

Perception of Risk Management in Commercial Banks at Bengaluru Urban - A study

^aM. Muniraju, ^bR. Sarvamangala,

^aProfessor, Chairman & Dean Faculty of Commerce & Management Central College Campus

Bangalore University, India

^bAssociate Professor & Co-ordinator Department of Commerce, Jnanabharathi Campus Bangalore University Bangalore, India

Abstract

The changes across the globe over fast growing and changing financial environment scenario with global competition exposes the banks to face various types of risks. Risk is associated in all transactions. The survivability of commercial banks of late depends upon how best the banks predicts the emerging different type of risks. Raising severe competition, increasing deregulation and introduction of innovative products to satisfy ever hungry needs of modern customers etc. have pushed the risk management to the forefront of present days financial landscape. Credit risk arises on account of nonpayment of principal and interest. Credit risk management is concerned with identification, measurement, matching mitigations, monitoring of credit and guarding against fund transfer on a large scale and innovative frauds committed by the defaulters. The another term for credit risk is default risk. The risk of loss of principal arising out of failure to respect the obligation is called credit risk. In order to gauge the potential risk the risk manager should view the future with “weather eye”. The creditability of some banks is questioned by some due to their failure to meet the expected level of performance and “cry for privatisation” is growing momentum now-a-days. An attempt is made in this paper to study the level of awareness of customers in Bengaluru about banks credit risk management which is most important and the survivality of banks depends upon how best they lend, monitor, the loan amount received.

KEYWORDS : Lend, risk, weather eye, cry for privatisation, tools, financial risk, Basel-II.

Introduction

Credit risk has to be managed properly otherwise it may end in creating non performing loans or bad loans, reduce the profitability and face extreme consequence of bank failure. Therefore credit risk management becomes most significant and an ideal practice tackling the issues like identification, measurement, aggregation and continuous monitoring of credit risk.

Innumerable reasons may be cited for the poor debt servicing. They include economic slow down, sluggish business scenario, high debt equity rate, delayed government approvals and project delay. The poor performance of banks in terms of service, profitability and lack of adoption of latest technology are some of the immediate addressable issues. RBI repeatedly warned the PSBs to tighten credit delivery and strengthen credit collection system to reduce NPAs. The common complaint against all

PSBs banks is that they are not performing upto the level of expectations. The apex bank should also monitor high risk loan approvals and monitor fund transfer. The credit risk managers has to be well trained should not involve in frauds. In the light of a few financial frauds the PSBs should awaken and act with commitment otherwise the cry for privitisation may get quick momentum.

Statement of the problem

Banks are safe upto the extent that all borrowers pay back their dues in time. Risk and lending always go together. Assuming high risk may be on account of earning more and more interest. But the lending of late is becoming more complicate affairs since some of the borrowers frauded the banks in an innovative style. Basel-II protects the banks from many angles through different effective pillars. Many of the customers and interested parties in banking sector may not be aware of tools of mitigation of risks, kinds of risks that may arise in future, challenges to be faced after introduction of Basel II and Basel-III which is an improvement over Basel II. Bengaluru borrowers, customers are aware of risk, the mitigation of risk and finally the challenges that may arise at the time of implementation of Basel II.

Objectives

1. To analyse the demographic profile of respondents.
2. To analyse the risk management through Basel Committee approach.
3. To study respondents awareness of financial risk and tools for credit risk management.
4. To analyse respondents awareness of mitigation of risk.
5. To analyse the awareness challenges emerging from the techniques and methods suggested by Basel II

Hypotheses

1. Demographic profiles of respondents is not supporting credit risk management at Bengaluru.
2. There is no impact created by Basel II & III on risk management.
3. Respondents are not aware of financial risks and tools used for credit risk management.
4. Respondents are not unaware of mitigation of risk.
5. There are no challenges to be faced emerged on account of Basel II accord.

Research Methodology

The present study is a descriptive one based on the Basel II model. A questionnaire was administered as schedule taking into account the availability of time resources and another constraint time factor. While preparing questionnaire much focus was directed towards credit risk management in commercial banks and also ways and means to mitigate the risk. Detailed interview was also conducted with senior risk managers to know all the details pertaining to risk management. Likert 3 and 4 point scale was applied for the presentation of bipolar opinions.

Sampling Technique

The suggestions given by Bill Godden to select the suitable size of sample is considered in the study using infinite population formula. The formula suggested is as follows.

$$ss = \text{sample size} = z^2 \times p \times (1-p) / c^2$$

where ss = sample size

z = z value (e.g. 1.96 for a 95% confidence level)

p = percentage of population picking a choice, expressed in decimal.

c = confidence interval, expressed as decimal

(e.g. 0.04 = +/- 4 percentage points)

z = z values (cumulative normal probable table) represent the probability that a sample will fall within a certain distribution.

