.11.****Total NRI Deposits Outstanding –during the period 1991 to 2004**

Year End of March	Total NRI Deposit Rs (Crores)
1991	27400
1992	40304
1993	46992
1994	50916
1995	54066
1996	59927
1997	73204
1998	80460
1999	86909
2000	94544
2001	107680
2002	122772
2004	136088
2004	150444
2005-P	143821
Growth rate over the years	424.89 %

Source: Hand Book of Statistics on Indian Eco.2004-05 Published by RBI

NRI deposits constitute strength to Indian economy. Ever since the reforms there has been tremendous increase in the size of NRI deposits. There has been 166% increase in NRI deposit since 1995. Of the different types of NRI account, Non Resident External Rupee Account (NR(E) RA) has found the greatest increase in its volumes. NR (E)RA account constituted 26.54% of the total NRI deposits in 1995. In 2004 it has

increased to 61.80%.. The tremendous increase in the rupee account is a fact to be noticed.

### 3.9. Technological Progress

Financial reforms include measures to improve the level of technology adoption by bank. In the modern time, banks have been positioning themselves as financial supermarkets. They are providing a range of products including deposit products, loan, credit cards, debit cards, investment advice and various other services. They are also selling products such as mutual funds and insurance.

To enable banks to do all above functions efficiently banks have been investing in computerization and the new delivery channels such as ATMs, phone banking and internet banking. ATM facilities offered by different bank groups in March 2005 is an indicator of technological progress made by banks.

**Table 3.12**  
**Information on ATM by different bank groups**

Different groups of banks	No.of ATMS
Nationalized banks	4772
State bank group	5220
Old private Banks	1241
New private banks	5612
Foreign Banks	797

Source: Report on Trend and Progress of Banking India 2004-05 RBI Publication

New generation banks even though they are few in number were ahead of other groups of banks in installing ATM facilities. They are the group leaders in the matter of adoption of new technology.

### 3.10. Profitability of Banks

Commercial Banks in general have not reached the realm of comfortable profitability yet.

Net profit declined by 7.0% during 2004-05. While net profits of nationalized banks, old private sector banks and foreign banks declined those of State Bank Group and new private sector banks increased in the last years.

**Table 3.13**

#### **Net profit**

#### **Annual percentage variations (2003-04 to 2004-05)**

Bank	Annual percentage variations
Public Sector Bank	-4.6
Old private Sector	-69.9
New private Sector	52.2
State Bank groups	1
Nationalised bank	-13.1

Source: Report on Trend and Progress of Banking India 2004-05 RBI Publication

Success or failure in a market economy is determined on the basis of profitability. The table shows that the banks in India especially old banks have a long way to go before being accepted as efficient and viable.

### **3.11. NPA position and capital adequacy ratio**

Capital adequacy and asset quality are two crucial parameters which reflect the soundness of a financial institution. Both these parameters have shown improvement in post reform period of India. The level of Non-performing Assets has definitely declined in the case of commercial banks. There has been steady improvement in capital adequacy ratio. Most of the banks have satisfied the Basel I requirements regarding capital adequacy. Net NPA as a percentage of total was 3.3 in 1996-97. It has decreased to 1.2% in 2003-04. Scheduled commercial banks had to comply with a minimum capital to risk weighted asset Ratios of 8 % upto March 1999 and 9 % from 2000 onwards. In 1995-96, 33 banks had CRAR above 8 %. In 2003-04, 87 banks had CRAR above 10 %.

### **3.12. Impact of financial liberalization on the monetary structure**

Indian Financial sector has been subjected to far flung modifications. India in the past was a typical example of financial repression as perceived by Mckinnon and Shaw. Rates of interest were regulated. Directed credit dominated allocation of funds. Government appropriated a significant portion of the credit at a low cost. Thus financial repression was regarded as one of the most important sources of inefficiency, low savings and poor growth in developing countries. However with the advent of reforms financial markets are being liberalized towards market determination of interest rates. Financial liberalization is expected to bring about the positive changes in the real

rates of interest. The real return on holding deposits in India is given in the Table 3.14.

**Table 3.14.**

**Real return on holding deposit (1985-86 to 2004-05)**

Year	Real return
1985-86	4.35
1986-87	2.95
1987-88	1.4
1988-89	2
1989-90	2
1990-91	-0.8
1991-92	-1.7
1992-93	0.9
1993-94	1.6
1994-95	-1.5
1995-96	3.9
1996-97	6.9
1997-98	6.35
1998-99	3.6
1999-00	5.7
2000-01	1.55
2001-02	4.4
2002-03	1.725
2003-04	-0.775
2004-05	-1.025

Source: Hand Book of Statistics on Indian Eco.2004-05 Published by RBI

Firstly the fluctuations in the rates of interest are analyzed here . There has not seen any instantaneous increase in the rates of interest in the post reform period. Variations in the real return on deposits are examined. Rates of interest on one year deposit are compared with the rate of inflation to get real return on deposits. The difference between nominal rates of interest and rate of inflation is real rate of return on deposits.

Table 3.14 reveals a picture where the real rates of interest are positive in most of the years since 1994-95. Recently in 2003-04, there was some tendency for real rate of interest to become negative. Already there are signs of increase in the rate of interest. Any diversion from positive real rates of interest was being automatically corrected by the market. Even though the rates of interest did not increase much as predicted by Mckinnon and Shaw, the rate of interest was always positive. In the pre-reform period also there were years when the rate of interest was positive.

### **3.13. Financial deepening and widening**

Financial deepening and widening are predicted as consequences of financial liberalization. Table 3.15 gives the ratio of broad money to Gross National Product over the years. This ratio is a measure to gauge the level of expansion in the financial sector.

The period of financial liberalization has seen substantial increase in the ratio of Broad Money (M3) to Gross National Product.

Broad money includes alternative ways of holding cash balances in the economy. Monetization of the economy is revealed by this ratio of  $M_3$  to GNP. Broad Money includes currency with the public, demand and term deposits. It represents the size of the financial resources in the economy. The ratio of  $M_3$  to GNP in 1990-91 was 0.4451. In 2003-04, it was increased to 0.6774.

**Table 3.15.**

**Ratio of broad money to GNP (1985-86 to 2004-05)**

Year	Board Money(M3)	GNP	Ratio of M3 to GNP
1985-86	111096	276562	0.4017
1986-87	130653	309372	0.4223
1987-88	153207	351724	0.4356
1988-89	179687	417071	0.4308
1989-90	213856	480448	0.4451
1990-91	249493	561129	0.4446
1991-92	292403	643040	0.4547
1992-93	344238	736722	0.4673
1993-94	399048	847140	0.4711
1994-95	478196	999687	0.4783
1995-96	552953	1174528	0.4708
1996-97	642631	1355127	0.4742
1997-98	752028	1509342	0.4982
1998-99	901294	1726017	0.5222
1999-00	1056025	1921400	0.5496
2000-01	1224092	2071391	0.5910
2001-02	1420025	2256418	0.6293
2002-03	1647976	2450158	0.6726
2003-04P	1860223	2745947	0.6774
2004-05P	2129173	3087805	0.6895

Source: Hand Book of Statistics on Indian Eco.2004-05 Published by RBI

This increase in the ratio in India is comparable to the growth of financial sector in Japan and Germany in the post war period when they were on the take off stage.

**Table 3.16.****Ratio of Financial resources to GNP<sup>3</sup>**

Year	Japan	Germany
1953	0.567	0.297
1970	0.969	0.520

**India**

1985-86	0.4017
2002-03	0.6726

Source: Computed from Handbook of Statistics on the India Economy

India at present is witnessing similar increase in the ratio.

**3.14. Variations in real cash Balance**

The following table examines the changes in real cash balances in India.

**Table 3.17.****Ratio of M3 to WPI (base 1993-94)**

year	M3	WPI	M3/WPI
1985-86	119394	50.61	2359.32
1986-87	141632	53.55	2644.79
1987-88	164275	57.91	2836.75
1988-89	193493	62.23	3109.44
1989-90	230950	66.87	3453.80
1990-91	265828	73.73	3605.48
1991-92	317049	83.86	3780.79
1992-93	364016	92.29	3944.17
1993-94	399048	100	3990.48
1994-95	478196	112.5	4250.63
1995-96	552953	121.6	4547.31
1996-97	642631	127.2	5052.13
1997-98	752028	132.8	5662.86
1998-99	901294	140.7	6405.79
1999-00	1056025	145.3	7267.89
2000-01	1224092	155.7	7861.86
2001-02	1420025	161.3	8803.63
2002-03	1647976	166.9	9874.03
2003-04P	1860223	175.9	10575.46
2004-05P	2129173	187.2	11373.79
Growth rate	43.36	8.72	18.5

Source: Computed from Handbook of Statistics on the India Economy

Real cash balances are found by dividing the measure of Broad money by the Whole Sale Price Index. As made clear by the table 3.17 there has been stupendous accretion in real cash balances in the economy in the post reform period. The real cash balances increased by 18.5% in the period since reforms were initiated.

## **Conclusion**

When the monetary situation in India is put along side with the deductions of the theory of financial liberalization the following inferences emerged. Firstly the deregulation of interest rate did not result in the immediate acceleration of the rates of interest as suggested by the theory. However positive real rates of interest were maintained by the market forces. Secondly the ratio of broad money to gross national product acknowledged increasing trend in the post reform period. The enlargement of real cash balances in the economy was in conformity with the convictions of the theory.

An individualized inspection of monetary variable in the pre reform and post reform period divulges the impact of financial liberalization on the banking sector in India. The compound rates of growth of deposits and credit in the pre reform and post reform periods do not concede any sizable divergence. The banks have to achieve a lot before they can enter the ambit of comfortable profitability. There are definite signs of improvement in many aspects. The NPA situation has gained ground in the post reform period. However, the delinquency in providing agricultural credit remains a blot on the otherwise rosy picture of banking sector performance. It is very difficult to conclude that financial liberalization was an unmixed success. Many banks carried out their mission of financial intermediation successfully both under state

direction and under the market based system. It is not important under which system the banks are performing what is relevant is the coherence in the overall working of the system.

## Notes and References

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<sup>1</sup>R.Kannan:( 2004)Indian Banking in the New Millenium,  
[www.geocities.com/kstability/inbank2/indexhtml-2k](http://www.geocities.com/kstability/inbank2/indexhtml-2k).

<sup>2</sup> Ibid

<sup>3</sup> Mckinnon (1974) “Money and Finance in Economic growth and development” in Essays in honour of Edward Shaw, Mckinnon (ed), Marcel Dekker Inc

## **CHAPTER IV**

### **BANKING SECTOR IN KERALA: GROWTH AND EMERGING TRENDS**

Kerala is a state which has a long history of formal and informal financial institutions. Among the provinces and States of Indian Union before independence, Travancore and Cochin topped the list in the range of area and population served by a commercial bank branch. The early institutions were predominantly of the unit banking type. Travancore had 275 joint stock banks in 1932-33 (Oommen, 1976<sup>1</sup>). Even in the present day banks, chit funds and money lenders co-exist in Kerala. But Banks occupy a predominant position among the financial intermediaries. They are the leaders in mobilizing deposits and dispersing credit. A review of the progress of commercial banks is relevant in the context of on going financial sector reforms. It is most appropriate to examine the impact of economic policy on the performance of banking sectors in Kerala before making any conclusions about the benefits and shortcomings of reforms.

Banking sector changes can be analyzed by a detailed study of major monetary variables in the economy. Major indicators of commercial banking developments are sought to be analyzed in this chapter. The crucial monetary constituents are deposits and credit. Another significant facet of banking development is the extent of branch expansion. An examination of the development in the above aspects is pursued here.

The first indicator of a bank's performance is its ability to mobilize deposits. The performance of commercial banks is gauged by studying the changes in the volume and pattern of deposits. The study seeks to examine the rate of growth of deposits in Kerala. This chapter includes the analysis of the following related aspects.

- Changes in the volume of NRI deposits
- Changes in the pattern of deposits.
- Comparative performance of different bank groups in mobilizing deposits
- Per capita deposits
- Changes in deposits per bank branch

Secondly credit advanced by commercial banks is another important variable. Size and growth of credit indicates not only the level of performance of commercial banks but also the level of progress of the economy. An analysis of credit advanced by commercial banks includes the study of following related aspects

- Comparative performance of different bank groups in advancing credit
- Changes in per capita credit
- Changes in the pattern of credit
- Credit per branch

Thirdly the present study seeks a detailed analysis of credit deposit ratio. Variations in credit deposits ratio indicates the changing attitude of commercial banks in advancing credit in the state. Whether our deposits benefit our state is a matter of debate. So the study seeks to look into the variations in credit deposits ratios in the last two decades.

Fourthly in this chapter, attempt is also made to examine the spread of bank branches and their geographical coverage. Indian Banking system has as its achievement, the large network of branches opening out to remote villages. The study looks into this aspect to understand the changes in the attitude of banks in expanding their physical reach in the post reform period.

Fifthly the analysis includes the study of interrelation between credit and economic growth in the State. For this purpose Granger causality test is applied. The direction of causality is also tested. This test explains the direction of causation between the variables selected for the analysis. If X causes Y and Y causes X then there is feed back effect or it is jointly determined. Other wise the relationship is uni directional.  $F = \frac{(ESR-ESS)/q}{ESS/n-p-q}$  ESR- Explained Sum of Residuals, ESS— Explained Sum of Squares, q - d.f for numerator, n-p-q - d.f for denominator

After interpreting the variations in the above components of the monetary system, six important monetary ratios are worked out to get an aggregate picture of the banking sector in Kerala. These are related to credit, deposit and population coverage. Study includes an analysis of the compound growth rates of these ratios. An attempt is made to compare the performance of southern states on the basis of these ratios. These six indicators are standardized and condensed into a composite index.

The selected banking indicators have different units. The six indicators are standardized in the following manner  $Z_{ij} = \frac{X_{ij} - \bar{X}_i}{S_i}$  where

$X_{ij}$  refers to the value of the  $i^{\text{th}}$  indicator ( $I = 1, 2, 3, \dots, 6$ ), for the  $j^{\text{th}}$  state ( $j = 1, 2, 3, 4$ ).  $Z_{ij}$  is the standardized variate of the  $i^{\text{th}}$  indicator of the  $j^{\text{th}}$  state.  $\bar{X}_i$  is the mean value of the  $i^{\text{th}}$  indicator.  $S_i$  its standard deviation. The standardized variate has a mean zero and standard deviation one. With respect to the first indicator, a decreasing trend indicates progress. Therefore the standardized variate of first indicator has been compiled by taking its reciprocal values.

All the indicators were condensed and composite indices were obtained by assigning weights to each indicator. The weights have been calculated for each indicator, year wise with the help of principal component analysis. The composite scores are obtained as follows,

$$I_j = \sum w_i Z_{ij}$$

Where  $I_j$  is the composite weighed score of the  $j^{\text{th}}$  state and  $w_i$  refers to the weight assigned to the  $i^{\text{th}}$  indicator and  $z_{ij}$  is the value of the standardized variate of the  $i^{\text{th}}$  indicator of the  $j^{\text{th}}$  state. The four states are ranked according to this index. With the help of this index, the relative positions of four southern states are ascertained.

In order to understand the extent of disparity with respect to one particular indicator coefficient of variation and Herfindahl index are also used. Hirschman/ Herfindahl Index, a commonly accepted measure of market concentration is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers.

$$H = \sum_{i=1}^n (s_i^2)$$

where  $s_i$  is the market share of each in the group, and  $n$  is the total number of members in the group. The index ranges from  $1/N$  to one,

where N is the number of members in the group. There is also a normalised Herfindahl index. Whereas the Herfindahl index ranges from 1/N to one, the normalized Herfindahl index ranges from 0 to 1. It is computed as:

$$H* = \frac{(H - 1/N)}{1 - 1/N}$$

where again, N is the number of members in the group, and H is the usual Herfindahl Index, as above. A H index below 0.1 (or 1,000) indicates an unconcentrated index. A H index between 0.1 to 0.18 (or 1,000 to 1,800) indicates moderate concentration. A H index above 0.18 (above 1,800) indicates high concentration. This index used to analyse the disparity or evenness of banking sector development among the southern states.

For the purpose of the present study four southern states are selected. The inter state differences in the performance of scheduled commercial banks are compared at three selected points of time 1985, 1995 and 2005. The analysis in this chapter is based on secondary data from various sources.

#### **4.1. DEPOSITS**

The foremost constituent of the monetary system is the variable deposit. The activities of commercial banks in Kerala were mainly focused on deposit mobilization in the past. There has been tremendous increase in bank deposits in the last two decades. Banks were offering various schemes to attract deposits. People in general considered bank deposits as a safe means of saving with a reliable return. Growth of deposits in the commercial banks in Kerala is depicted .in table 4.1

**Table 4.1.****Compound Growth of Deposits**

Period	Kerala	India
1985-1994	15.8%	16.3%
1995-2004	14.1%	14.64%

Source: Economic Review published by State Planning Board  
Handbook of statistics on Indian Economy, R.B.I Publication

The compound annual growth rate of deposits in the period 1995-2004 was slightly less than the growth rate in the period 1985-94. There is not much difference in the growth rate of deposits of India and Kerala in both time periods.

