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# INSOLVENCY RISK MANAGEMENT IN BANKING SECTOR

#### **Mukesh Keshari**

Assistant professor, Commerce Department, Christian Eminent College, Indore.

**Abstract:**-An effective risk management significantly influences the reputation of a financial institution like bank. Various factors lead risk to the banking sector.

The recent financial crisis has refocused attention on the general importance, impact and measurement of banks insolvency and liquidity risk. The banking literature nowadays has focused on the insolvency risk exposures. The present study focus on measuring the insolvency risk in banking sector this study is hypothetical in nature. This study examined and assessed steps and methodologies used by banks to identify assess and develop a framework for the analysis and mitigation of risk. Furthermore, categories of risk management and changing face of risk management in Indian banking sector has been discussed.

Keywords: Insolvency risk, Risk, Banking Sector, Risk management,

#### **1.INTRODUCTION**

The banking sector has seen a tremendous amount of change in the post liberalization era i.e. in the early 1991; India, followed by the growth with strong contribution from the three sectors of banks, viz. government banks, Private Banks and foreign banks. The impact of globalization on Indian Banking has caused many changes in terms of regulations and structural. With the changing environment, many different strategies have been adopted by this sector to remain efficient and to surge at the forefront in the global arena. The major cause of serious banking problems over the years continues to be directly related to sloppy credit standards for borrowers and counterparties, poor portfolio risk management, or lack of attention to deterioration in the credit standing of a bank's counterparties. The last decade saw many positive developments in the Indian banking sector. The policy makers and financial sector regulatory entities have made several notable efforts to improve regulation in the sector. The sector now compares favorably with banking sectors in the region on metrics like growth, profitability and non-performing assets (NPAs). However, improved regulations, innovation, growth and value creation in the sector remain limited to a small part of it. The cost of banking intermediation in India is higher and bank penetration is far lower than in other markets. India's banking industry must strengthen itself significantly if it has to support the modern and vibrant economy which India aspires to be. The main aim of management of banks is to maximize expected profits taking into account its unpredictability/instability (risk). This calls for an active management of the unpredictability (risk) in order to get the desired results. Risk management is therefore an attempt to reduce the volatility of profit which has the potential of lowering the value of shareholders' wealth. Therefore, Risk Management has been become the most important topic for banks in the recent years. Addressing risk management in the contest of current challenges is a multifaceted matter and a function of appropriate policies, procedures and culture.

#### 2.ORIGIN OF THE RESEARCH PROBLEM:

The recent financial crisis has refocused attention on the general importance, impact and measurement of banks insolvency and liquidity risk.

Lending by banks to the agriculturist on very low rate of Interest, exemption of principle amount .Subsidy policy, declaration of reduction in Interest rate and full exemption of interest and principle amount or both in many sectors by Indian Government is responsible for the riskiness of banking sector. This factor leads risk to the banking sector. The banking literature nowadays has focused on the insolvency risk exposures in ensuring banks safety and

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soundness. Undeniably, the interest in this subject is pronounced after the financial crisis. Therefore, investigator has selected the topic "Insolvency Risk management In Banking Sector"

#### **3.REVIEW OF LITERATURE:**

Many of the research works have been conducted, over the period to evaluate the financial position of the manufacturing, trading and service provider Indian and foreign companies and Indian and Foreign Banks it is done through by various types of ratios, Inter-firm comparisons, and by applying various self designed Model and applying Z-score Analysis to predict the Insolvency risk. From the view point of lenders, investors, and other creditors, financial ratios analysis has been used to assess profitability risk. The researchers used Altman Z-scores and ratio analysis approaches to conclude their views why the firm under study went bankrupt. Therefore, it concluded that Altman's model may be used as an indicator and perhaps evidence and economic indicators may be needed to determine outcome of the firm's future operating activities and its financial position performance. M.Jaydev predicted that the result should be compared with the actual results and the weights assigned to the various financial parameters in the internal rating models. They have considered two models for comparison, Financial risk factor models and Internal rating models. Nikolaos Gerntontinos Vergos, Apostolos G. Christopoulos examined whether Z-score model, developed by Altman 1993 can predict bankruptcies. The model is useful in identifying financially troubled companies that may fail up to 2 years before the bankruptcy. Krishna Chaitanya (2005) used Z model to measure the financial distress of IDBI and concluded that IDBI is likely to become insolvent in the years to come Few study have been conducted on Z score analysis, some study compares the performance of banks on the parameters of Z score.

