CHAPTER II

REVIEW OF LITERATURE

Martin Sokol¹ (2007) in his paper, ‘Space of Flows, Uneven Regional Development, and the Geography of Financial Services in Ireland’ is concerned with the geography of finance in the globalizing knowledge-based economy, characterized by the proliferation of information and communication technology (ICT). More specifically, the paper aims to examine the ‘locational structure’ of financial services in such an economy and its implications for uneven regional development in Europe.

Leyshon, Andrew French, Shaun and Signoretta, Paola² (2008) in their article ‘Financial Exclusion and the geography of bank and building society branch closure in Britain’ point out that Financial exclusion refers to those processes by which individuals and households face difficulties in accessing financial services.

Giokas, Dimitris ³ (2008) reports an assessment of the branches of a Greek bank in terms of their performance in three different dimensions: their efficiency in managing the economic record of the branches, their efficiency in meeting the demand for transactions with customers and their efficiency in generating profits. From methodological point of view, the paper employs the non-parametric method of Data Envelopment Analysis. Furthermore, branches are assessed using a log linear deterministic frontier method, in order to examine the concordance of efficiency rating between two models. Small differences were found in the distribution of efficiency estimates. In all cases, the results indicated that there is the scope for substantial efficiency improvements.

According to Dobbs, Kevin⁴ (2008), the reasons for making changes in bank branches are due to requests from employees and customers. Changes which are being
made include increasing the number of offices where customers can speak with bankers privately.

Rieker, Matthias\(^5\) (2008) in his article ‘JPM Branch Goals: Bigger Network, Bigger Role’, reports on the roles in which bank branches play in JPMorgan Chase & Co. According to Michael J. Cavanagh, the Chief Executive Officer (CEO) at JP Morgan, the branches support the rest of the company.

Benson, Jeff\(^6\) (2008) in his article ‘Micromarketing Can Make Big Consumer Impact’, discusses the impact of micromarketing in the banking industry. Micromarketing is defined as marketing that orients a bank’s focus, marketing effort, pricing system and message to the local market and its characteristics. Also discussed are one-to-one solicitations from the bank to the consumer and the trend of giving more marketing control to regional managers.

Burgess and Pandey\(^7\) (2005, p.281) have found that branch expansion into rural unbanked locations in India significantly reduced rural poverty. The effect was, at least partially, mediated through increased deposit mobilization and credit disbursement by banks in rural areas. Quantitatively, the authors found that that rural branch expansion in India can explain a 17% reduction in the headcount ratio. Alternatively, opening a bank branch in an additional rural location per 100,000 persons lowers aggregate poverty by 4.10 percentage points.

According to Rangarajan\(^8\) (2008) it is right that in the US and Europe there is shift in preference to on-branch services from off-branch banking. He added that a survey conducted few years back in the US on banking habits brought out surprising results, i.e. even after decades of experience in advanced banking technology, nearly 60% still preferred to deal with people at branches.
Nahan, Mike⁹ (2000) has criticized, one of the perversities of modern life is the tendency to accentuate the negative and ignore the positive. This is particularly the case for globalization and jobs. The closure of bank branches, like those announced by the Bank of Melbourne, is front-page news and the focus of public angst. Conversely, the creation of new job, such as call centers, are largely ignored or dismissed as ‘sweatshops’. These two phenomena, the reduction in bank branches and the growth of call centers are driven by the same forces: technological change, competition and consumer preferences.

Prahalad¹⁰ (2004) in his book ‘The fortune at the bottom of the Pyramid’ stated that there is Money at the BOP. The dominant assumption is that the poor have no purchasing power (PP) and therefore do not represent a viable market. Certainly, the buying power for those earning < 2USD per day can’t be compared with the purchasing power of individuals in the developed nations. However, by virtue of their numbers, the poor represent a significant latent PP that must be unlocked. For ex; all too often, the poor tend to reside in high-cost ecosystems (HCE) even within developing countries. In the shanty town of Dharavi, outside Mumbai, India, the poor pay a premium for everything from rice to credit. For example, the poor in Dharavai pay 600 to 1000% interest for credit from local moneylenders. A bank with access to this market can do well for itself by offering credit at 25%. Although 25% interest might look excessive to a casual observer, from the point of view of the BOP consumer, access to a bank decreases the cost of credit from 600% to 25%. The BOP consumer is focused on the difference between the local moneylender rates and the rates that a commercial bank would charge. The bank can make a reasonable profit after adjusting for risk (10% over its traditional, top-of-the-pyramid customers). It argues later that the BOP consumers do not represent higher risk.
Vikram K Akula\(^{11}\), (2008) speaking on the occasion ‘India should grab opportunities to become a Fin Hub: Experts’ said the government and the RBI should give more freedom to MFIs to serve the poor by minimizing compliance norms and costs. He also called for Deregulation of Interest Rates under Priority Sector Lending to attract private. Sector Banks to open more branches in rural India.

