IMPACT OF "*BASEL NORM*" IN INDIAN BANKING SECTOR DURING THE POST-REFORMS PERIOD-A REVIEW

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Introduction:

The Government in order to overcome the evils of private banking nationalized 14 banks in 1969 and another 6 banks in 1980 with the following objectives

- To break the ownership and control of banks by a few business families.
- To prevent concentration of wealth and economic power.
- To mobilise savings of the masses from every nook and corner of the country.
- To pay greater attention to the credit needs of the priority sectors like agriculture and small industries.

The post-nationalisation period witnessed a remarkable expansion in the banking and financial system. The biggest achievement of nationalisation was the reallocation of sectoral credit in favour of agriculture, small industries and exports which formed the core of the priority sector. Within agriculture, credit for the procurement of food grains (food credit) was a major item. Other agricultural activities preferred for credit included poultry farming, dairy, and piggeries. Certain other sectors of the economy which also received attention for credit allocation were: professionals and self-employed persons, artisans and weaker sections of society. Conversely, there was a sharp fall in bank credit to large-scale industries. However, the share of small-scale industry registered an upward trend[1].

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Nationalisation of commercial banks was a mixed blessing. After nationalisation there was a shift of emphasis from industry to agriculture. The country witnessed rapid expansion in bank branches, even in rural areas. Branch expansion program led to mobilisation of savings from all parts of the country. Nationalised banks were able to pay attention to the credit needs of weaker sections, artisans and self-employed. However, bank nationalisation created its own problems like excessive bureaucratisation, red-tapism and disruptive tactics of trade unions of bank employees. Commenting on the performance of the nationalised banks, the Reserve Bank of India observed, "After the nationalisation of large banks in 1969 and 1980. The Government-owned banks have dominated the banking sector. The role of technology was minimal and the quality of service was not given adequate importance. Banks also did not follow proper risk management systems. Further, there were excessive controls on commercial banks by RBI. For instance, commercial banks in India were required by the Banking Regulation Act 1949 to maintain liquid assets in the form of cash, gold and un-encumbered securities such as government securities and government guaranteed securities, which will be either equal to or not less than 25% of their total demand and time deposit liabilities. This requirement is known as statutory liquidity ratio[2]. The RBI alone has the power to change the minimum ratio. Accordingly, RBI raised SLR from 25% to 30% and further gradually to 38.5% in 1991.

BANKING REFORMS :

The main plank of economic reforms comprised (a) stabilization of the economy so as to keep under control inflationary and balance of payments pressures, (b) deregulation of the real and financial sectors and removal of the license and permits system from all spheres of production and domestic trade to promote competition, (c) liberalization of international trade in various sectors to promote competition and efficiency by removing the high degree of protection enjoyed by the domestic industry and (d) integration with the world economy to attract capital and modern technology. However, economic reforms in the real sectors of the economy would not succeed without parallel reforms in the financial sector. It hardly needs emphasis that a liberalized economy would be ill-served, if the banking system remains highly sheltered or regulated, just as the banking system cannot become viable or sustainable in the long run, unless

it adequately responds to the needs of the market-oriented economy. Thus, financial sector reforms were a necessary concomitant of liberalization of industrial and trade policies[3].

The broad directions of the financial reforms were improvement in the overall monetary policy framework, strengthening financial institutions and gradual integration of the domestic financial system into the global economy. Within these broad goals of policy, banking reforms have the specific task of achieving (a) a suitable modification in the policy framework within which banks operate, (b) improvement in the financial health and competitive capabilities of banks, (c) building financial infrastructure relating to supervision, audit and technology and (d) upgradation of the level of managerial competence and the quality of human resources. The banking reforms based on these specific tasks have two aspects; Macro-level policy changes and micro-level policy reforms. The former aims at removing external constraints on the banking system as a whole and thus creating a climate in which banks could function in tune with liberalization. Micro-level reforms, on the other hand are concerned with specifics of individual banks and banks as a whole to enable them to overcome internal constraints on their functioning.