**Composition of deposits****Table 4.2****Composition of deposits**

Year	Current Deposit	Term Deposit	Total Deposit
1988-89	31.40	68.60	100
1989-90	30.53	69.47	100
1990-91	34.70	65.30	100
1991-92	34.29	65.71	100
1992-93	29.58	70.42	100
1993-94	29.27	70.73	100
1994-95	30.27	69.73	100
1995-96	27.91	72.09	100
1996-97	25.89	74.11	100
1997-98	25.24	74.76	100
1998-99	26.14	73.86	100
1999-00	26.20	73.80	100
2000-01	26.19	73.81	100
2001-02	25.62	74.38	100
2002-03	26.56	73.44	100
2003-04	29.29	70.71	100

Source: Money and Banking (Various issues), Centre for monitoring Indian Economy (CMIE)

Deposits are grouped as current deposits and term deposits. The table 4.2 shows that term deposits constituted a major share of deposits in Kerala. In 1988-89 term deposits formed 68.6 % of the total. In 2003-04, the share had increased to 70.71 % of total deposits. Higher rates of interest on term deposits explain the predominance of term deposit. Depositors are attracted by higher returns on their saving.

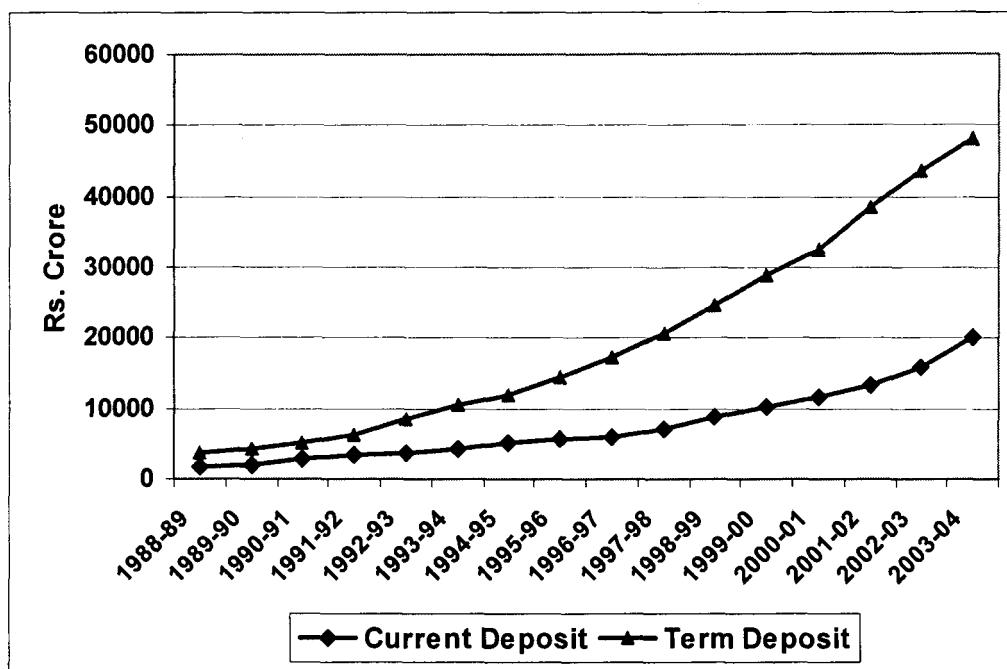


Fig 4.1. Composition of deposits

The graph shows the relative changes in Term deposits and current deposits in two time periods. The graph illustrates the predominance of term deposits. The rate of growth of term deposits is more than the rate of growth of current deposits as revealed by the slope of the curves representing the two types of deposits. Since 1995, there has been increase in the growth of term deposits and current deposits.

#### 4.1.1. Magnitude of NRI deposits

An important feature of deposits mobilized by banks in Kerala is the dominance of NRI deposits. The non resident Indians are responsible for the

swelling of deposits in the banks of Kerala. There is a quantum jump in the case of NRI deposits. It is a factor, which cannot be ignored. A detailed interpretation of growth of NRI deposits over the last decade is given in the table4.3.

**Table 4.3.**  
**NRI deposits as a percentage of Total Deposits**

Ending March	Total Deposit Rs(Crores)	NRI Deposits Rs(Crores)	Percentage of NRI deposits to total deposits
1985	3479.13	844.15	24.26
1986	3600.80	894.35	24.84
1987	4154.99	1192.69	28.71
1988	4811.31	1369.23	28.46
1989	5666.75	1583.76	27.95
1990	6659.56	1932.92	29.02
1991	7934.78	2316.6	29.20
1992	9786.75	3116.00	31.84
1993	12261.44	4599.39	37.51
1994	15138.34	6152.36	40.64
1995	17694.3	7043.71	39.81
1996	20418.96	8256.33	40.43
1997	23352.87	10178.09	43.58
1998	27572.06	12734.98	46.19
1999	31531.88	13328.53	42.27
2000	38618.79	18723.61	48.48
2001	44850.19	21430.83	47.78
2002	51655.74	24533.71	47.49
2003	59399.38	28695.57	48.31
2004	65961.08	30100.39	45.63
Average of percentage during 1985-94 = 30.243			
Average of percentage during 1995-04 = 44.997			

Source: Economic Review published by State Planning Board

The table shows that the share of NRI deposits in total deposits in the state has increased from 24.26% in 1985 to 40.64% in 1994. In 2003, it was 48.31% of the total deposits. In the post reform period, there is a visible increase in the share of NRI deposits in total deposits in Kerala. But in 2004 there is a fall in their share. This is possibly due to low rates of interest. The fund coming from abroad is increasingly being channeled to other sources of investment like stock markets, land and gold. Bank deposits have become less attractive due to the low rates of interest.

#### **4.1.2. Different Bank groups and NRI deposit.**

NRI deposits form a major content of financial resources of banks. The rate of growth of NRI deposits of different bank groups reveal the success of different bank groups in attracting the non resident Indians.

**Table 4.4.**

#### **Compound growth rate of NRI deposit of different bank groups**

BANK	1985-94	1995-04
Public Sector Bank	20.1%	14.2%
Private Sector Bank	13.2%	20.8%
Foreign Bank	-----	3%
Total Banks	22%	15%

Source: Economic Review published by State Planning Board

The rate of growth of NRI deposit in the post reform decade was less than that of the previous decade. Private sector banks were ahead of other banks in mobilizing external fund. In the case of Public Sector banks the compound rate of growth of NRI deposits was 14.2% in 1995-04 compared to 20% in 1985-94. In the case of Private Sector Banks

there has been an increase in the mobilization of NRI deposits since 1995. When the banking sector is considered in totality, the decade 1995-04 saw a decline in the compound rate of growth of NRI Deposits.

#### **4.1.3. Deposit mobilization and Different bank groups**

When deposit mobilization is scrutinized, it is relevant to include the relative achievements of different bank groups. The comparative performance of different bank groups in deposit mobilization can be assessed by comparing the rate of growth of deposits of different bank groups. Scheduled commercial banks include public sector, private sector and foreign banks.

**Table 4.5.**

#### **Compound growth rate of deposits of different bank groups**

BANK	1985-94	1995-04
Public sector Bank	15.5%	13.2%
Private sector bank	16.4%	16.5%
Foreign bank	38%	4.6%

Source: Economic Review published by State Planning Board

As revealed by the table 4.5 ,private sector banks had a higher rate of growth of deposits in the time period 1995-04

The share of different bank groups in the total deposits of Kerala over the year can be looked into.

**Table 4.6****Deposits of different bank groups as a percentage of total deposits**

Ending March	State Bank Group	Other Nationalized Banks	Gramin Bank	Private Banks	Foreign Banks	All Kerala
1985	34.57	41.12	1.30	23.01		100
1986	36.58	40.26	1.27	21.90		100
1987	35.74	40.62	1.26	22.37		100
1988	36.12	40.66	1.19	22.03		100
1989	35.86	40.91	1.26	21.97		100
1990	36.14	40.81	1.32	21.14	0.59	100
1991	35.98	40.40	1.38	21.27	0.97	100
1992	34.85	39.50	1.45	23.02	1.18	100
1993	34.95	38.68	1.40	23.75	1.22	100
1994	35.09	38.00	1.40	24.20	1.30	100
1995	34.78	36.83	1.47	25.58	1.34	100
1996	33.97	35.56	1.29	27.97	1.21	100
1997	33.13	35.89	1.43	28.16	1.39	100
1998	32.52	35.28	1.47	29.25	1.48	100
1999	33.29	32.16	1.62	31.44	1.48	100
2000	32.67	35.05	1.68	29.63	0.97	100
2001	32.69	33.84	1.78	30.88	0.82	100
2002	32.71	33.07	1.94	31.56	0.73	100
2003	32.85	33.58	2.14	30.80	0.64	100
2004	32.55	32.92	2.29	31.67	0.56	100

Source: Economic Review published by State Planning Board

The table 4.6 shows the changes in the share of different bank groups in the total deposits of Kerala. In 1985, the state bank group accounted for 34.57% of the total deposits. In 2004, the share of State Banks group was 32.55%. There was a fall in the share of nationalized banks in total deposits of Kerala. There was increase in the share of private sector banks and foreign banks in the total deposits of Kerala. There are more private sector banks in Kerala compared to public sector banks. This probably is the reason behind the increased share of private sector banks in deposit mobilization.

#### 4.1.4. Changes in Deposits per Branch in Kerala

Deposit per branch is a measure of efficiency of the banks. It is the success at the branch level that results in the success of the bank. The table 4.7 can give an assessment of the performance of banking sector in Kerala.

**Table 4.7**  
**Deposit per branch in Kerala**

Ending March	Total Deposit Rs(Crores)	Number of Branches	Deposit per branch Rs(Crores)
1985	3479.13	2718	1.28
1986	3600.80	2721	1.32
1987	4154.99	2722	1.53
1988	4811.31	2765	1.74
1989	5666.75	2801	2.02
1990	6659.56	2829	2.35
1991	7934.78	2839	2.79
1992	9786.75	2851	3.43
1993	12261.44	2887	4.25
1994	15138.34	2948	5.14
1995	17694.3	3009	5.88
1996	20418.96	3073	6.64
1997	23352.87	3121	7.48
1998	27572.06	3142	8.78
1999	31531.88	3184	9.90
2000	38618.79	3255	11.86
2001	44850.19	3298	13.60
2002	51655.74	3334	15.49
2003	59399.38	3370	17.63
2004	65961.08	3404	19.38

Source: Economic Review published by State Planning Board,  
Money and Banking (Various issues), Centre for monitoring Indian  
Economy (CMIE)

The above table shows the changes in the deposits mobilized per branch. In 1985, the deposit mobilized per branch, in Kerala was Rs. 1.28 crores which rose to Rs.2.35 crores in 1990. The growth has been more rapid since then and increased Rs. 19.38 crores by 2004. This

shows the improvement in the performance at the branch level in mobilizing deposits.

#### 4.1.5. Per capita Deposits in Kerala

Per capita deposit is another important indicator of banking facility in the state. Average deposit per person in Kerala throws some light on the saving capacity and saving habit of the people in Kerala. There has been tremendous increase in this ratio.

**Table 4.8.**

#### **Change in per capita deposit in Kerala (in Rs)**

Year	Population In 1000s	Total Deposit Rs (Crores)	Per Capita Deposit In Rupees
1985	27527	3479.13	1264
1986	28008	3600.80	1286
1987	28475	4154.99	1459
1988	28930	4811.31	1663
1989	29373	5666.75	1929
1990	29809	6659.56	2234
1991	29219	7934.78	2716
1992	29656	9786.75	3300
1993	29955	12261.44	4093
1994	30330	15138.34	4991
1995	30709	17694.3	5762
1996	31091	20418.96	6567
1997	30969	23352.87	7541
1998	31223	27572.06	8831
1999	31466	31531.88	10021
2000	31696	38618.79	12184
2001	31913	44850.19	14054
2002	32270	51655.74	16007
2003	32620	59399.38	18209
2004	32820	65961.08	20098

Source: Economic Review published by State Planning Board

The 4.8 table shows the changes in per-capita deposit in Kerala. The per-capita deposit in 1985 was Rs. 1264 which increased to Rs. 20098 in 2004. It can be noted that the per capita deposit has increased many fold in the post reform period.

#### 4.1.6. The geographical patterns of deposits

Rural, semi urban and urban and metropolitan areas differ in their contribution to deposits in commercial banks. Kerala is a state where semi urban areas are prominent. As a consequence their contribution to deposit mobilization is also significant.

**Table 4.9**  
**Change in Geographical Pattern of deposit mobilization**

Year	Rural	Semi-Urban	Urban & Metropolitan	Total
1988-89	8.62	61.86	29.51	100
1989-90	8.03	62.40	29.57	100
1990-91	7.93	63.30	28.77	100
1991-92	8.11	64.04	27.85	100
1992-93	8.05	63.84	28.11	100
1993-94	8.04	63.97	27.99	100
1994-95	5.22	65.42	29.36	100
1995-96	5.20	65.54	29.26	100
1996-97	5.20	65.56	29.24	100
1997-98	5.14	64.93	29.93	100
1998-99	5.11	65.36	29.53	100
1999-00	5.11	65.75	29.14	100
2000-01	5.13	65.44	29.43	100
2001-02	5.10	65.63	29.27	100
2002-03	5.07	65.92	29.01	100
2003-04	5.00	65.78	29.23	100

Source: Money and Banking (Various issues), Centre for monitoring Indian Economy (CMIE)

The table 4.9 gives a comparison of rural, semi-urban and urban branches in mobilizing deposits. The share of rural branches in the

deposits in Kerala has come down. This reflects fall in income in the agricultural sector. The share of semi-urban branches has marginally increased. This is also due to the larger number of branches in the semi urban areas .There is not much difference in the share of urban and metropolitan branches in the post reform period. Semi urban areas are centers of foreign migration. The importance of NRI deposits has resulted in the improvement of semi urban areas. Kerala is yet to develop a full-fledged metropolitan urban city. Except for Cochin, we do not have an industrialized developed urban centre.

## **4.2. CREDIT**

### **4.2.1. Magnitude of credit**

The primary function of a commercial bank is financial intermediation. They are to collect funds from where it is in excess and supply funds to where it is in deficit. The performance of scheduled commercial banks in credit advancement is very important from the point of view of the economy since credit is the lifeblood of business. The growth of credit advanced by commercial banks in Kerala is analyzed below.

The table 4.10 reveals the fact that the growth of credit in the period 1995-04 is more than that of the previous decade. In 1985, the total advance of credit by all Banks in Kerala was Rs 2180.74 core. In 2004, it was Rs 31867.31 crore.

**Table 4.10.**

**Change in the volume of credit advanced by commercial banks in Kerala from 1985 to 2004**

Year	Credit advanced (crores)
1985	2180.74
1990	4187.13
1995	7842.56
2004	31867.31
growth rate over the period	93.16

Source: Economic Review published by State Planning Board

**4.2.2. Performance of different bank groups in credit disbursement**

Kerala is a state, which is not satisfied with the performance of commercial banks in providing credit. The reluctance on the part of commercial banks in extending credit to people in Kerala is a matter of debate. In this context, an attempt is made to compare the credit allocation by public sector and private sector banks during the period under study.

**Table 4.11.**

**Compound growth rate of credit of different bank groups.**

Bank	1985-94	1995-04
Public sector bank	10.9%	15%
Private sector bank	13.2%	15.3%
Foreign bank	-----	13.9%
All Banks	11.5%	15.1%

Source: Economic Review published by State Planning Board

The table 4.11 shows that the rate of growth of credit advanced during the period 1995-04 is higher for all groups of banks. There is not much difference in the rate of growth of credit of different bank groups. There is visible change in the volume of credit disbursed by commercial banks in Kerala . The compound rate of growth of credit in Kerala in 1995-04 was 15.1% compared to 11.5% in the previous decade.

### **4.2.3. Composition of credit advanced**

Different sectors of the economy are credit thirsty. It is not a situation where everybody is getting as much as is required. Some sectors are able to extract more credit than others from the banks. The following table shows changes in the credit pattern in Kerala.

**Table 4.12.**

**Composition of credit**

	1980-81	1984-85	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
Total bank credit	100	100	100	100	100	100	100	100	100
Agriculture	18.10	17.14	17.96	17.51	17.25	16.98	15.99	14.97	14.66
Industry	39.32	36.74	33.50	35.51	35.29	34.70	33.50	32.73	31.20
Mining & quarrying	0.04	0.16	0.11	0.06	0.10	0.27	0.32	0.20	0.16
Vehicles, parts & trans. equip.	1.22	1.23	0.64	0.46	0.49	0.36	0.33	0.33	0.43
Construction	0.99	1.25	0.92	1.05	1.09	1.08	1.00	1.11	0.72
Professional & other services	10.82	11.65	15.47	15.42	16.26	17.30	18.43	19.37	19.76
Personal loans	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loans for consumer durables	1.61	0.86	0.49	0.54	0.39	0.37	0.39	0.46	0.87
Loans for housing	0.00	0.00	0.00	0.00	3.73	4.18	4.37	4.18	4.45
Trade	16.42	15.48	14.73	15.11	15.77	16.34	15.62	16.86	19.42
Miscellaneous	13.73	18.14	17.84	15.90	11.30	10.14	11.69	11.43	9.64

Source: Money and Banking (Various issues), Centre for monitoring Indian Economy (CMIE)

**Table 4.13.**

**Composition of credit**

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Total bank credit	100	100	100	100	100	100	100	100	100
Agriculture	14.29	13.24	13.82	13.33	13.06	13.29	11.90	11.80	13.40
Industry	31.02	29.12	27.69	27.94	27.31	25.19	22.25	22.05	20.21
Mining & quarrying	0.27	0.27	0.37	0.17	0.85	0.50	0.55	0.82	0.16
Vehicles, parts & trans. equip.	0.33	0.29	0.37	0.27	0.34	0.40	0.21	0.66	0.45
Construction	1.26	1.35	1.24	1.51	1.35	1.25	2.08	2.35	3.05
Professional & other services	3.89	3.58	3.98	4.33	4.65	4.72	4.89	5.30	5.88
Personal loans	18.87	21.02	22.42	20.12	21.70	24.31	24.24	27.19	33.82
Loans for consumer durables	1.16	1.28	1.32	1.13	1.13	1.20	0.72	0.57	0.62
Loans for housing	5.08	5.88	6.61	7.48	9.10	10.42	10.95	13.12	17.09
Trade	18.07	18.08	18.23	18.76	17.87	18.90	20.44	19.66	14.89
Miscellaneous	7.61	7.80	5.94	6.90	5.18	1.98	4.61	0.30	-5.90

Source: Money and Banking (Various issues), Centre for monitoring Indian Economy (CMIE)

As revealed by the data on the tables 4.12 and 4.13, the share of agricultural credit to total credit has decreased. The share of industrial credit to total credit has also come down. The most significant change in the pattern of credit is the increase in the share of personal loans. In the 1980's, the personal loans occupied a negligible portion of the total credit. In 2003-04, personal loans constituted 33.82 per cent of the total credit disbursed by all banks. The share of the construction sector has also increased. The share of the trade has decreased. The changing pattern of credit allocation reflects the fact that there is growth of consumerism in the state financed by credit.

