

## **Impact Of Operational Risk On Various Dimensions Of Banks**

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### **ABSTRACT**

Although the banking sector has become strong, competitive, dynamic and resistant, it faces several newer challenges as a result of macroeconomic and financial sector reforms in domestic as well as in global space. A review of operational risk explicitly shows that subject coverage is limited to quantification of operational risk data and modeling techniques. The study specifically covered operational risk management of both public sector and private sector banks complying Basel accord in the Indian banking system. The study will support the bankers and banking institution to concentrate on crucial risk areas associated with operational failures where strategic attention and mitigating measures are required. In order to accomplish the objectives of the study, primary data were collected through a structured questionnaire. The detailed analysis was performed according to the research objectives with the help of Statistical Package for the Social Sciences (SPSS 20)0. Based on the nature of data, reliability analysis, percentage analysis, factor analysis, regression analysis were performed.

Keywords: Banks, Operational Risk, Private, Public etc.

### **1. INTRODUCTION**

Bank is understood generally as a financial institute which offers essential banking services like accepting deposits and giving loans and advances. The Banks deliver several services to their customers in the form of safeguarding the money, valuables and provide timely loans and advances to meet the demands of the customers. The banks also offer the ancillary services like checking accounts, money orders and cashier cheques. A Banking system is a system provided by the bank which offers cash management services for customers, reporting the transactions of their accounts and portfolios. The Indian banking system is unique and perhaps has no parallels in the banking history of any country in the world. Banking Industry in India is with younger stage which experimenting and experiencing with many changes and challenges in terms of organizations, functions, resource mobilization, socioeconomic objectives and lacking at supply and demand sides.

Before the establishment of banks, the financial activities were handled by money lenders and individuals. More than 50 percent of the population in India was depending upon moneylenders and informal sources of financial institutions. This was resulted in debt trap, bonded labour and other socio-economic

problems. People needed security for their money, people required formal sources for their borrowings. Banking institutions offer facilities such as, safety and security for money, control the supply and flow of money and credits, mobilize funds through savings and investments with regulated norms and principles.

## **2. CONCEPT OF RISK IN BANKING**

Risk is defined as a combination of uncertainty and deviation from a desired outcome (Vaughan and Vaughan, 2007). The risk factor in banks can be categorised into financial risk, operational risk and environmental risk. All business lines of banks including commercial banking, corporate banking, retail banking and investment banking are confronted with a wide array of risks. It is widespread in all kinds of business operations but the degree of risk differs according to its size, location, control environment, etc.

The risk occurs as a result of uncertainties which, in turn, arise as a result of changes taking place in the prevailing economic, social and political environment and lack of knowledge on such changes.

Danger is an exposure to a loss transaction that occurs with some probability and can be predicted, measured and minimized. In financial institutions, the risk occurs from adjustments and fluctuations in assets or liabilities, or both in assets or payments revenues and liabilities, or in cash outflows and inflows.

### **2.1 Types of Risks in Financial Sector**

Most countries, including those with rapid achievements, have suffered from the financial crisis and the disruption of their economies' growth. The high risks at the level of the individual companies concerned the position of financial instruments, hedge markets and risk management at the micro level. This is why risk management, including crisis reduction, remains a focal point of the financial agenda of most countries (Lyngé and Zumwalt, 1980). The different categories of danger are as follows:

**Credit risk** - This arises from defaults on the part of the counterparty or from failure to satisfy the duty in full or in part in the agreed term. It has a possible loss due to non-performance of a financial contract. For banks, credit risk exists in assets in their bank book.

**Market risk**- Risk financial institutions faced income or market value volatility as a result of variations in market conditions. There are four main economic markets related to market price fluctuations. The debt securities market, which is vulnerable to shifts in interest rates; the bond market; the currency market and the commodity market.

**Liquidity risk**- It is the inability of an organisation to fulfil its duty when it is due. The failure of an entity to carry out cash transactions or cash inflows at a level of 5 affects its reputation. Market liquidity risk arises as a generalised disturbance in the asset markets that usually make liquid assets illiquid. Mostly, the bank takes an illiquid position when it uses its short-term deposit on a long-term loan.

**Operational risk**- It emerges from bank failure to manage and staff failures to deliver on time or failures in the information technology system or incidents such as fire, earthquakes, floods, etc. Operational risk may, in a lucid manner, be described as a risk that directly or indirectly affects the operations of a bank through its core operating factors.

Interest rate risk- The probability of loss that the bank is exposed to due to shifts in interest rates. Low interest rates coupled with a contraction of industry have given rise to an atmosphere in which bankers face tough choices to sustain earnings efficiency. The cash flow of the bank would adjust in line with interest rate fluctuations. It also affects earnings and expenditures that are responsive to interest rates.

