

Risk Management: A Strategic Approach To Banking Sector

Nishi S Jain ¹, Dr. Sanman Jain N ²

¹ Department of Management, Shobhit University, Meerut, Uttar Pradesh 250110, India

² Department of Management, Shobhit University, Meerut, Uttar Pradesh 250110, India
nishiverma.jain010@gmail.com , drsanmanjainn@gmail.com

Abstract: Problem Statement: The way in which banking industry will manage the risk posed by the global environment. The paper takes concise of the fact that banking sector is facing different kind of risks and how the sector will overcome with this kind of risks, because the sector plays a very important role in any economy. **Approach:** The study includes a descriptive research by collecting information from banks and analyzing the different approaches for managing different kinds of risks faced by banking sector. **Results:** The present study helps in finding the approaches used for managing different kind of risks, because risk management helps in monitoring and maintaining the profile of banks and it also helps in maintaining financial soundness. **Conclusion:** The approaches used for managing the diverse kind of risks plays a significant role in banking sector as the ongoing competitive environment helps the sector to grow in both qualitative and quantitative aspects.

[Nishi S Jain, Dr. Sanman Jain N. **Risk Management: A Strategic Approach To Banking Sector.** New York Science Journal 2011;4(1):38-44]. (ISSN: 1554-0200). <http://www.sciencepub.net/newyork>.

Keywords: Risk Management; Banking Sector; Credit Risk; Market Risk; Operational Risk

1. Introduction

Risk management is an important concept that many employees, managers, and stakeholders refer to when they are concerned about the effects of a certain move on reaching key objectives. Risk is defined in ISO 31000 as the effect of uncertainty on objectives (whether positive or negative). Risk management can thus be considered as the identification, assessment, monitoring and continued of its risk and prioritization of risks followed by coordinated and economical applications of resources to minimize, monitor and control the probability and/or impact of unforeseen events. The rationale of risk management is to generate ideas and promote best practices for those involved in the business of managing risk. Risk management is important because it gives the potential to figure out methods for which events can be managed, especially those events that may have an unfavorable impact on the financial or human capital of the organization. Risk management should always be thought of as a process which is in continuing process. It not only allows one to assess risk, but it also gives the ability to identify risk as well. By being capable to assess and identify risk, it becomes easier for one to prevent it from occurring, or to quickly address adverse events if and when they apt to occur as risk management is considered as a very powerful strategic tool.

Risk is an intrinsic part of banking business. Improved Bank supervision is only one aspect of strengthening financial system. [1] Banking is

basically the business of risk taking and a good banker has to be good at taking risk and managing it successfully and efficiently. As a result, effective risk management is vital to any banking sector for achieving financial soundness. In view of this, aligning risk management to bank's organizational structure and business strategy has become central to any banking business. The risks that emerge from the increased variety and complexities of banking business, as well from the diverse new drivers of growth which have pushed the contours of risk management in banks much beyond that what would probably have existed in the more traditional forms of banking activity of accepting deposits and lending in relatively stable environments. Business grows mainly by taking risk. Greater the risk, higher the profit and hence the business unit must strike a tradeoff between the two. The essential functions of risk management are to identify measure and more importantly monitor the profile of the bank. While non-performing assets are the legacy of the past in the present, Risk Management system is the proactive action in the present for the future. Managing risk is nothing but managing the change before the risk manages. New avenues for the banking sector have opened up, they however have brought with them new risks as well, which the banks will have to handle and overcome.

2. Risk Faced by Banks:

In their role as financial intermediary's ,banks and /or financial institutions are involved in funds mobilization, funds deployment and funds transfer which result in various types of risks. Banks

are also saddled with risks passed on by their customers that arise from financial markets. All these functions involve dealing with risk of some type. Besides, globalization has resulted in pressure on margins. The lower the margin, the greater the need for risk management and hence has become key area of focus for CEO's.

