Chapter II

REVIEW OF LITERATURE

In this chapter a review of relevant literature, particularly that relating to performance analysis of banks in India, risk management in banks and allied areas is attempted. This is followed by research gap, what remains to be done to bridge the gap between the available literature and what is really required at present to address the relevant research problem.

2.1. Major Studies on Banking in India and Their Findings: an Overview

Aggarwal, (1979)\(^1\), has conducted a study on nationalised banks with special reference to their social obligations. The main recommendations of the study were: (i) providing more branch office to the public particularly in the semi-urban and rural areas and in the lead districts, (ii) providing greater credit facilities to the public as well as to the priority and neglected sectors, (iii) helping generation and maintenance of employment opportunities in the country, (iv) financing the government securities and (v) popularizing the bill form of credit.

Amandeep, (1983)\(^2\), studies various factors which effect the profitability of commercial banks with the help of multiple regression analysis. She has tried to determine the share of each factor which determines the profitability of commercial banks. The trend analysis, ratio analysis, multiple regression analysis was effectively used to know the profitability of commercial banks.

\(^1\) Aggarwal, H.N. (1979), *A Portrait of Nationalised Banks: A Study with Reference to Their Social Obligations*, Inter-India Publications, New Delhi.

Angadi and Devraj, (1983)\(^3\), have studied the factors determining the profitability and productivity of public sector banks (PSBs) in India. The study has been primarily based on published financial statements of respective banks. These authors have observed that though PSBs have discharged their social responsibilities, their deficiencies in respect of effective mobilization of funds at lower costs, attracting retail banking business, augmenting earnings from other sources, effective cash and portfolio management etc. have contributed towards the lower productivity and profitability of these banks.

Arora, S. and Kaur, S (2008)\(^4\) have studied the internal determinants of diversification moves by banks taking two dependent variables, (i) net interest margin, and (ii) non-interest margin. It has been observed that all the four explanatory variables viz. (i) risk, (ii) technological change, (iii) cost of production, and (iv) regulatory cost have got significant influence on the variations in the structure of income of the banks. It has also been observed that the variations in income in respect of foreign banks in the highest followed by nationalized banks and other banks.

Avasthi, and Sharma, (2000)\(^5\), have observed that advances in information technology are set to change the face of the banking business. The authors have also explored the emerging challenges faced by the banking industry from a regulatory perspective. Technology has increased manifold the delivery channels used by banks in retail banking and has made banking much more customer friendly. It has also greatly expanded the market for banking products, and has also enabled banking in hitherto uncovered areas at lower operating costs.


Adhivarahan, (2001)⁶, in his research article has attempted to study the provisions of ‘Information Technology Act 2000 and its implications on the functioning of banks. The study has pointed out that the number of incidents of e-fraud and on-line breaches is the highest in India. As such, instances of cyber crimes in banking sector have to be treated with utmost care. For this purpose, it has been suggested that a statutory body similar to ‘Internet Fraud Center’ in the United States has to be formed in India.

Birla Institute of Scientific Research (1981)⁷, has conducted a study to evaluate the performance of nationalized banks in comparison with that of banks in private sector. The emphasis has been on the objectives of nationalization and their achievements, relative performance of private sector banks and nationalized banks since 1969 and the effect of nationalization on rest of the banking sector. The study has revealed that the growth and development in banking after nationalization has been not just because of transfer of ownership. Rather, it has been because of various incentives and punitive measures that were implemented with more vigilance and care after 1969 by the Government and the RBI to make banks fulfill their social responsibilities. Similarly in the same spheres even better results have been achieved by non-nationalized banks. The performance of private sector banks in the post-nationalization era has been noteworthy, especially because of the odds that they faced in securing the growth of the business. The achievement of significantly high growth in deposits, advances, and branches etc. has clearly shown the high quality of entrepreneurship and management of these banks.

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Bilgarni, (1982)\(^8\) has conducted a study on the banking growth imbalances over a decade since nationalization in branch expansion, deposit mobilization, credit disbursement and Priority sector lending. The study concludes that although regional and state-wise disparities in terms of banking services still exist, some healthy trends were developed significantly and if continued in future would further help in minimizing the widening gaps.

Benton, (1990)\(^9\) has observed that with the advent of information technology, there has been positive impact on the productivity, profitability and efficiency of banks. But instances of bank frauds are also on the rise. These are in fact hidden threats to the effective functioning of financial institutions. The author has analysed the mechanism in which bank frauds are taking place and also has suggested how to tackle them. Dealing with frauds would have an impact on banking productivity as additional resources need to invested in online transaction for detection of frauds, like, scrutinizing orders, tracking bad transactions, negotiating in case of trouble with the banking transactions etc.

Brett, (1997)\(^{10}\) has studied the rapid transformation of changing old money structures into E-Money platforms. It has been pointed that banks are providing their customers with different types of cards. As such, this E-Money channel can be used at any time to pay for goods and services. The coins and bank notes are replaced by digitally signed files. The advantage of the above fast emerging system is that the cost of passing on the money is nearly zero. The author has further pointed out the need to be aware of the financial management to make more effective financial transactions through the electronic media.

