# A Study on Risk Management in Banking Sector in India

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***Abstract- "The risk management needs to lift up from risk control to risk intelligence which can identify the potential business growth opportunities."— Pearl Zhu***

***In the current global economic environment risk management plays an important role in designing, creating processes to keep risk at bay, forecasting and adapting to changing business practices. Among all these uncertainties banking sector is at the heart of the economic structure of a country. The aim of the article is to understand the concept and types of risk and risk management practices in India. Lastly the article will also address the challenges faced by banking sector in the midst of financial crisis.***

***Indexed Terms- Risk Management, Forecasting, Uncertainites, Banking, Financial Crisis***

## I. INTRODUCTION

Risk can be defined as an uncertainty of an occurrence of an event. It can also de defined as a probability of losses. Risk refers to 'a condition where there is a possibility of undesirable occurrence of a particular result which is known or best quantifiable and therefore insurable' (Periasamy, 2008). It may be financial loss or loss to the reputation/ image (Sharma, 2003).A risk can be defined as an unplanned event with financial consequences resulting in loss or reduced earnings (Vasavada, Kumar, Rao & Pai, 2005). Risks may be defined as uncertainties resulting in adverse outcome, adverse in relation to planned objective or expectations (Kumar, Chatterjee, Chandrasekhar & Patwardhan 2005).Terms risk and uncertainty are often used synonymously, there is difference between the two (Sharan, 2009).

### 1.1 TYPES OF RISK

Banks like any other organization also inclined towards taking risk, which is inherent in any business. Higher the risk taken higher would be the gain. But higher risks may also result into higher losses. However, banks are quick enough to identify measure and price risk, and maintain appropriate capital to handle any contingency. The major risks in banking business or 'banking risks', as commonly referred, are listed below –

- Liquidity Risk
- Interest Rate Risk
- Market Risk
- Credit or Default Risk
- Operational Risk

#### 1.1.1 Liquidity Risk

Liquidity is a bank's capacity to fund increase in assets and meet both expected and unexpected cash and collateral obligations at reasonable cost and without incurring unacceptable losses(Manish Kumar& Ghanshyam Chand Yadav, 2013).Liquidity management becomes a very important part in financial management decisions, where the liquidity management efficiency could be achieved by firms that manage a trade-off between liquidity and profitability (Bhunia and Khan 2011).

#### 1.1.2 Interest Rate Risk

The effect of interest rate movements on the financial condition of a bank is called interest rate risk.

Since, it has a direct impact on the profitability of a bank, it becomes an important area for the management of a bank to focus on the methods to manage and mitigate this risk (V N Prakash Sharma, 2016)

#### 1.1.3 Market Risk

Market risk is the risk of losses in liquid portfolio arising from the movements in market prices and consisting of interest rate, currency, equity and commodity risks (Aykut Ekinci, 2016).It mainly includes foreign exchange risk, interest rate risk, commodity price risk and stock price risk, referring to adverse changes in exchange rate, interest rate, and stock prices (Koch and MacDonald, 2006).

1.1.4 Credit or Default Risk

Credit risk is the possibility of loss due to a borrower's defaulting on a loan or not meeting contractual obligations (Investopedia) .Credit risk is the most important risk exposure for banks due to strong connection with bank profitability and economic growth. For banks, a proper investment decision means the greatest return on investment at the lowest credit risk (Aykut Ekinci, 2016).

1.1.5 Operational Risk

The Basel Committee defines the operational risk as the "risk of loss resulting from inadequate or failed internal processes, people and systems or from external events".