The rate of growth of credit to different sectors is presented in the table4.14.

**Table 4.14**  
**Compound growth rate of credit to different sectors**

Sector	1984-1994	1995-2004
Total bank credit	12.5%	13.73%
Agriculture	10.92%	13.00%
Industry	10.84%	8.96%
Mining & quarrying	12.23%	7.77%
Vehicles, parts & trans. equip.	2.32%	17.34%
Construction	7.07%	24.24%
Professional & other services	18.04%	21.05%
Personal loans		18.52%
Loans for consumer durables	12.67%	6.72%
Loans for housing		28.39%
Trade	14.85%	11.55%

Source: Money and Banking (Various issues), Centre for monitoring Indian Economy (CMIE)

The table 4.14 gives the compound annual growth rate of credit to different sectors in Kerala. The compound annual growth rate of credit to agriculture has declined. The rate of growth of credit to industry also declined. The rate of growth of credit towards construction and personal loans has increased in the post reform period. The share of trade has also declined. There was sharp increase in loans for housing. The change in the pattern of credit reveals the turnaround in the direction of bank credit .Banks are concentrating more on retail credit than on corporate or agricultural credit .The credit expansion in Kerala takes the form of personal loans, housing and vehicle loans . Finance is flushed in to unproductive sectors. The change in the in the pattern of credit is not favourable as credit expansion takes place mostly in unproductive sector. Credit is easily available for consumption purposes. The state which is known for consumerism is receiving credit for the growth of conspicuous consumption .Credit expansion is not for income generation. Lured by colorful advertisements and easy availability of consumer credit, many families are trapped in huge debts. The rising number of suicides is a social consequence of this phenomenon. Credit should be the life blood of productive activities. Otherwise it will lead to undesirable consequences.

#### **4.2.4. Change in per capita credit**

Per capita credit shows the credit advanced in relation to the size of population in Kerala. Per capita credit is a ratio which throws light on the sufficiency of credit being received by the people.

**Table 4.15****Change in per capita credit in Kerala (in Rs.)**

Year	Population In 1000s	Total Advance Rs (Crores)	Per capita advance Rs
1985	27527	2180.74	792
1986	28008	2371.00	847
1987	28475	2768.68	972
1988	28930	3116.05	1077
1989	29373	3701.15	1260
1990	29809	4187.13	1405
1991	29219	4715.34	1614
1992	29656	5093.39	1717
1993	29955	5860.51	1956
1994	30330	6484.86	2138
1995	30709	7842.56	2554
1996	31091	9006.66	2897
1997	30969	10565.1	3412
1998	31223	12364.24	3960
1999	31466	13576.67	4315
2000	31696	15940.86	5029
2001	31913	19180.27	6010
2002	32270	22061.94	6837
2003	32620	27006.53	8279
2004	32820	31867.31	9710

Source: Economic Review published by State Planning Board

Per capita credit in Kerala is very low. In 1985 it was Rs. 792 and in 2004 it was Rs. 9710. There has been some increase in the availability of credit per person. But the increase is not much if inflationary changes are taken into account. The per capita credit of Rs. 9,710 is insufficient to start any productive venture.

#### 4.2.5. Changes in credit advanced per branch

**Table 4.16**  
**Change in Credit per Branch in Kerala**

Ending March	Total Advance Rs (Crores)	Number of Branches	Advance per branch Rs (Crores)
1985	2180.74	2718	0.80
1986	2371.00	2721	0.87
1987	2768.68	2722	1.02
1988	3116.05	2765	1.13
1989	3701.15	2801	1.32
1990	4187.13	2829	1.48
1991	4715.34	2839	1.66
1992	5093.39	2851	1.79
1993	5860.51	2887	2.03
1994	6484.86	2948	2.20
1995	7842.56	3009	2.61
1996	9006.66	3073	2.93
1997	10565.1	3121	3.39
1998	12364.24	3142	3.94
1999	13576.67	3184	4.26
2000	15940.86	3255	4.90
2001	19180.27	3298	5.82
2002	22061.94	3334	6.62
2003	27006.53	3370	8.01
2004	31867.31	3404	9.36

Source: Economic Review published by State Planning Board, Money and Banking (Various issues), Centre for monitoring Indian Economy (CMIE)

The table 4.16 shows the change in advance of credit per branch during the period 1985 to 2004. The credit advance per branch was Rs. 0.80 crores in 1985. It has increased to Rs.9.36 crores in 2004. Branch level performance of banks has shown improvement in the post reform period.

### 4.3 Credit deposit ratio

An important ratio which indicates the progress of commercial banking anywhere is the credit deposit ratio. Credit deposit ratio is the scale to measure the flow of deposits to credit. Financial intermediation is the prime function of a bank. Credit deposit ratio indicates whether the performance of a bank is satisfying or not in this respect.

**Table 4.17**  
**Credit Deposit Ratio in Kerala**

Ending March	CD Ratio	Incremental CD ratio
1985	62.68	
1986	63.98	156.37
1987	66.64	71.76
1988	64.77	52.93
1989	65.31	68.40
1990	62.87	48.95
1991	59.43	41.42
1992	52.04	20.41
1993	47.80	31.00
1994	42.84	21.70
1995	44.32	53.12
1996	44.11	42.72
1997	45.24	53.12
1998	44.84	42.64
1999	43.06	30.62
2000	41.28	33.36
2001	42.77	51.99
2002	42.71	42.34
2003	45.47	63.85
2004	48.31	74.08
Average CD ratio 1985-1994 = 58.83		
Average CD ratio 1995-2004 = 44.24		

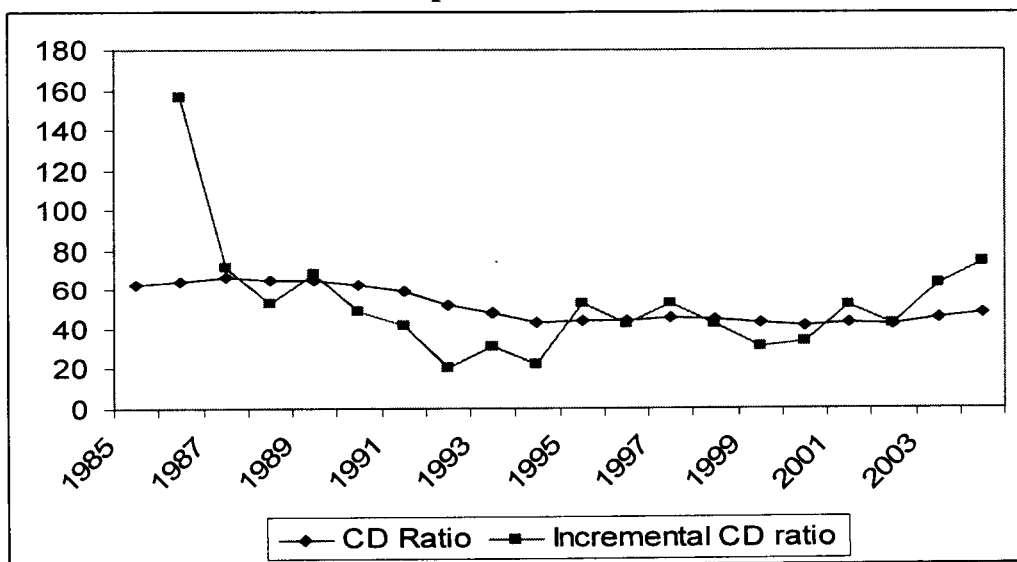
Source: Economic Review published by State Planning Board

The credit deposit ratio in Kerala was 62.68 in 1985. There was a decline in CD ratio especially in the immediate post-reform period. Later there were signs of improving the credit-deposit ratio. Incremental CD ratio is also looked into. This ratio shows how the increase in

deposits is matched by an increase in credit. Incremental CD ratio does not reveal any uniform pattern of changes. Incremental CD ratio was 43.34 in 2002 which increased to 63.85 in 2003.

The level of credit deposit ratio in Kerala is a matter of controversy. It is low in Kerala compared to many other states in India. The allegation is that commercial banks have swelling deposit accounts in Kerala and these funds are not ploughed into the states economy in the form of credit. The credit deposit ratio has declined since the inception of financial reforms. Various reasons have been given for the same. The highly developed service sector in Kerala has low credit absorption capacity. Industry and agriculture are in a backward state. Shortage of entrepreneurs and absence of viable projects are other reasons given for low credit disbursement. The over cautious and risk fearing managers are blamed for this low credit deposit ratio. High growth of deposits especially that of NRIs is considered as another explanation for this situation. The recent increase in the credit deposit ratio is partially due to increase in credit extension and partially due to the decrease in deposit growth.

**FIGUR 4.1**  
**Credit Deposit Ratio in Kerala**



The Graph illustrates the low level of credit deposit ratio in the state over the years. Credit deposit ratio remained at a low level in the last two decades. Since 2003 there are signs of improvement in the credit deposit ratio.

### 4.3.1 Credit and Deposits Functional Relationship

Functional relationship between certain variable were examined with a view to understand their economic significance. Credit advanced depends on the amount of deposits mobilized. There is strong fundamental relationship between these two variables.

**Table 4.18**

**Credit advanced in Kerala as a function of deposits**

Period	a	b	t-value of b	R <sup>2</sup>
1985-1994	1357.38	0.366	12.68**	0.95
1995-2004	-988.326	0.471	23.45**	0.99
Combined	578.88	0.436	42.30**	0.99

Source: Economic Review published by State Planning Board

Total credit advanced in Kerala is functionally related to total deposits in Kerala. The estimated value of the coefficient is 0.436 for the period 1985-2004.. Credit advanced and deposits mobilized are related through simple regression. The amount of credit advanced and deposit collected during the period 1985 to 2004 is used to estimate the regression equation. The fitted regression is  $Y = 578.88 + 0.436X$ . t Value for testing the significance of co-efficient was found. R<sup>2</sup> for the regression was 0.99. These results imply strong positive impact of deposits on credit advanced

### 4.3.2 NRI Deposits and CD Ratio

It is the presence of the NRI Deposits that leads to low credit deposit ratio in Kerala. Changes in credit deposit ratio are examined after NRI deposits are excluded from the total deposit. CD ratio for different years worked out after deducting NRI deposits from total deposits.

**Table 4.19.**

**Credit Deposits ratio of Kerala (Excluding NRI deposits)**

Year	CD Ratio
1985	83
1990	89
1995	74
2004	89

Source: Economic Review published by State Planning Board

When NRI deposits are not included in the total deposits the credit deposit ratio was 83% in 1985. In 2004, credit deposit ratio without NRI deposits was 89%. This implies that when only domestic deposits are considered credit deposit ratio is not very low.

**Table 4.20**

**NRI deposit and CD value**

Period	Annual average growth rate of NRI deposit	Average CD ratio (%)	Change in CD ratio (%)
1985-94	62.88	58.83	-31.65
1994-04	32.73	44.21	9.0

Source: Economic Review published by State Planning Board

The average CD ratio in 1985-94 was 58.83. It has come down to 44.21 in the period 1995-04. There was a negative change in CD ratio in the period 1985-94. In the post-reform period the percentage changes in CD ratio is 9.

The fall in the CD ratio in the decade 1985-94 is associated with fast growing NRI deposits. In the period 1995-04 the growth rate of NRI deposits has decreased. In this period there are signals of improving credit deposit ratio

#### 4.4 Branch Expansion

Branch banking is slowly giving way to centralized banking in the context of adoption of new technology. In this context, it is relevant to look into the pattern of branch expansion in rural, Semi urban and urban areas in the state. The known policy at present is to wind up unviable and uneconomic branches. The tables 4.21 and 4.22 show the changes in pattern of branch expansion of commercial banks in the post reform period.

**Table 4.21**  
**Percentage distribution of the geographical pattern of branch expansion**

Year	Rural	Semi-Urban	Urban	Total
1990-91	18.99	63.60	17.41	100
1991-92	18.84	63.49	17.68	100
1992-93	18.48	63.25	18.27	100
1993-94	18.07	63.62	18.30	100
1994-95	11.03	70.05	18.92	100
1995-96	10.88	70.20	18.92	100
1996-97	10.82	70.07	19.11	100
1997-98	10.68	69.97	19.35	100
1998-99	11.64	69.26	19.10	100
1999-2000	10.46	70.15	19.38	100
2000-01	10.32	70.22	19.46	100
2001-02	10.18	70.24	19.58	100
2002-03	9.99	70.20	19.81	100

Source: Money and Banking (Various issues), Centre for monitoring Indian Economy (CMIE)

The table 4.25 shows that the percentage of rural branches has come down. In 1990-91, about 19% of the branches were in the rural area where as in 2003, it was only less than 10% of the total . In Kerala, new branches are opened mainly in semi urban areas. There is also a slight increase in the percentage of urban branches to total number of branches.

Branch expansion is relative to the size of population. Population covered per branch is shown in the table 4.26. It will throw light on the expansion of banking facilities in the state.

**Table 4.22**

**Ratio of population to number of Bank Branches in Kerala**

Year	Population In 1000s	Number of Branches	Population in 1000s per branch
1985	27527	2718	10.13
1986	28008	2721	10.29
1987	28475	2722	10.46
1988	28930	2765	10.46
1989	29373	2801	10.49
1990	29809	2829	10.54
1991	29219	2839	10.29
1992	29656	2851	10.40
1993	29955	2887	10.38
1994	30330	2948	10.29
1995	30709	3009	10.21
1996	31091	3073	10.12
1997	30969	3121	9.92
1998	31223	3142	9.94
1999	31466	3184	9.88
2000	31696	3255	9.74
2001	31913	3298	9.68
2002	32270	3334	9.68
2003	32620	3370	9.68
2004	32820	3404	9.64

Source: Money and Banking (Various issues), Centre for monitoring Indian Economy (CMIE)

The above tables reveal changes in population coverage by a branch over the years. In 1985, the average population covered by one

branch was 10.13 thousands. In 1994, it was 10.29 thousands. In 2004, the ratio is 9.64 thousands per branch.

#### 4.5 Credit and Economic Growth

The causal relationship between state per capita income at constant prices and per capita credit for the period 1985-2004 is examined. The relationship between state income and bank credit can be unidirectional or bi-directional. Empirically the relationship was estimated by conducting Granger causality test.

**Table 4.23.**

**Per capita income and Per capita credit**

Null Hypothesis	Obs	F-statistics	Probability
State per capita income does not Granger cause PCC	17	0.18565	0.83290
PCC does not Granger cause SPCY	17	0.72031	0.50649

Source: Computed from statistics obtained from Economic Review published by state planning board.

Since the computed F-statistics is less than the probability we accept the Null hypothesis that state per capita income does not granger cause per capita credit. In the case of the second hypothesis the 'F' statistic is more than the probability. Hence we reject the null hypothesis that Per capita credit does Granger cause State per capita income.

In other words it is the growth in credit that leads to growth in per capita income and not vice versa. This explains the increased income in the post reforms period with low credit deposit ratio. In the post reform period there has been a turn around in the growth of income in the state. But during that period there was no corresponding increase in credit deployment. Credit deposit ratio was declining during that period. The

growth of the economy did not lead to credit expansion. Fund for the growth of the economy came from other sources.

#### **4.5.2 Functional relationship between per capita net state domestic product and per capita credit**

Per capita output and per capita credit are related through simple regression. Per capita output and per capita credit of the period 1985 to 2004 is used to estimate the regression equation. The fitted regression is  $Y = 2030.315 + 30692.475 X$ . t-value for testing the significant of slope coefficient (16.764) was found to be significant and  $R^2$  for the regression was 0.943. . The results imply strong positive impact of per capita credit on per capita output.

#### **4.6 IMPORTANT RATIOS IN BANKING SECTOR**

Six important ratios are selected to assess the capabilities of banking system in Kerala. The compound rate of growth of these ratios will throw light into the progress of commercial banking in Kerala. The ratios are

- Population per branch
- Per capita deposit
- Per capita credit
- Deposit per branch
- Credit per branch
- Credit deposit ratio.