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Bhattacharya (1997)\textsuperscript{11} has studied the impact of the limited liberalization that was initiated in India, before the full-fledged deregulation measures in the nineties, on the performance of the different categories of banks in India. The method used is data envelopment analysis (DEA). Their study has covered 70 banks in the period 1986-91. They have constructed one grand frontier for the entire period and measured technical efficiency banks under study. They found PSBs had the highest efficiency among the three categories with foreign and private banks having much lower efficiencies. However PSBs started showing a decline in efficiency after 1987, private banks showed no change and foreign banks showed sharp rise in efficiency. The main results conform to the general perception that the nationalized and public sector banks have been successful in achieving their principal objective of deposit mobilization and loan expansion.

Bajaj, (1999)\textsuperscript{12} has observed that information and information technology (IT) are the key drivers of the Information Age, also referred to as the post industrial society. The Information age has ushered in a knowledge-based industrial revolution. The business in this era is networked and uses IT to survive in a highly competitive environment. The relationship between IT and business has been discussed in this paper and it is discussed as to how IT is affecting the business of banks.

Bhunia (2000)\textsuperscript{13} has explained the future of internet as an enabler of fast emerging and customer-friendly delivery channel. According to the author, a few people are predicting the death of the internet because of the burgeoning traffic. However no signs of this are in evidence even as the number of internet users has grown exponentially. In fact, the myriad services have improved with

enhanced technologies and superior interfaces. Moreover, it has been pointed out that there do exist good growth prospects for internet-based banking services.

**Bajaj, (2000)** has highlighted the e-commerce related issues in the context of the adoption of advances in IT. All over the world the traditional business of banks, viz. accepting deposit and extending advances is growingly getting transformed into IT-driven businesses. The rapid proliferation of IT and dramatic advances in financial theory have made it cheaper for big companies to raise money in the capital markets than from banks. IT is also helping in cutting costs by providing cheaper ways of delving products to customers. ATMs, telephone banking, internet banking and such other innovative delivery channels are on the rise. The author has concluded that electronic payment systems are fast emerging and are getting accepted in the market. They need to gain both consumer and business acceptance. Because of all these new developments, banking stands to radically change. It remains to be seen whether banks use e-commerce and other IT-based systems to reinvent themselves, gain access to new markets or become extinct as dinosaurs whether advances in technology create new opportunities for banks or they become extinct.

**Bhasin, (2001)** has analyzed the impact of IT on banking sector. The IT has revolutionaries various aspects of our life. It has transformed the repetitive and overlapping systems and procedures, into simple single key pressing technology resulting in speed, accuracy and efficiency of conduction business. The computerization of banks has provided a major push for enabling them to enter into the newer activities. The banking industry has itself prepared itself and is strongly emerging to play a major supplementary role in nurturing e-

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commerce applications which is still in the infancy stage in India. While few of the new generation private banks have taken an early initiative in these innovative areas, other banks are gradually catching up. The author feels that utmost importance that proper security infrastructure should be in place for routing seemed transactions through the public network.

B. Janki, (2002)\textsuperscript{16}, has analyzed in her article that how technology is affecting employee's productivity. It has been observed that Indian banks particularly PSBs would need to adopt technology for improving operating efficiency and customer service. Accordingly, it has been pointed out that harnessing ‘employee-technology synergy’ is crucial for unleashing productivity and reaching out to the huge base of retail customers, who are mostly dispersed in rural and semi-urban areas. Bank can use technology to address customers’ needs and improve their interaction with customers keeping in touch through telephone and internet. The focus on technology will increase like never before to add value to customers, develop new products, strengthen risk management and asset liability management, and improves profitability. However technology is only an enabling tool and achievement of banks would be determined by the drive and motivation of their work force and their pro-active response.

Bhasin, T. M (2008)\textsuperscript{17} has studied the need to change the age-old business processes of Indian banks and fine tune them in tune with state-of-the-art banking softwares for improving their return on investment (ROI). The author has pointed out that major investments in IT in the banking sector during the next five years would be required to meet the regulatory and compliance requirements. It has further been observed that banks with advanced technology


platforms are having higher employee and branch productivity, better customer service, and are in a position to keep themselves abreast of changes because of enhanced competitiveness.

Chakrabarthy, (1986)\textsuperscript{18} has made an empirical study of the relative performance of different groups of banks (public, private and foreign) based on three basic parameters viz. (i) profit, (ii) earnings, and (iii) expenses. The author has computed Herfindahl's index to measure the inequality in the sharing of profits, earnings and expenses by each group of banks. The author has suggested that scheduled commercial banks should take up some exercise to evaluate the relative performance of each of their offices for more effective profit planning.