#### **4.SIGNIFICANCE OF THE STUDY:**

Lending always invokes some amount of risk. The investors should evaluate the borrowers' credit history i.e. track which reveal the morale of lenders. The basis for analysis and decision-making is financial information. Financial information is needed to predict, compare and evaluate the firms earning ability in all respects.

#### **5.OBJECTIVES:**

To examine and assess steps and methodologies used by banks to identify, assess and develop a framework for the analysis and mitigation of risk.

To determine conceptual risk management in the banking sector.

To recommend the credit risk management tools that can help improve bank's performance.

#### **6.CATEGORIES OF RISK MANAGEMENT:**

As noted by Merton (1989), a key feature of the franchise of financial institutions (including banks) is the bundling and unbundling of risks. However, not all risks inherent in their business should be borne directly by them; some can be traded or transferred whiles others can be eliminated altogether. It is therefore useful to defragment the risks inherent in their activities and assess into three distinctive subgroups in accordance with their nature so that the appropriate strategies can be adapted to mitigate them. Oldfield and Santomero (1995) argue therefore that risk facing financial institutions can be segmented into three distinguishable categories from a management outlook. These are risks that can be eliminated or avoided by simple business practices, risks that can be transferred to other participants and risk that must be actively managed at the business level. Avoiding risk altogether by business practices has the goal of ridding the bank of risks that are not essential to the services provided on the optimal quantity of a particular kind of risk. This is done by engaging in actions such as underwriting standards, diversification, hedging, reinsurance and due diligence investigation to reduce the chances of idiosyncratic losses by eliminating risks that are superfluous to the bank's business purpose. After this is done, what will be left is some portion of systematic and operational risks which should be minimized to the greatest extent possible and their level and costs communicated to stakeholders. This is because an attempt to aggressively avoid these risks will constrain risks alright but will also reduce the profitability of the business activity.

Some risks can also be transferred by the bank, when there is no value-added or competitive advantage associated with absorbing and/or managing them, to other parties who are in better positions to manage and benefit from them. Internal management of some risks may also be necessary because it is central to the bank's business purpose. This includes propriety positions that are accepted because of their risks and expected return. In all these circumstances when risk is absorbed, risk management activity requires the monitoring of business activity risk and

returns and it is considered as part of doing business. In effect, banks should accept only those risks that are uniquely a part of the bank's array of unique value-added services (Allen & Santomero, 1996, Oldfield & Santomero, 1995).

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#### **7.MAJOR TYPES OF RISKS FACED BY BANKS**

Banking is the intermediation between financial savers on one hand and the funds seeking business entrepreneurs on the other hand. As such, in the process of providing financial services, banks assume various kinds of risk both financial and non-financial. Moreover this risk inherent in the provision of their services differs from one product or service to the other. These risks have been grouped by various writers in different ways to develop the frameworks for their analyses but the common ones which are considered in this study are credit risk, market risks (which includes liquidity risk, interest rate risk and foreign exchange risk), operational risks (which sometimes include legal risk, and more recently, strategic risk) and reputational risk.

#### 7.1 Credit Risk

Banks accept monies for the purpose of lending and investments. Borrowers may default in the credit for a number of reasons. Default in payment of interest and payment of lone is very common is banking business. Before we attempt to define credit risk we must briefly see the process the credit sanction and disbursement. Every banker, when he lends, knows that he invite credit risk. Therefore, the bank undertakes appraisal of the client and the project. Whether it is a retail lone or the underlying cash flows are studies in detail. The viability is estimated and in the case of certain larger loans sensitivity tests are undertaken. Often the rating (instrument rating or individual credit information ascertained from credit information bureaus) is also factored in. In order to mange default well, banks stipulate collaterals and insurance as post-risk covers. Yet the default happens. This awareness of the risk is the pre-requisite for credit risk management.