**Table 4.24****Compound growth rate of Important Monetary Ratios**

	1985-1994	1995-2004
1. Population per branch	0.16%	-0.57%
2. Per capita deposit	14.72%	13.31%
3. Per capita credit	10.44%	14.29%
4. Deposit per branch	14.91%	12.67%
5. credit per branch	10.65%	13.62%
6. credit deposit ratio	-3.73%	0.87%

Source: Economic Review published by State Planning Board, Money and Banking (Various issues), Centre for monitoring Indian Economy (CMIE)

There is decrease in population covered per branch in the post-reform period. Per capita credit and per branch credit has grown faster in the period 1995-2004. The rate of growth of per capita deposits and deposit per branch has come down in the period 1995-04 compared to 1985-94.

There is positive rate of growth of credit deposit ratio in the period 1995-04 compared to 1985-94. This throws light into the increasing interest shown by commercial banks in providing credit to the needy. Credit per branch and per capita credit have shown an increase in their rate of growth.

The rate of growth of deposits however does not match the rate of growth of credit. The rates of growth of per capita deposit and deposit per branch have decreased marginally in the period of 1995-2004 compared to the previous decade. The compound growth rate of per

capita credit and credit per branch has increased in the 2<sup>nd</sup> decade under study.

On the whole in the post reform period there was advancement achieved by commercial banks in Kerala with respect to important monetary factors.

#### **4.7 Inter State Comparison of Banking Sector Progress**

Achievements of banking sector in Kerala are compared with the attainments of other southern states in same area. The golden south is on a fast track to progress and prosperity. The relative performance of four south Indian States in the financial sector is analyzed here. The following six indicators are used

- (a) Population served per branch.
- (b) Per Capita deposit.
- (c) Deposit per branch.
- (d) Per Capita credit
- (d) Credit per branch.
- (e) Credit Deposit Ratio.

##### **4.7.2 Population served per branch**

Post nationalization period witnessed increase in the number of bank branches at a high rate. As a result of branch expansion programme, population served per branch declined in India. However branch expansion is losing prominence in the strategy of banking development in recent days.

**Table 4.25****Index of disparity in population served per branch**

Southern States	1985	1995	2005	Growth rate in %
Andhra Pradesh	14079	14582	14522	0.16
Karnataka	10460	10625	10916	0.22
Kerala	10087	9909	9167	-0.46
Tamil Nadu	13128	12527	12906	-0.08
<b>Mean</b>	<b>11939</b>	<b>11911</b>	<b>11878</b>	<b>-0.03</b>
<b>Coefficient of variation (%)</b>	<b>16.48</b>	<b>17.59</b>	<b>19.64</b>	
<b>Herfindahl index</b>	<b>0.0068</b>	<b>0.0077</b>	<b>0.0096</b>	

Source: Basic Statistical Returns- RBI

Population served per branch has declined for Kerala and Tamilnadu over the years. The coefficient of variation has increased. But the Herfindahl Index value is less than 0.1. This indicates an unconcentrated index. This implies that the disparity among the sector with respect to this indicator is not considerable.

#### 4.7.3 Per Capita deposit

Per Capita deposit in Kerala is compared with Per Capita deposit of other Southern States. The Per Capita deposits of south Indian states are showing a rising trend. The percentage growth is highest in Karnataka. The C.V.value in 2005 is lower than in 1995. The Herfindahl Index is less than 0.1. This also indicates regional equality with respect to this indicator.

**Table 4.26****Index of Disparity in Per capita Deposits in Rupees**

Southern States	1985	1995	2005	Growth rate in %
Andhra Pradesh	775.0	2813.7	12255.6	74.07
Karnataka	947.5	4099.3	19290.5	96.80
Kerala	1132.7	5581.3	20874.3	87.15
Tamil Nadu	989.7	4427.5	16911.3	80.44
<b>Mean</b>	<b>961</b>	<b>4230</b>	<b>17333</b>	<b>85.16</b>
<b>Coefficient of variation (%)</b>	<b>15.32</b>	<b>26.91</b>	<b>21.67</b>	
<b>Herfindahl index</b>	<b>0.0059</b>	<b>0.0181</b>	<b>0.0117</b>	

Source: Basic Statistical Returns - RBI

**4.7.4 Deposit per branch**

There has been considerable increase in Deposit per branch, in all the four southern states, especially in the post reform period. There was a decline in Coefficient of Variation from 11.37 % in 1988 to 9.17 % in 2005. The Herfindahl Index, takes a value of less than 0.1, indicates equal progress among the four states with respect to this indicator. The table 4.27 shows the progress made by the four states in the above indicator.

**Table 4.27**  
**Index of disparity in Deposit per branch**

(Rs. In lakhs)

Southern States	1985	1995	2005	Growth rate in %
Andhra Pradesh	109.1	410.3	1779.8	76.56
Karnataka	99.1	435.5	2105.7	101.23
Kerala	114.3	553.1	1913.5	78.74
Tamil Nadu	129.9	554.6	2182.5	78.99
<b>Mean</b>	<b>113</b>	<b>488</b>	<b>1995</b>	<b>83.21</b>
<b>Coefficient of variation (%)</b>	<b>11.37</b>	<b>15.62</b>	<b>9.17</b>	
<b>Herfindahl index</b>	<b>0.0032</b>	<b>0.0061</b>	<b>0.0021</b>	

Source: Basic Statistical Return – RBI

#### 4.7.5 Per Capita credit

There has been tremendous increase in Per Capita credit in the last two decades. The table 4.28 shows the relative progress of the four south Indian states in the above indicator. The rate of growth of Per Capita credit is lowest in Kerala. Tamilnadu has the highest rate of growth of Per Capita credit. The Herfindahl Index takes a value of less than 0.1. South Indian states are exhibiting less disparity with respect to the availability of Per capita credit.

**Table 4.28****Index of Disparity in per capita credit in Rupees**

Southern States	1985	1995	2005	Growth rate in %
Andhra Pradesh	589.4	2098.1	10213.4	81.64
Karnataka	766.5	2669.0	15522.3	96.26
Kerala	774.2	2523.0	12004.6	72.53
Tamil Nadu	838.8	3842.0	17827.1	101.26
<b>Mean</b>	<b>742</b>	<b>2783</b>	<b>13892</b>	<b>88.58</b>
<b>Coefficient of variation (%)</b>	<b>14.40</b>	<b>26.82</b>	<b>24.67</b>	
<b>Herfindahl index</b>	<b>0.0052</b>	<b>0.0180</b>	<b>0.0152</b>	

Source: Basic Statistical Returns – RBI

**4.7.6 Credit per branch**

Credit advanced per branch, is the highest for Tamilnadu and lowest for Andhra Pradesh. The growth rate in the above ratio is lowest in the case of Kerala, as revealed by the table4.29.

**Table 4.29****Index of Disparity in Credit per branch (Rs. In lakhs)**

Southern States	1985	1995	2005	Growth rate in %
Andhra Pradesh	83.0	305.9	1483.2	84.37
Karnataka	80.2	283.6	1694.3	100.66
Kerala	78.1	250.0	1100.4	65.46
Tamil Nadu	110.1	481.3	2300.7	99.46
<b>Mean</b>	<b>88</b>	<b>330</b>	<b>1645</b>	<b>88.61</b>
<b>Coefficient of variation (%)</b>	<b>17.06</b>	<b>31.29</b>	<b>30.51</b>	
<b>Herfindahl index</b>	<b>0.0073</b>	<b>0.0245</b>	<b>0.0233</b>	

Source: Basic Statistical Returns - RBI

Herfindahl Index rules out any possibility of concentrated development of this indicator. The Coefficient of Variation has however increased.

#### 4.7.7 Credit Deposit Ratio

**Table 4.30**

#### **Index of Disparity in Credit Deposit Ratio**

Southern States	1985	1995	2005	Growth rate in %
Andhra Pradesh	76.1	74.6	83.3	0.47
Karnataka	80.9	65.1	80.5	-0.02
Kerala	68.4	45.2	57.5	-0.80
Tamil Nadu	84.8	86.8	105.4	1.21
<b>Mean</b>	<b>78</b>	<b>68</b>	<b>82</b>	<b>0.27</b>
<b>Coefficient of variation (%)</b>	<b>9.11</b>	<b>25.85</b>	<b>23.99</b>	
<b>Herfindahl index</b>	<b>0.0021</b>	<b>0.0167</b>	<b>0.0144</b>	

Source: Basic Statistical Returns - RBI

Credit Deposit Ratio is an important indicator of the performance of banking sector. Kerala and Karnataka show a negative growth rate in this ratio over the period 1985 to 2005. The Coefficient of Variation has increased over the period. Herfindahl Index value is less than 0.1. This assures better regional equality, with respect to the above indicator.

When the above individual indices are examined, there is little disparity among the four states. Coefficient of variation and Herfindahl Index points to regional equality with respect to banking sector improvements.

#### 4.7.8 Composite Index of Banking Development in South Indian States

In order to get an aggregate measure of banking development, the six indicators analyzed in the previous section are standardized and condensed into composite indices. Composite indices were obtained,

after giving weightage, to each indicator using principal component analysis. Such indices are constructed for the south Indian states, Kerala, Karnataka, Tamilnadu and Andhra Pradesh. The results of the study are given in the table 4.35 and 4.36.

**Table 4.31**

**Weights assigned to different indicators of banking development**

Variable	1985		1995		2005	
	Factor 1	Factor 2	Factor 1	Factor 2	Factor 1	Factor 2
Population served per branch	-0.226	0.302	0.296	0.094	-0.160	0.339
Per capita deposit	-0.044	0.409	0.255	0.232	-0.063	0.404
Deposit per branch	0.286	0.131	0.114	0.332	0.213	0.268
Per capita credit	0.144	0.365	-0.099	0.348	0.233	0.229
Credit per branch	0.353	0.049	-0.227	0.267	0.279	-0.001
Credit Deposit Ratio	0.274	-0.076	-0.312	0.095	0.269	-0.113
Percentage variations	46.94	39.99	51.36	44.57	59.56	40.18

Source: Basic Statistical Returns - RBI

**Table 4.32**

**Composite indices of banking development in South Indian states**

Southern States	1985		1995		2005	
	Indices	Rank	Indices	Rank	Indices	Rank
Andhra Pradesh	-0.7350	4	-0.9123	4	-0.7801	4
Karnataka	-0.2359	3	-0.0598	3	0.3379	2
Kerala	0.0151	2	0.8016	1	-0.3855	3
Tamil Nadu	0.9558	1	0.1705	2	0.8278	1

Source: Basic Statistical Returns - RBI

The above table shows the relatively top position of Tamilnadu. Andhra Pradesh comes at the bottom of the ranking. Kerala and Karnataka can be considered as moderately banked states in south India. In 1995, Kerala ranks first among other states, according to the analysis. It was mainly due to the decrease in the number of people covered per branch and fast increasing deposits. In 2005, Kerala ranked third, among the four states according to the study. The four South Indian States are more or less on equal footing as revealed by the study.

Test of the hypothesis :

Post reform period has witnessed increase in deposit mobilization and credit disbursement. Compound rate of growth of per capita credit and per branch credit has also increased. Credit deposit ratio is also showing increasing tendency recently. Very recently there has been some tendency for deposits to decrease. The compound rate of growth of per capita deposit and per branch deposit came down marginally. The change in the pattern of credit deployment is also not favourable. Thus the results of the study partially validate the hypothesis that the performance of the banking sector in Kerala has improved in the post reform period.

## **Conclusion**

The evaluation of the alterations in the monetary variables can be encapsulated. There has been substantial accretion in the volume of bank deposits in Kerala in the post reform period. The rate of growth of credit in the decade 1995-04 exceeds the rate of growth of credit in the previous period. There has been sizable addition in credit extension in the post reform period. Private and public sector banks are alike in the rate of

growth of credit. The variations in the composition of credit report the shrinkage in the share of agricultural credit and expansion in the share of personal loans. Compared to the situation in 1985 credit deposit ratio is low at present. However there is an increasing tendency of credit deposit ratio in recent times. In the case of Kerala , per capita credit has positive impact on per capita income. There is no reverse relationship between per capita income and per capita credit as proved by causality test.

Compound rate of growth of six important monetary ratios published a picture of general advancement of the banking sector in Kerala. The four southern States in India betrayed little difference in their achievements based on the monetary ratios. Among the four States, Tamil Nadu tops the list. Kerala can be considered as belonging to a group of moderately banked states.

The statistical analysis in this chapter substantiates the general perception of good performance by banks in the post reform period even though the changes in certain areas are not satisfactory. The direction of change in the banking sector is appropriate in general. However, the tendency of a fall in the rate of growth of deposit in recent times is not a welcome feature. Likewise the distortions in the pattern of credit allocation have to be corrected before we can ascertain the fact that the banking sector in Kerala has improved in the post reform period.

## Notes and References

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- <sup>1</sup> Oommen M A (1976), "Rise and Growth of Banking in Kerala", Social Scientist Vol 5 , No:3,October, PP.24 to 26

## **CHAPTER 5**

### **IMPACT OF REFORMS ON BANKING TECHNOLOGY**

Revolution in information and communication technology has transformed drastically the operational environment of banks everywhere. In India also the convergence of computers and communication technology has reconditioned the banking sector. There has been a whole paradigm shift in banking due to technological changes. There is centralized banking with more customer centric policies. In the new laissez-faire scenario, customer is the king. Banks are eager to adopt the state of the art technology in their day to day operation to satisfy their customers.

Computerisation in banks in India started in 1980's. The next decade saw wide spread application of computers and banks going in for total branch automation as the cost of computerisation dwindled drastically. The late 90's witnessed a great tide of financial reforms, de regulation and globalization . Indian banking sector has passed through eventful times in the last few years. Indian banks are poised at a defining moment. How they will react to the new challenges will have far reaching consequences.

The financial sector reforms and globalization have facilitated speedy implementation of new technology. With a large reservoir of human capital trained and skilled in information technology, it is the generally accepted fact that an extensive use of IT is the path of growth

for the financial sector. Techno savvy new banks have grabbed the opportunity. There are also some smart private sector banks closely behind them. Public sector banks have also realized the need for speeding up implementation new technology.

The application areas for the new technology in banks can be divided into two categories. Customer centred technology applications and high-end exercises. The first category includes Internet banking, anywhere banking, mobile banking, home banking etc. The high-end technology encompasses risk management solutions and credit monitoring systems. The various aspects of new technology include use of Automatic Teller Machines, linkage with Indian National Financial Network ( INFINET,) and Real Time Gross Settlement System ( RTGS.) Thus technology has greatly changed the profiles of major functions performed by a bank. The imprint of new technology on the functioning of commercial banks in Kerala is the subject of this abstraction.

Comprehensive data on technological up gradation of banks in Kerala is not available. For that reason, primary data were collected from 60 branches in Thrissur district. For any study on financial sector this place is most appropriate because Thrissur was in the pre-independence period and is still the hub of various financial activities. Three important scheduled commercial banks have their head quarters located in Thrissur. Thrissur is a semi-urban locality patronised by non-resident Indians. Data were collected from 30 bank branches in public sector and 30 bank branches in private sector. Data were collected to scrutinize the following features of commercial banks accomplishments.

- The dimensions of technology up gradation in different banks.

- Comparative performance of Public sector and Private Sector branches in the extension of new technology.
- Perception of bankers on the merits and demerits of new technology.
- Credit deployment and deposit mobilisation by fully computerised and partially computerised branches.

The analysis also includes a comparison of the productivity and profitability of banks at different levels of computerisation. For this purpose three ratios are used. They are profit per employee and business per employee and ratio of wage bill to total expenditure. For this investigation three Thrissur based banks are selected. They are Catholic Syrian Bank, Dhanalakshmi Bank and South Indian Bank. South Indian bank is fully computerised with core banking system while other two banks are yet on the path of achieving universal banking technologies. The performance of these banks is compared with that of new generation banks in the last five years. In this analysis Canara bank which is the lead bank in Thrissur is also included. Secondary data is used for the above analysis. The role of new technology in improving cost efficiency, labour efficiency and profitability is examined.

Consumer sovereignty is a vital attribute of free market economy. In this epoch of liberalisation and privatisation, banks are eager to appease their customers with new products and new service channels. Customer satisfaction is the sine-qua-non for the competitive sustenance of a bank. Customer perceived service quality in the banks is a subject matter of the present exercise. Any research on the impact of banking sector reforms will be wanting or inadequate without an enquiry into customer feedback.

The factors shaping customer perception includes policy changes, service quality modifications and introduction of new technology based products. The attitude of the bank's customer on the above aspects of banking sector transformation is investigated. In order to give an insight into what consumers expect from services offered by commercial banks a primary survey was conducted among 100 customers belonging to different banks in the district. Likert scale is used to construct customer perception indices.

## **5.1. Dimensions of new technology and commercial banks**

New technology in banking is many sided. The various components which comprise the building blocks of the modern banking structure can be looked into one by one. Firstly those factors affecting the physical environment of a bank are studied.

### **5.1.1. Level of Computerisation**

Computerisation is the first step on the path of technological advancement. No financial institution can survive without computerization. Computerisation of branch operation, controlling offices and Head office has been taking place at rapid pace. Here the level of computerization is classified into three. First group includes those banks which use computer only for front end transactions. The 2<sup>nd</sup> group includes those branches which have Total Bank Automation without core banking or internet banking. The third group includes those branches which use computers for Core banking.

**Table 5.1****Distribution of banks according to level of computerisation**

Level of Computerization	Public sector		Private Sector		Total	
	Number	%	Number	%	Number	%
Front end transactions	4	13.33	2	6.67	6	10.00
Total Branch automation without core Banking	17	56.67	13	43.33	30	50.00
Core Banking	9	30.00	15	50.00	24	40.00
Grand Total	30	100	30	100	60	100

Source : Computed from Bank Survey

The level of computerisation of banks in Thrissur district is revealed in the table. Among the public sector banks 30% of the branches have adopted core banking. 13.33% of public sector bank branches have adopted computerization only for front end transactions. The remaining 56.67% of public sector bank branches have total branch automation without core banking.

