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Skill Levels in Risk Management: Trainiing in Credit Risk - A Comparitive Study of Indian Banks and Foreign Banks

K. Bhavana Raj [α] & Dr. Sindhu [σ]

Abstract - Risk management is a cornerstone of prudent Banking practice. Undoubtedly all Banks in the present-day volatile environment are facing a large number of risks such as credit risk, liquidity risk, foreign exchange risk, market risk and interest rate risk, among others – risks which may threaten a Bank's survival and success. Banking is a business of risk. For this reason, efficient Risk Management is absolutely required. With a view to strengthen the Risk Management in the Banks across the Globe, Basel Frameworks have made concerted efforts to address all the issues relating to Financial Risks like Credit, Market Risk and Operational Risk and some other non-Financial Risks as well. The impact of the non-Financial Risks is all pervasive and can be severe enough that they can lead to total collapse of the Banks. This research paper briefs about the training inputs of the Banking personnel in the Credit Risk in the select sample Banks. The main objective of this study is to identify and analyze the knowledge of the Banking personnel in the Credit Risk in select sample Banks. This study emphasizes the need for a robust training mechanism for the operating personnel so as to have a better understanding on the Credit Risk. The findings of the study show that the operating personnel in Foreign Banks are well trained on Credit Risk Management when compared to the operating personnel in Indian Public sector Banks and Private Sector Banks.

Keywords : risk management, bank, banking, basel, credit risk, risk managers.

I. Introduction

Risk is all pervasive and is prevalent in every activity, be it a manufacturing or trading or service related. Human beings always attempt to manage the Risks faced by them in their day-to-day activities of life. Keeping inflammable material away from fire, saving for possible future needs, creation of a legal protection etc. are some of the attempts at managing the Risks.

Managing Risk is nothing but managing the Risk before the Risk manages. Every Industry strives to arrest the Risks with a view to minimize its losses and make optimum revenue. Banking Industry, primarily dealing with financial services can be no exception and thus encounters with many related Risks. It is imperative that Banks have to identify and measure various Risks faced by them and initiate suitable remedial measures to mitigate them.

In the recent past Financial Institutions have faced serious Banking issues that are caused by the relaxation of credit standards to the borrowers and counterparties, unable to manage or mitigate risk in a portfolio, unable to cope up with the dynamic economic requirements or any other situation that leads to the deterioration in the credit standing of a counter party. Thus, Credit Risk Management should be a robust mechanism which enables Banks and Financial Institutions to actively manage their portfolios in order to minimize losses and earn a return over and above expected average return.

Credit Risk Management is a structured approach to managing uncertainties through risk assessment, developing strategies to manage it and mitigation of risk using managerial resources (Nnanna, 2004). The objective of risk management is to reduce the effects of different kinds of risks.

a) Statement of the Problem

The very nature of the Banking business is so sensitive because more than 85% of their liability is deposits from depositors (Saunders, Cornett, 2005). Banks use deposits to generate credit for their borrowers, which is in fact a revenue generating activity for most of the Banks. The aforesaid credit creation process exposes the Banks to high default risk which might lead to financial distress including Bankruptcy. Another issue is the customer's defaulting during their credit repayment which in turn causes a great deal of reduction in the Bank's revenue generating capacity, thereby leading the Banks to reduce the amount of credit grants to their prospective loan applicants. To generate earnings, to grow and to survive the tough competition, the Bank has to create the demand for credit in their existing clients as well as the new ones.

b) Objectives of the Study

The main objective of the study is to examine the credit risk management on the performance of

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banks in India. More specifically, the study aimed at achieving the following objectives:

1. To understand the impact of training in credit risk management of the Banking personnel in the select sample Banks.
2. To analyze whether the Operating personnel are adequately trained on Credit Risk across different types of Banks.
3. To suggest best measures for effective training on credit risk.

c) Research Hypotheses

Ho : There is no significant difference in the trainings received on Credit Risk across different Types of Banks.

d) Significance of the Study

The study enables the Banker to understand the importance of their lending and control mechanism given the fact that the Banks are expected to lend under stiff monetary conditions and economic regulations. This study further attempt to assist the credit risk managers and regulatory bodies in ensuring to create a safe and hassle-free Banking environment thereby enhancing the country's economy which is dependent on the performance of various Banks and financial institutions operating in the economy.

e) Scope of the Study

The study is limited to only the Indian Banks and Foreign Banks operating in India and covers a period of ten (10) years from 2002-2013. A structured questionnaire has been designed and administered to the Operating Personnel handling Risk Management in the select sample Banks.