Sainath\(^{12}\) (2008) in a write up titled ‘4750 rural bank branches closed down in 15 years’ has criticized that during last fifteen years Scheduled Commercial Bank (SCB) branches in metros doubled. India has seen the closure on average of one rural branch of a SCB every single working day for the last 15 years. In the same period, bank branches in urban metros doubled, opening at a rate of more than one every day. Bankers and Officials of the RBI argue that these are not all closures but ‘consolidation’, or ‘mergers’ or the creation of satellite offices. The fact remains, though, that there were 4,750 rural branches less in 2007 than at the start of the reforms period. The trend holds through most of UPA years. Indeed, 2006 saw the sharpest drop, with 1,503 branches shutting shop at a rate of one every six hours, on average. The rapid decline has pushed more farmers towards moneylenders.

Ramakrishnasayee\(^{13}\) (2008) in his write up ‘Bank Reforms’ has lauded the suggestion by the Raghuram Rajan Committee on Financial Sector that banks have to be de-linked from government. This will leave banks free from government intervention and thus can help the former function better. However, the Committee’s suggestion that opening up of branches must be left to the discretion of banks themselves will not certainly help develop the rural areas.

Manohara Raj. K \(^{14}\) (2008) has stated that HDFC Bank is aimed at to mitigate the problem of risk and cost in SHG financing, through working on the Mobile Bank
Model (MBM) approach. It is also stated that the technological solution was ready and the first mobile unit (MU) would become operational within the next four to six weeks after the clearance of formalities. HDFC Bank would scale up the MB service substantially, and projected that for its existing customer base, the bank would require about 800 MBs. Each unit is expected to cost Rs.40 lakh and an additional variable cost of around Rs.1 lakh every month.

The Economic Bureau of the Financial Express\textsuperscript{15} (2008) reports that the North-East continues to suffer with the poorest credit-deposit ratio (CDR) and wide disparity within region with Arunachal and Nagaland recording lowest CDR, Assam, Tripura and Manipur show a rise in CDR. Over the last decade, the CDR was the lowest in the North-Eastern region and highest in the Western region. The incremental CDR in north-east India registered a decline from 31.2% in March 1997 to 26.8% in March 2003, according to Reserve Bank’s report on Trend and Progress of Banking in India, 2007. A similar trend was witnessed in the Central and Eastern regions. The regions that fared best were the west and the south, while north India saw fluctuations in this period. The CDR, which is the proportion of loan-assets created by banks from the deposits received, is an indicator of credit absorption in a particular area.

Vinayak A.J. \textsuperscript{16} (2008) has said that the Corporation Bank model for rural areas working well. A steady growth in the number of transactions with more number of small accounts being transacted shows that Corporation Bank’s branchless banking model (CB-BBM) is gaining acceptance among people in these hitherto unbanked areas (UA). In Branchless Banking model, the bank appoints a Business Correspondent (BC) in an unbanked area who uses modern Biometric Smart Cards
(BSC) and voice-guided systems to provide secure banking operation for rural people without any barrier on timings.

Bansal P. K \textsuperscript{17} (2008) has informed the Rajya Sabha the following;

- About two-thirds of rural households in the country do not have access to financial institutions (FIs)
- 51.4\% of households do not have access to any kind of FI
- Of the remaining, 27\% have access to formal FIs and the rest are dependent on formal creditors like private money lenders

Sanjay Sinha\textsuperscript{18} (2008), in his write up ‘Politics limits to Financial Inclusion’ has commented that;

- FI is being crippled by the affliction of political correctness
- Initiatives to draw the excluded into the financial system are being neutralized by stifling conditions
- The reform of the Co-operative banks presents a tough challenge as both governance and efficiency issues need to be addressed.