In the private sector 50% of the branches have core banking while 6.67% have computerization only for front end transaction. There is total branch automation without core banking for the remaining 43.33% of private sector bank branches. Private sector banks are ahead of public sector banks in this respect.

### **5.1.2. Availability of different components of new technology**

The banking industry is aware of the imperatives of financial liberalisation and has taken steps to promote new technology. Technological transformation is a package which includes various items

.There are modifications and innovation in the instruments and modes of transaction .The level of acceptance of these components by different banks are examined.

### *Availability of Server*

If a bank branch has its own Server, it can function as a vital fulcrum point for all financial operations.

**Table 5.2**  
**Percentage distribution of banks according to the availability of different components of new technology**

Components of new technology	Public	Private	Total
Server facility	70.00	60.00	65.00
Internet Banking	46.67	70.00	58.33
INFINET	20.00	23.33	21.67
RTGS	43.33	70.00	56.67
Data warehousing of customers	66.67	63.33	65.00
Data warehousing of industrial enterprise	40.00	43.33	41.67
Mobile banking	16.67	50.00	33.33
Plastic money	46.67	36.67	41.67
Automatic cheque clearance	43.33	73.33	58.33
Centralisation	36.67	83.33	60.00

Source : Computed from Bank Survey

70 per cent of the branches examined in the public sector have their own server. In the case of private sector bank branches studied, 60% of them have their own server.

The banks with their own websites offer basic traditional information on the financial product and services. In the case of

establishing a server facility public sector banks are leading the private sector banks.

### ***Internet banking***

Different banks are at different levels of internet banking. Internet banking will enable customers to do basic transactions like opening an account, paying bills, and checking their balance through internet. Transfer of funds is also possible electronically.

Among public sector bank branches, 46.67% of the branches offer internet banking facility to the customers. Among the private sector bank branches, 70% of the branches offer internet banking facility. In Thrissur district, a total of 58.33% of the total branches examined offer internet banking facility. Private sector banks reveal remarkable achievement with respect to this advanced mode of financial service.

### ***INFINET***

A landmark development on the path of technological progress is the setting up of the INFINET – Indian National Financial Net work. It is a wide area satellite based network which interconnects bank branches. The successful implementation and operation of INFINET is a milestone in that critical inter bank transactions could be conducted through it.

Among the public sector banks 20% are integrated to INFINET. In the case of private sector branches, 23.33 percent are integrated to their financial network. Among the total branches studied in Thrissur district, only 21.67% of the branches are integrated to INFINET. The progress of bank branches in this respect is not satisfactory. Banks in

the public sector and private sector have more or less similar level of achievement in this respect.

### ***RTGS(Real Time Gross Settlements)***

At the root of an integrated payments and settlements system is the Real Time Gross Settlement System. It is being designed to provide large value funds transfer and settlement in an online environment. RTGS will help in carrying out financial transactions relating to government securities. Electronic clearing service, Retail electronic funds transfer, plastic money and smart card transactions are all related to this system.

In the public sector, 43.33% of the branches studied are linked to RTGS. In the private sector, it is 70%. When public sector branches and private sector branches are combined 56.67% of the branches are linked to real time gross settlement system.

### ***Data ware housing***

Narasimham committee recommended Management Information system based on Data warehousing. The structure, configuration and design of the data warehouse may vary from bank to bank. It is expected that the computerized branches themselves would provide the critical data for a data warehouse. Questions were asked to find out the number of branches maintaining data warehouse of customers and industrial enterprises. This is an important initiative related to RBI through which they know their customers .This initiative of RBI is called Know Your Customer ( KYC) policy .

66.67 percentages of the public sector branches keep data warehouse of customers. In the private sector, 63.33% of branches keep data warehouse of customers.

40% of the public sector bank branches prepare and keep database of industrial enterprise requiring credit. In the private sector, 43.33 percentages of branches keep database of industrial enterprise. Much disparity is not noticed among Private and Public sector banks in keeping up data warehouse. The maintenance of database is necessary for pro active banking operation.

### ***Mobile banking***

Many new generation banks have tied up with cellular operations in major cities to offer mobile banking. Customers can access accounts details on mobile phones using the Short Messaging system (SMS) technology. Survey looked into this aspect of modern banking.

As revealed by the table majority of the banks do not use mobile phones to alert the customers, both under public and private sectors. However among the bank branches studied, 5 branches in the public sector and 15 branches in the private sector reported the use of mobile phones to alert the customer on financial transactions

### ***Plastic money and commercial Bank***

Banks at present are concentrating more on Retail banking. Retail banking deals with saving account, current account and fixed deposits etc. of a large number of customers who usually have small deposits with the bank. To capture the big local retail market, banks have introduced many products like debit cards and credit cards. Credit cards

are the major new offerings in retail banking. Various banks are affiliated to visa international and master card international. Survey looks into the popularity of such cards among the banks in Thrissur district.

It was found that 46.67 per cent of the bank branches in public sector and 36.67 per cent of bank branches in the private sector deal in plastic money forms like credit cards, debit cards, etc. Majority of bank branches are yet to start business in this respect.

### ***Automatic cheque clearance***

The large functional and geographical spread of banks has made cheque clearance a Herculean task. There has been a switch over from hard cash to paper based instruments. This has been facilitated by MICR(Magnetic Ink Characteristic Recognition) clearing.

Automation of clearing cheques has become popular. The study reveals that 43.3 per cent of public sector bank branches and 73.33 per cent of private sector bank branches, have automation of clearing cheques. Automatic cheque clearance has made transfer of funds very fast.

### ***Centralisation of Decision-making and database***

Branch banking is losing its importance in this era of new technology. Customers are no longer customers of a branch, but of a bank with computerisation and net banking branches as local feeders and data collectors. The ultimate decision comes from the main office. This is the situation with new generation banks.

Another feature of modern banking is centralization of database and decision-making. This has not happened in a large scale among the bank branches, under public sector, while this aspect is noticed among majority of bank branches under private sector. Centralised decision-making is feature of core banking.

### 5.1.3. Human resource and new technology

Adoption of new technology has revolutionized the pattern of utilization of human resources in bank. Many banks are providing incentives to staff for the promotion of new technology .A study of impact of new technology in these banks is attempted from a human resource perspective.

**Table 5.3**

**Percentage distribution of banks adopting new patterns and schemes in Human Resource utilization**

Components	Public	Private	Total
New Design of work	23.33	53.33	38.33
Outsourcing	13.33	16.67	15.00
Incentives to staff	40.00	70.00	55.00

Source : Computed from Bank Survey

#### *New Division of Works*

There is a new pattern of division of work associated with new technology in banking. Formerly, work in an office was divided into Credit, deposit etc. Now most of the banks have changed their array of allocation of work.

The new design of work division includes retail banking, corporate banking, NRI division etc.

The table 5.3 shows the percentage of banks having new type of division of work and remunerative pattern. In the case of public sector branches this new scheme of work is introduced only in 23 % of the total branches. In the case of private sector branches studied 53 % adopted new division of work along new times. Private sector banks are quick to understand the importance of retail banking.

### ***Outsourcing of Technological Services***

Another feature of new technology adoption is the appointment of IT staff. Most of the banks give in-service training to the existing staff. Narasimham committee had recommended outsourcing of software technology. Outsourcing software technology according to the committee could be better options for banks to resort to in the context of rapid changes taking place in IT industry.

The table 5.3 shows the extent of dependence of banks on IT staff appointed from outside the bank. About 13% of the branches in the public sector depend on computer personnel outside the bank. In the case of private sector bank branches, 16.67% of the branches depended on outside computer staff. Most of the banks have their own trained computer personnel to deal with matters of new technology. Many banks use software supplied by prominent companies like Infosys and IBM.

### **INCENTIVES TO STAFF**

Banks should create an atmosphere conducive to their staff in absorbing the latest and advanced technology and for encouraging the staff to promote new technology.

Banks are having multiple designations and multiple allowances related to computer usage. The extent of such incentives was examined among the public sector and private sector banks.

40% of the public sector branches offer multiple designations and allowances in relation to computer usage. 70 % of the private sector bank office also offered such incentives. Private sector banks are ahead in giving incentives to staff to promote the usage of new technology.

***Education Pattern of the staff***

The education pattern of existing staff in private sector and public sector branches are examined.

**Table 5.4.**

**Percentage of Bank Employees in Different Educational Categories**

Type of banks	SSLC	Graduation	PG	Professional
Public sector	19.4	61.8	16.9	1.9
Private sector	14.5	57.1	24.7	3.7
Total	17.0	59.4	20.8	2.8

Source : Computed from Bank Survey

The table 5.4 reveals the predominance of graduates among the employees. Among the public sector bank branches 61.8% of the staff is graduates. In the private sectors 57.1% of staff in a branch is graduates. Private sector banks are ahead in the appointment of professionals. The percentage of S.S.L.C holders are more in the case of public sector branches.

### *Average age of staff*

Youngsters are quick to learn new technology. Hence the age structure of employees in a bank is important in the event of adoption of new technology. Aging staff can pose a hindrance to the promotion of new technology.

**Table 5.5.**  
**Age Composition of Employees**

Type of banks	Average age in years
Public sector	45.7
Private sector	41.8
New generation banks	30.6
Total	42.8

Source : Computed from Bank Survey

The table shows that in the case of Public Sector banks, the average age of staff is 45.7 years which is relatively high. The average age of staff in the branches in the private sector Bank is 41.8 years. In the New Generation banks the average age of staff is 30.6 years which is the lowest. This shows the relatively young age group of the new generation banks with high levels of technology adoptions.

Age structure of new generation banks reveal that these banks literally belong to the new generation. Many public sector and private sector banks are slow on the path of up gradations in technology due to this inverted pattern of age groups.

### ***Staff pattern in commercial banks***

A typical branch has officers, clerks, sub staff and field staff. An attempt is made here to examine the staff pattern in the public and private sector banks.

**Table 5.6**  
**Staff pattern in Commercial banks**  
**Average number of employees in different categories**

<b>Category</b>	<b>Public sector</b>	<b>Private sector</b>
Officers	4.1	4.5
Clerks	7.4	4.0
Sub staff	2.5	2.8
Field staff	0.23	0.87
Total Staff	14.2	11.6

Source : Computed from Bank Survey

The table 5.6 shows the average number of staff under different categories for public sector and private sector banks. The average number of staff in a branch in the public sector is 14.2 and average number of in staff under private sector is 11.6. The average number of officers in a public sector bank branch is 4.1 and it is 4.5 in a private sector bank. The number of field staff is more in private sector. There are more clerical staff in public sector banks compared to other banks.

An entirely new feature of staff pattern in the new generation banks is the increasing number of field staff. Average number of field staff in the six branches of new generation banks is 25. This indicates the growing importance of marketing in Banking

#### **PUBLIC AND PRIVATE SECTOR BANKS AND NEW TECHNOLOGY**

The above analysis leads to the inference that private sector banks are displaying greater vigour and vivacity in adopting new technology. Whether it is in the adoption of core banking or in providing mobile phone banking, private sector banks are surpassing public sector banks. However, public sector banks are doing better in the case of

dealing in plastic money .With respect to new technology and changes in the use of human resources, private sector banks are excelling. Pattern of educational qualifications of employees studied, reveals the increased number of professionally trained staff in the service of private sector banks compared to public sector banks. Aged employees are a common problem for public sector banks and old private sector banks. New generation banks have employees belonging to a new generation. Public sector banks retain the reputation of being major providers of employment. The average number of employees in a public sector bank is more than that of a private sector bank.

## **5.2. Prospects and problems of new technology**

The new methods of financial intermediation have many advantages and disadvantages

In order to get a categorical view about the merits and demerits of new technology, bank managers were interviewed personally. Their candid opinions are analysed below. Percentage of bankers agreeing to statements relating to merits and demerits of technology banking is given in the Table 5.7.

The prospects and problems related to technological revolution in banks were looked into. 50 % of the bankers interviewed affirmed that there was reduction in the work at branches with the introduction of ATMs. In spite of ATM facilities customers continue to prefer personal meetings with the bankers.61 % of the bankers accepted the importance of information-based marketing in the new era. Majority of the bankers prescribed technology, as the route to success in the future .New technology is necessary to maintain the existing

customers. They were of the presumption that technology would decide future customer base. 5 % of the bank branches studied reported cases of financial frauds based on new technology. Various constraints in the implementation of new technology were identified by the bankers. 76 % of the bankers acknowledge the unfavourable attitude of trade unions as one of the hindrances. 90 % of the bankers identified lack of skill level and the age structure of employees as major impediment in the implementation of up-to-date technology. Defective software and insufficient experience of staff were other stumbling blocks in the path of technological advancement. 77% of bankers regarded hostile attitude of trade unions as a hindrance to technological advancement.

**Table 5.7**  
**Prospects and problems of new technology**

Components	Yes (%)
Usefulness ATM	50
Marketing is the prime requirement	61
Technology is the highway of success	91
Technology will decide the customer base	86
Technology will satisfy the existing customers	58
ATM has reduced the rush at the counters	46
Financial frauds were reported	5
Reluctance on the part of customers	77
Skill and age structure of employee	95
Acceptance of defective software	80
Hostile attitude of unions	76

Source : Computed from Bank Survey

### 5.3. Financial Intermediation and New Technology

The accomplishments of banks with and without core banking technology are juxtaposed to verify the role of technology in promoting financial intermediation. Among the 60 bank branches surveyed 24 branches were equipped with core banking technology. The remaining 36 branches were on different stages of technology up gradation. The following table illustrates the average amount of deposit and credit of the branches studied. The average figures can be used only for comparative purposes.

The average deposit of a branch with core banking solutions is compared with the average deposit of a branch without core banking based on the data collected from the 60 branches under study for 2003-04 and 2004-05.

**Table 5.8**  
**Average Credit and Deposit**

Year	Deposit Rs(Crores)		Credit Rs(Crores)	
	Having core banking	Not having Core banking	Having core banking	Not having Core banking
2003-04	5.98	5.15	4.52	4.60
2004-05	6.79	6.03	5.25	5.69

Source: Computed from Bank Survey

In the matter of deposit mobilization modern banks are having a little edge over others. The average amount of deposits of banks with core banking is more than that of banks without latest technology.

But as distinct from this, in the case of credit extended among the branches under study, the average credit advanced by branches with core banking solutions is less than that of branches following traditional practices.

The above comparison brings out the fact that new technology bank branches are successful in mobilising more deposits than others in the market. In the case of credit extension branches without latest technology are doing well. The discrepancy in the averages is however not very significant. The micro level study does not reveal much variation in the extent of financial intermediation among banks at different levels of technology. Technology adoption is recognised as a necessity by the commercial banks. At the same time brick and mortar banking will last for a long time to come since they are still able to get good business. It cannot be disputed that the most important factor is good counter service.

#### **5.4. Efficiency, profitability and Economy of banks and the new technology**

The study also made an attempt to examine how new technology acts on the business of commercial banks. Efficiency, profitability and economy of banks are the three attributes examined here. Business per employee, profit per employee and ratio of wage bill to total expenditure are interpreted to make a comparison of banks at different stages of technological up gradation. For this purpose secondary data of three Thrissur based private commercial banks and the lead bank of Thrissur

are used. The relevant banking ratios of two new generation banks are also made use of for the purpose of a comparative analysis.

A comparison of Business per Employee, Profit per Employee and the ratio of Wage bill to Total expenditure of these banks can throw some light on the importance of technology.

**Table 5.9.**  
**Business per employee Bank wise and year wise**

Bank	<b>Rupees In Lakhs</b>				
	2001-02	2002-03	2003-04	2004-05	2005-06
Catholic Syrian Bank	149.98	164.94	162.16	220.00	247.00
Dhanalakshmi Bank	199.24	222.06	248.63	292.70	311.71
Canara Bank	214.88	250.11	297.58	351.12	441.57
ICICI Bank	486.49	1120.00	1010.00	880.00	905.00
HDFC Bank	778.00	865.00	866.00	806.00	758.00
South Indian Bank	218.00	265.00	306.00	352.00	422.00

Source: Economic Times (7-10-2006)

From the table it can be seen that business per employee is significantly high for Banks with modern technology. New Generation Banks are far ahead of other banks. South Indian Bank, which has undergone an IT revolution, has definitely increased its business per employee, when compared with Catholic Syrian Bank and Dhanalakshmi Bank. Canara Bank is able to maintain a high level of business per employee compared to South Indian bank.

**Table 5.10.**  
**Profit per employee**

Bank	Rupees In Lakhs				
	2001-02	2002-03	2003-04	2004-05	2005-06
Catholic Syrian Bank	1.23	1.57	1.96	0.37	0.22
Dhanalakshmi Bank	0.78	1.15	1.32	-1.65	0.72
Canara Bank	1.64	2.26	2.97	2.48	3.02
ICICI Bank	5.33	11.00	12.00	11.00	10.00
HDFC Bank	9.75	10.09	9.39	9.80	7.39
South Indian Bank	1.68	2.04	2.39	0.24	1.37

Source: Economic Times (7-10-2006)

A comparison of Profit per employee reveals the excellent performance of new generation high tech banks. However, Canara Bank has a higher Profit per employee, when compared with other old private sector banks in Thrissur.