Clifford, (1996)\textsuperscript{19} has studied the impact of IT on the financial services. Due to the introduction of IT, the role of banks, mutual funds, and insurance companies are changing. The banks will never be the same again. The dimensions of banking business are changing in the new economy.

Das (1999)\textsuperscript{20} has compared performance among public sector banks (PSBs) for three years in the post-reform period, viz. FY 1992, FY 1995 and FY 1998. He has observed that there has been convergence in the performance of different banks. He has pointed that while there has been appreciable increase in the added thrust accorded to non-interest income, banks have increasingly exhibiting ‘risk-averse behavior’ by opting for risk-free investments rather than advances which are relatively more risky.


Frederick and Phil (2000)\textsuperscript{21} has analyzed the E-loyalty of customers in this information era. With the advent of IT, there have been quite a large number of apprehensions and doubts in the minds of the customers, particularly in respect of its reliability and security. In the rush to build internet business, many executives concentrate their entire attention on attracting customers rather than retaining them. This is based on the notion that the unique economics of E-business make the customer loyalty more important than ever.

Gupta and Goswami, (1986)\textsuperscript{22} in their study have introduced some radical changes in measuring profitability of commercial banks. They have indicated the major cause for declining profitability as the enormous increase in establishment costs. The authors have pointed out that the conventional indications are based on published profits, which do not reflect the true position. The author therefore suggested an alternative measure which is based on the cost of mobilizing business. Accordingly, they have suggested that other things being equal elasticity of establishment costs (per unit of business) with respect to staff strength may be used to compare the operational efficiency (and thereby profitability) of commercial banks.

Heggade, (2000)\textsuperscript{23} has analysed the wide range of customer services provided by banks and the role of bank staff in its delivering. The author has pointed out the fact that the enormous increase in the work load in banks on account of social banking has lead to their poor quality of services. This study makes out a case for appropriately pricing all types of bank services and also for enhancing service quality. It has critically analyzed the recommendations of

Saraiya Committee, Talwar Committee and Goiporia Committee on improving the range and quality of customer services in banks. He has divided the bank customers into eleven parts (viz. Business, Salaried Class, Advocates, Peasants, Doctors, Nurses, Small Scale Industrialists, Transport Operators, Self Employed, Engineers, Others) and the banks into four parts (PSBs, Private Sector Banks, Co-operative banks and Rural banks) for the purpose of the study.

Husain (1988)\textsuperscript{24} has highlighted the importance of IT in various banking operations. In the introduction of any new technology or system, various organizational, financial and functional problems are faced by banks. People are generally reluctant to accept new system, howsoever beneficial it may be. Such serious issues which are involved in computerization of banks have been critically and vividly discussed by the author.

Jagirdar, B. and Dubey, A. K (2007)\textsuperscript{25}, have studied the performance of public sector banks (PSBs) for the period FY 2005 to FY 2006. Two profitability parameters (Return on Assets, and Operating Profit Ratio) as well as two efficiency ratios (Net Interest Margin, and Operating Expenses Ratio) have been used for analysis. It has been observed that private banks and foreign banks have been found to be not superior to PSBs in any of the four performance indicators as mentioned above, as against the popular belief in this regard.

Johri and Jauhari, (1994)\textsuperscript{26} has analysed the importance of computers in the banking industry. The authors have analyzed the various issues related to computerization in banks in India. Such critical issues as, (i) whether banks use

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e-commerce and other IT systems to reinvent themselves and also for gaining access to new markets, (ii) whether advances in technology create new opportunities for banks etc. The vital role that can be played by IT-based systems in enhancing the quality and reach of banking services and also reducing operational costs have been pointed out by the authors.

Joshi (1986)\textsuperscript{27} in his paper, “Profitability and Profit Planning in Banks” has studied the profitability trends of commercial banks in India, based on the analysis of their published financial statements. The author has pointed out the major reasons behind the declining trend in profitability of commercial banks. Accordingly, the author has suggested that profit planning both at micro and macro levels are necessary for the banking industry to overcome the above declining trends in profitability.

Karkal (1982)\textsuperscript{28} has examined the concept of profit and profitability in the banking industry parlance, and also the factors that determine the same. Regarding the profits and the techniques used in profit planning, the author has suggested some measures to improve the profitability of 10 banks under study. These include, increasing the margin between lending (advances) and borrowing (deposits) rates, improving the profitability of staff, and implementation of a uniform maximum service changes. The study, however, has not touched upon the area of costing of banking services, and also the costing initiatives in the Indian banking industry.