According to the Technical Paper on ‘Differentiated Bank Licenses’, by Reserve Bank of India\textsuperscript{19} (2008), the penetration of banking services is very low. Less than 59\% of adult population has access to a bank account and less than 14\% of adult population has a loan account with a bank. Under such circumstances, it would be incorrect to create a regime where banks are allowed to choose a path away from carrying banking to masses.
Leeladhar.V. 20 (2008) in his special address on ‘Consolidation in the Indian Financial Sector’ has opined the impact of Consolidation and its impact on the branch network; it may be mentioned that one of the likely effects of consolidation in the banking sector may be the rationalization of the branch network of the banks concerned, resulting in the likely closure of certain branches of the merging banks, where there might be an overlap in their catchment area. Generally, as part of consolidation process, the emerging bank would be more inclined to shift its branches and focus of operations from the rural to the urban and semi-urban areas, which are usually more remunerative.

Rao U.R 21 (2008) in his discussion paper ‘Satellite Connectivity to facilitate penetration of banking services – Need for financial incentives to banks’ points out that the use of satellite communication technology to facilitate penetration of payment services to the rural areas which are presently denied of the facility due to non availability of reliable communication links. The RBI has been taking a number of initiatives for up gradation of technology and bringing the masses under the banking system. Towards this, banks are being encouraged to computerize their operation and connect the branch under the core banking solution so that the branch can provide efficient services by participation in all India funds transfer network like RTGS/NEFT/ECS, etc. But the rural branches have remained largely outside core banking due to connectivity problem. The problem is more for the bank branches in the North Eastern Region (NER).

Usha Thorat 22 (2008) in her Keynote address on ‘Financial Inclusion and Information Technology’ has uttered that the banking system has grown enormously in the last 5 years keeping pace with and in some cases leading the country’s
remarkable economic growth. Simultaneously, the banking system has improved its strength, efficiency and resilience. There have also been significant improvements in the payments and settlements system and electronic payments and RTGS is now much more in use. IT has played a major role in these achievements. Today banks have centralized operations, more and more banks and branches are moving to CBS, network based computing, new delivery channels such as networked ATMs, internet banking, smart card based products, mobile access etc are using IT for customer relationship management, customer transaction pattern analysis credit profiling and risk management.

Shyamala Gopinath\(^2\) (2008) in her address on ‘Banks’ Relationship with Customers – Evolving Perspectives’ has said that times have changed, but the world has always been the same and consumer issues in the new economic order remain as pressing as ever, even more so. Even in developed countries issues relating to customer protection and FI are finding increasing focus. Banks need to adopt a ‘STOCK’ approach while conceiving and bringing out products. Products that are ‘Secure and scalable’, Transparent in terms and conditions of usage, Operationally resilient and efficient, Cost-effective and reasonably priced, and Knowledgeable to staff and customers. The customers have an equal if not higher responsibility to ensure banks adopt this approach while innovating products for them.

Vinayak A.J\(^2\) (2009) in his article ‘Branchless banking: the Corporation Bank way’, has reiterated the latest model of BB unit which supports graphics and has in-built GSM Chip. What is the similarity between ‘uzhavar santhai’ (farmers’ shandy) in Tamil Nadu? and dairy sector in Andhra Pradesh? Yes, they are connected with farmers, and in particular with banking activity of unconventional type - i.e.
branchless banking (BB). While farmers at ‘uzhavar santhai’ in Sivaganga town of Tamil Nadu get overdraft for their business from BB, dairy farmers of Penumuru mandal in Chittoor district of Andhra Pradesh get payments for the milk through this mode. In 2006, when Corporation Bank introduced BB model it catered to the needs of rural masses that did not have access to banking service. Corporation Bank appointed business correspondents and provided them a simple handheld secure terminal. The customers in un-banked villages are provided with smart cards or RFID (Radio Frequency Identification) cards. These cards include their name, photograph, address, and their fingerprints.

Dheeraj Tiwari (2012) in his write up captioned ‘PSU Banks Told to Identify & Shut Loss-Making Branches’, has narrated how Finance Minister asks banks to provide details of branches making losses for last 2 financial years. The state-run banks could soon down shutters on many of their unban branches and close ATMs under a finance ministry goaded review of operation to identify and close down loss making delivery channels to improve profitability. The north block has asked the public sector banks to provide details of all the branches that are not making profit for the last two financial years, a finance ministry official said.

Anjana Chandramouly (2012) in a write up ‘Canara Bank likely to open 600 Ultra Small Branches this fiscal’ discloses that Canara Bank plans to open 600 ultra small branches this fiscal. Of these, 300 would be under the parent bank and 300 under Canara bank-sponsored regional rural banks, Ms Archana Bhargava, Executive director, Canara bank, told Business Line. The Bank has opened 41 ultra small branches so far. These branches will instil a much wanted confidence in dealing with business correspondents who will now have an identity as the bank's agents. The bank
also plans to focus more on urban financial inclusion. It is looking at increasing the urban financial inclusion branches to 50 by 2014 from the current 19. Bank officials pointed out that they had expected labourers to remit their wages at these branches, similar to the bank's experience at Dharavi in Mumbai. The urban financial inclusion branches saw a total business of Rs 150 crores as on March 31, 2012 from over 67000 accounts.