Banks are consistently faced with different types of risks that may have a potentially negative effect on their business. Risk management in bank operations includes risk identification, measurement and assessment, and its objective is to minimize the negative effects, the risks can have on the financial result and capital of a bank. Banks in India have, therefore, started paying attention to the potential risks and to evolve mechanisms and systems to control and manage them in line with the global standards and procedures.

2.1 Credit Risk: Credit Risk is the risk of loss due to a debtor's non-payment of a loan or other line of credit (either the principal or interest or both). The default events include a delay in repayments, restructuring of borrower repayments, and bankruptcy. The Credit Risk may, therefore defined as the possibility of losses associated with diminution in the credit quality of the borrower or counter parties, in a bank's portfolio, losses stems either from outright default due to inability or unwillingness of the counter party to meet commitments in relation to lending, trading, settlement and other financial transactions. The Banks are increasingly facing credit risk (or counterparty risk) in various financial instruments other than loans, including acceptances, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, and in the extension of commitments and guarantees, and the settlement of transactions.

2.2 Market Risk: Market risk is the risk that the value of a portfolio, either an investment portfolio or a trading portfolio, will decrease due to the change in value of the market risk factors. Market Risk may therefore be defined as possibility of loss to a bank caused by changes in market variables. Quantifying market risk is important to regulators in assessing solvency and to risk managers in allocating scarce capital [2]. The four typical market risk factors are stock prices, interest rates, foreign exchange rates, and commodity prices. Banks are subject to market risk in both the management of their balance sheets and in their trading operations. The different types of market risk are:

2.2.i Liquidity Risk: Liquidity Risk is the risk that a given security or asset cannot be traded quickly enough in the market to prevent a loss (or make the required profit). Liquidity Risk is of two types viz. Funding Risk is the inability to raise funds at normal cost. Asset liquidity Risk is the lack of trading depth in the market for a security or a class of assets. Liquidity risk arises from situations in which a party interested in trading an asset cannot do it because nobody in the market wants to trade that asset.

2.2.ii Interest Rate Risk: The risk that an investment's value will change due to a change in the absolute level of interest rates, in the spread between two rates, in the shape of the yield curve or in any other interest rate relationship. Such changes usually affect securities inversely and can be reduced by diversifying or hedging.

2.2.iii Foreign Exchange Risk: This risk usually affects businesses that export and/or import, but it can also affect investors making international investments.

2.2.iv Commodity Risk: Commodity risk refers to the uncertainties of future market values and of the size of future income, caused by the fluctuations in the price of commodities [3]. These commodities may be grains, metals, gas, electricity etc.

2.3 Operational Risk: An operational risk is defined as the risk of loss as a resulting from inadequate or failed internal processes, people, and systems or from external events. Operational Risk is the potential financial loss as a result of a breakdown in day-to-day operational processes. Operational risks are related to a bank's overall organization and functioning of internal systems. This risk can arise from failure to comply with policies, laws and regulations, from fraud or forgery, or from a breakdown in the availability or integrity of services, systems or information.

3. Need of Risk Management In Indian Banking:

The Basel II Framework for credit risk management ensures pro-active approach to risk identification, quantification and controlling the risks.

(a). The need to accelerate the speed at which banks have been moving towards establishment of risk management systems.

(b). There is a need to achieve convergence with regulatory and supervisory expectations/requirements

while deciding on the sophistication of methods to be adopted in the banking sector.

(c) Strong need of MIS for reporting, monitoring and controlling risks.

(d) A need to integrate risk management process with capital planning strategies.

(e) To Improve and monitor portfolio quality

(f) Need to shift from demand driven to supply driven limits

(g) Periodical review and evaluation.

(h) To combine concerns which are related to the risk of the organization's regular decisions, and the creation of the implementation process.

(i) To place a heavy emphasis on the allocation implications of resources.

(j) To develop an understanding of both the trade offs as well as the opportunity costs that come with any given decision.