II. Literature Review

There have been a large number of conceptual frameworks published about Risk Management in general. However, the number of the empirical studies on Risk Management strategies and practices with particular reference to Credit Risk Management in Banks and Financial Institutions was found to be relatively very small.

a) Credit Risk

As stated by Reserve Bank of India (RBI, 2005), Credit Risk is the major component of Risk Management system and this should receive special attention of the Top Management of a Bank. Credit Risk is considered as the major risk inherent in a Bank's banking activities.

Any mismanaging of this risk may lead a Bank into great trouble or even Bankruptcy, which is evident from various Bank failure scenarios. Managing Credit Risk in Banks is a herculean task as robust Risk Management strategies and practices are needed for identifying, measuring, controlling and minimizing the impact of Credit Risk.

Culp and Naves (1998) have considered default risk and resale risk to be the two types of credit risk. Harsher (2005) views that there are six types of Credit Risk, including default risk, counterparty pre-settlement risk, counterparty settlement risk, legal risk, country or sovereign risk and concentration risk.

b) Factors Responsible for Credit Risk

According to Taxman, (2006) the factors that cause Credit Risk which in turn has an adverse impact of the Bank's credit standards and Bank's profitability are: Discrepancies occurring during the loan proposal appraisal, inconsistency during the assessment of financial stability of borrowers or counter-party to gauge their creditworthiness, lacking clarity in lending policies and procedures, following liberal standards during the sanction of loan, no sufficient background check being done on the borrowers or counter-party, insufficient value of the collaterals pledged to the Banks to obtain the loan facilities, high exposure limits sanctioned for individuals at par with the business community, insufficient knowledge and skills of the Operating Personnel during the process of loan proposals, insufficient knowledge on the current market scenario and economy's performance, no proper coordination between the different department in the Bank which are in-charge of the activities relating to Credit Risk, organization structure with respect to responsibility and authority have not been clearly defined, no good system to rate Credit Risk and no reliable data is available to manage Credit Risk.

c) Credit Risk Management Strategies

Banks should strive towards having a robust credit policy manual that should be updated on a timely basis to meet the dynamic nature of business. Apart from that Banks should establish an appropriate environment, streamline a sound credit granting process, manage and maintain appropriate credit identification, credit measurement and credit monitoring process thereby ensuring adequate control over the Credit Risk.

d) Risk Based Audit System

RBI has advised Banks to adopt a risk-based internal audit system so as to ensure an effective Credit Risk Management control systems that ensure Banks to achieve high quality standards and also adhere to all the regulatory compliances. To ensure an efficient risk-based credit audit, Banks have to formulate an risk based audit policy, a proper set-up needs to be established which clearly demarcates the roles and responsibilities of the Operating Personnel handling Credit Risk areas, strong internal communication across the various departments in the Bank which facilitate the operating personnel and management to have control over the happenings in the Bank.

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e) Measuring Credit Risk

i. Probability of default (PD): Probability of default refers to the probability/risk/chance of a borrower defaulting on the payment of the credit obligations.
ii. Exposure at Default (EAD): Exposure at Default refers to the amount that is exposed to the default risk.
iii. Loss Given Default (LGD): Loss Given Default refers to the loss suffered in the event of a default of an exposure.

f) Managing Credit Risk

Credit Risk can be measured using structural models like Merton model or using Ratings-based model or using Actuarial Models or using Macro-economic Models or using Credit Risk Models.

g) Credit Risk Models

Saunders and Cornett (2007) stated that credit scoring models use data on observed borrower characteristics either to calculate the probability of default or to borrowers into different default risk classes. The most prominent credit scoring models is the Altman's Z-Score model.

Altman's Z-Score: The Z-score formula for predicting Bankruptcy of Dr. Edward Altman (1968) is a multivariate formula for measurement of the financial health of a company and a powerful diagnostic tool that forecast the probability of a company entering Bankruptcy within a two year period with a proven accuracy of 75-80%.
The Altman's credit scoring model takes the following form:

$$Z = 1.2X21 + 1.4X2 + 3.3X3 + 0.6X4 + 1.0X5 \quad (1)$$

Where, X1 = Working capital/ Total assets ratio,

X2 = Retained earnings/ Total assets ratio,

X3 = Earnings before interest and taxes/ Total assets ratio,

X4 = Market value of equity/ Book value of long term debt ratio and

X5 = Sales/ Total assets ratio.