Naga Sridhar G\textsuperscript{27} (2012) in his write up ‘Integrated suite of products needed: Assocham study’ has opined that for effective financial inclusion an integrated suite of financial products and services has to be offered, by Quoting a study by Ernst & Young. The study, commissioned by the associated chambers of Commerce on financial inclusion and insurance, said it would be fruitful to integrate micro-credit, micro-remittances and micro-insurance, which are the main components of financial inclusion. Currently, research does not indicate package comprising these services. Several Governments provide these services to the poor. These are mainly carried out by different organizations, the report said, adding that there was little of no co-ordination. A standalone, no-frills account could be included in the product suite to open up basic banking services to the poorer customers while the insurance component could be tagged on in the co-insurance model. In the co-insurance risks are underwritten by specific insurance company’s life risk by life insurers and other risks by a health or general insurer.

According to Anjana Chandramouly\textsuperscript{28} (2012), Business correspondents’ pay are likely to be raised and the finance ministry recommends a basic of Rs.2500/month. The Finance Ministry has recommended higher remuneration for Business correspondents of banks that facilitate financial inclusion. According to
bankers, the minimum basic remuneration for BCs will now be Rs 2,500, besides fees for every transaction they carry out. For instance, for opening a savings bank account, the BC will now get Rs 20 per transaction and Rs 5 for opening a recurring/fixed deposit. The new process will ensure uniform and increased remuneration for BCs, and better monitoring of their work. Bankers point out that till now BCs were paid anywhere between Rs 1,500 and Rs 2,500 per month based on the volume of transactions.

Manoranjan Mohapatra²⁹ (2012) in his write up ‘Mobile – A Game Changer for Financial Access’ with only 240 million bank accounts and 20 million credit cards, India has over 900 million mobile subscribers. This clearly shows the gap for mobile banking, which over 45 percent of Indian population having no access to baking facilities, mobile money offers a grand panacea to spur financial inclusion. The government and the RBI have been emphasizing on financial inclusion and enabling basic banking and financial services to reach the vast majority of the population. Conventional baking, in the form of retail outlet branches and ATMS, is still too expensive to be cost-efficient in many areas. Hence under the 3 year financial inclusion drive, banks were tasked to cover all villages with population more than 2000 by March and are working towards reaching out to all villages in a time-bound manner.

Srivatsav K.R³⁰ (2012) in his write up ‘Bank Boards must approve turnaround strategy of loss-making branches’ has stated that Public sector banks have to get their strategy for turnaround of loss-making branches approved by their respective boards. A directive to this effect has been given by the Department of Financial Services in the Finance Ministry to state-owned banks including SBI and IDBI, official sources
said. Most banks already have strategy in place for turnaround of loss-making branches. But they have not been approved by their respective boards. The Finance Ministry is of the view that it is imperative that the strategies devised by the respective banks are implemented in right earnest. This would help convert all loss making branches in the bank into profit centers. Turnaround of loss-making branches would also help to improve morale of employees, besides boosting financial parameters such as net profit, net interest margin and business per employee.

Beena Parmar (2012) has briefed that no-frills accounts have more than doubled from 4.93 cr in 2010. The Government’s ambitious financial inclusion plan appears to have gathered momentum. Financial inclusion is the process of ensuring access to appropriate financial products and services needed by weaker sections and low-income groups at an affordable cost by mainstream institutional players. The number of no-frills savings account with an overdraft facility has increased from 13,000 in 2010 to 15.20 lakh in 2012, according to a presentation made by Deputy Governor, RBI, at a recent summit. As part of the financial inclusion process, banks have opened 3,171 rural branches in the last two years. To encourage banks to open branches in the rural areas, they are permitted to freely open branches in tier III to tier VI centers subject to reporting to the RBI.

Press Trust of India has reported that the Finance Minister has asked banks to ensure that at least one person per family across the country has a bank account in the next six months. As per the 2011 Census, only three in five families have a bank account in the country, or 40 per cent of the families are not in the banking system. During the meeting between the FM and heads of public sector banks on June 12 it was decided to ensure that there is a bank account in every family in the next six
months. He said a bank account for every family will help the Government and its agencies to use it for electronic fund transfer (EFT) of wages, salaries or payments to suppliers.