4. Risk Management Process

4.1 Determining objectives: - the first step in risk management process is the determination of objectives. The objective may be to shield profits, or to build up competitive advantage. The objective of risk management needs to be determined upon by the management so that the risk manager may fulfill his responsibilities in harmony with the set objectives.

4.2 Identifying Risks: - Every organization faces diverse kinds of risks, based on its business, the economic, social and political factors. It is also based on the features of the industry it operates in – like the degree of competition, the strengths and weakness of its competitors, availability of raw material, factors internal to the company like the competence and outlook of the management, state of industry relations, dependence on foreign markets for inputs, sales or finances, capabilities of its staff and other immeasurable factors.

4.3 Risk Evaluation: - Once the risks are identified, they need to be evaluated for ascertaining their significance. The significance of a particular risk depends upon the size of the loss that it may result in, and the probability of the occurrence of such loss. On the basis of these factors, the various risks faced by the corporate need to be classified as critical risks, important risks and not-so-important risks. Critical risks are those that may result in bankruptcy of the firm. Important risks are those that may not result in bankruptcy, but may cause severe financial distress.

4.4 Development of policy: - Based on the risk tolerance level of the firm, the risk management policy needs to be developed. The time frame of the

policy should be comparatively long, so that the policy is relatively stable. A policy generally takes the form of a declaration as to how much risk should be covered.

4.5 Development of strategy: - Based on the policy, the firm then needs to develop the strategy to be followed for managing risk. A strategy is essentially an action plan, which specifies the nature of risk to be managed and the timing. It also specifies the tools, techniques and instruments that can be used to manage these risks. A strategy also deals with tax and legal problems. Another important issue that needs to be specified by the strategy is whether the company would try to make profits out of risk management or would it stick to covering the existing risks.

4.6 Implementation: - Once the policy and the strategy are in place, they are to be implemented for actually managing the risks. This is the operational part of risk management. It includes finding the best deal in case of risk transfer, providing for contingencies in case of risk retention, designing and implementing risk control Programs etc.

4.7 Review: - The function of risk management needs to be reviewed periodically, depending on the costs involved. The factors that affect the risk management decisions keep changing, thus necessitating the need to monitor the effectiveness of the decisions taken previously.

5. New Basel II Capital Accord

The new Basel Capital Accord, also known as the Basel II Accord, was proposed in 2001 by the Bank of International Settlements [4]. Basel II Capital Accord sets out detailed analytic requirements for risk assessment that will be based on data collected by banks throughout life cycle of the loan. The purpose of Basel II is to introduce a more risk sensitive capital framework with incentives for good risk management. The revised framework provides a range of options for determining the capital requirements for credit risk and operational risk to allow banks and supervisors to select approaches that are most appropriate for their operations. The Basel II Accord is based upon mutually, re-enforcing three pillars as under:

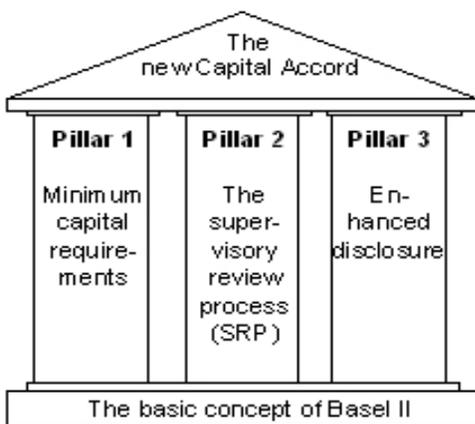


Fig.1 The Basel Framework

The Basel Framework is divided into three pillars:

Pillar1: It focuses on the calculation of total minimum capital requirements, for credit risk, market risk and operational risk. Pillar 1 lays down a flexible framework within which a bank, subject to a supervisory approval, may apply an approach that best suits complexity of its business and risk profile. The capital ratio is calculated using the definitions of regulatory capital and risk weighted assets. Minimum capital adequacy has been prescribed at 9% of total risk weighted assets.