Table: Operational Risk & Main Factors

| PEOPLE | SYSTEMS | PROCESSES | EXTERNAL EVENTS |
|---|---|---|---|
| Fraud, collusion and other criminal activities<br>Violation of internal or external rules (unauthorized trading, insider dealing, etc.)<br>Errors related to management incompetence or negligence<br>Loss of important employees (illness, injury, problems in retaining staff, etc.)<br>Violations of systems security | IT problems (hardware or software failures, computer hacking or viruses, etc.)<br>Unauthorised access to information and systems security<br>Unavailability and questionable integrity of data<br>Telecommunications failures<br>Utility outages | Execution, registration, settlement and documentation errors (*transaction risk*)<br>Errors in models, methodologies and mark to market (*model risk*)<br>Accounting and taxation errors Inadequate formalization of internal procedures. Compliance issues.<br>Breach of mandate<br>Inadequate definition and attribution of responsibilities | Criminal activities (theft, terrorism or vandalism)<br>Political and military events (wars or international sanctions)<br>Changes in the political, legal, regulatory and tax environment (*strategic risk*)<br>Natural events (fire, earthquake, flood, etc.)<br>Operational failure at suppliers or outsourced operations |

Source: Sironi and Resti (2007)

- Other Risk

Strategic Risk: It can be defined as the system of future opportunities and threats that are so significant that they could materially impact the enterprise's achievement of its main purpose or even it's survival(Neil Allan,Patrick Godfrey,2007).All organisations are vulnerable to strategic threats to varying degrees despite their best efforts to manage them.

Strategic Risk need a risk-management system designed to reduce the probability that the assumed risks actually materialize and to improve the company's ability to manage or contain the risk events should they occur(Robert S. Kaplan and Anette Mikes,June 2012 Harvard Business Review)

Reputational Risk: Reputational risk refers to the potential for negative publicity, public perception or uncontrollable events to have an adverse impact on a company's reputation, thereby affecting its revenue.

## II. PROCESS OF RISK MANAGEMENT

Risk management is the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities(Wikipedia).The process of risk management involves five steps which are discussed as follows:

1. Risk Identification
2. Risk Quantification
3. Rick Control
4. Risk Monitoring & Reviewing

## III. RISK MANAGEMENT IN BANK: BASEL COMMITTEE

The Basel Committee on Banking Supervision (BCBS) is a committee of banking supervisory authorities that was established by the central bank governors of the Group of Ten countries in 1974.The committee expanded its membership in 2009 and then again in 2014. In 2019, the BCBS has 45 members from 28 Jurisdictions, consisting of Central Banks and authorities with responsibility of banking regulation. It provides a forum for regular cooperation on banking supervisory matters.

### 3.1 BASEL 1

In 1988, the BASEL Committee decided to introduce a capital measurement system (BASEL I) commonly referred to as the Basel Capital Accord. Since 1988, this framework has been progressively introduced not only in member 95 countries but also in virtually all other countries with active international banks. Towards the end of 1992, this system provided for the implementation of a credit risk measurement framework with minimum capital standard of 8%. The basic achievement of Basel I has been to define bank capital and the so called bank capital ratio. Basel I is a ratio of capital to risk-weighted assets. The numerator, Capital, is divided into Tier 1 (equity capital plus disclosed reserves minus goodwill) and Tier 2 (asset revaluation reserves, undisclosed reserves, general loan loss reserves, hybrid capital instrument and subordinated term debt).

### 3.2 BASEL 2

In January 1999, the Basel Committee proposed a new capital accord, which is known as Basel II. A sound framework for measuring and quantifying the risk associated with banking operations put by it. In principle, the new approach (Basel II) is not intended to raise or lower the overall level of regulatory capital currently held by banks, but to make it more risk sensitive. The spirit of the new Accord is to encourage the use of internal systems for measuring risks and allocating capital. The new Accord also wishes to align regulatory capital more closely with economic capital. The BASEL framework consisted of three frameworks:

Pillar 1 - Minimum capital requirements
Pillar 2 - Supervisory review process
Pillar 3 - Market discipline

- Pillar 1 - Minimum capital requirements

Pillar 1 of the new capital framework revises the 1988 Accord's guidelines by aligning the minimum capital requirements more closely to each bank's actual risk of economic loss. The minimum capital adequacy ratio would continue to be 8% of the risk-weighted assets (as per RBI, it is 9%), which will cover capital requirements for credit, market and operational risks. The Minimum Capital Requirement (MCR) is set by the capital ratio which is defined as (Total Capital - Tier I + Tier II + Tier III) / credit risk + market risk + operational risk). Basel I provided for only a credit risk charge (*Dr. Krishn A.Goyal, 2010*)