**Table 5.11**  
**Wages as a percentage of total expenditure**

Bank	Rupees In Lakhs				
	2001-02	2002-03	2003-04	2004-05	2005-06
	%	%	%	%	%
Catholic Syrian Bank	19.43	21.58	24.08	22.80	30.43
Dhanalakshmi Bank	17.91	20.09	21.05	20.92	20.04
Canara Bank	18.27	18.83	20.47	21.13	20.27
ICICI Bank	6.75	4.05	5.70	7.47	7.69
HDFC Bank	7.32	8.52	10.10	11.52	13.45
South Indian Bank	14.52	15.19	19.41	18.54	20.58

Source: Economic Times (7-10-2006)

New technology can definitely reduce wage bill as a percentage of total expenditure as revealed by the examples of ICICI and HDFC banks. However, IT revolution has not reduced the expenditure on labour

in South Indian Bank. In fact, wage bill as a percentage of total expenditure has increased in South Indian Bank.

To conclude it may be observed that new generation banks with up to date technology lead other banks in business per employee and profit per employee. Their wage bill to total expenditure is low compared with other banks.

Canara Bank which is lead bank under public sector is partially computerized. South Indian Bank has completed the computerization process reaching the core banking level. Business per employee of Canara bank is however more than that of South Indian Bank. The ratio of wage bill to total expenditure of Canara Bank is less than that of South Indian Bank. Profit per employee is also high for Canara Bank. Good performance of Canara bank under the public Sector is pleasant surprise. Public Sector bank which has not reached highest levels of technological progress performs better than SIB which is completely computerized private sector bank. Canara Bank optimizes a perfect combination of modern banking and traditional banking.

Business per employee, profit per employee and ratio of wage bill to total expenditure were interpreted to make a comparison of the performance of banks at different levels of technological up gradation. Catholic Syrian Bank, Dhanalaksmi Bank and Canara Bank are half way on the path of technological advancement. South Indian Bank, ICICI and HDFC are banks which are computerised with core banking solutions. The new generation banks surpassed other banks with respect to the above ratios. The banks are ranked according to composite indices constructed from the above ratios in table 5.12

**Table 5.12.**  
**Rank and Score of different banks**

Bank	2001-02		2002-03		2003-04		2004-05		2005-06	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
CSB	-0.746	6	-0.718	6	-0.759	6	-0.770	5	-0.955	6
DLB	-0.687	5	-0.686	5	-0.687	5	-0.773	6	-0.664	5
Canara	-0.588	4	-0.565	4	-0.508	3	-0.444	3	-0.303	3
ICICI	0.865	2	1.661	1	1.651	1	1.561	1	1.674	1
HDFC	1.629	1	0.821	2	0.831	2	0.949	2	0.725	2
SIB	-0.473	3	-0.514	3	-0.527	4	-0.523	4	-0.477	4

Source: Economic Times (7-10-2006)

**Table 5.13.**  
**Factor loadings in each year**

Variables	2001-02	2002-03	2003-04	2004-05	2005-06
Business per employee	0.348	0.347	0.339	0.345	0.341
Profit per employee	0.347	0.341	0.341	0.341	0.342
Wages as a percentage of total expenditure	0.333	0.334	0.334	0.336	0.334
Percentage variations	94.62	95.69	97.265	95.69	96.62

Source: Economic Times (7-10-2006)

The different banks at different levels of computerisation are ranked according to the composite indices constructed from the three

ratios. The new generation banks top the list. Catholic Syrian Bank and Dhanalakshmi Bank are at the lowest rungs. Canara Bank, which is partially computerised, is ahead of South Indian Bank, which is fully computerised with core banking solutions.

The new technology banks have an edge over other banks in achieving high levels of efficiency profitability and economy. The performance of Canara Bank and South Indian Bank points out the fact that technology alone is not the factor determining the progress of a bank.

### **Customer Perception of Banking Sector (Reforms)**

The scope of the study is restricted to Thrissur district. The study covers banks in private and public sector. The results of the study are based on views expressed by 100 customers regarding their perceptions and expectations about new technology, quality of service and policy changes. The survey was conducted from January 2006 to March 2006, by personally administering the questionnaire, with 30 statements.

Likert scale is used to summarise the responses of customers to different statements on policy issues, service conditions and new technology. The responses were converted into indices. There were positive and negative statements, from the point of view of the bank. So the scores were reversed wherever necessary.

The customer perceptions index was constructed using the following formula,

$$Z = \left( \frac{-2f_1 - 1f_2 + 0f_3 + 1f_4 + 2f_5}{(\text{Maximumscore}) \times N} \right) 100$$

where  $f_1, f_2, f_3, f_4$  and  $f_5$  are the respective frequencies,  $N$  is the total number of items and  $Z$  is the respective index.

The following classes gave the indices of customer perception with respect to the changes in the services of the bank, changes in the policies and technological changes in the banks.

The indices were classified into three zones.

Below 33.33, (Least favourable)

33.33 to 66.66, (Moderately favourable)

Above 66.66, (Most favourable)

### **5.5. Statements related to policy changes**

Interest rate deregulation was the most noteworthy feature of financial liberalization. The immediate impact of de-regulation was the sinking of interest rates. The reactions of customers as depositors and as borrowers are investigated.

The customer perception indices indicate that the reduction in the rate of interest evoked unfavourable response from the customers. Customers prefer to keep less of their savings in the bank. They prefer to invest in gold and land. Their attitude towards share market has also changed. Post office, Treasury, etc also attract customers more than banks. Customers do not relate rate of interest and acceptance of loans. People are ready to take loans depending on the urgency of demand for fund. The responses to all the ten statements relating to change in policy were unfavourable from the point of view of banks.

**Table 5.14.**

**Index of statements related to Policy**

Statement	Total score	Index
Unattractive bank deposits	-78	-39
More deposits for maintaining interest income	-43	-22
Preference for savings deposits	5	3
Investing in gold is better than bank deposits	-12	-6
Investing in land is better than bank deposits	-85	-43
Share market a better option	-40	-20
chitties are good	10	5
Treasury is the best option	33	17
Post office a better option	-31	-16
Low interest rate encourages loans	-0.05	-10

Source : Computed from Customer Survey

**5.6. Statement related to accession of new technologies**

There are a number of new technology based products offered by a commercial bank. They include credit cards, debit cards, automatic teller machines etc. The statements were with respect to the reception of these products by the customers.

Favourable responses were received with respect to the five statements out of the ten statements. People are ready to accept facilities like ATM, Credit Cards etc. They agree to the statement that internet banking is the future mode of banking. They favour transfer of funds, through Core Banking. The customers also believe that the ancillary services have improved. Even though customers were ready to accept ATM facilities, they expressed difficulties in learning its operation. People agreed to the statement that the existence of black money and fear of accounting expenditure out of black money is a factor hindering use of credit cards

and ATM Cards. People are apprehensive about the malpractices connected with plastic money. They responded unfavourably to imposing charges for the use of new technology based products.

Majority of respondents agreed that lack of knowledge of new technology may force many to turn to indigenous bankers.

**Table 5.15.**  
**Index of statements related to Technology**

Statement	Total score	Index
Preference for ATM	99	50
Difficulty to operate ATMS	63	32
Black money discourages credit card	-2	-1
Credit card preferred over cash	74	37
Cheating prevails in the use of credit card and ATM cards	0	0
internet banking	76	38
Charge for ATM justified	-59	-30
Easier fund transfer	83	42
Lack of consumer knowledge is a hindrance	-10	-5
Improved ancillary services	78	39

Source : Computed from Customer Survey

### **5.7. Statements related to service conditions**

Ultimately it is the service at the counter that will determine the future of a bank. Intense competition in the rapidly growing global market has given rise to a need for superiority in services. Statements related to the services of banking staff were put forward for customer reaction. The results are summarized in the following index.

**Table 5.16.**

**Index of statements related to service**

Statement	Total score	Index
Improvement in customer service	100	50
Service Offered by new private sector banks are better than old banks	48	24
The services in the banks have become faster	79	40
Courteous and prompt services in Banks	46	23
Individual attention	2	1
Convenient operating hours	76	38
Queries are well attended	36	18
Reliability of services	33	17
Annoying marketing techniques	-49	-25
Speedy loan approvals	36	18
Easy availability of loans	32	16

Source : Computed from Customer Survey

There is positive response to the statement that the services in the bank have become faster in the recent times. Customers responded favourably to the statement that services in the banks have shown improvement.

There is favourable response to the statement, that operating hours of banks are now more convenient.

The response of the customers with respect to the aggressive marketing techniques used by banks is negative. Frequent visit and phone calls from marketing staff are found to be a nuisance to majority of the respondents.

A majority of the customers do not agree to the statement that bank employees are courteous and they provide individual attention to customers. They do not agree that the employees have the knowledge

and time to answer the questions of the customer and that they are providing services at the promised time. Majority of statements relating to the quality of service evoked unfavourable responses from the customers .Customers are yet to feel any difference in the service at the bank counter .They do not consider the services in the new generation banks as superior .

### 5.8. A summary of customer reaction

Customer responses to certain important statements are summarized below.

**Table 5.17**  
**A Summary of customer reactions**

Statements	Disagree	Indifferent	Agree
Improvement in customer service	9	0	91
Unattractive bank deposits	15	6	79
Preference for savings deposits	42	18	40
Investing in gold is better than bank deposit	37	14	49
Investing in Land is better than bank deposit	9	18	73
Share market is a better option	22	25	53
Treasury is a better option	57	16	27
Preference for ATM	12	2	86
Credit card preferred over cash	15	7	78
Lack of customer knowledge is a hindrance	39	14	47

Source : Computed from Customer Survey

In the set of questions related to improvement of services in the bank, the best positive response is that, there is all round improvement in the customer service of banks.

91 per cent of customers agreed to the statement that there is all-round improvement, in the customer service of banks in recent times. Only a small per cent of the customers disagreed.

79 per cent of the customers find bank deposits less attractive, due to the reduced interest rates. 6 per cent of the customers are indifferent and 13 per cent still consider bank deposits as the best method of savings.

40 per cent of the customers find term deposits less attractive. 42 per cent of the customers do not see much difference in the situation in post reform period. 15 per cent of the customers are unaware of it.

49 per cent of the customers consider, investing in gold as a better option than putting money in a bank. 37 per cent of the customers disagree with that.

Majority of the customers agreed to the statement that buying land is better than having savings in a bank. 73 per cent of customers agreed to the above statement. This is a possible response, considering the sky rocketing land prices in Kerala.

53 per cent of the customers consider share market as a new income yielding option to keep your savings. 25 per cent of the customers interviewed are unaware of this option, 22 per cent do not favour investing in the share market. There is definitely a change in the attitude of Keralites as many are ready to invest in shares.

57 per cent of the customers disagree to the statement that treasury savings constitute the best way of putting your savings. Only 27 per cent of the customers agreed to statement. This implies that people

have less faith in investing their savings with government. This may be due to the bureaucratic delay in withdrawing the invested money.

81 per cent of the customers agreed that ATM is a better way of carrying out business with a bank. This shows the over whelming support of the customers to the introduction of the new technology. Similarly 78 per cent of the customers consider credit cards as useful. It is better than carrying cash.

47 per cent of the people interviewed, think that the adoption of the new technology will alienate ordinary customers. This will lead to financial exclusion. The difficulty of understanding new technology may force illiterate masses to turn to ingenious moneylenders.

## **CORRELATION AMONG CUSTOMER REACTIONS**

On the basis of Likert scaling the responses of each question were scaled by giving score of 1 to 5. Summated score for major variables were obtained by summing the score for each questions related to it. Here three major variables viz. quality service, policy modifications and high level of new technology were identified and the summated score of these variables were obtained. Correlation of the total score with individual items was found out and eliminated the items which have low correlation with total score. Then again a summated score was obtained by including items which has significant correlation with the summated score. Then the summated scores were further analysed to examine the correlation between responses in the three major variables identified. Correlation was found to be significant between responses to technological up gradation and service characteristics .Service at banks are related to the technology adopted .The responses of customers to new technology and quality of services are related.

**Table 5.18.**  
**Correlation between responses to each variable**

	SERVICE	POLICY	Technology
SERVICE	1.000	-0.119	0.260**
POLICY	-0.119	1.000	-0.113
Technology	0.260**	-.113	1.000

\*\* Correlation is significant at the 0.01 level

Source : Computed from Customer Survey

**COMPARISON OF RESPONSES OF DIFFERENT INCOME GROUPS**

The survey was conducted among different income group. Analysis of variance (ANOVA) was done for comparing responses among different income groups and the result is given in table 5.19. F-values are found to be non significant for the responses of different income groups studied. This indicates that there is no significant difference in responses to the service, policy and technology changes among different income group. The lowest income group studied included people with income up to Rs.100000 per annum .The highest income group included people with income above Rs. 300000 per year.

**Table 5.19.**  
**Comparison of responses of different income groups results of ANOVA**

	Source	df	Sum of Squares	Mean Square	F
SERVICE	Between Groups	3	56.379	18.793	0.980 <sup>ns</sup>
	Error	96	1841.461	19.182	
	Total	99	1897.840		
POLICY	Between Groups	3	29.621	9.874	0.620 <sup>ns</sup>
	Error	96	1529.219	15.929	
	Total	99	1558.840		
Technology	Between Groups	3	24.141	8.047	0.603 <sup>ns</sup>
	Error	96	1281.819	13.352	
	Total	99	1305.960		

Source : Computed from Customer Survey

Test of the Hypothesis :

The superiority of new generation banks over other banks is established by our analysis. Profit per employee and business per employee are highest for the new generation banks. The ratio of wage expenditure to total expenditure is the lowest for these banks with superior technology. However, micro level study of bank branches with core banking solutions and bank branches without core banking solution did not reveal much difference in the volume of financial intermediation. Thus the results of the study validates partially, the hypothesis that technology based banks perform better than traditional banks. Relationship banking combined with new technology can yield wonderful results. The analysis of customer perception revealed the approval of many aspects of new technology by them. However customers were not satisfied with the quality of service in banks. The related hypothesis that customer perception of reforms is favourable to the banks is partially true.

## **Conclusion**

The above analysis has exposed the different constituents of the IT revolution in the banking sector. It has moved from a back office function to a top accomplice in increasing a banks productivity and efficiency. Banks at present are aspiring to make available for the customer every financial product and service at a single shop. Considerable progress has been made in installing various components of new technology.

Customer perception of use of new technology products like credit cards is favourable. However, the policy changes have evoked unfavourable response from them. They are not satisfied with the improvements in the

services of banks under the new setup. Banks have to do a lot more to satisfy the customer in the new scheme of things.

The important question whether new technology has any impact on the performances of banks can be inferred from the comparison of different banks. Such a comparison showed the superiority of new generation banks with respect to the ratios like business per employee and profit per employee. At the same time micro level study at the branch level doesn't reveal much difference in the average deposit and credit of banks with core banking and banks without core banking. New technology is necessary to attract fresh customers and to retain the present day clients. However technology does not offer a faultless solution to all the problems of a commercial bank. On the contrary, it is a tricky and risky proposition to go in for complete automation. Banks that do not make an investment in technology may lose their customers. But using IT as a key weapon requires huge cost and entails an uncertain business. There are many other relevant factors which determine the success of a bank like superior management and better quality customer service. In such a situation commercial banks are best advised to have a symbiosis of new technology and traditional banking.

## CHAPTER 6

### SOCIAL BANKING THROUGH THE VICISSITUDES OF FINANCIAL REFORMS

Economic growth is a necessary but not a sufficient condition for poverty mitigation. The inclusive paradigms of growth encompass social banking as one of the indispensable features. The banking sector in India pursues its social responsibility by reaching out to the poor through the financial channels of priority sector credit and micro credit.

The regulations directing commercial banks to lend 40% of their advances to the priority sector was a discipline enforced by the government of India as early as in 1967. Priority sector represents those pivotal domains of the economy which are highly instrumental in generating employment and lessening poverty. Priority sector lending includes short term and medium term investments in agricultural working capital, investment loans for small scale industry and financial support for the self employed professionals. Thereby the banking sector is expected to align its goals with those of the nation. Access to credit is critical to enable people to transform their production and employment activities. Priority sector at present broadly comprises the following divisions

- Agriculture
- Small scale industries
- Small road and water transport operations

- Retail trade
- Small business
- Professional and self employed persons
- State sponsored organisation of SC/ST
- Education
- Housing
- Consumption loan
- Micro credit
- Food and agro based sector
- Software industry
- Venture capital

The above divisions can be combined into three groups. (1) Primary sector which includes agriculture and allied activities (2) Secondary sector which includes Small Scale Industries (3) Tertiary Sector encompasses all other categories. Priority sector credit targets financial support groups in the economy.

Micro credit is defined by Reserve Bank of India as provision of thrift, credit and other financial services and products of a very small amount to the poor in rural, semi urban and urban areas for enabling them to raise their income levels and improve their living standards. The award of the Nobel Peace Prize to Prof. Yunus and Grameen Bank is a testimony of the world's recognition of Micro finance initiatives in the

developing countries. Indian banks have accepted micro credit as a feature of their credit policy.

The crucial test of any policy is the outcome of the efforts related to it. There are many perceptions about the outcome of the programme of priority sector credit. In the post reform period, it is generally apprehended that performance of banks in rural and agricultural lending is unsatisfactory. This is one issue which is examined in this exercise. Secondly, modification overtime in the concept and definition of priority sector advances has led to a loss of focus. This is another point in question sought to be answered in the analysis. Micro credit movement is considered to be a runaway success and the present study attempts to tract the progress of this movement in Kerala. Any study of social banking trends in India will be incomplete without a mention of micro credit.