Pillar2: The supervisory review is assigned the task of ensuring banks operate above minimum regulatory capital ratios and maintain adequate internal risk control and capital allocation processes[5]. The supervisory review process of the framework is intended not only to ensure that banks have adequate to support all the risks in their business, but also to encourage banks to develop and use better risk management techniques in monitoring and managing risks.

Pillar 3: The purpose of third pillar of market discipline is to compliment the minimum capital requirements under Pillar I and Pillar II. The committee aims to encourage market discipline by developing a list of disclosure requirements which will allow marker participants to assess key risk exposures and risk assessment processes.

6. Compliance with Basel II: Regulatory Initiatives by RBI

1. To ensure that the banks have suitable risk management framework leaning towards the

requirements as dictated by the size and complexity of business, risk philosophy, market perceptions and the expected level of capital. The framework adopted by banks would need to be flexible to changes in business size, market dynamics and introduction of innovative products by banks in future.

2. To encourage banks to develop the detailed document describing its Internal Capital Adequacy Assessment Process (IAAP) in consistent with the business plan and internal risk management Process.

3. In enhancing the area of disclosures (Pillar III), so as to have greater transparency of the financial position and risk profile of banks.

4. It also assists in improving the level of corporate governance standards in banks.

5. Building capacity for ensuring the regulator’s ability for identifying and permitting eligible banks to adopt IRB / Advanced Measurement approaches.

7. Approaches to measure diverse Risks under New Accord:

7.1Credit risk management approaches:

7.1.1Standardized Approach:

In standardized approach the banks are required to slot their credit exposures into supervisory categories based on observable characteristics of the exposures (e.g. whether the exposure is a corporate loan or a residential mortgage loan).In determining the risk weights in the Standardized Approach, banks can use assessments by external credit assessment institutions recognized as eligible for capital purposes by RBI in India. The risk weights for banks exposures have been prescribed by national supervisor. The claims on Corporate will be risk weighted in the range of 20%-150% and unrated corporate will be assigned 100% risk weight.

i.Claims on Corporate’s:

	AAA	AA	A	BBB	BB&Below	Unrated
Risk Weight-----	-----	-----	-----	-----	-----	-----
	20%	30%	50%	100%	150%	100%

With effect from 1-04-2009, all fresh sanctions or renewals in respect of unrated claims on corporate in excess of Rs 10 croress will attract a risk weight of 150%.Claims on regulatory retail will be 75%.

(ii) Individual Claims:

Claims on Domestic Savings: Both fund based and non fund based claims on Central Government will attract a zero risk weight (including government guaranteed loan). The direct exposure of banks to State Government guaranteed claims, however, attracts 20% risk weight. Claims on RBI, DICGC etc. will attract zero risk weight.

Claims on Foreign Sovereign: will attract risk weights as per rating assigned by International Rating Agencies which will range from zero to 150%.

RBI has approved four domestic agencies for rating of accounts. These are CARE, CRISIL Limited, FITCH India and ICRA Limited. The international agencies approved by RBI are FITCH, Moody's and Standard & Poor's.

Credit Risk: Standardised Approach

Ratings	RW for foreign Sovereign	RW for banks		RW for Corporates
		Rupree Claim	Foreign Currency Claim	
AAA to AA	0%	Scheduled Banks	20%	20% AAA 50% AA
A	20%		50%	100%
BBB	50%		50%	150%
BB to B	100%		100%	150%
Below B	150%	Others	150%	150%
Unrated	100%		100%	50%

Source: Risk weight as per RBI document

7.1.2 Internal Rating Based Approach: The Standardized Approach does not differentiate between expected and unexpected loss. However in the Internal Rating Based Approach the unexpected loss of an exposure is calculated on the basis of banks internal ratings. An internal rating system categorizes all credits into various classes on the basis of underlying credit quality [6]. The Internal Rating Based approach (IRB) allows banks to assess their credit risk using their own models. Under the IRB approach, a bank estimates each borrower's creditworthiness and assigns a rating and the results are translated into estimates of a potential future loss amount, which forms the basis of minimum capital requirement. The supervisory capital requirements per credit exposure, are then determined according to the banks internal rating categories. Under the IRB Approach following risk parameters have to be estimated for each loan. (i) Probability of Default (ii)

Loss given Default (iii) Exposure at Default (iv) Effective Maturity at the Exposure.