NARASIMHAM COMMITTEE (1998)

The government appointed a second high-level "Committee on Banking Sector Reforms" headed by Shri M. Narasimham to review the implementation of the reforms recommended by the earlier committee and to look ahead and chart out the reforms necessary in the years ahead to make Indian banking strong and better equipped to compete effectively in a fast changing environment. The committee in its report submitted in April 1998, made wide-ranging recommendations, covering various aspects of banking policy, institutional, supervisory and legislative dimensions. The committee came out with recommendations with regard to capital adequacy, asset quality; non-performing assets (NPA's); directed credit; prudential norms; disclosure requirements; asset-liability management; earnings and profitability; systems and methods in banks; restructuring including mergers and amalgamations; reduction of government and RBI shareholding to 33% in the public sector banks, devising effective regulatory norms and the review of banking sector laws. These recommendations are being progressively implemented. In follow up of Narasimham Committee's (1998) reference to weak banks in the context of restructuring of banks, Varma Committee was appointed in 1999 with the specific

task of identifying weak public sector banks, examining their problems and suggesting strategies for restructuring them[4]. The recommendations of the Committee were approved in principle.

BASEL

The Basel Banking Accords are norms issued by the Basel Committee on Banking Supervision (BCBS), formed under the auspices of the Bank of International Settlements (BIS), located in Basel, Switzerland. The committee formulates guidelines and makes recommendations on best practices in the banking industry. The Basel Accords, which govern capital adequacy norms of the banking sector, aim to ensure financial stability thereby increasing the risk absorbing capability of banks.

Banks face high risks primarily because banking is one of the most highly leveraged sectors of any economy. To tackle risk and function efficiently, there is a need to manage all kinds of risks associated with banking. Thus, risk management is core to any banking service. The ability to gauge risk and take appropriate action is the key to success for any bank. It is said that risk-takers survive, effective risk managers prosper and the risk averse perish. The same holds true for the banking industry. The axiom that holds good for all business is *"No Risk No Gain"*[5].

A bank's real capital worth is evaluated after taking into account the *riskiness* of its assets. It was earlier hoped that the capital would provide banks with a comfortable cushion against insolvency, thereby ensuring market stability. In the wake of the introduction of prudential regulation as an integral part of financial sector reforms in India, there has been a growing debate as to whether capital adequacy requirements are the best means to regulate the banking system. From cross country experiences, there is some evidence of a positive association between capitalisation and risk assumption by banks due to the possibility that the *one-size-fits all.* CAR causes bank leverage and asset risk to become substitutes. At policy levels, this has driven research into alternative regulatory methods.

BASEL I NORMS:

In evaluating its capital position, a bank must consider both the static costs associated with any given capital gain and the dynamic costs associated with adjusting it. The static costs, and possibly the dynamic costs, depend in part on the penalties regulators impose for inadequate

capital ratios. Banks are similar to other corporations, in that they are subject to a variety of non-regulatory costs associated with the level and changes in their capital position. During the 'seventies, regulators were concerned about bank capital, but there were no regulations that specified minimum capital ratios. At the beginning of the 'eighties, regulators became increasingly dissatisfied with many banks' capital ratios, especially those of the larger banking organizations. As a result, regulators in U.S. specified minimum capital-to asset ratios for all banks in 1981. The remaining banks were required to raise their capital-to-asset ratios to some pre-specified minimum by 1983[6]. The other countries followed suit subsequently.

The Basel Committee on Banking Supervision (BCBS)was formed in response to the messy liquidation a Frankfurt bank. On 26th June 1974, a number of banks had released Deutschmark to Bank Herstatt in Frankfurt in exchange for dollar payments deliverable in New York. On account of difference in the time zones, there was a lag in the dollar payment to the counterparty banks, and during this gap, and before the dollar payments could be effected in New York, Bank Herstatt was liquidated. This incident prompted the regulators to form towards the end of 1974, the BCBS, under the auspices of the Bank for International Settlements (BIS).

Basel I is the term which refers to a round of deliberations by central bankers from around the world. The BCBS published a set of minimal capital requirements for banks in 1988. This is also known as the 1988 Basel Accord. Although the Basel Accord was signed only by the G-10 countries plus two more nations, more than 100 countries across the globe have made these norms mandatory in their domesic banking system. In India, the Reserve Bank of India (RBI) implemented Basel I norms from 1992 onwards[7].