Secondary data from the publication of State Planning Board, State level Bankers Committee and District Credit Plan are made use of in this study. The statistics relating to India were collected from RBI publications. Ratios and percentages, rates of growth and regression are the statistical tools used.

### **6.1. Magnitude of Priority Sector Credit**

The success of commercial banks in fulfilling the priority sector targets is looked into. Aggregate figures representing commercial bank credit to priority sector over the last two decades at the national, state and district levels are given below. Compound annual growth rate and annual growth rate of Priority Sector Credit are also inspected.

### 6.1.1. Priority sector credit and Total credit

**Table 6.1.**

#### **Percentage of Priority Sector Advance to Total Credit**

Year	India	Kerala	Thrissur
1985-86	38.46	47.78	56.50
1986-87	39.57	53.86	55.45
1987-88	41.21	54.18	54.30
1988-89	40.39	52.63	53.00
1989-90	39.80	48.31	52.72
1990-91	36.90	47.14	52.57
1991-92	36.17	44.43	54.89
1992-93	32.79	42.23	49.36
1993-94	32.77	40.61	50.00
1994-95	30.33	39.94	39.24
1995-96	28.87	43.44	49.16
1996-97	30.49	44.34	60.03
1997-98	30.70	42.96	43.58
1998-99	31.07	42.17	35.40
1999-00	30.24	43.58	37.16
2000-01	30.19	42.91	40.45
2001-02	29.72	46.37	38.84
2002-03	29.02	45.93	35.56
2003-04	31.38	43.94	38.06

Source: Handbook of Statistics of Indian economy, economic Review, District credit Plan

When the percentage share of priority sector credit to total credit is studied, there was fall in the case of India. In 1985 percentage of priority sector credit to total credit was 38.46 which declined in 2004, to 31.38 %.

Priority sector advance constituted 47.78 % of total credit in 1985-86 in Kerala which came down to 39.94 % in 1994-95 and since then it has picked up to reach the figure of 43.94% by the year 2003-04.

Priority sector advance in Thrissur district is also studied. In 1985-86 the percentage of priority sector credit to total bank credit was 56.50. In 2003-04, it was only 38.06%. Compared with the situation in 1985 share of this category of credit was low in 2004 at local and national levels. The priority sector advance at the national and district level is not up to the targets when the percentage share out of the total credit in 2003-04 is examined. Credit under this category decreased in Kerala in the immediate reform period. Since 1995 the target of priority sector credit is being satisfied by commercial banks in Kerala.

### 6.1.2. Growth rate of Priority Sector Credit

**Table 6.2.**

#### **Compound and Annual growth rate of priority Sector Credit**

Period	India		Kerala		Thrissur	
	CGR	AGR	CGR	AGR	CGR	AGR
1985-94	11.52%	19.75%	9.53%	14.86%	8.59%	12.80%
1995-04	16.77%	37.13%	16.53%	36.15%	16.66%	36.7%

Source: Handbook of Statistics of Indian economy, economic Review, District credit Plan

When the compound growth rate of priority sector advance is compared in the two periods there is increase in the growth rate in the post reform period. Average of annual growth rate of Priority sector

credit in the post reform period is also higher than that of the pre-reform period.

### **6.1.3. Performance and Targets**

Commercial banks in Kerala advance priority sector credit to the level of 43.94 % of total advance which is above the national target of 40%. The figures at the national and district level declare a declining trend. However, at the state level the share of Priority Sector has been increasing since 1995-96. There were ups and downs with respect to the share of priority sector credit out of the total credit in the years following reforms .The national goal regarding share of priority sector credit was achieved at the state level only .Achievements at the state level become less significant when the composition of credit is looked in to .

The overall picture that emerges at present at the state level from the above analysis is that the performance of commercial banks is satisfactory when aggregate figures of priority sector credit at the state level and rates of growth of priority credit are looked in to .A detailed analysis of the constituents of priority sector will reveal the real picture .

### **Composition of Priority Sector Credit**

Dissolution of Priority Sector Credit into its constituents is attempted to verify if there is any turn around in the social aspirations of commercial banks. Contrary to the picture emerging from the analysis of aggregate figures, the changing shares of agriculture, small scale sector and tertiary sector in the total priority sector credit over the last decade reveal certain unpleasant state of affairs.

#### 6.1.4. Agricultural credit

Agriculture is the way of life for millions of Indians in the rural areas. Agriculture which is still a gamble in the monsoons does not offer a commercially viable corridor of credit allotment. The figures on the share of agricultural credit in total bank credit over the years at the national, state and district level are given in the following table.

**Table 6.3.**

<b>Percentage of Agricultural Credit to Total Credit</b>			
<b>Year</b>	<b>India</b>	<b>Kerala</b>	<b>Thrissur</b>
94-95	11.34	14.66	9.40
95-96	10.65	14.29	9.69
96-97	11.29	13.24	9.30
97-98	10.76	13.82	7.80
98-99	10.75	13.33	9.29
99-00	10.18	13.06	9.52
00-01	10.15	13.29	9.25
01-02	10.30	11.90	6.33
02-03	10.08	11.80	8.53
03-04	10.77	13.40	12.59

Source: Handbook of Statistics of Indian economy, economic Review, District credit Plan

There is decreasing share of agricultural credit at national, state level in the post reform period .In Kerala 14.66 % of credit went to agriculture in1994-95 .In2003-04 this has come down to 13.40 %.The . Figures at national, district and state level do not meet the targets of 18%.

The down turn in the share of agricultural credit indicates serious lapses on the part of commercial banks in discharging their obligations to the primary sector of the economy. Agricultural credit accomplishments of commercial banks are found wanting when compared with the set national goals.

### 6.1.5. The Impact of Agricultural Credit on Agricultural Income

The study found that agricultural credit had positive impact on the agricultural income in Kerala in the decade 1985-1994. In the post reform period there was no positive impact of agricultural credit on agricultural income

Agricultural income in Kerala and Agricultural Credit advanced in Kerala are closely interwoven. Whether bank credit has been able to influence output and income in Kerala is sought to be examined. The functional relationship between agricultural income and agricultural credit is studied here. The purpose here is to look into the role of banks in improving the income of the agriculturists.

**Table 6.4.**  
**Agricultural Credit and Agricultural Income**

Period	Regression equations	t-value of Slope coefficient	R <sup>2</sup>
1985-1994	$Y = 3375.78 + 10.22 X$	6.74**	0.90
1995-2004	$Y = 7111.64 - 0.442 X$	2.76*	0.49

\*\* Significant at 1 % level, \* significant at 5 % level

Source: economic Review

In the period 1985 –1994, agricultural credit role in income generation in Kerala was positive. In the period 1995-2004, agricultural credit has only a negative impact. Agricultural credit did not have any favourable influence on the agricultural income. Institutional credit has not played any important part in augmenting agricultural income in the post reform period. This negative impact indicates possibility of diversion of agricultural credit to other purposes .There are two possible ways in which this takes place. Firstly, banks advance loans with out verifying the authenticity of an agricultural loan .Secondly farmers

receiving loans spend the amount for consumption purposes. Credit advanced under the category of agriculture is not reaching agriculture. The above analysis suggests the possibility of diversion agricultural credit for other uses .

The percentage of share of agricultural credit in Kerala at 13.4% is much less than the set national goal of 18% according to the data given by SLBC. The target of agricultural credit was not achieved at national levels and at local district levels .This clearly proves the negative approach of banks towards agriculture

### **.Credit Quota of Small Scale Industries**

All industrial units with investment in plant and machines not exceeding Rs. One crore are notified as belonging to small scale sector. The share of Small Scale Sector in the total priority sector credit is looked into.

**Table 6.5.**

#### **Percentage of Small Scale sector credit to Total Credit**

Years	India	Kerala	Thrissur
1995	13.06	13.9	0.87
1996	12.54	13.6	3.29
1997	12.91	13.7	3.99
1998	13.43	12.6	3.93
1999	13.14	13.1	3.63
2000	12.11	12.5	3.09
2001	10.95	11.8	3.35
2002	9.70	11.5	6.59
2003	8.28	9.5	4.36
2004	7.83	8.2	4.48

Source: Same as table 6.3.

Small scale Industries Sector is another sector which will benefit the medium and lower layers of economic strata in the economy. There

is sharp decline in the share of S.S.I Sector in total credit. In 2004 this sector has received only 8.2% of the total credit in Kerala. The table shows dwindling share of small scale industries sector. The ebbing share of small scale sector is indicative of the reluctance on the part of commercial banks to help the common man .Only the district level figures show some increase in the share of small scale sector. But at the district level the share of this sector is very low initially compared to that of national and state level.

Even though no one disputes the maxim that small is beautiful, when it comes to the provision of financial assistance, the gestures of banks are not encouraging.

#### **6.1.6. Credit Apportionment and Tertiary Sector**

Tertiary sector includes all other divisions of priority sector credit other than agriculture and small scale Industries. The main categories under tertiary sector are housing, software, venture capital etc. Allotment of bank credit to this sector is scrutinized below.

**Table 6.6.**  
**Percentage of Tertiary Sector credit to Total Credit**

Years	India	Kerala	Thrissur
1995	4.94	14.41	7.50
1996	5.17	15.04	6.96
1997	5.40	15.66	7.29
1998	5.73	16.37	7.19
1999	6.08	20.07	9.11
2000	6.77	21.05	13.67
2001	7.88	19.57	14.77
2002	7.86	23.61	13.15
2003	12.78	20.04	17.37
2004	13.37	18.66	22.91

Source: Same as table 6.3.

The percentage of credit allotted to tertiary sector to total credit in Thrissur was 7.50 in 1995. In 2004, it has increased to 22.91% of the total credit. The share of this sector at the national level was only 4.94 in 1995 .It has increased to 13.37% in2004 .There has been considerable increase in tertiary credit in Kerala . This shows the growing credit allocation to the tertiary sector in the post reform decade. The tremendous increase in this division of priority sector credit is the most noteworthy feature of the data analysed above. There is a visible upsurge in credit to these sectors.It is by increasing the share of this sector commercial banks are meeting their priority sector targets.

***Housing credit***

When the tertiary sector credit is further split up housing surfaces as one of the dominant categories in it. The voluminous expansion of housing credit in recent times can be seen from the following data.

**Table 6 .7.  
Housing Credit in Kerala Rs (Crores)**

<i>Growth of Housing Sector Credit In Kerala</i>	Total priority sector	Housing loan	Percentage of house loan to total	Annual growth
2000-01	8894	1396	15.70	
2001-02	10132	1601	15.80	14.68
2002-03	11867	2647	22.31	65.33
2003-04	15725	4594	29.21	73.55
2004-05	20903	6838	32.71	48.85
Annual average growth % is 77.97				

Source: SLBC

Annual growth rate of housing loan credit is 77.97. Real estate and housing sectors are the favourites of commercial banks in the case of credit disbursement. Monetary authorities have taken notice of this fact. Too much leaning towards this sector has prompted the monetary authorities to increase the price of housing credit. The priority sector now includes various economic activities not related to the poor and needy. Advancing credit to multinationals like Infosys or Kellogs can now be included in the priority sector credit because Software and food processing units are included in the priority sector. Social banking along priority sector credit channel is threatened. Priority sector lending as a means of poverty alleviation has become unsuccessful.

According to National Sample Survey Organisation, around half of the farmers are indebted. At the all India level, including the government, the share of institutional agencies is 58 %. Thus the dependence of agriculture on traditional moneylenders still continues. The misery and impoverishment of the rural sector persist. In the case of small-scale industries, the situation is matching with that of agriculture. The new economic policy based on globalisation and the new credit policy has virtually washed out the small-scale sector in India. There is no separate target of credit for small-scale industries. The cold-shouldered approach of commercial banks to this sector has resulted in crushing of the small-scale sector. There have been no schemes for their revival and hardly any financial support for their improvement.

### ***Micro credit***

Micro credit constitutes a ray of hope for the lower strata of the society. Micro credit is the extension of small loans to entrepreneurs too poor to qualify for traditional bank loan. It is an effective and popular

increase in the ongoing struggle against poverty. Poor are able to get credit at market rates of interest. Our bank-Self Help group linkage programme is now the biggest in the world.

Micro credit movement made great strides in India since 1991. The table 6.11 shows the number of self help groups financed and the amount sanctioned at the national, State and district level upto March 2004.

**Table 6.8.**

**Micro credit at national, state and district level**

	India	Kerala	Thrissur
No. of SHGs	1079091	33728	3568
Cumulative Bank loan (Million Rs)	39042	1229.06	214.31
Average per SHG (Rs)	36180	36440	60060
Average per person (Rs)	2412	2429	4004

Source : REPORT OF NABARD

The average amount per group and per person is very little .However micro credit programmes constitute the best strategy of aligning social justice and business

Test of the Hypothesis :

Social banking in India takes the form of priority sector lending. The banks in Kerala have met their priority sector targets. Even that target is not achieved at the national level . But the new definition of priority sector in the post reform period has defeated the purpose of defining a priority sector. The share of credit going to agriculture and small scale sector has come down. In the case of micro credit, the amount disbursed per group and per person is very little. It is not sufficient to wipe out

poverty. Based on the above facts it can be said that commercial banks are reluctant in proceeding on the path of social banking. The hypothesis that market orientation has reduced the social commitment of banks is validated by the analysis of priority sector credit.

## **Conclusion**

The aforementioned analysis makes plain some of the general apprehensions about social banking in the post reform period. The presumption of agriculture and small scale industry sector being neglected by commercial banks is ascertained by the data analysed. There is failure of the organized credit system in extending loans to agriculture and other needy sectors of the economy. This has led to wide spread dependence on expensive informal credit in those sectors.

The new exposition of priority sector caused many objectionable eventualities. Priorities within the priority sector have changed commercial banks conformed to the priority sector targets without taking much risk. Agriculture and small-scale sector were disregarded. The tertiary sector received generous patronage from the banks. Housing appropriated bountiful support from the banks. The dilution of the concept of priority sector has caused the desertion of the agriculture and small-scale industries. The bona fide intention of defining priority sector has been forfeited. This adulteration in the concept of priority sector has gravely upset equity principles in banking.

Micro finance has proven to be an effective and popular measure in the ongoing struggle against poverty. Micro refers to small. Small sized loan, small savings, smaller frequency of loans and small repayment period are the characteristics of micro credit. Several millions

of “small” Indians have benefited from it. But when set against the unbounded predicament of poverty, this strategy is deficient. The amount dispersed per person is very little. It is not sufficient to cross the borderline of penury.

## CHAPTER 7

### SUMMARY AND CONCLUSIONS

Financial liberalization policy which was a part of the New Economic Policy of 1991 has affected various departments of the financial system. The reforms in the banking sectors were based on the blue print submitted by the Narasimham Committee. Lending and deposit rates were de-regulated. The statutory liquidity ratio was reduced. There is greater freedom of entry for foreign and private banks. Basel norms and inter-national accounting standards were introduced. The repercussions of reforms on the banking sector are analyzed in the study.

The banking sector has exhibited great progress in the last two decades. Monetary variables have undergone great transformation in magnitude and patterns. Similarly technological revolution is taking place in the commercial banks in India. Under the new circumstances the future of social equity in banking operations is a matter of concern. The important objectives of the study were the following.

1. To analyze the structural changes in the banking sector in Kerala since 1985.
2. To examine the extent of new technology adopted by commercial banks and its impact on the performance of banks.
3. To examine the impact of banking sector reforms on the banking habits of the people.
4. To assess the relative position of social banking parameters in the post reforms period.

The Major hypotheses of the study were the following.

1. Performance of banking sector in Kerala has improved since reforms
2. Technology based banks perform better than traditional banks
3. Market orientation has reduced the social commitment of banks

### **Data source and Methodology**

Primary and Secondary data were used for the study. To analyze the structural changes in the banking sector in Kerala and the changing features of social banking secondary data were used. Secondary data were acquired from the following sources. A handbook of statistic on Indian Economy and Trend and Progress of Banking published by RBI, Economic Review published by the State Planning Board and various publications of SLBC, CMIE and the lead bank of Thrissur district.

Primary data were utilized to assess the progress of technology in Banking. The data were gathered through a survey of bank branches in Thrissur district. A sample consisting of 30 public sector bank branches and 30 private sector bank branches was surveyed. Primary data were used to analyze the customer perception of banking sector reforms. A survey was conducted among the customers of different banks in the district. The sample size was 100. Primary data collection was done during the period January to March 2006.

The study employed the following analytical tools. 1. Ratios, percentages, averages, rate of growth (2) Correlation and regression techniques (3) Likert Scale (4) Granger causalty (5) Herfindahl Index.

The second chapter is review of literature. This comprises of the theory of financial liberalization and studies on banking sector in India

and Kerala. This chapter consists of a review of academic works on social banking.

The third chapter incorporates an overall view of the Indian banking sector in the post reform period. An investigation into the variations in the monetary measures revealed the following facts.

- The compound rate of growth of aggregate deposits in the post reform decade was less than in the pre-reform period.
- The compound rate of growth of aggregate credit in the post reform decade was more than that in the pre-reform period.
- Term deposits maintained a larger share of total deposits in both the decades studied.
- Credit deposit ratio declined in the initial years of financial liberalization. It has showed increasing tendency since 2004.
- Credit content of agricultural productions decreased in 1990's. It has improved in recent times.
- Credit content of Industry is high compared to the situations in 1985
- Households contributed a major source of savings. The contribution of public sector was negative in most of the years.
- There was a decline in the apportionment of rural branches in the total number of branches in the post reform period. Deposits mobilization takes place in urban and metropolitan areas.
- There is a tendency for physical savings to increase since 2000.
- There has been considerable augmentation in the case of non resident Indians deposits.