T z values for confidence levels are

1.645 = 90% confidence level

1.96 = 95% confidence level

2.576 = 99% confidence level

ss = $3.8416 \times 0.5 \times 0.5 / 0.0016$

= $(1.95 \times 1.96 = 3.8416) \times 0.25 / (0.04 \times 0.04 = 0.0016)$

= $9604 / 0.0016 = 600.25$ or 600

Thus by referring to the above formula sample 600 was fixed. The sample was drawn from only Bengaluru urban excluding 72 villages in Bengaluru urban district.

Secondary data

The existing secondary sources are also availed in the present to arrive at proper conclusion. The secondary sources may be journals. NABARD publication, newspaper etc.,

Statistical analysis

The collected data is classified, tabulated, analysed and interpreted. In order to test the data scientifically Chi-square and ANOVA tests were performed and thus a scientific touch was given to analyse the data.

Limitations

1. The present study is confined only to Bengaluru urban.
2. The sample is not quite large.
3. The study only considered cross sectional data and a lengthy and detailed study may provide casual better connections.
4. The present study also suffer from constraints like finance and time.

Review of literature

Bouguslauskas et al. 2009 expressed that many scientists agree that a good risk management can reduce probability of serious problems in banks.

Ferguson 2013 observed that risk management is the cornerstone of prudent banking and banks exists not for eliminating or lowering risk, but managing risk.

Al-Tamini et al. 2007 stated that commercial banks are mainly faced with credit risk, and loans are the largest and the most obvious source of credit risk.

RBI reports (2011-13) had maintained that though the Indian banks remained will capitalised, but concerns about increasingly growing NPAs creating worry especially the public sector banks. Further, RBI observed that economic slow down is not the only reason for decreasing quality of asset but also inadequate appraisal and monitoring of credit proposals by the banks.

Gray et al. (1997) expressed that credit risk is the biggest risk faced by banks and financial intermediaries.

Basel II (1999) opined that credit management processes enforce the banks to establish a clear process in for approaching new credit as well as for the extension to existing credit. These process also follow managing with care, and other necessary relevant action are taken to control or mitigate the risk of lending.

Survey Findings

Table-1 reveals data about demographic profile of the sample respondents. There are 470 or 78% males and the remaining 130 females. Chi-square test fails to accept the null hypotheses that there exists no significant variation in the gender and accepts the alternative that gender and credit risk management is positively related and there exists significant variation in the data.

There are 538 married respondents and the remaining 70 are remained as single. Chi-square test fails to accept the null hypotheses that credit risk management in commercial banks is not positively related and there exist no significant variations in the data and accepts the alternative that both are positively related and there exist significant variation in the data.

120 respondents qualification is post graduation, followed by 220 degree holders, 110 completed PUC, 70, 10th Standard, 60 possessed professional degree and 20 ITI and other degree holders. The calculated value being 238 higher than the $TV = 11.070 @ 5\%$ level of significance with $df = 5$ fails to accept the null hypotheses that both are i.e., credit risk management and occupation are not positively related and there is no significant variation in qualification data and accepts the alternative that both are positively related there exist significant variation in the data.

Occupation data reveals that 210 or 35% are employed in private sector, 120 or 20% in government sector, 30 involved in farming / seedling nursery / poly house, 60 doing business, 80 are self employed, 60 professional and 40 homemakers. Chi-square fails to accept the null hypotheses that both are not positively related and there risks no significant variations in the data and accepts the alternative that both are positively related and there exist significant variations in the data. Income data of sample respondents varies from 10K - 20K to 60K and above. There are 200 respondents getting monthly income in between 50K - 60K followed by 140 in between 40K - 50K, 90 in between 30K - 40K and 80 above 60K. Chi-square test fails to accept the null hypotheses that credit risk management and monthly income is not positively related and there is no

pressure of significant variations in the income data and accepts the alternative that both are related and there exist significant variations in the data.

Table-2 reveals the data about awareness of risk management Basel-II approach. 370 respondents or 62% are highly agree about the drivers of Basel-II approach, followed by 180 agree and 50 somewhat agree. ANOVA fails to accept the null hypotheses and accepts the alternative, that both the related and there exist significant variations in the data. Out of the 370 respondents who are highly aware about risk management 82 said about flexibility, 80 about efficient operations 73 about banks to follow different approaches, 70 about higher return and finally 65 about Basel-II making distribution between different risks.