Determinants of Capital Strategy

Basel I primarily focused on credit risk. The assets of banks were classified and grouped into five categories according to credit risk, carrying risk weights of zero (eg. home country sovereign debts), 10, 20, 50, and up to 100(for corporate debts). Banks with international presence were required to hold capital equal to 8 % of the risk-weighted assets. This framework for capital adequacy was designed to establish minimum levels of capital for internationally active banks. However, its simplicity encouraged over 100 countries across the world to not only

adopt the framework but also apply it across the entire banking segment without restricting it to the internationally active banks. The BASEL I accord has been criticized as being inflexible due to focus on primarily credit risk and treating all types of borrowers under one risk category irrespective of credit rating.

BASEL II :

Basel I was criticized for its rigidity of "one-size fits" approach and absence of risk sensitivity in estimating capital requirements. After several discussions and revising multiple drafts, in 2004, the BCBS came out with a comprehensive framework of capital regulation popularly known as Basel II. Basel II was built upon three mutually reinforcing pillars such as minimum capital requirements, supervisory review process, and market discipline. Under Basel II, banks were required to maintain the minimum capital requirement of 8% against the risk weighted assets and these assets were computed by considering three major generic risks like credit risk, market risk, and operational risk. To estimate the capital requirements for credit risk and operational risk, Basel-II proposed a menu of approaches like standardized approach; foundation internal ratings based approach and advanced internal ratings approach. However, for market risk, Basel II continued with the 1996 framework which suggested both standardized and internal measurement models[8]. First, Basel II, a risk sensitive framework proved to be pro-cyclical. In good times, when banks were doing well, and the market was willing to invest capital in them, Basel II did not impose additional capital requirement on banks[9].

On the other hand, in stressed times, when banks required additional capital and markets were wary of supplying that capital, Basel II required banks to bring in more of it. During the crisis, it was the failure to bring in additional capital that forced major international banks into a vicious cycle of deleveraging, thereby hurting global financial markets into seizure and economies around the world into recession. Second, by following value at risk (VaR) models, banks maintained capital requirements against trading book exposures assuming that these could be liquidated, and substantial banking book assets were parked in the trading book, which helped banks to optimize the capital requirements.

These trading book exposures include the securitized bonds, derivative products, and other toxic assets. The third issue was the absence of any explicit regulation governing leverage. Basel II assumed that its risk based capital requirement would implicitly mitigate the risk of excessive leverage. Unfortunately, excessive leverage of banks was one of the prime causes of the crisis. The fourth issue was that Basel II did not consider liquidity risk as part of capital regulation. During the financial crisis unaddressed, liquidity risk cascaded into solvency risk. The data shows that the Federal Reserve, the European Central Bank (ECB), the Bank of England, the Bank of Japan, and the Swiss National Bank have together injected USD 2.74 trillion to meet liquidity requirements. Finally, Basel II focused more on individual financial institutions and ignored the systemic risk arising from the interconnectedness across institutions and markets, which led the crisis to spread to several financial markets[10]. Since the beginning of the financial turbulence in 2007, the total reported write downs and losses of banks globally have exceeded 888 billion dollars. Some estimates of the overall expected losses by banks and other financial institutions are in the range of 2.2 trillion dollars.

In response to the 2007-09 global financial crisis, BCBS issued Basel II which was designed to estimate capital requirements for credit risk in the trading book of a bank. Basel II was intended to prevent inappropriate placement of securities in the book that would provide the most favorable accounting treatment of securities at a particular point in time. In that order, the Basel Committee issued a series of documents to address specifically counterparty risk in derivative transactions, strengthening of liquidity standards, and market risk framework

BASEL III :

Many banks in USA and other Western countries collapsed as a result of the US subprime Crisis although banks reported to have implemented the Basel II norms. This led the banking supervisors to find out what had gone wrong. The Basel Committee began deliberations with all the signatory countries, the central banks and the Governments. In their meeting in December 2010 at Basel around 28 countries including India and representatives from IMF participated. In the meeting, the new norms relating to the capital base, liquidity and other requirements of banks were agreed upon. These norms are called as Basel III norms. The Basel III proposals come primarily in four areas: (i) augmentation in the level and quality of capital; (ii) introduction of

liquidity standards; iii) modifications in provisioning norms: and (iv) introduction of leverage ratio[24]. These are elaborated hereunder