### **2.2 Operational Risk Management of Banks in India**

Operational risk detection and assessment is also at an evolutionary stage relative to the sophistication reached by business and credit risk measurements. The need for operational risk management is commonly recognized by organizations on a global basis. Significant areas of concern include concept of operational risk, assessment and formalization of operational risk in the theoretical community. There is a growing awareness that an appropriate organizational risk management system enhances and strengthens the internal controls of the enterprise.

The Indian banking sector is flourishing sufficiently with a wide range of products, services and other facilities that are made available to large sections of the population living in rural areas. Transitional reforms in the policy framework, product innovation, financial stability regulations and competitive environment strengthened the system (Prasad, 2010). In India, the banking sector is dominated by public sector banks followed by private banks and then by foreign banks.

On the verge of banking institutions expansion, the operations have become more and more complex under the impact of deregulation, modernization and technological advancement. It is therefore crucial phase for the banks to maintain balance between efficiency and stability. The operating and external environments are constraining factors that endanger the growth and development of the Indian banking industry. In order to remain competitive and stable in global space Indian banks have to undergo profound change in risk management agenda in line with international standards. Reserve Bank of India mandates all banks to have clear policies and procedures to manage operational risk from time to time.

### **3. RESEARCH METHODOLOGY**

Primary data were collected to investigate the key research questions that explain the components of operational risk drivers. A forward looking method like scenario analysis is used to make the study more reliable. The basis of the survey design was a 5-point Likert's scale to gather data from banking professionals, risk managers and other executives in the financial institutions. Based on the data collected, the study examined the response rate, reliability and validity of the data used in this study.

#### **Sample Size**

As the population is large, convenient sampling method was adopted. A total of 500 questionnaires were distributed to respondents in various branches in Chennai. However, only 385 questionnaires were turnout to be qualified for the data analysis.

The target population for operational risk assessment was collected among employees belonging to public sector banks and private sector banks in Haryana.

### **4. HYPOTHESIS OF THE STUDY**

- Hypothesis 1: There is no significant impact of operational risk on the profitability of the banks
- Hypothesis 2: There is no significant impact of operational risk on the reputation of the banks
- Hypothesis 3: There is no significant impact of operational risk on the market value of the banks
- Hypothesis 4: There is no significant impact of operational risk on the customer loyalty of the banks

## 5. RESULTS & DISCUSSION

### 5.1 Major Risks of the Bank

Identification of major risk in its order is very crucial as proper identification and allocation of capital for core risk of the banks are vigorous in current scenario.

**TABLE 1: MAJOR RISKS OF THE BANK**

<b>Risk</b>	<b>Credit Risk</b>	<b>Market Risk</b>	<b>Operational Risk</b>
Category	(%)	(%)	(%)
Very Low	0.5	2.3	4.2
Low	6.0	14.8	15.1
Medium	16.9	38.4	36.6
High	38.7	33.0	27.0
Very High	37.9	11.4	17.1

The table 1 depicts that credit risk is one of the major risks with 38 percent followed by operational risk by 17 percent and market risk by 11 percent in the very high risk category. Credit risks are very high in banks since the main source of banking business deals with the lending activity. Jednak and Jednak (2013) also stated that commercial banks are exposed very high to credit risk, less to operational risk and minimum to market risk.

### 5.2 Regression Analysis

The strength of the relationship between two variables and the impact of one on another can be assessed through regression analysis. Regression analysis enables an investigator to estimate the casual relationship between the variables and its statistical significance. The 'R' is a measure of the correlation between the experimental values and it forecasts the value of the target variable. Smaller values of R indicate that the model does not fit the data well. R square ( $R^2$ ) indicates the proportion of the disagreement in the criterion variable. Usually  $R^2$  value is expressed in percentage. Adjusted 'R square' value provides more useful measure by overcoming the issue of exaggerated value.

In this analysis, operational risk is considered as independent variable in order to find the influence on the dependent variables of profit, reputation, market value and customer loyalty. Regression statistics help to predict the level of impact and appraisals for decision making.

- **Impact of Operational Risk On Profit**

**Hypothesis: There is no significant impact of operational risk on the profitability of the banks**

**TABLE 2: IMPACT OF OPERATIONAL RISK ON PROFIT**

Model	Unstandardized		Standardized	t	Sig
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	3.173	0.163		19.512	0.000
Profit Impact	1.452	0.075	0.704	19.415	0.000
R			0.704		
R square			0.496		
Adjusted R square			0.495		
F			376.926		
Significance			0.000		

The table 2 shows that the R value is 0.704 which indicates the strength of the relationship between operational risk and its impact on profit.