Kaveri (2001)\textsuperscript{29} in his study on loan defaults and its impact on profitability of banks, has attempted to extend the study done by the Verma Committee by undertaking a more specific enquiry as to whether enough signals of weakness are indicated much before the event. For this study, the year 1998-'99 has been chosen as the year of event when the Verma Committee had identified weak banks, strong banks and potential weak banks. This study has considered nine efficiency parameters which are computed, based on the data collected from the Reserve Bank of India publications. The parameters so selected include, (i) Capital Adequacy Ratio, (ii) Net Non Performance Assets to Net Assets, (iii) Net Profit to Total Assets (iv) Gross Profit to Working Funds, (v) Net Interest Income to Total Assets, (vi) Burden to Total Assets, (vii) Interest Expended to Total Assets, (viii) Intermediation Cost to Total Assets, and (ix) Provisions and Contingencies to Total Assets. The above 9 parameters focus on two major concerns of banks viz. (i) Loan default, (ii) Profitability whereas the Verma Committee covered all aspects of financial health. This paper has given some evidence to towards the fact that no bank can become weak or potential weak all of a sudden. There is a gradual deterioration in the position of loan default and profitability. It is suggested to develop a ratio model to arrive at a single score to classify banks into three categories (i) weak,(ii) strong and (iii) potential weak.

Kohli, (2001)\textsuperscript{30} has emphasised the importance of technology and issues emerging from adoption of technology. According to him technology is emerging as a key-driver of business in the financial services industry. The advancement in computing and telecommunications has revolutionized the financial industry and banking on the net is fast catching on. As e-commerce gets


transformed into m-commerce with the increasing use of technologies like WAP, banking business is in for a major overhaul.

Kulkarni (2000)\textsuperscript{31} in his paper has attempted to review the various radical changes which have taken place at an astonishing pace and are likely to completely change the pace of banking like never before. The traditional brick and mortar bank is giving way to the virtual bank with e-banking leading the way. He has also discussed the future scenario for banking. As the brick and mortar edifice of banks starts crumbling and banks enter an era of IT-enabled banking, the barriers of geography and time would crumble and communication would just be a click away. In the above scenario the role of the traditional bank branch of the 20th century would be almost non-existence. Though the above scenario seems improbable at the first instance, the same is very likely if one studies the fast pace of changes taking place in the advanced countries especially with the emergence of the internet, e-commerce and revolutionary changes in communication technologies.

Mampilly, (1980)\textsuperscript{32} the work of these authors is a modest attempt on the cost and profitability of commercial banks in India. These studies provide an analytical view of the trends in the components of cost of earnings of different groups of Indians commercial banks since nationalization. These studies mainly focus on the cost and profitability of banking industry as a whole rather than individual bank.

Murty, (1996)\(^{33}\) has analysed the various factors that can help to improve the profitability of public sector banks (PSBs). The study has examined the impact of monetary policy and market interest rates on the bank profitability. The study has further suggested the various measures to improve the profitability of the public sector banks in India.

Murty, (2001)\(^{34}\) the author analyzed the significance of banking sector in the insurance sector. On the eve of banks entry into insurance this made an attempt to trace the historical background of Indian to private investment, banks eagerness to enter insurance market, basic mechanics of insurance functions of a typical insurer, different kinds of insurance coverage's critical component of insurances business and how prepared banks are for exploiting these new business opportunities. According to the author there are many issues to be sorted out before banks take-up insurance business. The new entrants are likely to give a stiff competition through their customized activities and usage of technology to reach the customer with minimal resistance from any quarter.

Nair, (2000)\(^{35}\) has observed that the technological advancements achieved very recently in the field of computerization have unfolded many areas of innovations in banking operations. The world of banking is fast shedding its ancient image and entering from 'brick-and mortar' model to 'click' model. The virtual banking is emerging very fast because of its in-built flexibilities that attract modern customers. This has revolutionalized the entire gamut of banking services, including substantially reducing the cost of operations while enhancing manifold its reach. The author has observed that those banking and


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financial service providers who switch over to the electronic environment in the quickest possible time frame alone will be able to survive. The adoption of Cyber Law is also expected to boost the E-Commerce and E-Banking further in the days to come. Accordingly, it is pointed out that the writing on the wall rather on the net is clear for the Indian Banking Industry, ‘E-Banking has come to stay’.

Nayan, K. (1982)\textsuperscript{36} has conducted study on the performance evaluation of commercial banks and presented a performance evaluation model on the basis of important quantifiable parameters of performance. The main conclusion have been as follows: (i) the present system of ranking the banks on the basis of aggregate deposits has failed to reflect their overall achievements; (ii) the existing system of performance budgeting is not suitable at branch level; (iii) on the basis of all the important and quantifiable parameters of performance, an integrated performance index needs to be developed for evaluating the performance of commercial banks.

Nirajan, (2000)\textsuperscript{37} has studied the changing business dimensions of banks with the advent of information technology (IT). The Internet is taking banks in directions other than loans and deposits. Banking in India in future would never be the same as in the past. E-Banking has already been in place in the progressive banks and others are in the process of putting in place such advanced technological platforms. E-Banking has facilitated allied services like insurance.