1. Increased quantity and quality of capital

Basel III contains various measures aimed at improving the quantity and quality of capital, with the ultimate aim of improving the loss-absorption capacity. Retaining the minimum capital adequacy ratio of 8%, the Tier I capital rate increased to 6% with the equity component stipulated at 4.5%. The new concepts Introduced by Basel III are of capital conversion buffer and countercyclical capital buffer ICCB). The capital conversion buffer ensures that banks are able to absorb losses without breaching the minimum capital requirement, and are able to carry their business even in a downturn without deleveraging. This is not part of the regulatory minimum. So while the 8% minimum capital requirement remains unchanged under Basel III, there is an added 2.5% as capital cushion buffer. The implications of having a buffer are low dividend payout and low bonus to employees. Further, profits are likely to decrease. Banks are already constrained in payment of dividends because there is a statutory minimum ratio where the profits have to be transferred. In such a case, banks do not attract more capital. The countercyclical capital buffer is a pre-emptive measure that requires banks to build up capital gradually as imbalances in the credit market develop. It may be in the range of 0-2.5% of risk weighted assets which could be imposed on banks during periods of excess credit growth. There is also a provision for a higher capital surcharge on systemically important banks. Basel III strengthens the counterparty credit risk framework in market risk instruments. A new capital requirement known as credit valuation adjustment (CVA) risk capital charge for over-the-counter (OTC) derivatives has been introduced to protect banks against the risk of decline in the credit quality of the counterparty.

2. Introduction of Liquidity

The Basel Committee has further strengthened the liquidity framework by developing two minimum standards for quantifying funding liquidity; Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR). The LCR standard aims at a bank having an adequate stock of unencumbered high quality liquid assets (HQLA) which consist of cash or assets that can be converted into cash at little or no loss of value in private markets to meet its liquidity

requirements in a month[11]. The two components of LCR are stock of HQLA and the total net cash flows over the next 30 calendar days. The NSFR is designed to encourage and incentivize banks to use stable sources to fund their activities. It helps to reduce dependence on short term wholesale funding during times of buoyant market liquidity and encourages better assessment of liquidity risk across all on- and off-balance sheet items. Net Stable Funding Ratio (NSFR) requires a minimum amount of stable sources of funding at a bank relative to the liquidity profiles of the assets, as well as the potential for contingent liquidity needs arising from off-balance sheet commitments, over a one-year horizon.

The implications here would pertain to the type of current short term markets available for banks to provide liquidity. The type of long term markets needed the cost of deposit, and the impact on the profitability of banks. One issue with reference to liquidity is how the regulator would consider the statutory liquidity ratio (SLR) securities. Banks are already investing around 25% of their deposits in the SLR securities which is a substantial amount. A question has also been raised about the relevance of cash reserve ratio. All these have implications for deposit pricing, cost of funds, and profitability.

3. Modification of provisioning norms

Another issue raised by the Basel III reforms is of provisioning norms. Currently there is a standardised approach to provisioning in the banking system. It is a typical accounting approach, wherein if a loss is incurred, banks have to make a provision to cover it. But Basel III is talking about a move from "Incurred loss approach" to "expected loss approach". Spain introduced Dynamic Provisioning which involves computing some portion of the fixed element, and some portion of the dynamic moving element. The Turner Report also emphasised the need for Dynamic - Provisioning. The information required is credit cost data, credit migration, and probability of default. The RBI has already released an approach paper" on this and is working on the introduction of a suitable framework. The second pillar of Basel II is market discipline, which involves more of disclosures[12].Disclosures made by banks are essential for market participants to make more informed decisions, Basel III further strengthens the disclosures, where banks are required to disclose on composition of the regulatory capital and any adjustments to the regulatory capital.

4. Introduction of leverage ratio

The newly introduced leverage ratio acts as a non risk sensitive measure to reduce the risk of a build up of excessive leverage in the institution and in the financial system as a whole. The leverage ratio requirement would hence set an all-encompassing floor to minimum capital requirements which would limit the potential erosive effects of gaming and model risk on capital against true risks. A 3% minimum Tier I leverage is recommended by Basel III. In India, banks are required to meet this norm from January 1. 2018.