Suresh P. Iyengar\textsuperscript{33}, in his write up titled, ‘Camson Biotech, HDFC Bank in pact to take banking services to farmers’ has mentioned that Camson Biotech has tied up with HDFC Bank to take banking services to over three lakh marginal farmers all over the country. By an agreement with the bank, its 3,000 dealers will be eligible to become business correspondent (BC) or business facilitators (BF) for the bank. BCs appointed in rural areas will execute all transactions that a customer avails of at bank branches. Currently, HDFC Bank has 460 BCs. The RBI has drawn detail guidelines for appointing BCs in a bid to reach banking services to remote rural areas.

Vageesh N. S. & Vinayak A. J \textsuperscript{34} in their write up captioned ‘Public sector banks on branch expansion spree’ has highlighted that Public sector banks (PSBs) added about 5,000 branches in 2011-12. That should benefit an estimated seven crore customers in the country. About half the new branches (around 2,500) were added by just five banks — State Bank of India, Bank of Baroda, Bank of India, Punjab National Bank and Indian Overseas Bank. Banks have been on a branch expansion spree over the past few years with the number inching up every year. In 2006-07, they had opened a little over 1,500 branches while in 2008-09, the year of the global banking crisis, they opened nearly 2,400 branches. Currently, there are over 65,000 public sector bank branches in the country. That number could again shoot up this year if early indications of branch expansion plans are anything to go by. Many banks have announced plans to open more branches.
The Hindu Business Line\textsuperscript{35} (2012) reports that the existing players want entry barrier for new banks to be raised to Rs 1,000 crore and the momentum towards ushering in new banks appears to be building up. Nearly a year after putting out draft guidelines for licensing new banks in the private sector, the Reserve Bank of India on Tuesday released the comments it has received from various stakeholders which were as follows

a) Minimum Capital: Existing banks and institutions, it appears, want the entry barrier raised. Certain banks and institutions have suggested that the minimum capital required should be Rs 1,000 crore instead of Rs 500 crore. Further, certain industrial and business houses, non-banking finance companies and an industry body suggested that the time for dilution of promoter shareholding to 40 per cent in the new bank should be increased from two years to a 3-5 year horizon.

There were suggestions to stagger the process of dilution to a period of 15 years and to permit higher stake (26-40 per cent) to promoters/non-operating holding companies (NOHCs). Certain parties suggested that the schedule for dilution of promoters’ shareholding should be reckoned from the date of commencement of business instead of date of licensing of the bank.

b) Listing: Stakeholders said two years is too short a period for listing of new banks and four-five years should be provided for the same. Further, many of them felt that the restriction of not permitting NOHCs to set up any new financial services entity for at least three years should be removed. Some of the consultants also suggested that if the NOHC or the promoter entity holding the NOHC is listed, listing the banking entity may not be imposed.
c) Corporate structure: Some stakeholders suggested that the requirement of the NOHC to be wholly owned by the promoters could be revisited, and diversified shareholding at the NOHC level be permitted to improve corporate governance and avoid regulatory overlap. Certain NBFCs also suggested that existing non-operative investment/holding companies should be allowed to own/hold shares of the NOHC. Some entities engaged in financial services also suggested that instead of transferring all permitted activities from NBFCs to banks, certain specialised business such as infrastructure and housing finance may be allowed to be continued outside the bank.

The news report in the Hindu Business Line\textsuperscript{36} (2012) stresses that ‘Digitization is must for financial inclusion’. It also quoted B. Sambamurthy, Director, Institute for Development and Research in Banking Technology having said that said only 40,000 habitats of 6.20 lakh villages were on the radar of financial inclusion. The cost and operational feasibility of digitization would make financial inclusion possible, he added. There was a difference between business model and operating models in field, he said, adding: ‘How do we stitch an operational model for financial inclusion is important.’ The digitization of identity and financial inclusion might not always be the same and could have different implications based on the objectives. Financial inclusion should be made more comprehensive with regard to services being offered.