The higher the value of Z, the lower the borrower's default risk classification. According to Altman's credit scoring model, any firm with a Z-Score less than 1.81 should be considered a high default risk, between 1.81-2.99 an indeterminate default risk, and greater than 2.99 a low default risk.

Because of the above factors depicted in the literature review it is essential that all the risk managers should be trained on Credit Risk.

III. Methodology

The research work employed is an experimental design. Primary data has been collected through a survey method using a structured questionnaire which was administered to the Operating Personnel working in the Risk Management capacity in general and Credit Risk in particular. Interview method was also used for the study. Secondary data sources like annual reports, annual accounts, bank's prospectus, Central Bank's (RBI's) guidelines and BIS (Bank for International Settlements) guidelines have been used as references. The population size is around 1500 (One Thousand Five Hundred) and the sample size is 360 (Three Hundred and Sixty). The sampling unit was mainly the Operating Personnel in the capacity of Credit Risk Managers, Senior Credit Risk Managers and General Managers and above. The sampling technique used was a purposive sampling or judgmental sampling. Three Public Sector Banks, three Private Sector Banks and three Foreign Banks have been chosen. A 5-point Liker Scale has been used to carry out the research work with regard to the frequency of training activities ranging from: 1 being 'not at all', 2 being '1-2 times',3 being '3-4 times',4 being '5-6 times' and 5 being 'more than 6 times'.

IV. Data analysis and Statistical Techniques

Data Analysis:
Frequency Count

		Training on Credit Risk					Total
		Not at all	1-2 times	3-4 times	5-6 times	More than 6 times	
BanK	PSU	13	80	19	2	6	120
	PSB	0	81	39	0	0	120
Type	FB	0	40	67	0	13	120
Total		13	201	125	2	9	360

Note : In the above table of Frequency Count, PSU refers to Public Sector Banks,
PSB = Private Sector Banks and
FB= Foreign Banks.
Chi Square Test

Figure 1 : The above table shows the responses of the sample respondents of the select sample Banks when asked about the "number of times you have been trained in Credit/Risk Management

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Data Analysis:

Chi Square Test

	Value	df	Sig. (2-ided)
Pearson Chi-Square	87.601[a]	8	.000
N of Valid Cases	360		

Figure 2 : a. 6 cells (40.0%) have expected count less than 5. The minimum expected count is .67.

One Way ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.021	2	3.510	21.459	.000
Within Groups	58.403	357	.164		
Total	65.424	359			

Figure 3 : Note: In the above table of One Way ANOVA, BG refers to Between Groups and WG= Within Groups

a) Statistical Techniques

1. Cross Tab Analysis is used and Chi Square test is performed between Observed as well as expected frequencies.
2. Nominal Data of the survey is transformed to Scale Data using Optimal Scaling (Categorical Principal Component Analysis) and a One Way ANOVA is also performed on the Transformed Data.