BASEL III ISSUES FOR INDIAN BANKS :

Additional capital

As banks go on increasing the risk weighted asset portfolio to meet the growing economy's credit requirements, they would need additional capital funds under Basel III. Different estimates of additional capital infusion have been announced by various agencies. The international credit ratings agency, Fitch, estimates this figure to be at around USD 50 billion, while ICRA projects a figure of around USD 80 billion. Macquarie Capital Securities predicts that there will be a USD 35 billion dilution in the existing capital of public sector undertaking (PSU) banks subsequent to adoption of the stringent Basel III capital accord[13.] However, the RBI Governor had recently stated that PSU Banks presently have a capital adequacy ratio of 13.4%, wherein Tier 1 capital stood at 9.3%. This is a statement on the existing scenario, and does not take into account the imminent capital dilution. Moreover, additional capital will be required to address the enhanced counter party default, especially in OTC derivatives. The RBI estimates project an additional capital requirement of Rs 5 trillion of which non equity capital will be of the order of Rs 3.25 trillion while equity capital will be of the order of Rs 1.75 trillion'. The two important assumptions on which the estimates are made are: risk weighted assets of individual banks will increase by 20% per annum and banks can fund 1% capital requirements through retained profits.

Growth barrier

Growth and financial stability seem to be two conflicting goals for an economy. The Indian economy is transforming structurally and moving towards rapid growth although some seasonal

downtrends are seen. The main goal of the 12th Plan is "faster, sustainable and more Inclusive growth". The Planning Commission is aiming at a total outlay of Rs. 51.46 lakh crore in the infrastructure sector during the 12th Plan (2012-17). Infrastructure sector investment as percentage of the Gross Domestic Product (GDP) is expected to rise steadily to 10.40% in the terminal year (2016-17) of the 12th Plan. The average investment in infrastructure sector for the 12th Plan as a whole is likely to be about 9.14% of the GDP.

The outstanding credit gap for the micro and small and medium enterprises (MSME) sector is estimated at 62%, which is estimated to reduce to 43% in March 2017 with the assumption of a minimum 20% year on year (Y-o-Y) credit growth to MSME sector and 10% Y-o-Y credit growth to medium enterprises by scheduled commercial banks (SCBs)." The economists' projections are that the Indian economy will see higher growth in the manufacturing sector which enhances demand for credit. The financial inclusion project aims to bring several millions of the population under the ambit of the organised financial system which will also enhance their credit requirements.

The preliminary research shows that the largest banks in the world would raise their lending rates on an average by 16 basic points (bps) in order to increase their equity to asset ratio by 1.3 percentage points needed to achieve the new Basel regulation of 7% equity to new risk weighted asset ratio[14.] Increase in lending rate is estimated to cause loan growth to decline by 1.3% in the long run. When the leverage requirement interacts with the risk based internal ratings-based (IRB) capital requirements, it might lead to less lending to low risk customers and to increased lending to high risk customers. Such allocation effects may be counterproductive to the financial stability effects of the leverage ratio requirement.

In a structurally transforming economy like India with rapid upward mobility, credit demand will expand faster than GDP for several reasons. First, India will shift increasingly from services to manufacture whose credit intensity is higher per unit of GDP. Second, increased Investment in Infrastructure as projected by the Planning Commission will place enormous demands on credit. Finally, financial inclusion, which both the Government and the RBI are driving, will bring millions of low income households into the formal financial system with almost all of them

needing credit. It means banks need to maintain higher capital requirements as per Basel III at a time when credit demand is going to expand rapidly. The concern is that this will raise the cost of credit and hence prevent growth.

Profitability of banks

Return on equity (ROE) is defined as the product of return on assets (ROA) and the leverage multiplier. As the upper limit for the leverage ratio by Basel III has been set at 3%, the value of the leverage multiplier will come down, resulting in a reduction in the ROE. On an average, Indian banks' ROE is around 15% between 2009 and 2012. The enhanced capital requirements under Basel III regime are likely to affect the ROE of the banks and the shareholders' expectations on the minimum required rate of return[15].

Implementing the countercyclical capital buffer

A critical component of the Basel, III package is implementation of countercyclical capital buffer which mandates that banks build up a higher level of capital in good times (that could be run down in times of economic contraction), consistent with safety and soundness considerations. Here, the foremost challenge to the RBI is identifying the inflexion point in an economic cycle which should trigger the release of the buffers. The identification of the inflexion point needs to be based on objective and observable criteria. It also requires long series data on economic cycles.