Beverly Hirtle\textsuperscript{37} (2005) in his article titled 'The Impact of Network Size on Bank Branch Performance’, points out that despite recent innovations that might have reduced banks’ reliance on brick-and-mortar branches for distributing retail financial services, the number of U.S. bank branches has continued to increase steadily over time. Further, an increasing percentage of these branches are held by banks with large branch networks. This paper assesses the implications of these developments by
examining a series of simple branch performance measures and asking how these measures vary, on average, across institutions with different branch network sizes. The key findings are that banks with 100 to 500 branches (‘mid-sized networks’) had lower bank-average deposits per branch and roughly equal volumes of small business loans per branch, but no reduction in net deposit costs, relative to banks with larger branch networks. When compared to banks with 100 or fewer branches, mid-sized branch networks had lower bank-average deposits and small business loan volume per branch, but had lower net deposit costs. The analysis shows no systematic relationship between branch network size and overall institutional profitability. The results imply that mid-sized branch networks may beat a competitive disadvantage, especially relative to the very largest branch networks.

Vinayak A.J 38 (2011) in his write up titled, ‘Government plans merger of more regional rural banks’ - Unions wants apex rural bank; seek de-linking from sponsor banks. Following a move by the Central Government to further amalgamate regional rural banks (RRBs) in the country, employee unions are demanding the formation of a National Rural Bank of India (NRBI), by amalgamating all RRBs and de-linking of RRBs from the sponsor banks. In a letter dated November 28 to the chairmen of sponsor bank of RRBs, the Department of financial services, Ministry of finances, said that currently there are a large number of RRBs, sponsored by different banks, functioning in a state. It said that many of the RRBs are very small, with network of less than 100 branches. The letter suggests that geographically contiguous RRBs sponsored by different banks within a state could be amalgamated with single sponsor bank. It has also sought no-objection certificate from the banks for this move.
According to Miliotis P et al.\textsuperscript{39} (2002), recent developments in the provision of banking services are expected to affect the structure and the organization of modern banks significantly. Consequently, it has become necessary for most banks to reorganize their service network. In this context the authors have demonstrated how demand-covering models may be combined with geographical information systems (GIS) to determine the optimal location of bank branches, taking into account the various factors that characterize local conditions within the demand area. The essence of the proposed models is to employ a GIS to represent various criteria concerning the demand for banking services (geographical, social, economic, etc) as well as the competition in each particular area.

Alberto Russo\textsuperscript{40} (2009) has investigated the effects of institutional change on the evolution of the Italian bank branch distribution. As a consequence of the liberalization of the late 1980s and early 1990s, banks were free to open new branches in their preferred locations, without the administrative control of the Bank of Italy operational until 1989. Another major consequence of the regime change has been a significant wave of consolidation events among banks. The study hypothesis is that these fundamental changes can account for the emergence of a power law tail as the outcome of self-organization in a deregulated environment. From a methodological point of view, the study follows a ‘systemic’ approach with a focus on statistical properties of bank branch distribution identifying the banks' collective reaction to the changing institutional setting.

According to Mary Beth Sullivan\textsuperscript{41} (2011), many industry analysts and practitioners clearly believe the future of retail banking requires a dramatic reduction in the absolute numbers of bank branches across the U.S. There is no doubt that
transactions are moving away from the branch channel, and that should be viewed as a good thing. It’s estimated that as much as 5% of all routine branch transactions are moving each year to automated channels, including ATMs, online, telephone, and mobile. This trend will continue, and bankers should consider that the time is right to reinvent the branch channel for today’s marketplace and, in so doing, leverage the channel to build new revenue streams.

Arthur Meidan (1983) presents the major channels of distribution for banking services and the four main types of quantitative techniques available for bank branch location decisions—economic, spatial, bivariate and multiple regression methods. He also indicates the leading bank distribution strategies—defensive, offensive and rationalization strategies—and attempts to assess the impact of new technology developments—particularly of Electronic Fund Transfer Systems (EFTS) and Automatic Teller Machines (ATMs)—on the future of distribution of bank services and branch location.

According to Robert B. Avery et al. (1997), most banking services have been delivered through banking offices. Recent changes in the structure of the banking industry are believed to have had an important influence on the number and location of banking offices, with potential implications for the availability and accessibility of banking products and services. Between 1975 and 1995, the number of banking institutions declined sharply, and the number of banking offices increased nearly 29 percent. However, this twenty-year period embodies two different trends. In the first decade, the overall number of banking offices expanded significantly, even as the number of institutions declined slightly. In the second decade, the number of institutions fell sharply while the number of banking offices contracted.
modestly. In both decades the experiences of commercial banks and savings associations differed markedly, particularly from 1985 to 1995, when the number of savings association offices plummeted while the number of commercial bank offices increased somewhat.