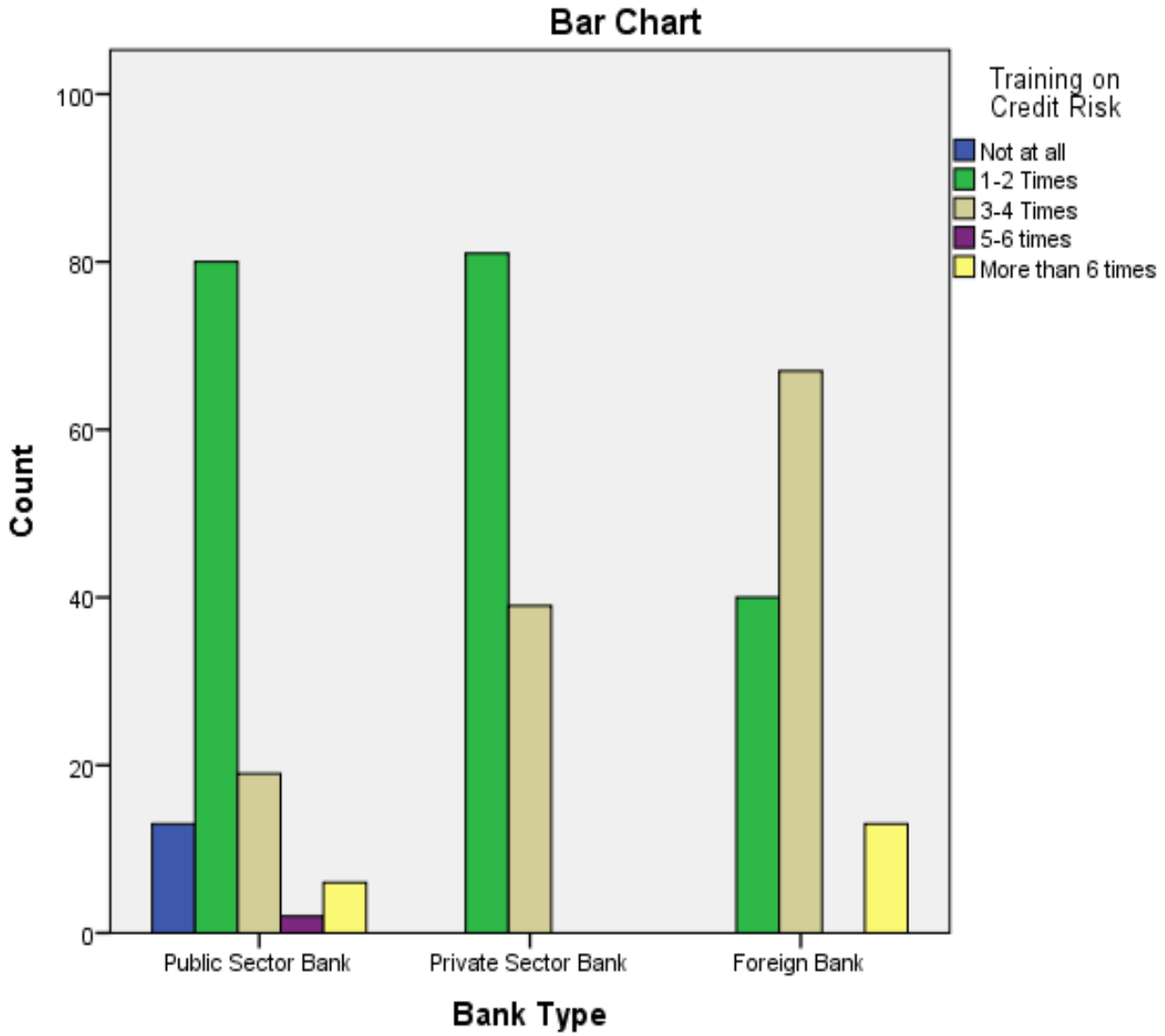


Figure 4 : The above clustered bar chart depicts the frequency of training on credit risk

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V. Conclusions

1. More than 10% of the Operating personnel in Indian Public Sector Banks did not receive training at all on Credit Risk whereas every employee was trained at least once in Indian Private Sector and Foreign Banks.
2. More than 10% of the total Operating Personnel received very frequent trainings on Risk Management in Foreign Banks whereas this was not the case with Indian Public and Private Sector Banks.
3. Majority of the participants have received Training 1-4 times.
4. Chi Square Test value of 87.601 for 8 degrees of freedom clearly indicates the Significance Level (Alpha = 0.000 < 5%) and hence null hypothesis can be rejected at 95% Confidence Level. Hence it can be concluded that "There is a clear difference among different types of Banks with respect to training received on Risk Management".
5. Significance Level from ANOVA Analysis is 0.0 which is less than 5% which also rejects the null hypothesis. Hence using both Cross Tab analysis as well as ANOVA analysis, it can be concluded that there is a significant difference in the training on Credit Risk Management across different types of Banks.
6. Operating Personnel in Indian Public Sector Banks are receiving less training compared to Operating Personnel in Indian Private Sector Banks, whereas, Operating Personnel in Foreign Banks are receiving training on Credit Risk Management more frequently compared to Operating Personnel in Indian Private Banks as well as Public Sector Banks.

VI. Suggestions

1. Policies to measure, monitor and manage Credit Risk have to be reviewed on a timely basis to check whether the policy is inherently consistent.
2. Establishment of credit policies and credit standards that adhere to regulatory requirements and thereby enhancing the Bank's overall profi-tability objectives which further reduce the level of Credit Risk exposure.
3. The Bank should strive to maintain the aggregate Credit Risk to be within the Bank's risk tolerance.
4. Develop a sound Credit Approval Process that ensures definite appraisal of only credit worthy facilities.
5. Granting the decision-making and approval authority only to qualified and experienced Operating Personnel so as to ensure a sound banking environment.
6. Continuously monitoring the Credit Risk training programs across all the Banks to ensure sound Credit Risk Management practices.
7. Continuous assessment of counterparty and portfolio to identify a non-performing asset or a loan.
8. Borrowers should be duly informed of the regulatory procedures involved in obtaining a loan and as well as the penalties in case of a default.

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