- Pillar 2 - Supervisory review process

Second pillar of Basel-2 Norm emphasizes on effective supervisory review of banks internal assessments of their overall risks to ensure that bank management is exercising sound judgment and had set aside adequate capital for these risks. The Basel Committee has started four key principles of supervisory review as under:

- Bank should have a process for accessing its overall capital adequacy in relation to its risk profile, as well as, a strategy for maintaining its capital levels.

- Supervisors expect banks to operate above the minimum regulatory capital ratios and ensure banks hold capital in excess of the minimum.
- Supervisory shall review bank, internal capital adequacy assessment and strategy, as well as compliance with regulatory capital ratios.
- Supervisors shall seek to intervene at an early stage to prevent capital from falling below prudent levels.

- Pillar 3 - Market discipline

Pillar 3 related to the necessary disclosures to the public, regulator and Board of bank for better financial transparency and safety in the financial system at large. Reserve Bank of India has stated that banks should provide all Pillar III disclosures, both quantitative and qualitative in nature by the end of March each year along with the annual financial statement.

### 3.3 BASEL 3

It is a continued effort by BASEL committee to improve banking regulatory framework under BASEL I & II. This seeks to build a strong backbone of banking sector to withstand financial and economic stress, better risk management system and stronger banks transparency and disclosures.

### 3.4 CHANGES PROPOSED IN BASEL III over BASEL I & BASEL II

1. Counter Cyclical Capital Buffer: This is an important element in BASEL III. It can be defined as the capital which is required by banks to be kept by a bank to meet business cycle related risks. It is aimed to safeguard the banking sector against fluctuations in economic conditions. The buffer will range from 0% to 2.5%, consisting of common equity or other fully loss-absorbing capital.
2. 2.Capital Conservation Buffer: As per (CCB) banks are required to hold a capital conservation buffer of 2.5%.The capital conservation buffer (CCB) is designed to ensure that banks build up capital buffers during normal times (i.e. outside periods of stress) which can be drawn down as losses are incurred during a stressed period.
3. Leverage Ratio: Under Basel III, a simple, transparent, non-risk based regulatory leverage ratio has been introduced. The capital requirements will be supplemented by a non-risk based leverage ratio which is proposed to be calibrated with a Tier 1 leverage ratio of 3%.
4. Liquidity Ratios: Basel III introduced two required liquidity ratios which are Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR).As part of post Global Financial Crisis (GFC) reforms, Basel Committee on Banking Supervision (BCBS) had introduced Liquidity Coverage Ratio (LCR), which requires banks to maintain High Quality Liquid Assets (HQLAs) to meet 30 days net outgo under stressed conditions.

In order to accommodate the burden on banks' cash flows on account of the Covid19 pandemic, banks are permitted to maintain LCR as under:

April 17th 2020 to September 30, 2020 - 80 per cent
Oct 1, 2020 to March 31, 2021 - 90 per cent
April 1, 2021 onwards - 100 per cent

### 3.5 CHALLENGES OF BASEL III IMPLEMENTATION IN INDIAN BANKING SYSTEM

1. The banking sector in India is facing challenging times due to low credit growth, deterioration in asset quality and low profitability. India's banks have an NPA of almost Rs 10 trillion, which hampers their ability to give out fresh loans.
2. The banking sector is facing headwinds due to some recent policy and economic regulations such as demonetisation, GST rollout and the Real Estate (Regulation and Development) Act (RERA).
3. The public sector banks (PSBs) in India are falling short of the stipulated capital requirements under Basel III.
4. Indian banks will need to raise high quality capital while preserving the core capital.
5. Banks will now face the challenge of meeting stakeholder and customer expectations, all the while complying with the stringent new regulatory requirements.

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