Risk management

In recent years many banks have strengthened their risk management systems which are adequate to meet the standardized approaches of Basel II. A few banks are making efforts in the direction of moving towards implementation of advanced approaches. The larger banks need to migrate to the advanced approaches, especially as they expand their overseas presence. The adoption of advanced approaches to risk management will enable banks to manage their capital more efficiently and improve their profitability. This graduation to advanced approaches requires three things. First and most important, a change in perception from looking upon the capital framework as a compliance function to seeing it as a necessary prerequisite for keeping the bank sound, stable, and therefore profitable. Second, the graduation to advanced approaches requires

deeper and broader based capacity in risk management and finally, it requires adequate and good quality data. Other banks also need to strengthen their risk management and control system so as to allocate risk capital efficiently and improve profitability and shareholder's return[16].

Reforms and Response

The progress of banking reforms since 1991 has been impressive. The RBI made substantial progress in modifying the policy framework for reforms. The proportion of banks' resources pre-empted has been brought down. For instance, the SLR, which was 38.5 per cent in March 1991, came down to 25 per cent in 2001 and then to 21.50% in 2014-15. Similarly the CRR which was 15 per cent in March 1991 was brought down to 4 per cent in 2014-15. The bank rate was reduced from 12 per cent in October 1991 to 7.75 per cent in 2014-15. The interest rate regime has been rationalized and in the context of deregulation, banks have been given considerable operational flexibility and autonomy in April 2001 in determining the rates with the approval of their boards. To restore the soundness of public sector banks, capital adequacy ratio was introduced in 1992 and this was accompanied by re-capitalization of banks by the government. Between 1992-93 and 1998-99 the government contributed over Rs. 20,000 crore to the capital of public sector banks. New initiatives were taken to strengthen the supervisory system for banks by moving towards consolidated supervision and also towards risk-based supervision. The response of the banks to the reforms has been impressive. The banks have been adjusting very well to the new environment, though gradually.

There has been considerable reduction in non-performing assets (NPAs) [17.] The ratio of gross NPAs as a percent gross advances of public sector banks, which was 23% in 1992-93, declined to 8% by March 2004 and then to 5% in 2014-15. The net NPA's as percent of net advances of these banks was 3% in 2014-15. Deposits mobilized increased ten-fold between 2003-04 and 2014-15. The credit deployed in 2014-15 showed a ten-fold increase over 2003-04. The share of credit to priority sector in the total banks credit was around 34 per cent. In 1992-93, the first post-reform year, 12 out of 27 public sector banks reported net losses and by March 2015, almost all the banks were making profits. The striking feature of the banking system after reforms is its continuing branch expansion. By March 2015, there were more than **70,000** branches and the share of rural and semi-urban branches together was 70 percent indicating the wide reach of the

banking system. There is a little doubt that the benefits of the banking reforms have been considerable.

Technology up gradation:

Technology introduction and its use on large-scale has been a reality than a myth. Indian banks have struggled a lot for the introduction of machines in the past as it was held that machines are competitive to men and their increased use may deter the employment potential. Computerization, however, has gained momentum to a large extent after liberalization. Further, the implementation of Basel II Norms, called for large-scale use of technology in banks[18].

Impact of IT on Banks

Due to technology, the organizational structure of the banks, the job roles of various staff and the approach of banks to customer needs have undergone a perceptible change. Technology has helped banks to strategically look at customer needs to offer newer and more efficient products & services, and ensuring that the staff is able to cope with the newer demands of technology and customer requirements. It has also helped banks to increase productivity and efficiency. One of the efficiency parameter that is studied is the cost-to-income ratio. As per BASEL II norms, banks have to strive to achieve a cost-to-income ratio of around 40 percent. Indian banks are more or less almost near that number, down from a ratio of more than 50 percent a decade ago. Technology has played a major role in achieving this favorable number by banks.

Impact on Service Quality

Banking is primarily a financial service industry. The most visible impact of technology on banking is seen in the way banks respond to challenges in making IT's effective use for efficient service delivery. The impact of IT on service quality can be summed up as follows. For instance, small and relatively new banks, by integrating IT in their operations with a limited network of branches are better placed to compete with big and well established banks. Technology is helping banks irrespective of their size to have a level playing field for pricing their products[19]. All the same, technology has helped in commoditising some of the financial services. It is compelling banks to develop a strategy for an on-line delivery of almost all of its products to broaden and deepen the customer relationship and to retain customer loyalty. Further, it has been

seen that technology pushes the delivery of services out of the bank and the focus shifts from cost reduction to maintenance of market position. Above all, when properly adopted, technology helps in accelerating the service delivery to customers providing control over account relationships.