Table-3 speaks that respondents awareness of tools for risk management. These tools varies from business diversification to fixation of exposure ceiling. 300 respondents out of 600 forming 50% strongly agree followed by 250 agree and only 50 some what agree. Out of 300 who strongly agree, 68 said about business diversification, 62 insurance and hedging, 58 securitisation and reconstruction, 57 about fixation exposure ceiling, 55 said about transfer of risk. Out of 250 who agree over risk management tools 58 said about diversification of business followed by 52 insurance and hedging, 48 about fixation of exposure ceiling, 47 securitisation, 45 said about transfer of risk. ANOVA fails to accept the null hypotheses and accepts the alternative. Therefore it is concluded here that there exist significant variation in the awareness level of tools for risk management.

Table-4 reveals data about respondents awareness of financial risks. Financial risks varies from business risk to market risk. 350 respondents are aware of all risk followed by 15 medium aware, 70 some about aware and 28 not aware of risks. Out of 350 respondents who are aware of different types of risks 63 knows about liquidity risk, 59 industry risk, 48 each portfolio risk & hedging risk, 45 forex risk and 42 market risk out of 152 who are medium aware, 30 knows about industry risk, 25 about hedging risk 24 liquidity risk. 21 market risk and 20 each business risk and florex risk. ANOVA fails to accept the null hypotheses and accepts the alternative.

Banks mitigate risks by using several methods. The methods used by banks are listed and measured and presented in the table-5. 283 respondents strongly agree about their awareness about mitigation of risks followed by 240 agree and only 77 some what agree. Out of the 283 strongly agree respondents 53 said about charging higher rate of interest to the defaulters, 50 about guard against fund transfers, 47 transfer of risk, 45 each periodic report of the customer and reducing risk by reducing the amount of credit sanction and 43 prefer deposit insurance. Out of 240 who agree 48 knows about guarding against fund transfer, 45 charging higher rate of interest to the defaulters, 39 said about prefer deposit insurance, 38 transfer of risk, 36 to reduce risk by reducing quantum of risk, and 34 are aware of mitigation of risk through periodic reporting about financial condition of borrowers. ANOVA fails to accept the null hypotheses and accepts the alternative.

Basel-II ensures safety and soundness of financial system through emphasizing the significance of internal control and risk management processes, supervision of process and market discipline. However, the techniques and the methods suggested in the new accord brings some challenges. These challenges and their awareness has been measured

and presented in the table-6. These challenges varies from G-10 central finding difficulties to implementation lead to adverse effects on priority sectors. 336 respondents strongly agree over the drivers of challenges as they are aware, 198 aware and 66 some what aware. Out of 336 strongly agree 65 said about the challenge of training the manpower followed by 64 implementation leads to adverse effect on priority lending, 63 said the very implementation requires huge resources, 51 said about non availability of historical data, 48 said about the challenge of collecting required data. Out of 198 respondents who agree 38 said about the challenge of training the manpower 37 priority lending challenge, 35 about non availability of historical data about individual loan transactions, 31 about requirement of huge resources and 29 collection of huge data and presentation. ANOVA fails to accept the null hypotheses and accepts the alternative.

Conclusion:

The Bengaluru urban customers and borrowers are well aware of financial risks, tools for risk management, mitigation of risks and the challenges to be faced at the time of implementation of Basel-II. Efficient monitoring of loans disbursed, customers history and ever improving risk management practices will result the banks emerging stronger, the need of the hour, which in turn would confer competitive advantage in the market.

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Table-1 : Demographic Profile of Respondents

A.	Gender	No. of Respondents	%	χ^2
	Male	470	78	192.66*
	Female	130	12	
	Sig. Level @ 5%		χ^2 (0.05; df=1) 5.991	
B.	Marital Status			
	Married	530	88	352.66*
	Single	070	12	
	Sig. Level @ 5%		χ^2 (0.05; df=1) 5.991	
C.	Qualification			
	10th Standard	70	12	238*
	PUC	110	18	
	Degree	220	37	
	Post Graduation	120	20	
	Professional degree	60	10	
	ITI and others	20	03	
	Sig. Level @ 5%		χ^2 (0.05; df=1) 11.070	
D.	Age			
	20-29	75	13	95.4166*
	30-39	110	18	
	40-49	210	35	
	50-59	120	20	
	60 and above	85	14	
	Sig. Level @ 5%		χ^2 (0.05; df=1) 5.991	
E.	Occupation			
	Farming nursery / polyhouse	30	05	270.3468*
	Government Service	120	20	
	Private service	210	35	
	Business	60	10	
	Self employed	80	13	
	Professionals	60	10	
	Homemakers	40	07	
	Sig. Level @ 5%		χ^2 (0.05; df=6) 14.067	
F.	Income			
	10K - 20K	30	05	186*
	20K - 30K	60	10	
	30K - 40K	90	15	
	40K - 50K	140	23	
	50K - 60K	200	33	
	60K and above	80	14	
	Sig. Level @ 5%		χ^2 (0.05; df=1) 5.991	