Types of IRB Approach:

Foundation IRB: Values for Loss given default (LGD) and exposure at default (EAD) are provided by the regulatory authority. Assessment of values of credit mitigants is done by the regulatory authority.

Advanced IRB Approach: Values for Loss given default (LGD) and exposure at default (EAD) are determined by each bank through internal modeling with a data of 5-7 years. Banks may assess the value of its credit mitigants.

The implementation of IRB approach is subject to explicit approval of the regulator who would have the discretion to allow the bank concerned to use its internal credit rating systems for assessing credit risk. Banks would have to satisfy the regulator about the adequacy and robustness of their risk management systems and internal rating process, and of their competency in estimating the key variables.

7.2 Market Risk Management Approaches:

7.2.1 Standardized Duration Approach: In this approach capital is calculated under two heads viz. specific risk and general market risk. For specific risk, capital is calculated by multiplying value of securities with specific factors prescribed by RBI viz. 0% for GSec, 0.3%-1.8% for PFIs/Banks and 9% for others. For general market risk, capital is calculated through "Duration Method" for dated/ interest rate bearing securities. Sum of capital for specific and general market risk is capital for market risk. For equities / open position of forex or commodities these are 100% risk weighted and capital is calculated at 9%.

7.2.2 Internal Models: Internal Model uses VaR models for Market Risk. VaR is a measure of potential loss in financial institutions. Financial Positions associated with an adverse price movement at a given confidence level over a specific time horizon. VaR model can be broadly defined as a quantitative tool whose goal is to assess the possible loss that can be incurred by a financial institution over a given time period and for a given portfolio of assets. Value at Risk (VaR) is a widely used risk measure of the risk of loss on a specific portfolio of financial assets. For a given portfolio, probability and time horizon, VaR is defined as a threshold value

such that the probability that the mark to market loss on the portfolio over the given time horizon exceeds this value (assuming normal markets and no trading in the portfolio) is the given probability level.

7.3 Operational Risk Management Approaches:

It is very important for banks to understand the operational risk measurement and management framework.¹ Measuring operational risk requires both estimating the probability of an operational loss event and the potential size of the loss [7]. The Basel framework (2004) proposes a range of approaches for setting aside regulatory capital for operational risk.

7.3.1 The Basic Indicator Approach: The Basic Indicator Approach is the simplest approach for estimating regulatory capital, wherein banks are required to set apart an amount equal to the average over the previous three years of 15% of positive average annual gross income.²

7.3.2 Standardized Approach: The Standardized Approach is a slightly modified version of the Basic Indicator Approach. In The Standardized Approach, banks' activities are divided into eight business lines: Corporate finance, Trading & Sales, Retail Banking, Commercial Banking, Payment & Settlement, Agency Services, Asset Management and Retail Brokerage. Gross income² for each of the eight lines is then multiplied by a specified factor, ranging from 12 to 18 percent. The Accord also recognizes an alternative under which outstanding loans are substituted for gross income with respect to retail and commercial banks. This approach is more refined than the Basic Indicator Approach as it takes into the account the fact that some business lines are riskier than others and therefore a higher proportion of capital has to be set apart for those business lines.

7.3.3 Advanced Measurement Approach: Under the AMA, the operational risk capital charge will be

¹ The Basel Accord stipulates that operational risk losses related to credit risk are treated as credit losses but operational risk losses related to market losses are treated as operational risk losses for the purpose of regulatory capital computation.