The value  $R^2 = 0.496$  specifies that the variance of operational risk is 50 percent and this percentage is statistically significant ( $F = 376.926$ ,  $p = 0.000$ ). A positive beta value of impact indicates that profit has an influence on operational risk. Chen. et. al. (2009) findings revealed that the higher portfolio concentration generates the higher operational risk which reduces the profitability in the financial industry. Improper management and tackling of operational risk would also have a result in conflicting performance and decreases the bank revenue (Correa and Raju, 2009).

- **IMPACT OF OPERATIONAL RISK ON REPUTATION**

**Hypothesis: There is no significant impact of operational risk on the reputation of the banks**

**TABLE 3: IMPACT OF OPERATIONAL RISK ON REPUTATION**

Model	Unstandardized		Standardized	t	Sig
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	3.013	0.202		14.917	0.000
Reputation Impact	1.293	0.080	0.638	16.235	0.000
R			0.638		
R square			0.408		
Adjusted R square			0.406		
F			263.564		
Significance			0.000		

The table 3 presents that R value is 0.638, which indicates the strength of the relationship between operational risk impacts on reputation. The value of  $R^2 = 0.408$  indicates that the variance of operational risk is 41 percent, this percentage is statistically significant ( $F = 263.564$ ,  $p = 0.000$ ). A positive beta reveals that operational risk has a positive impact on reputation. Micocci and Masala (2009) states that

reputational damage creates negative impact on the capital adequacy ratio maintained by banks. The reduction in the market value shall be equivalent to a loss amount in case of external events, but the loss percentage will be double for internal fraud; loss due to internal fraud has reputational damage whereas external fraud does not pose a significant threat while comparing with other.

- IMPACT OF OPERATIONAL RISK ON MARKET VALUE**

**Hypothesis: There is no significant impact of operational risk on the market value of the banks**

**Table 4: Impact of Operational Risk on Market Value**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Constant)	3.973	0.136		29.207	0.000
Market Value Impact	1.303	0.074	0.669	17.603	0.000
R			0.669		
R square			0.447		
Adjusted R square			0.446		
F			309.870		
Significance			0.000		

The table 4 discloses the R value at 0.669, which indicates the strength of the relationship between operational risk and market value impact. The value of  $R^2 = 0.447$  indicates that the variance of operational risk is 45 percent, this percentage is statistically significant ( $F = 309.870$ ,  $p = 0.000$ ). A positive beta value indicates that market value impact has a positive relationship with operational risk. The result is supported by a study stating that stock market losses are larger for profitable banks than non-profitable banks due to investor distrust at the (unexpected) operational loss experienced by profitable banks. Similarly, investors penalised large banks more than the smaller banks (Fiordelisi, Sauna and Schwizer, 2014). The stock price reacts negatively on a disclosure of operational losses at media or press in the first time. (Sturm, 2013).

- IMPACT OF OPERATIONAL RISK ON CUSTOMER LOYALTY**

**Hypothesis: There is no significant impact of operational risk on the customer loyalty of the banks**

**Table 5: Impact of Operational Risk on Customer Loyalty**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Constant)	4.742	0.212		22.394	0.000
Customer Impact	0.705	0.100	0.340	7.078	0.000
R			0.340		
R square			0.116		

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Adjusted R square			0.113		
F			50.102		
Significance			0.000		

It is inferred from the table 5 that the R value is 0.340, which indicates the strength of the relationship between operational risk and customer loyalty impact. The value of  $R^2$  is 0.116 which indicates that the variance of operational risk is 12 percent, this percentage was statistically significant ( $F = 50.102$ ,  $p = 0.000$ ). A positive beta of customer loyalty impact indicates that it has a positive relationship with operational risk. Customer's commitments towards organisations are positively related to speedy service and problem disposal from system interruption and such expectations are among more established customers than fresh customers (Kelly and Davis, 1994). And retaining loyal customer reduces the cost of marketing and educating customer about new product and services.

### 5. CONCLUSION

Regression analysis is used to predict the impact of operational risk. It is clear from the analysis that the strength of the relationship between operational risk and impact on profit is 0.704. The  $R^2$  score indicates that the variance of operational risk is 50 percent. It is concluded that the strength of the relationship between operational risk and impact on reputation is 0.638. The  $R^2$  score point out that the variance of operational risk is 41 percent.

It is found that the strength of the relationship between operational risk and impact on market value is 0.669. The  $R^2$  score shows that the variance of operational risk is 45 percent. It is analysed that the strength of the relationship between operational risk and impact on customer loyalty is 0.340. The  $R^2$  denote that the variance of operational risk is 12 percent. The operational risk significantly impacts the profit, reputation, market value and customer loyalty of the bank. The profitability is more threatened compared with other consequences. The loyalty of the customer affected relatively less on an incident of operational risk.

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