Branchless banking\textsuperscript{44} is a distribution channel strategy used for delivering financial services without relying on bank branches. While the strategy may complement an existing bank branch network for giving customers a broader range of channels through which they can access financial services, branchless banking can also be used as a separate channel strategy that entirely forgoes bank branches. By the definition of the Consultative Group to Assist the Poor (CGAP), branchless banking comprises essentially all of the following elements:

- Use of technology, such as payment cards or mobile phones, to identify customers and record transactions electronically and, in some cases, to allow customers to initiate transactions remotely
- Use of (exclusive or nonexclusive) third-party outlets, such as post offices and small retailers, that act as agents for financial services providers and that enable customers to perform functions that require their physical presence, such as cash handling and customer due diligence for account opening
- Offer of at least basic cash deposit and withdrawal in addition to transactional or payment services
- Backing of a government-recognized, deposit-taking institution, such as a formally licensed bank
• Structuring of the above so that customers can use these banking services on a regular basis (available during normal business hours) and without needing to go to bank branches at all, if that’s what they choose.

Dilara Keskin H & Zehra Abdioglu\textsuperscript{45} (2011) in their study titled ‘Factors Affecting the Geographical Distribution of Bank Branches in Turkey’ aims at determining the economic, social, cultural and demographic factors which are effective upon the bank branch distribution. With this purpose, for 26 sub regions of Turkey in the 2004-2008 periods, panel regression analyses were carried in order to examine which factors are more explanatory. According to the data gathered, economic variables, especially the Gross Value Added of the region and population density have a positive effect on the bank branch distribution.

The news report in the Hindu Business Line\textsuperscript{46} (2012) predicts the road map of RBI to permit non-banking entities to set up ATMs. In a bid to accelerate the growth and penetration of ATMs in the country, the Reserve Bank of India has drawn it plans to permit non-banking entities to set up, own and operate ATMs. ATMs rolled out by non-banks will be like White Label ATMs (WLA) and will provide ATM services to customers of all banks, the RBI said in its Draft Guidelines for WLAs. Non-bank entities proposing to set up WLAs have to apply to the RBI seeking authorization under the Payment and Settlement Systems Act 2007. Such entities should have a minimum net worth of Rs. 100 crore at the time of making the application and on a continuing basis after issue of the requisite authorization. The WLA operator will have to declare one ‘Sponsor Bank’, which will serve as the Settlement Bank for the settlement of all the service transactions at the WLAs. The WLA operator can choose
the location of the WLA. However, it will adhere to annual targets and the ratio of WLA between Tier I &II and Tier III-VI centers that may be stipulated by the RBI.

Deloitte Center for Banking Solutions\textsuperscript{47} (2008) reports that many banks have made strong progress in improving their customer experiences, particularly in the following areas: customer data and segmentation; leveraging data to deliver a better product mix; creating a distinct brand image; and improving service operations. As the primary means of customer service and sales interaction, distribution channels play a central role in the customer relationship process, which fuels growth. That’s why retailers place great importance on the look, feel, layout, and customer convenience of distribution channels, whether they comprise physical locations, Web sites, kiosks, or interactions with sales professionals. For the same reason, they make attracting and retaining customers within and across these channels a top priority. Banks must do the same. For most banks, the branch presently dominates their distribution approach, while other methods of interaction such as direct channels and alternative face-to-face (F2F) outlets are less important and not well integrated. But this situation appears to be changing fast. Research by the Deloitte Center for Banking Solutions has identified six converging market dynamics, which are creating an inflection point in the evolution of retail channels for banks. These market drivers are rapidly transforming the retail distribution landscape for banking services from a branch-dominated paradigm to one of integration and balance among multiple channels.

Giorgio Calcagnini, Riccardo De Bonis & Donald D.Hester\textsuperscript{48}(1999) presents a model of de novo branching by Italian banks and reports estimates of its parameters that were obtained by applying a probit-regression (or Tobit) method to cross-section
samples of up to 206 large banks for the years 1992-1996. The number of branches has increased rapidly since about 1988. The model incorporates information on banking markets and economic activity in provinces and on a bank’s own operating characteristics when attempting to describe de novo branching in a province. The principal findings are: (1) variables describing existing market structure and recent past branch expansion by the bank and its rivals strongly influence de novo branching, (2) banks seek targets of opportunity when sitting branches in provinces where they have a presence, where many communes in a province are unserved, and where branches per capita is low, (3) there is only a weak relation between a province’s level and change in per capita GDP and de novo branches, (4) banks which merge are more likely to have de novo branches in a province than other banks, and (5) profitable banks with large number of workers per branch and large amounts of loans relative to deposits are likely to have more de novo branches.