Ojha (1987)\textsuperscript{38} in his paper has made an international comparison of productivity and profitability of public sector banks in India making comparisons on the basis of per-employee indicators and, taking the example of

\begin{itemize}
\item \textsuperscript{37} Nirajan, (2000), ‘Internet Banking is Here, \textit{Business World}, 03rd April, 2000.
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state bank group and PNB 
that Indian banks are the largest in all accounts. Analysis indicated unsatisfactory position in the case of Regional Rural Banks and relatively lowers productivity in the private sector banks.

Pathrose (2001) has observed that as banking the world over is undergoing a rapid and radical transformation due to the all-pervasive influence of IT and breath taking developments in the field of communication technologies and electronic data processing. The winds of change are blowing in India too. The IT which implies the integration of information system with communication technology has radically transformed the traditional ways of doing banking business and allowed banks to wipe out the difference in time and distance. In this context this paper attempts to trace the current status of hi-tech banking in India, visualize its prospects and look at the challenges and problems in the tracks to be traversed. The author has concluded that in the scenario of severe competition and escalating expectation of customers for newer products and alternative delivery channels, the contours of banking are being redefined. The key to survival of banks therefore is retention of customers loyalty by providing them with value added services tailored to their needs, using state-of-the-art IT.

Prabharkar (1986) has analyzed the nature and range of customer services provide by Indian banks. He has brought out the fact that in case of Indian banks, a major portion of complaints is from depositors with the masse banking practice, a different treatment is neither possible nor permitted. The possibilities of dividing customers may be of some better service to important customers. The teller system partially serves this purpose. He has clearly brought out that in India there is a growing size of current and saving account holders who do not maintain the statutorily required minimum balances. Thus, the size

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of defaulters is high and growing, which would cause additional work to bankers.

**Rangarajan (2000)**\(^{41}\) has emphasised the growing significance of IT in the banking and financial sector in India. At a time when banking the world over is undergoing a radical transformation due to the all-pervasive influence of IT. Banking education and training must not only respond to the fast changing needs of the financial system but also become proactive and play the role of a 'Change agent' and bring about a 'skills revolution' in the banking industry. Banks will begin to function increasingly under competitive pressures. In meeting the new challenges, the use of computer, internet and communication technology will assume a critical role. Bank customers are becoming very demanding and it is the extensive use of technology that will enable banks to satisfy adequately the requirements of customers. The use of technology would also improve availability of information for management decisions and for monitoring operations.

**Rangan, S. K (2008)**\(^{42}\) has studied the determinants of profits of banks in India by grouping them into five groups viz. foreign banks (FB), nationalized banks (NB), new private sector banks (NP), old private sector banks (OP) and State Bank group banks (SB). Using a second order partial correlation co-efficient, the author has tried to identify the determinants of operating profit in terms of interest spread, other income and operating expenses. It has been observed that other income has got a significant impact on profits of banks across all groups except NP group. Likewise, interest spread has also got significant influence on

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profits across all groups except NP group. Operating expenses have got a negative correlation with profits in general.

Rao (2002)\textsuperscript{43} he analyzed the impact of new technology on banking sector. The advent of technology both in terms of computers and communications has been changing totally the ways and doing banking business. Technology has opened new vistas and in turn brought new possibilities every day for doing the same work differently and in most cost-effective manner. Tele banking and Internet banking are making forays such that branch banking may give to home banking. In order to protect their profitability, the banks need to address urgently the following emerging areas: (i) Product development and marketing skills, (ii) Modern credit management skills, (iii) New risk management practices, (iv) Skills for operating in electronic environment, (v) New internal audit skills in a changing business environment, (vi) New focus on customer and his needs.

Rao (1999)\textsuperscript{44} has explained the role of IT in the banking and financial services industry. Technology is bringing about rapid and revolutionary changes in the investment industry, giving portfolio managers greater control of their activities and even more time to spend on developing insights into the stock they own. The role that can be played by IT as an enabler of high productivity in financial services is so vital, that in the emerging scenario adoption of high-end technology would become an imperative for survival and growth than an option.

Roger (2000)\textsuperscript{45} has proposed a set of principles that can actually prevent most fires in business. Pretty much everyone acknowledges that business is being completely reinvented because transaction costs are much lower on the

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    \item \textsuperscript{44} Rao, P.K. (1999), 'IT in Financial Services Industry: Innovations and Implications,' The Chartered Secretary, The Institute of Company Secretaries of India, New Delhi, Sept. 1999.
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internet than in traditional channels. The banks are rapidly shifting their business functions and customers relationships on to the web by embracing the latest advances in the field of information and communication technologies.

**Sabnani (2000)** has analyzed the importance of "Universal Banking" in India. Globalization, Liberalization and Deregulation of financial markets in many developed and developing countries have resulted in increased disintermediation and have made commercial banks vulnerable to interest rate risk. Relaxing exchange controls, adopting uniform accounting practices in regard to income recognition, assets classification and provisioning norms and prescribing capital adequacy norms has further aggravated the position. Now the developments in IT and telecommunications are allowing international pooling of financial resources thereby spreading the risk across more than one market. The author has felt that universal banking system would come to stay in India in the near future. Accordingly, there is need to get prepared in advance to face such a radical change that is expected in the near future.