#### 7.2 Operational Risk

This is an ubiquitous risk in banking that is somewhat difficult to handle. The problem with this risk is difficulty in identification of the risk. Unlike a credit risk, which the bank is kind of aware of when it lends, bank cannot become aware of the operational risk during the course of transactions. For example, it is difficult to know what type and extent of operational risk the bank takes when a particular employee has been assigned the desk at foreign exchange department. Similarly, it is difficult to ascertain the operational risk when the bank acquires a new software system, employees, the systems, external sources, etc. operational risk can be prevented by good internal checks and balances, effective follow up of audit etc. banks must clearly delineate the procedures and processes with clear inputs on identification, assessment and measurement of operational risk, capital allocation for operational risk, computation of capital charge for operational risk, capital allocation for operational risk. Disaster recovery plans and Business Continuity Plans assume great signification in the management of operational risk.

(Reserve Bank Mater Circular – Prudential Norms on Capital Adequacy – Basel I Framework and RBI/2010-11/49 DBOD . No. BP.BC. 4./21.01.002/2010-11 1July 2010 gives detailed instructions on capital computation for operational risk.)

#### 7.3 Market Risk

As a bank invest in securities and takes position in hedge and derivative products to manage risk, it faces the possibility of market risk. This third dimension of risk has assumed greater importance in the last few years on account of development of new risk management instruments, sustained volatility in commodity and financial markets and the banks entering the trading area on their own account. A later module covers the whole gamut of market risk encompassing the interest rate risk, equity price risk, foreign exchange risk, etc. Market risk is greatly impacted by the maturity and depth of the market and the role of regulator. Stress testing, simple sensitivity test and scenario analysis are also essential to control the market risk. The. Market risk management in a bank is generally centralized to take care of the risks at the portfolio level. In the risk mitigation field, use of derivatives, forward contracts, interest rate swaps and options play an important role. These instruments are complicated and need a closer look.

#### **8.RISK MANAGEMENT:**

In the case of financial sector like banking sector risk management can be defined as the set of policies, processes, and instruments for measuring, and controlling the credit, market or operation risk on the history of approach to risk management by banks makes an interesting reading. Till late 80's banks were practicing a health code to classify the assets and those assets which were not good were provided for but not in a systematic manner. Bad assets were transferred to bad debt accounts but the income recognition and asset classification norms were not in position. The balance sheets did not disclose the risk transparently. The opening of the banking system on account



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of financial sector reforms brought in the IRAC norms and the capital adequacy norms. Application of these standards depicted the relative weakness of banks. The deregulation of markets brought forth the issue of market risk and the impact that commodity and financial product prices and volatility could have on the balance sheet of companies and banks. The introduction of capital adequacy norms which was gradually increased to the targeted 8% on uniform basis brought about financial stability. Today the financial sector has realized that its approach towards risk management should be more pronounced and more transparent that other businesses.

#### **8.1PHILOSOPHY OF RISK MANAGEMENT:**

The International Organization for Standardization (ISO) has identified certain principles of risk management. Accordingly -

Create value Be an integral part of organization processes Be part of decision making Explicitly address uncertainty Be systematic and structured Be based on the best available information.

#### Be tailored to suit the policy of the management-

Take into account human factors Be transparent and inclusive Be dynamic, iterative and responsive to change Be capable of continual improvement and enhancement

#### The process of risk management consists of several steps as follows:

1.Identification of risk in a given line of business or activity 2.Planning and Mapping the process in terms of the following:

The scope of risk management The identity and objectives of stakeholders The basis upon which risks will be evaluated ,constraints

3. Defining a framework for the risk management activity

4. Making an analysis of risks involved in the process

5. Mitigation or solution of risks using available technological, human and organizational resources.

#### 8.2 THE CHANGING APPEARANCE OF RISK MANAGEMENT IN INDIAN BANKING SECTOR:

The process of liberalization, globalization and opening up to contours of national economies began in the early nineties in many countries including India. Major change in the polices, reversing the past over four decades of regulation took place during the nineties. The Government took a number of initiatives to open up the economy. Broadly, the initiatives included the following.

Driven by commitment under WTO, the first initiative was the lowering of tariff and non-tariff trade barriers. Thereby, protections given to industrial and other sector was practically removed. This was accompanied by delisting of items reserved for manufacture by small scale industrial units, reducing the controls on items of import, reduction in duties on incoming consumer goods, etc.

Earlier, the entry and exit of business entities / groups in a particular sector or a threshold was controlled by the government, at time both at the central and state levels. Such controls were implemented through licensing or/and other approval procedures that were time consuming and industrial units faced many problems. As a liberalization measure, industrial licensing was abandoned in many sectors.