According to Ronald L. Spieker (2008), concerns have been voiced for some time about the high cost of branching and the potential over-branching of certain markets, especially with the availability of alternative banking technology. There is a prediction that there will be significant branch closings due to an increase in ATM, telephone, computer and direct deposit services, indicating that ‘The expense of maintaining bank branches has increased while the importance of branches to customers has declined.’ However, despite technological advances that have made it easier to conduct financial services activities without physically entering a bank branch, it seems that banking consumers like the convenience of bank branches. Surveys conducted by the Federal Reserve Board indicate that the single most important factor influencing a customer’s choice of banks is the location of the institution’s branches.
Carlos Félix Garrocho Rangel et al.\textsuperscript{50} (2010) have explored the influence of banking services supply and demand on the spatial organization of bank branches operating in the Toluca Metropolitan Area (TMA), the fifth largest in Mexico. Our results reveal the logic of spatial behavior of the banking system within the TMA, characterized by: i. a tendency towards strong spatial agglomeration; ii. Prioritizing the spatial association (co-localization) between certain banking firms; and iii. Orienting the localization of bank branches toward strategic segments of demand.

Rajesh Chakrabarti\textsuperscript{51} (2004) discusses the state of SHG-based microfinance in India. With traditionally loss-making rural banks shifting their portfolio away from the rural poor in the post-reform period, SHG-based microfinance, nurtured and aided by NGOs, have become an important alternative to traditional lending in terms of reaching the poor without incurring a fortune in operating and monitoring costs.

**Research Gap**

A literature in the chosen area reviewed by the researcher center around geographical distribution of bank branches, impact of technology on the extent of branch expansion, emergence of branchless banking and cost benefit analysis of branch banking.

In the above backdrop, the researcher wishes to add new dimension in the arena of branch banking in India by focusing on the following aspects:

1. A three dimensional analysis of distribution of bank branches in India i.e., Region wise
2. Pace of branch expansion in the pre financial inclusion and post financial inclusion period.
3. Assessment of productivity of bank branches in India.
REFERENCES


   http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/80798.pdf
    International Banking & Finance Conference, organized by the Indian
    Merchants’ Chamber, Mumbai, April 17, 2008.

21. Rao U.R , ‘Satellite Connectivity to facilitate penetration of banking services -
    Need for financial incentives to banks’, Reserve Bank of India,
    http://rbidocs.rbi.org.in/rdocs/Content/PDFs/84974.pdf

22. Usha Thorat (2008), ‘Financial Inclusion and Information Technology’
    NDTV Convergence Conference on-‘Vision 2020 – Indian Financial Services

    Perspectives’, 4th M.R. Pai Memorial Award Function organized by the All
    India Depositors’ Association, Mumbai, April 8, 2008.


26. Anjana Chandramouly (2012), ‘Canara Bank likely to open 600 Ultra Small


28. Anjana Chandramouly (2012), ‘Business correspondents’ pay likely to be


40. Alberto Russo (2009), ‘On the evolution of the Italian bank branch

http://www.bai.org/bankingstrategies/distribution-channels/branches/the-
future-of-branches-reinvention.

42. Arthur Meidan (1983), ‘Distribution of Bank Services and Branch Location’,
International Journal of Physical Distribution & Logistics Management,
Volume. 13, Issue: 3, pp.5 – 17.

43. Robert B. Avery, Raphael W. Bostic, Paul S. Calem, and Glenn B. Canner
(1997), Changes in the Distribution of Bank offices, Federal Reserve Bulletin,
September 1997, pp.707–725


45. Dilara Keskin H & Zehra Abdioglu (2011), Factors Affecting the
Geographical Distribution of Bank Branches in Turkey, European Journal
of Social Sciences – Volume 19, Number 4 (2011)

46. The Hindu Business Line Bureau (2012), ‘RBI to permit non-banking entities
to set up ATMs’ The Hindu Business Line, February 14, 2012.

47. Deloitte Center for Banking Solutions (2008), ‘Evolving Models of Retail

48. Giorgio Calcagnini, Riccardo De Bonis & Donald D.Hester (1999),
‘Determinants of Bank Branch Expansion in Italy’ 40th Societa Italiana Degli
Economisti Meeting, University of Ancona, October 29-30, 1999.

It Continue?’ Future of Banking Study, Federal Deposit Insurance
Corporation, 2008.
50. Carlos Félix Garrocho Rangel & José Antonio Álvarez Lobato, ‘Towards an Explanation of the Location Pattern of a Banking System in the Intrametropolitan Space: a case study of Toluca, Mexico’
http://www.researchgate.net/publication/229054110