**Sachdeva (1987)** has made out a strong case for educating the bankers to take up preventive and detective measures. Frauds by some unscrupulous customers represent the problem of abuse of bank services. After elaborating the major forms of frauds in banks, he has developed different preventive and detective techniques. The legal aspects of tackling the problem of frauds in banks are not however covered in this paper.

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Sadare (1984)\textsuperscript{48} has examined in his paper the issues in the measurement of productivity of commercial banks and has stated that there is no positive correlation between manpower deployment and deposits as well as credit and business. It has been suggested that there is the need to develop suitable tools.

Sarker and Das (1997)\textsuperscript{49} compare performance public, private and foreign banks for the year 1994-95 by using measures of profitability, productivity and financial management. They find PSBs comparing poorly with the other two categories. However, they caution that no firm inference can be derived from a comparison done for a single year.

Satyamurty (1994)\textsuperscript{50} has explained the concepts of profits, profitability and productivity as are applicable to the banking industry in India. It is generally believed by the managements of banks that the pressure on the profitability is more due to the factors beyond their control. He has suggested the technique of ratio analysis to evaluate the profit and profitability performance of banks. He has opined that endeavors should be made to improve the spread performance of banks through more effective funds management.

Saxena (2000)\textsuperscript{51} has analysed the emerging importance of IT in the operations of banks. According to the author, the future promises of the rapid advances in IT are going to be much more exciting, interesting and challenging. The internet has enabled the banks to talk to each customer as an individual, with different needs and requirements. Thus IT has got an important bearing on the productivity and profitability of the banks.

\textsuperscript{50} Satyamurty, B. (1994), 'A Study on Interest Spread in Commercial Banks in India,' Working Paper, National Institute of Bank Management (NIBM), Pune.
Shah (1977)\textsuperscript{52} in his paper has discussed bank profitability and productivity. He has expressed concern about increased expenses and overheads, and slow growth in productivity and efficiency. It has been observed that there is a notion that higher profitability can be brought about from increased spread alone and that innovations have a limited role. He has favored written job descriptions for improvement of staff productivity. He also emphasized reduction of costs, creation of a team spirit improvement in the management for improving bank profitability and productivity.

Shah (1986)\textsuperscript{53} has attempted an empirical study of the relationship between costs of banks at branch level. He has highlighted the factors responsible for declining profitability and increasing operational costs at the branch level. The author, however, has not suggested a feasible method for appropriating overhead cost to various cost centres (banking services) at the branch level.

Shanti (1984)\textsuperscript{54} has made a pioneering attempt to examine the issues relating delivery of customer services in Indian banks against the backdrop of a sound conceptual framework. She has provided an empirical analysis of bank employees job behavior and its relationship with bank services delivery. She has found that lack of job motivation, lack of freedom at branch level, lack of leadership qualities among bank managers, job security etc. have resulted in poor quality customer services in Indian banks.

Shapiro (2000)\textsuperscript{55} has studied the effects of cyberspace that are evolving in ways that threaten privacy and other constitutional rights. It is further noted that

it is eroding the personal liberty. The character of cyberspace is still up for grabs and different user environments yield widely different experiences. The nature of cyberspace may flip instead of promoting free and open exchange. It may end up controlling our lives in ways we have never imagined. Thus, the adverse consequences of e-commerce and such other technological platforms including e-banking are highlighted in this paper.

**Shastri (2001)**\(^56\) has analyzed the effects and challenges of new technology for banks. Technology has brought about a sea-change in the functioning of the banks. The earlier manual system of preparation of vouchers, reports etc. is slowly being automated thereby saving a lot of time and effort. The use of ATMs and introduction of more than in the past, especially in the Post-VRS Scenario. Besides, there are substantial cost savings because of technological initiatives.

**Singla, H. K (2008)**\(^57\) has studied as to how financial management has played a vital role in the growth of banking industry. The study involved analysis of profitability of sixteen banks falling under banker index for a period of six years FY 2001 to FY 2006. The study has revealed that profitability for the FY 2006 has been reasonable compared with the previous years and further that strong financial structure and capital adequacy position have also been in place.

**Singh (1990)**\(^58\) has studied the productivity in the Indian Banking industry. He has studied intra-bank, inter-bank groups and inter-bank groups productivity of public sector banks and SBI group. He has analyzed branch level

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productivity, per-employee productivity and various other financial parameters at constant prices.

Subrahmanyam (1984)\textsuperscript{59} in his paper has discussed conceptual issues in productivity measurement approaches relating to inter-bank and inter-temporal productivity comparisons. The author has highlighted some of the conceptual issues that are faced in the total factor productivity measurement associated with measurement of technical progress.