Foreign capital for indigenous units was not, previously acceptable to the policy market. Inviting foreign capital / equity was therefore consciously discouraged. This was more evident in the case of Public sector units. With reforms, government reversed the erstwhile police and permitted inflow of foreign/private capital in many areas previously reserved for the public sector.

The case of foreign direct investment was similar to the foreign capital. The than rules and regulations discouraged the inflow of such funds, in the case of foreign entities in banking business, where the licensing police was restrictive.



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Restrictions on foreign direct investment as also entities were more or less were removed as a globalization measure. Privatization of public sector units either through strategic or general public participation in ownership is one of the reform oriented measures adopted in the nineties. The progress in this regard in the early part of the decade was slow. This process has been now speeded up notwithstanding the opposition to such a measure from within the ruling coalition or outside. Food subsidies have been reduced.

On the external front, the fillip to exports had been the major priority. Towards this end in addition to fiscal incentives to export promotion, the last decade has also witnessed some devaluation of the rupee. The external value of rupee has been rationalized to reflect its inherent purchasing power in external terms.

Banking industry has been, all along responding to such changes. Banks have taken steps to change their policies and processes to ensure that they remain strong and manage the reform related changes effectively. It must be recognized that the thrust placed by banks on issues like risk management, asset / liability management, technological advancement etc is necessary for a strong, viable and profitable existence. In case, banks do not change, there is a possibility of getting marginalized by the new competitors.

Banks are advantageously placed as they deal with a large volume of public funds. As they are accountable for the same and for performing effectively and objectively.

The bank management needs a strong MIS (Management Information System )/ DSS (Decision Support System) on an online real time basis. In the meantime, customers' profile and expectations are changing speedily, and there is pressure on banks to provide the best of services, comparable to those offered in developed countries. Customer is willing to pay reasonable charges for such instantaneous and accurate service. The demand for this is more in urban and metropolitan centers. In rural and semi-urban areas, the number of accounts is large, yet the customers expect personalized services. At present, the banks are trying to meet the heterogeneous expectations more professionally.

#### **9.CONCLUSION:**

The analysis of the financial soundness of borrowers has been at the core of banking activity since its inception. This analysis refers to what is popularly known as credit risk; the risk that counterparty fails to perform an obligation owed to its creditor. The extraordinary development and Globalization of the financial markets facilitated by the information technology revolution, brought about another kind of risk almost unheard of many years ago: market risk. This risk stipulates that an adverse movement in asset prices will result in a loss to the firm. The definition encompasses not only financial intermediaries, but all kinds of firms, even governmental agencies including Ministries, Departments and Agencies (MDA) which might be engaged in derivative transactions. Another result of the growing complexity of financial markets and instruments is the increasing importance of operational risk which refers to the risk of loss due to human error or deficiencies in firms' systems and/or controls as a result of the day to day operations of the institutions. In the same way, more complex arrangements and contracts bring about legal/ reputational risk, or the risk that a firm suffers a loss as a result of contracts being unenforceable or inadequately documented. Liquidity which is the life blood of every functional institution especially with finance related mandate generates its own risks known as liquidity risk. This refers to the type of risk that arises as a result of the lack of marketability of an investment that cannot be bought or sold quickly enough to prevent or minimize a loss. Risk methodology can be broken down into five distinct steps as follows;

- 1. Risk identification (risk, source, cause, occurrence, when, where, consequences)
- 2. Risk analysis (qualitative, quantitative, likelihood, controls).
- 3. Risk evaluation (treatment needs, options, priorities)
- 4. Risk treatments (prevent, correct, avoid, share, accept, allocate resources, and allow cost contingency).
- 5. Risk monitoring (work on treatment, changes to risk).

A systematic approach to identify risk stands with an agreed and clear understanding of the context in which the risk identification is to take place. Risk analysis then develop a clear understanding of risk and involves further consideration of each risk's source consequence and likelihood of occurrence. Existing process, device and practices that act to minimize negative risks or enhance positive risk are identified and this strength or weaknesses assessed.

Based on the outcomes of risk analysis, risk evaluation makes decision about what risks need treatment, what treatment options are, and what treatments are priorities. The treatment chosen is dependent upon the possible consequences of the risk and the cost of applying the treatment.

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