- ATM facilities have increased in the post reform period. This indicates the progress of technology in banking sector.
- Except for new private sector banks and State Bank groups annual percentage variation in net profits was negative in 2004-05.
- NPA and CRAR position were satisfactory for most of the banks.

Deregulation of interest rates did not lead to any immediate escalation in the rate of interest. Financial liberalization helped in the accumulation of real cash balances in the economy and the increase in the ratio of broad money to GNP. The real rates of interest are maintained at positive levels by the market forces.

The fourth chapter attends to the build up of banking sector in Kerala in the post reform period.

The advancement of banking sector in Kerala is summarized in the analysis of six important monetary ratios related to credit, deposit, number of branches and population coverage.

- a) The compound growth rate of population per branch recorded negative trend. This indicates decreasing number of people covered by a branch. The compound growth rate of per capita deposit in the post reform period is slightly less than that of the pre reform period. The compound growth rate of per capita credit in the post liberalization period is more than that of the previous decade. Deposit per branch revealed a lower compound rate of growth in the post reforms scheme of things. Nevertheless the credit per branch recorded a higher rate of growth in the period 1995-2004 compared to 1985-94. The compound rate of growth of credit deposit ratio was negative during the period 1985-95. It has emerged positive in the period 1995-2004.

- b) The performance of Kerala was compared with the accomplishments of four southern states in the above six ratios. The Herfindahl Index was less than 0.1 with respect to all the six ratios. This indicated low disparity among the four states in banking development based on the monetary ratios. The comparison was made for three years 1985, 1995 and 2005. .
- c) A composite index based on monetary ratios was used to rank the southern states according to their level of attainments in the banking sector. In 2005 Tamil Nadu ranked first among the four states. Kerala's position was 3<sup>rd</sup> among the state. Andhra Pradesh occupied the last slot in the all the three years examined. Kerala's status has been changing in different years.
- d) The interrelation between per capita credit and state per capita income was examined. Granger causality test reported unidirectional relationship between per capita credit and state per capita income. Since the computed F statistic was less than the probability, the null hypothesis state per capita income does not Granger cause per capita credit was accepted. In the case of the reverse statement, the F statistic was more than the Probability value, the null hypothesis was rejected. The alternate hypothesis per capita credit does granger cause per capita income is accepted. In other words In Kerala, increase income does not lead to increased credit apportionment. But per capita credit has its impact on per capita income. Functional relationship between these two variables was also examined through simple regression. The coefficient was significant and per capita credit has positive impact on state per capita income.

- e) The fluctuation in the CD ratio is a matter of debate in our state. It is often complained that funds collected by banks in Kerala are not ploughed back into the state in the form of credit. The average credit deposit ratio in Kerala in the period 1985-94 was 58.83. It came down to 44.24 in the post reform decade. CD ratio increases when NRI deposits are set aside. In 1985 the CD ratio excluding NRI deposits was 83%. In 2004 the CD Ratio went up to 89%, when NRI deposits are kept out. In 2004 there was increase in the credit deposit ratio and decrease in the share of NRI deposits.
- f) The pattern of deposits in Kerala revealed the pre-dominance of term deposits throughout the period of analysis.
- g) Change in the pattern of credit exhibited certain disturbing features. The Compound rate of growth of agricultural and Industrial credit declined. There was marked improvement in the rate of growth of credit for housing, vehicles and personal loans. Credit was increasingly deployed in unproductive sectors.

The fifth chapter analyses the impact of reforms on banking technology. The following are the major findings.

- Among the 60 branches surveyed 24 branches are fully computerized with core banking solutions. 9 branches in the public sector and 15 branches in the private sector belonged to the category of banks with core banking.
- Progress made by banks in different aspects of new technology was analyzed. The analysis led to the inference that private sector banks are displaying greater vigor and vivacity in adopting new technology.

- Scrutiny of educational qualification of employees studied reveals the increased number of professionally trained staff in the service of private sector banks.
- Aged employees are a common problem for both public sector and old private sector banks. New generation banks in the private sector have employees belonging to a new generation.
- Public sector banks retain the reputation of being major providers of employment.
- The prospects and problems related to technological revolutions in banks were looked into. 50% of the bankers interviewed affirmed that there was reduction in the work at branches with the introduction of ATMs. 61% of the bankers accepted the importance of information based marketing in the new era. Majority of the bankers prescribed technology as the route to success. New technology is necessary to maintain the existing customers. They were of the presumption that technology would decide future customer base. 5% of the bank branches surveyed reported cases of financial frauds based on new technology. 60% of the branches studied mentioned problems of implementation of advanced technology. Among them 76% of the bankers acknowledge the unfavorable attitude of trade unions as one of hindrances. 90% of the bankers identified skill level and age structure of employees as a major impediment in the implementation of up to date technology. Defective software and insufficient experience of staff were other stumbling blocks on the path of technological advancement.

On the basis of likert scale analysis following conclusions were actualized with respect to customer perception of banking sector reforms.

- The customer perception indices revealed that the reduction in the rates of interest in the post reform period evoked consumer responses unfavourable from the point of view of banks. Majority of the customers' favoured investment in land, gold mutual funds etc. to bank deposit.
- Customer's response was positive for five out of ten statements regarding innovations in banking technology. They were ready to accept Automatic Teller Machines and credit cards.
- Majority of the statements concerning quality of service at the bank's counter were received unfavourably by the customers. They disagreed with statements admitting prompt, efficient and courteous service by bank employees.
- Likert scale scores were further analyzed to examine the correlation between responses to the three groups of statements referring to the quality of service, policy modifications and use of high tech gadgets. Correlation was found to be significant between responses to technological up gradation and services characteristics.
- ANOVA was done comparing the responses of different income groups. The 'F' values were found to be non-significant. The survey was conducted among customers belonging to four income groups. There is no difference in the response of customers belonging to different income groups.

- Business per employee, profit per employee and ratio of wage bill to total expenditures were interpreted to make a comparison of the performance of banks at different levels of technological up gradation. Catholic Syrian Bank, Dhanalakshmi Bank, Canara Bank are half way on the path to technological advancement. South Indian Bank, ICICI and HDFC are banks which are computerized with core banking solutions. The new generation banks surpassed other banks in the above ratios. The banks are ranked according to composite indices constructed from the above ratios.

The sixth chapter looks into the features of social banking in the post reform period.

Inclusive paradigms of growth encompass social banking as one of the indispensable features. The banking sector in India pursues its social responsibility by reaching out to the poor through the financial channels of priority sector credit and micro credit. Features of social banking in the post reform period are looked into.

- The banks at the state level were able to comply with total priority sector targets in the post reform decade.
- The percentage share of agricultural credit out of the total credit has come down in Kerala. It has been decreasing since 1990-91.
- The percentage share of small-scale sector industries also dwindled in the post reform period.
- There has been voluminous increase in the share of tertiary sector included in the priority sector.

The new exposition of priority sector caused many objectionable eventualities. Priorities within the priority sector have changed. The commercial banks conformed to priority sector targets without reaching out to the poor farmer or small entrepreneur. The dilution of the concept of priority sector has caused the desertion of agriculture and small-scale industries. The bonafide intention of defining priority sector has been forfeited.

- Micro credit which is the new route to social banking made considerable progress in the state. But credit disbursed per group and per person is meager.
- Impact of agricultural credit on agricultural income was studied through simple regression technique. In the post reform period, a negative impact of agriculture credit on agricultural income is obtained. This indicates the possibility of diversion of agricultural fund for other purposes.

### **Policy Implications and Suggestions**

Findings of the study have much policy implications. The analysis of the variations in the monetary variables like deposit, credit and credit pattern strongly recommend certain policies which are enumerated here.

- Monetary Policy should initiate measures to augment deposits since people are increasingly channeling their savings to other investments.
- Credit expansion has taken place in unproductive sectors. This situation has to be changed. Policies to increase productive credit allocation are necessary.

- Technological advancement is possible only if measures are taken to eliminate the problems associated with it. Training and education should be given to customers and bankers to make technological progress a success. Measures to use technology to promote inclusive banking should be taken. Far off regions can have access to banking facility with the help of new technology.
- Analysis of customer perception of services in banks suggests immediate change in the attitude of bankers. Banks should realize that they are facing a buyers market and develop more customer friendly practices.
- The most crucial requirement is the need to correct the definition of priority sector. Priority sector should include only the weak and the poor.

#### Future Research Plan:

The Present study on the different features of the banking sector in Kerala has disclosed many issues suitable for further investigation. The following are the areas of importance which demand further enquiry.

Growth of credit in Kerala is not taking place in the productive sectors of the economy. A detailed study of the pattern of credit allocation in Kerala will be of great value. A related issue of credit expansion is the problem of diversion of agricultural credit for other purposes. Agricultural credit disbursed by banks is not reaching agriculture. The amount received as agricultural loan is spent on other items. Agricultural fund diversion and its consequences are worth studying.

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**APPENDIX I**  
**TECHNOLOGY ADOPTION BY BANKS IN THRISSUR DISTRICT**  
**A Survey Conducted By**  
**N. Savithri, Dr. John Mathai Centre, Aranattukara, Thrissur.**  
**(As Part Of Dissertation Work On The Topic Banking Sector Reforms For Phd.)**

1. Name of the Bank ::
2. Branch name ::
3. Rural  Semi Urban  Urban
4. The number of computers in the branch
5. The level of computerization in the Branch is::
  - a) Front end transactions
  - b) Total Branch automation without core Banking
  - c) Core Banking
6. Whether the branch has its own server. :: Yes/No
7. Does the bank offer Internet Banking :: Yes/No
8. If so the percentage of customers using Internet Banking. ::
  1. Below 25%
  2. 25% to 50%
  3. 50% to 75%
9. Out of the following functions which are offered through Internet ::
  - a) On line trading.
  - b) On line cash management
  - c) On line credit card payment
  - d) On line insurance
  - e) On line foreign exchange transactions
  - f) On line financial planning
10. Whether the bank is integrated to INFINET :: Yes/No
11. Whether the interbank settlements are made through RTGS. :: Yes/No

12. Do you have a data warehouse of customers:: Yes/No
13. Do you have a data base of industrial enterprises. :: Yes/No
14. Are there advertisements of banking products in the Internet. :: Yes/No
15. Do they send client statements by Email. :: Yes/No
16. The number of staff in a branch :: 1. Officers   
 2. Clerks   
 3. Sub staff   
 4. Field staff
17. Whether the staff have undergone computer training. :: Yes/No
18. Whether IT staff are appointed from outside :: Yes/No
19. What is the age structure of the employees (No. of employees in age groups) :: Below 30   
 30 to 40   
 40 to 50   
 Above 50
20. Educational status of the staff (Nos.) :: SSLC   
 Graduation   
 Post Graduation   
 Professional
21. Are there multiple designations and multiple allowances related to computer usage. :: Yes/No
22. Is there a change in the division of work based on products (like retail, corporate treasury etc.) :: Yes/No
23. Is there transfer of IT related work to outside sources :: Yes/No
24. Has ATM considerably reduced the work at branches. :: Yes/No



36. Credit advanced falls in	2002-03	2003-04	2004-05
In the range of			
a) Below 1 Crore	<input type="text"/>	<input type="text"/>	<input type="text"/>
b) 1 Crore to 5 Crore	<input type="text"/>	<input type="text"/>	<input type="text"/>
c) 5 Crore to 10 Crore	<input type="text"/>	<input type="text"/>	<input type="text"/>
d) Above 10 Crore	<input type="text"/>	<input type="text"/>	<input type="text"/>

37. Deposit mobilized in year	2002-03	2003-04	2004-05
falls in the range of			
a) Below 1 Crore	<input type="text"/>	<input type="text"/>	<input type="text"/>
b) 1 Crore to 5 Crore	<input type="text"/>	<input type="text"/>	<input type="text"/>
c) 5 Crore to 10 Crore	<input type="text"/>	<input type="text"/>	<input type="text"/>
d) Above 10 Crore	<input type="text"/>	<input type="text"/>	<input type="text"/>

38. Were there instances of Technology based Frauds. :: Yes/No  
 If So No. of cases

39. Are there problems of implementation of New Technology :: Yes/No

40. What are the hindrances mark according to the importance given. ::

- a) Attitude of unions
- b) Skill level & age structure of employees.
- c) Defective software
- d) Insufficient experience.

**APPENDIX II**  
**A STUDY OF THE CUSTOMER PERCEPTIONS OF**  
**SERVICES IN A BANK IN THE POST REFORM PERIOD.**  
**CONDUCTED BY N. SAVITHRI , DR. JOHN MATHAI CENTRE, THRISSUR.**

1.	There is great alround improve- ment in the customer service of banks in recent times.	1) Strongly disagree <input type="checkbox"/> 2)Disagree <input type="checkbox"/> 3)Indifferent <input type="checkbox"/> 4)Agree <input type="checkbox"/> 5)Strongly agree <input type="checkbox"/>
2.	The service offered by new private sector banks like HDFC Bank, ICICI Bank UTI Bank/Indus Ind Bank etc. are better than old private sector and public sector banks.	1) Strongly disagree <input type="checkbox"/> 2)Disagree <input type="checkbox"/> 3)Indifferent <input type="checkbox"/> 4)Agree <input type="checkbox"/> 5)Strongly agree <input type="checkbox"/>
3.	The service in the banks have become faster in recent times.	1) Strongly disagree <input type="checkbox"/> 2)Disagree <input type="checkbox"/> 3)Indifferent <input type="checkbox"/> 4)Agree <input type="checkbox"/> 5)Strongly agree <input type="checkbox"/>
4.	Bank employees are courteous and prompt in attending your needs.	1) Strongly disagree <input type="checkbox"/> 2)Disagree <input type="checkbox"/> 3)Indifferent <input type="checkbox"/> 4)Agree <input type="checkbox"/> 5)Strongly agree <input type="checkbox"/>
5.	The staff provide you individual attention.	1) Strongly disagree <input type="checkbox"/> 2)Disagree <input type="checkbox"/> 3)Indifferent <input type="checkbox"/> 4)Agree <input type="checkbox"/> 5)Strongly agree <input type="checkbox"/>

6.	The operating hours of the bank have become more convenient	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
7.	Employees have the knowledge and time to answer the questions of a customer.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
8.	Banks are providing the services at the promised time.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
9.	Frequent visits and phone calls from marketing field staff are found to be a nuisance to you.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
10.	It is better to keep only a small portion of your savings in a bank due to low interest income.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
11.	It is better to put more in a bank to get the same level of interest income.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

12.	It is better to keep your savings in the savings account than in the fixed deposit since the interest incomes are similar.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
13.	Investing in gold is better than putting money in a Bank.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
14.	Buying land is better than putting money in a Bank.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
15.	Share market is a new income yielding option to put your savings.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
16.	Kuries are good methods of saving and getting loans.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
17.	Putting your savings in treasury is the best method of saving.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

18.	Putting your money in Post Office is the best method of savings.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
19.	In recent times loans are sanctioned by banks without delay.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
20.	There are less formalities to be done at present to get a loan from a bank.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
21.	Using ATM is better than personal visit to a bank.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
22.	Since it is difficult to understand operation of ATM Credit Cards, we do not use ATM	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
23.	Accounting of expenditure is the reason for the rare use of credit cards.	1) Strongly disagree 2) Disagree 3) Indifferent 4) Agree 5) Strongly agree	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

24.	Credit card are better than carrying cash.	1) Strongly disagree <input type="checkbox"/>
		2)Disagree <input type="checkbox"/>
		3)Indifferent <input type="checkbox"/>
		4)Agree <input type="checkbox"/>
		5)Strongly agree <input type="checkbox"/>
25.	Fear of cheating prevents the wide use of credit cards and ATM Cards.	1) Strongly disagree <input type="checkbox"/>
		2)Disagree <input type="checkbox"/>
		3)Indifferent <input type="checkbox"/>
		4)Agree <input type="checkbox"/>
		5)Strongly agree <input type="checkbox"/>
26.	Internet banking is the future mode of banking.	1) Strongly disagree <input type="checkbox"/>
		2)Disagree <input type="checkbox"/>
		3)Indifferent <input type="checkbox"/>
		4)Agree <input type="checkbox"/>
		5)Strongly agree <input type="checkbox"/>
27.	It is fair to impose service charges for using ATM.	1) Strongly disagree <input type="checkbox"/>
		2)Disagree <input type="checkbox"/>
		3)Indifferent <input type="checkbox"/>
		4)Agree <input type="checkbox"/>
		5)Strongly agree <input type="checkbox"/>
28.	It is very convenient to transfer funds with core banking	1) Strongly disagree <input type="checkbox"/>
		2)Disagree <input type="checkbox"/>
		3)Indifferent <input type="checkbox"/>
		4)Agree <input type="checkbox"/>
		5)Strongly agree <input type="checkbox"/>
29.	People prefer indigenous banks (money lenders etc), because of the lack of knowledge of high technology in commercial banks	1) Strongly disagree <input type="checkbox"/>
		2)Disagree <input type="checkbox"/>
		3)Indifferent <input type="checkbox"/>
		4)Agree <input type="checkbox"/>
		5)Strongly agree <input type="checkbox"/>
30.	The ancillary services (Locker facilities,bill payments etc)have improved.	1) Strongly disagree <input type="checkbox"/>
		2)Disagree <input type="checkbox"/>
		3)Indifferent <input type="checkbox"/>
		4)Agree <input type="checkbox"/>
		5)Strongly agree <input type="checkbox"/>