Subbarao, P. S (2007)\textsuperscript{60} has studied Indian banking in the reforms era in the context of the major trends in banking industry the world over. The aspects covered in the study have included consolidation in the industry, globalization of the players, advent modern technology, initiatives in the direction of universal banking, thrust on profitability and risk management, rural banking and financial inclusion. The author has concluded that it has transformed from the domestic banking phase to international banking phase. The author, however, has suggested that the Indian banking system further requires a combination of new technologies, well-regulated credit and risk management mechanisms, treasury management, product diversification, internal control, external regulations, professional management as well as skilled human resources to achieve the heights of excellence that can meet the challenges of globalization.

Singhal, S. (1987)\textsuperscript{61} has studied the customer services in Indian banks. This study is a part of a banking research project of the author, Sushila Singhal's sponsored by Shri Ram Center for Industrial Relations, New Delhi. This study is

based on a broad sample of 528 bank employees (both officers and clerks) and 1,427 customers selected through purposive sampling procedure. The author has adopted a stage-wise methodology to select banks for the case study. In the first stage, she has chosen six banks. In the second stage five branches of the six banks so selected has been selected for a more intensive study. The major findings of the study are as follows: (i) there are considerable differences between different banks in regard to employees job involvement and motivation, (ii) customer loyalty and identification of banks and branches are influenced by the employees attitudes towards their customers and colleagues, etc., (iii) demographic and psychological variables were identified and their relationship with employees job performance and customer service is explained, (iv) there is no correlation between 'service efficiency' and 'customers satisfaction', (v) there is no systematic relationship between the size of bank branch and customer satisfaction. The author has elaborately discussed the implications of her findings on efficient management of banks. The speciality of this study is that it follows a multi-method and multi-variable approach to explain the bank employees’ behaviour.

Swamy (2001)62 has studied the comparative performance of different bank-groups for the period FY 1995-'96 to FY 1999-'00. During the study period there has been notable increase in the technology initiatives of banks and also growing industry competition, both being primarily emanating from the ongoing deregulation measures. The author has studied three major issues: (i) what has been the impact of financial sector reforms on the structure of the Indian banking system?; (ii) what are the advantages reaped by some of the new Indian private and foreign banks vis-a-vis public sector banks (PSBs)?, and (iii) whether new competition has enhanced the overall efficiency of the banking system?.

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author has selected such variables as the share of rural branches, average branch size, trends in profitability, share of priority sector advances, share of wages in expenditure, provision and contingencies, net non-performing assets in net advances, spread, has been calculated. The author has concluded that in many respects new generation private sector banks perform much better than PSBs, and even better than foreign banks functioning in India.

Thaur (1987)\(^{63}\) has brought out several forms of abuse of banking services and facilities in India by their fraudulent customers. The willful defaults in making loan repayments, the submission of post-dated cheques by business for collection, raising overdraft facility from different banks simultaneously, hypothecating the same inventory to more than one financial institution simultaneously, production of copy of the already mortgaged property for creating further mortgage etc.

Tiku and Radha (1986)\(^{64}\) have studied the factors responsible for the declining profitability of banks over the years. The authors have observed that that there exits a need to identify controllable and non-controllable factors, both in incomes and costs so as to maintain a reasonable spread (margin) between the two. They have identified the need for efforts from within banks in the form of cost control, and efforts from the part of government and monetary authorities in the form of making a demarcation between the commercial role and social obligations of banks.

Uppal, R. K (2008)\(^{65}\) has analysed the quality of e-banking services in India in the changed environment of the reforms era. The author has studied banks that provide e-banking services by taking a sample size of 25 customers,


and data has been collected through a questionnaire. The paper has concluded that the e-banking customers are satisfied with the different e-channels and the proliferation of such modern services in the reforms era. The paper has suggested strategies for making e-banking services more effective in the future.

Uppal, R.K and Chawla, R. (2009)\(^{66}\) has made an empirical study to (i) analyse the customers’ perception regarding e-banking services, (ii) to study the problems faced by customers of Indian banks while using e-channels, and (iii) to make suggestions to enhance the use of e-banking services. The major problems faced by banks are (i) inadequate knowledge, (ii) poor network, (iii) lack of infrastructure, (iv) unsuitable location, (v) time consumption, (vi) poor response of employees. It has been observed that all types of banks are in the process of providing e-channels, and all customers in general are in favour of such channels. But, customers are becoming more demanding as their expectations regarding the range of services and their quality are on the rise.

Vageesh (2000)\(^{67}\) has appreciated the growing technology initiatives of new generation private sector banks (NPSBs) in India. The author has pointed out that the NPSBs which are equipped with the latest and state-of-the-art technology have grandiose plans to make in-roads into e-banking, and are also growingly being preferred by stock market investors. Besides, it has been pointed out that prominent NPSBs like HDFC and ICICI have forayed into internet banking which offers (i) great convenience to the modern customers, and (ii) lower transaction costs for the respective banks.

