

Research Paper

A STUDY ON OPERATIONAL RISK IN BANKS

GADWAL SRILEKHA ^[1]

MBA Student

MR.R SRINIVASA RAO ^[2]

ASSISTANT PROFESSOR

^[1,2]MASTER OF BUSINESS ADMINISTRATION

^[1,2]Megha Institute of Engineering and Technology for Women, Sy. No. 7, Edulabad
Road, Edulabad, Ghatkesar, Telangana.

ABSTRACT

Operational risk in banks refers to the possibility of financial losses resulting from inadequate or failed internal processes, human errors, system failures, or external events. Effective management of operational risk is essential for maintaining financial stability, ensuring regulatory compliance, and protecting customer confidence. This study examines the nature, sources, and impact of operational risk in the banking sector, with a focus on identifying key risk factors and evaluating the effectiveness of risk management practices adopted by banks. The study highlights the role of internal controls, technology, employee training, risk assessment frameworks, and regulatory guidelines in minimizing operational losses. It also emphasizes the growing importance of cybersecurity and digital risk management in modern banking operations. The findings suggest that a proactive operational risk management framework enhances organizational resilience, improves operational efficiency, and contributes to the overall financial performance and sustainability of banks in an increasingly complex and technology-driven banking environment.

INTRODUCTION

What is risk? Danger that a certain unpredictable contingency can occur, which generates randomness in cash flow. Risk and uncertainty – risks may be described using probability analysis (business cycle, company failures), while events subject to uncertainty cannot (financial crises, wars etc.)

Risk management is the identification, assessment, and prioritization of risks (defined in ISO 31000 as the effect of uncertainty on objectives, whether positive or negative) 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. Risks can come from uncertainty in financial markets, project failures, legal liabilities, credit risk, accidents, natural causes and disasters as well as deliberate attacks from an adversary. Several risk management standards have been developed including the Project Management Institute, the National Institute of Science and Technology, actuarial societies, and ISO standards. Methods, definitions and goals vary widely according to whether the risk management method is in the context of project management, security, engineering, industrial processes, financial portfolios, actuarial assessments, or public health and safety.

The strategies to manage risk include transferring the risk to another party, avoiding the risk, reducing the negative effect of the risk, and accepting some or all of the consequences of a particular risk. Certain aspects of many of the risk management standards have come under criticism for having no measurable improvement on risk even though the confidence in estimates and decisions increase

In ideal risk management, a prioritization process is followed whereby the risks with the greatest loss and the greatest probability of occurring are handled first, and risks with lower probability of occurrence and lower loss are handled in descending order. In practice the process can be very difficult, and balancing between risks with a high probability of occurrence but lower loss versus a risk with high loss but lower probability of occurrence can often be mishandled.

Intangible risk management identifies a new type of a risk that has a 100% probability of occurring but is ignored by the organization due to a lack of identification ability. For example, when deficient knowledge is applied to a situation, a knowledge risk materializes. Relationship risk appears when ineffective collaboration occurs. Process-engagement risk may be an issue when ineffective operational procedures are applied. These risks directly reduce the productivity of knowledge workers, decrease cost effectiveness, profitability, service, quality, reputation, brand value, and earnings quality. Intangible risk management allows risk management to create immediate value from the identification and reduction of risks that reduce productivity.

Risk management also faces difficulties in allocating resources. This is the idea of opportunity cost. Resources spent on risk management could have been spent on more profitable activities. Again, ideal risk management minimizes spending and minimizes the negative effects of risks.

Risk management in bank operations includes risk identification, measurement and assessment, and its objective is to minimize negative effects risks can have on the financial result and capital of a bank. Banks are therefore required to form a special organizational unit in charge of risk management. Also, they are required to prescribe procedures for risk identification, measurement and assessment, as well as procedures for risk management.

In the course of their operations, banks are invariably faced with different types of risks that may have a potentially negative effect on their business. The risks associated with the provision of banking services differ by the type of service rendered. For the sector as a whole, however the risks can be broken into six generic types: systematic or market risk, credit risk, counterparty risk, liquidity risk, operational risk, and legal risks.

Systematic risk is the risk of asset value change associated with systematic factors. It is sometimes referred to as market risk, which is in fact a somewhat imprecise term. By its nature, this risk can be hedged, but cannot be diversified completely away. In fact, systematic risk can be thought of as undiversifiable risk.

All investors assume this type of risk, whenever assets owned or claims issued can change in value as a result of broad economic factors. As such, systematic risk comes in many different forms.