Impact on human resources

Technology, when introduced in a planned manner, results in enhanced productivity with better placement of employees. At the same time, it is seen that with increased use of information technology, there is an ever increasing demand of the specialized personnel in the fields of IT management resulting in a high turnover rate of computer-skilled manpower. Banks must have appropriate talent management policies to retain these professionals within the organizations.

References

1. Dangwal,R.C & Reetukapoor,"Financial Performance OfNationalised Banks",*Nice Journal Of Business*, Vol. 5, no. 2, 2010, pp. 67-79.
2. Roshni Rawat," Impact Of CRR & SLR and Investment On Loans And Advances Of SBI"**,** *IOSR Journal of Economics and Finance, Volume 4, Issue 5. Jul-Aug. 2014, PP. 40-44.*
3. D. Suryachandra Rao," Reforms In Indian Banking Sector - An Evaluative Study of the Performance of Commercial Banks", Journal of Contemporary Research in Management, Volume-1, No.1, 2 Jan - June 2007,pp.115-121
4. Bhargab Kumar Kalita," Financial Sector Reforms In India – A Descriptive Analysis", National Monthly Refereed Journal Of Research In Commerce & Management, Volume 2, Issue 8, April 2012, pp.14-22.
5. Vasantha Kumari& Dinesha GA," Adoption of Basel I, II and III Norms by Indian Commercial Banks", International Journal of Applied Research, Volume 1, Issue 10, 2015, pp. 883-886.
6. Maureen Burton, Reynold Nesiba, Bruice Brown,"An Introduction to Financial Markets and Institutions", Yes Dee Publishing Private Limited, Chennai, Second Edition,2011,pp.407-409
7. Bhavin U.Pandys & Kalpesh P.Prajapati, "Awareness and Perception of Basel-II Norms Across Indian Banks: An Empirical Study", Indian journal finance, April, 2013, pp.31-41.

8. Sreejata Banerjee," Basel l and Basel ll Compliance: Issues for Banks in India", Madras School Of Economics , WORKING PAPER 68/2012 , May 2012,pp.1-33.

9. Mohammed ARIF Pasha," Basel Norms and Indian Banking Sector", An International Journal of Business from M.P. Birla Institute ofMmanagement, Associate: Bharatiya Vidya Bhavan, Bangalore, Vol: 7, February 2013, pp. 78-86.

10. Debajyoti Ghosh, .Bindya Kohli & Swati Khatkale," Basel I To Basel II To Basel III: A Risk Management Journey Of Indian Banks ",Maima Journal Of Management & Research, Volume 7, Issue 2/4, May 2013, pp.1-15.

11. Pallab Sikdar1 and Munish Makkad," Shift from Basel II to Basel III – A Reporting Perspective on Indian Banking Sector", International Journal of Computational Engineering & Management, Vol. 17 Issue 1, January 2014, pp35-41

12. C.S.Balasubramaniam," Basel III Norms And Indian Banking: Assessment And Emerging Challenges", Abhinav National Monthly Refereed Journal Of Reasearch In Commerce & Management, Volume No.1, Issue No.8, February 2012, pp42-52.

13. Stijin Claessens, Geofrey R.D. Underhill & Xiaoke Zhang ," Basel III Capital Requirements And Developing Countries", A Political Economy Perspective, The World Economy 31,No. 3, 2008.pp.313–344.

14. Mukul Jain," A Critical Review of Basel-III Norms For indian PSU Banks", DRIEMS Business Review,- Vol. -1, No. – 1, 2013, pp.36-43.

15. E.Gordon&P.K.Gupta,"Banking&Insurance", Himalaya Publishing House, Mumbai, First Edition, 2012,pp.106-107.

16. Bharativ.Pathak,"The Indian Financial System, Markets,Institutions and Services", Pearson Publishers, Delhi, Third edition,2011,pp.444-446.

17. A.V.Ranganadachary,Rudra Sai Baba & K.Anjaneyulu, "Financial Services Banking&Insurence", Kalyani Publishers,Ludhiana,Second Edition,2010, pp.80-101.

18. Firdos T.Shroff, "Impact of Technology on Banking In Public Sector Banks", Journal Of Indian Institute Of Banking &Finance, October-Dcember,2010,pp.11-19.

19. Chen, SH, "Establishment Of A Performance-Evaluation Model For Service Quality In The Banking Industry', *The Service Industries Journal*, vol. 29, No. 2, 2009, pp.235–247.