² Gross income is determined pursuant to adjustments detailed in the Accord.

determined by using the bank's internal operational risk measurement system. The Bank must track internal operational risk loss data and assess the relevance of that data to current operations. The data must capture all material activities and exposures in all systems and bank locations. External loss data must be used for events that are infrequent, yet potentially severe, such as an earthquake. Scenario analyses including expert opinion input must be utilized for high-severity events. The risk assessment should cover all key business environments and internal controls factors. Risk Mitigation Techniques will be recognized. However, the recognition of third party insurance cannot exceed 20 percent of the total operational risk capital charge.

8. Future of Risk Management:

The Risk Management scenario will strengthen owing to the liberalization, regulation and integration with global markets. The increased competition in the financial system heightens the need for prudential regulation and supervision to ensure financial stability. In a highly competitive financial market, banks may engage in riskier operations due to the presence of squeeze profit margins, which calls for need of enhanced supervisory oversight. Management of risks will be carried out proactively and quality of credit will improve, leading to a stronger financial sector. Indian banks would invest in development of Information Systems as MIS would play an essential role in the calculation of LGD, EAD and PD. As the banks are expected to integrate various financial services to provide a one-stop shop to the customers. In the future, there would be greater emphasis on corporate governance in banks because banking supervision cannot function as well if sound corporate governance is not in place and, consequently, banking supervisors have a strong interest in ensuring that there is effective corporate governance at every banking organization. Supervisory experience underscores the necessity of having the appropriate levels of accountability and checks balances within each bank.

Conclusion:

Risk management is relatively new and emerging practice as far as Indian banks are concerned and has been proved that it's a mirror of efficient corporate governance of a financial institution. Risk management takes care of the fact that the survival of an organization depends heavily on its capabilities to anticipate and prepare for the change rather than just waiting for the change and then react to it. The objective of risk management is not to prohibit or prevent risk taking activity, but to

ensure that the risks are consciously taken with full knowledge, clear purpose and understanding so that it can be measured and mitigated. It also protects banking sector from suffering unacceptable loss causing a sector to fail or materially damage its competitive position. The Risk Management helps banks in preventing problems even before they occur. Basel II will make the capital allocation of Banking Sector more risk sensitive. The use of supervisory oversight (Pillar II) and market discipline (Pillar III) as laid out in Basel II would broad bas and re-enforce the financial stability. In managing the risks, the Board of Directors and Senior Management will have to play an effective role by formulating clear and comprehensive policies. The effectiveness of risk measurement in banks depends on efficient Management Information System, computerization and net working of the branch activities.

References:

- [1]. Crockett Andrew, "Banking Supervision and Financial Stability, October 1998, <http://www.bis.org/speeches/sp981022.htm>
- [2]. Fallon William, "Calculating Vale-At-Risk", 1996, <http://fic.wharton.upenn.edu/fic/papers/96/9649.pdf>
- [3]. Sasidharan K & Mathews K Alex, "Financial Services and System", TMH, 2008, P. 564.
- [4] Patel Shanker Naveen and George Godwin, "Integrated Operational Risk Management: Beyond BaselII", <http://www.infosys.com/offering/industries/banking-capital-markets/Documents/operational-risk-management-basel.pdf>
- [5] Karacadag Cem & Taylor W Michael, "The New Capital Adequacy Framework: The Institutional Constraints And Incentive Structures" IMF Working Paper, 2000, [Http://www.Imf.Org/External/Pubs/Ft/Wp/2000/Wp0093.Pdf](http://www.imf.org/External/Pubs/Ft/Wp/2000/Wp0093.Pdf)
- [6] State Bank of Pakistan, "Risk Management: Guidelines for Commercial Banks and DFIs", <http://www.sbp.org.pk/riskmgm.pdf>
- [7] Basel Committee on Banking Supervision, "Operational Risk Management", September 1998, <http://www.felaban.com/pdf/practicag/g.%201.pdf>

11/8/2010