The risks to which a bank is particularly exposed in its operations are: liquidity risk, credit risk, market risks (interest rate risk, foreign exchange risk and risk from change in market price of securities, financial derivatives and commodities), exposure risks,

investment risks, risks relating to the country of origin of the entity to which a bank is exposed, operational risk, legal risk, reputational risk and strategic risk.

REVIEW OF LITERATURE

Several methods of calculating operational risk capital have been proposed by regulatory authorities. The advanced measurement method is the one which gives the best picture of a financial institution's level of exposure to operational risk. Many number of studies have emerged which develop quantitative methodologies and tools applicable to the advanced measurement approach (Cruz, 2002; Alexander, 2003; King, 2001). The Loss Distribution Approach (LDA) method is the most popular advanced measurement approach. This approach draws heavily on the actuarial model used to model losses in the field of insurance (Cummins and Freifelder, 1978). Klugman, Panjer, and Willmot (1998) have carefully developed the different steps of this method. However, modeling operational losses diverges somewhat from these actuarial loss models.

First of all, operational losses are, in most cases, collected at certain thresholds (\$1,000, \$10,000, \$15,000, etc.) Several studies have left out these losses and therefore have not taken the threshold truncated into account (Dutta and Perry, 2006; Böcker and Klüppelberg, 2005; Fontnouvelle, Rosengren, and Jordan, 2004). This approach, as defined by Chernobai et al (2006), consists in fitting the non-conditional severity-and-frequency distributions to loss data above the truncature threshold. It supposes that only the tails of the aggregated distributions will be taken into account when calculating the VaR.

There are studies which consider only the modeling of the tail of the aggregated distribution. Using the extreme value theory (EVT), they treat only extreme losses (Embrechts et al, 1997; Ebnother, Vanini, McNeil, and Antolinez-Fehr, 2001). The structure of the operational data, however does not necessarily satisfy the standard hypotheses for modeling with the EVT. This is principally due to the limited number and frequency of extreme losses (Embrechts et al, 2003; Moscadelli, 2004).

OBJECTIVE

To study the management of the operational risk in banks.

The majority of operational risk events should be prevented with the adequate procedures and for this reason, operational banking risks events need to be identified and monitored. The objective of this study is to provide a comprehensive description of the framework and methodology for identifying, measuring and modeling operational banking risk.

RESEARCH METHODOLOGY

As the basic objective of the study is to gather information regarding the procedures of management of operational risks in banks, **exploratory research methodology** has been used. During this research, descriptive and historical data has been taken which has been followed by analysis.

Type of data used is Primary as well as Secondary. As the data on which the research study is based is secondary, but the analysis is wholly primary. The analysis made has been supported by Observations, Inferences and Suggestions.

A holistic approach has been followed while doing the analysis to make it as comprehensive as possible.

Sources of secondary data:

1. Internet
2. Magazine
3. Published data and reports

INDUSTRY PROFILE

As per the Reserve Bank of India (RBI), India's banking sector is sufficiently capitalised and well-regulated. The financial and economic conditions in the country are far superior to any other country in the world. Credit, market and liquidity risk studies suggest that Indian banks are generally resilient and have withstood the global downturn well. Indian banking industry has recently witnessed the roll out of innovative banking models like payments and small finance banks. RBI's new measures may go a long way in helping the restructuring of the domestic banking industry. The digital payments system in India has evolved the most among 25 countries with India's Immediate Payment Service (IMPS) being the only system at level five in the Faster Payments Innovation Index (FPII).

Market Size

The Indian banking system consists of 12 public sector banks, 22 private sector banks, 46 foreign banks, 56 regional rural banks, 1485 urban cooperative banks and 96,000 rural cooperative banks in addition to cooperative credit institutions. As of July 2023, the total number of ATMs in India increased to 209,989 and is further expected to increase to 407,000 by 2024.

Public sector banks' assets stood at Rs. 72.59 lakh crore (US\$ 1,038.76 billion) in FY23. During FY22-FY23, credit off-take grew at a CAGR of 13.93%. As of FY25, total credit extended surged to US\$ 1,936.29 billion.

During FY21-FY24, deposits grew at a CAGR of 6.81% and reached US\$ 1.90 trillion by FY25. Credit to non-food industries increased 3.3% y-o-y, reaching US\$ 1.26 trillion on February 28, 2023 and US\$ 1.42 trillion on March 13, 2025.