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Vijay, K. and S. Annamalai (2002)\textsuperscript{68} have studied the vital role of human resources, the most valuable asset of any organization, in determining the operational excellence of banks. Their paper looks into the crucial area of HRD/HRM and its role in bringing about 'job satisfaction' among the employees, and hence contributing towards achieving the organizational goals. The factors associated with job satisfaction and dissatisfaction, the existing level of job satisfaction in different bank groups etc. have been studied by the authors. Based on the assessment made by the authors, they have made some practical suggestions to improve the level of job satisfaction in banks to enhance the level of productivity. The study revealed that out of 100 respondents from ‘SBI and Associate Banks’ group only 25% have high level of job satisfaction, while 52% have medium level and the balance 23% have low level of job satisfaction. In the Nationalised Banks’ group, out of 100 respondents only 27% have high level of job satisfaction, while 48% have medium level, and the balance 25% have low level of job satisfaction. In the ‘Private Sector Banks’ group, out of 100 respondents only 28% have high level of job satisfaction, while 22% have medium level and the balance 50% have low level of job satisfaction.

Varde (1979)\textsuperscript{69} in his paper has made a distinction between effectiveness, efficiency and productivity of banks. It has been pointed out that efficiency of a bank could be classified into four categories viz. (i) manpower efficiency; (ii) operational efficiency; (iii) commercial efficiency; and (iv) efficiency of ancillary business. Efficiency of each of these four categories can be measured separately, and this efficiency in turn has got a positive influence on the productivity of the respective category.


Venkatachalam (1979)\textsuperscript{70} has highlighted the reasons for erosion in bank profits and profitability during the 1970s in the banks in India. The study has been purely based on published financial statements of banks. The author has argued that there should be a trade-off between social obligations to be discharged by the banks on the one hand, and their profitability on the other hand, for their more effective performance.

Verghees (1983)\textsuperscript{71} has worked on the profits and profitability of Indian commercial banks in the nineteen seventies in a very comprehensive manner. The study is based on a detailed and meticulous analysis of the published financial statements of commercial banks in India during the period, FY 1970 to FY 1979. Some concepts used in this study are observed to have limited applicability. For example, for the cost of usable funds the author used the absolute amount of establishment cost and other expanses instead of proportionate amounts. But while calculating the net yield on advances the author has taken into account the cost of servicing of loans and advances.

Verma (2000)\textsuperscript{72} has analyzed the impact of information technology (IT) on public sector banks (PSBs) and new generation private sector banks (NPSBs) in India in the research paper 'Banking on Change'. It has been pointed out that IT is posing a threat for the PSBs, it has to be a complete face off for the PSBs. It is observed that the business per employee of even the front-run PSBs in India would be a mere fraction of that of NPSBs. Accordingly, to catch up with the latter, the PSBs have to do a lot on improving their productivity and efficiency. NPSBs are fully computerized and can provide even services through internet.

\textsuperscript{70} Venkatachalam, (1979), 'Operational Efficiency and Profitability of Public Sector Banks,' *Occasional Papers*, June 1979, Reserve Bank of India, Central Office, Bombay.


Prominent NPSBs like ICICI bank and HDFC bank are very active on this front and are concentrating on internet banking and e-commerce to offer their clientele a whole range of products under one roof. While some of the NPSBs are concentrating on expansion and modernization, some others are focusing on mergers and acquisitions for their growth.

Wadikar (1980) has made a comprehensive study of private sector banking in India since 1969. He has discussed bank profitability in terms of management of their assets and liabilities portfolios and has touched upon the trends in income and expenditure of the private sector banks. The study has revealed that the performance of private sector scheduled commercial banks has been quite better than that of public sector banks (PSBs) during the period FY1969 to FY 1976. The branch expansion has been at a higher rate in private sector banks than in PSBs and their network in semi-urban and rural areas has also been better.

Zahir (1980) has recommended in his paper transfer pricing as one of the important parameters for evaluating branch level performance of commercial banks. The determination of transfer price for branches should be based on the concept of opportunity cost. The application of the concept of transfer price mechanism for evaluating the branch level performance will give more meaning to profit statement of branches.

2.2. Research Gap

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From the foregoing discussions on the previous studies in banking, it may be observed that the following are the major research gaps.

(i) Studies that focus on the performance of old private sector banks (OPBs) in India in the post-reforms era are virtually nil; all the previous studies being those focusing on either all private sector banks (both old and new) or just new private sector banks alone;

(ii) Studies on risk management in banks in connection with the need to comply with the latest Basel – II norms by banks in India are nil;

(iii) Empirical studies that focus on technology and its impact on operational efficiency and risk management in banks are also nil;

(iv) Focused studies on Kerala-based old private sector banks are nil.

Thus, considering the vital role of technology in enhancing operational efficiency and risk management capability of commercial banks and also the absence of focused studies on the performance of old private sector banks (OPBs) in India particularly the Kerala-based OPBs, this research study seeks to focus on technology and its impact on operational efficiency and risk management in banks with special reference to Kerala-based old private sector banks.