COMPANY PROFILE

Company Overview

ICICI Bank Limited is an Indian multinational banking and financial services institution. Ranked among India's top private sector banks, it offers a diversified portfolio of financial products and services to retail, SME, and corporate customers through multiple delivery channels and specialized group companies.

- Founded: 1955 (as a development financial institution); ICICI Bank incorporated in 1994
- Headquarters: Mumbai, Maharashtra (Corporate Office); Vadodara, Gujarat (Registered Office)
- Industry: Banking and Financial Services
- Company Type: Public (Listed on BSE, NSE, and NYSE)
- Employee Count: Over 1.3 Lakh (~130,000+) globally
- Website: www.icicibank.com

Key Executives

- Pradeep Kumar Sinha: Part-Time Chairman
- Sandeep Bakhshi: Managing Director & Chief Executive Officer (Recently re-appointed through October 2028)

History & Milestones

- 1955: The Industrial Credit and Investment Corporation of India (ICICI) was formed as a joint venture by the World Bank, Indian public-sector banks, and insurance companies to provide project financing to Indian industry.
- 1994: ICICI Bank was established in Vadodara as a wholly owned subsidiary of ICICI Limited to transition into a diversified financial services group.
- 1999: Made history by becoming the first Indian company and the first bank from non-Japan Asia to be listed on the New York Stock Exchange (NYSE).
- 2001-2002: The parent company (ICICI Ltd.) merged with ICICI Bank in a reverse merger, creating a unified universal banking entity. In the same period, it acquired Bank of Madura in an all-stock deal.
- 2026: Expanding aggressively, the bank surpassed a network of 7,500 branches and consolidated its international presence across 18 countries.

LIMITATIONS

1. It is by no means clear that capital regulation is the most efficient means of achieving a reduction in the exposure of institutions to operational risk. Moreover, there is no systemic risk rationale for imposing capital requirements because losses due to operational risk tend to be idiosyncratic to a particular institution. The sorts of institution-destroying operational losses that have occurred – often due to the actions of a rogue trader – are usually attributable to a failure of internal controls rather than inadequate capital. No reasonable amount of capital would be sufficient to cover such an extreme event.
2. At a more fundamental level, it is unclear why the Basel Committee insists on dealing with operational risk under Pillar 1 – that is, as an issue of capital adequacy. Interest rate risk in the banking book, which is surely easier to quantify than operational risk, is dealt with only under Pillar 2 – that is, as a supervisory issue. Moreover, Pillar 2 is surely the most efficient way of dealing with operational risk.

3. While there has been made a lot of progress in making efforts to quantify operational risk, but it is being over-emphasized as a solution. Operational risk management is more about improving management practices than measurement.
4. Internal operational risk measurement models must include adequate management of near-misses. Near-miss losses (or near-misses) are the estimated losses from those events that could potentially occur but were successfully prevented. The rationale behind including near-misses into internal databases is as follows: the definition of risk should not be solely based on the past history of actual events but instead should be a forward-looking concept and include both actual and potential events that could result in material losses.

CONCLUSION

In the time duration of 45 days it was tried to complete the study and achieve the required objectives.

I believe that this is an area with great potential, yet the uncertainties are large and the payoff horizon is unknown. Banks and supervisors need to recognize that it is acceptable - and even expected - to make some investments that do not pay off. We also know there have been, and will continue to be, technological glitches - computers and web sites go down occasionally, and e-mail gets lost. The new Internet world is a punishing one for these routine mistakes, and financial institutions have strong incentives to take precautions and to fix problems well before they reach supervisors' and policymakers' attention. The information-based nature of financial services is unlikely to change. I am confident that banks and other financial institutions will continue to find new and better ways to put technology to their and their customers' best use, and that they will manage the technology and the business risks associated with these investments.

REFERENCES

Basel Committee on Banking Supervision, 2023a, “Regulatory Treatment Of Operation Risk,” September.

Basel Committee on Banking Supervision, 2024b, “Sound Practices for the Management and Supervision of Operational Risk,” December.

Basel Committee on Banking Supervision, 2025a, “Quantitative Impact Study for Operational Risk: Overview of Individual Loss Data and Lessons Learned,” January.

Basel Committee on Banking Supervision, 2025b, “Sound Practices for the Management and Supervision of Operational Risk,” July.

Cruz, M. G. (2002), Modeling, Measuring and Hedging Operational Risk, John Wiley & Sons, New York, Chichester.