Source : Field Survey

Table-2 : Awareness of Risk Management - Basel-II Approach

Drivers of Basel II Accord	HA	A	SWA	T
Efficient operations	80	40	12	132
Flexibility	82	30	8	120
Higher return	70	28	7	105
Basel-II makes clear distinction b/w different risks	65	42	14	121
Banks option to select different approaches	73	40	9	122
Total	370	180	50	600

Source : Field Survey

Note : HA - Highly Agree, A - Agree, SWA - Somewhat Agree

Hypotheses

H0:	Credit risk management and awareness of risk management through Basel-II is not positively related and there exist no significant variations in the drivers of Basel II - Accord	Reject
H1:	Credit risk management and awareness of risk management through Basel-II is positively related and there exist significant variations in the drivers of Basel II - Accord	Accept

ANOVA Table

Source of variation	SS	df	MS	F ratio	5% F limit (from F table)
Between the sample	10360	(3-1)=2	10360/2 =5180	5180/33.33 =155.41	
With in the sample	400	(15-3)=12	400/12 =33.33		(2, 12) =3.88
Total	10760	(15-1)=14			

Source : Field Survey

ANOVA Analysis: The calculated value being 155.41 higher than the TV = 3.88 @ df = V1 = 2 and V2 = 12 with 5% level of significance fails to accept null hypotheses and accepts the alternative.

Table-3 : Respondents awareness of tools for risk management

Awareness of drivers of tools for risk management	SA	A	SWA	T
Business diversification	68	58	12	138
Transfer of risk from one to another party	55	45	8	108
Securitisation and reconstruction	58	47	9	114
Insurance and hedging	62	52	11	125
Fixation of exposure veiling	57	48	10	115
Total	300	250	50	600

Source : Field Survey

Note : SA - Strongly Agree, A - Agree, SWA - Somewhat Agree

Hypotheses

H0:	Credit risk management and awareness of risk management
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	through awareness of drivers of tools is not positively related and there exist no significant variations in the drivers of awareness of drivers of tools for risk management	Reject
H1:	Credit risk management and awareness of risk management through awareness of drivers of tools is positively related and there exist significant variations in the drivers of awareness of drivers of tools for risk management	Accept

ANOVA Table

Source of variation	SS	df	MS	F ratio	5% F limit (from F table)
Between the sample	7000	(3-1)=2	7000/2 =3500	3500/18.67 =187.47	
With in the sample	224	(15-3)=12	224/12 =18.67		(2, 12) =3.88
Total	7224	(15-1)=14			

Source : Field Survey

ANOVA Analysis: The calculated value being 187.47 higher than the TV = 3.88 @ 5% level of significance with df = V1 = 2 and V2 = 12 with 5% level of significance fails to accept null hypotheses and accepts the alternative.

Table-4: Respondents awareness of Financial Risks

Awareness level	A	MA	SWA	NA	T
Borrowers risk	45	20	9	5	79
Portfolio risk	48	12	12	6	78
Industry risk	59	30	8	3	100
Liquidity risk	63	24	7	2	96
Currency forex risk	45	20	5	4	74
Hedging risk	48	25	17	5	95
Market risk	42	21	12	3	78
Total	350	152	70	28	600

Source : Field Survey

Note : A - Aware, MA - Medium Aware, SWA - Somewhat Aware, NA - Not Aware

Hypotheses

H0:	Credit risk management and awareness of risk management through awareness level of financial risks is not positively related and there exist no significant variations in the drivers of awareness level of financial risks	Reject
H1:	Credit risk management and awareness of risk management through awareness level of financial risks is positively related and there exist significant variations in the drivers of awareness level of financial risks	Accept

ANOVA Table

Source of variation	SS	df	MS	F ratio	5% F limit (from F table)
Between the sample	8755.4112	(4-1)=3	8755.4112/3 =2918.4704		2918.4704/ 27.7261
With in the sample	665.4265	(28-4)=24	665.4265/24 =27.7261	105.26	(3, 24) =3.01
Total	9400.8377	(28-1)=27			

Source : Field Survey

ANOVA Analysis: The calculated value being 105.26 higher than the TV = 3.01 @ 5% level of significance with df = V1 = 3 and V2 = 24 with 5% level of significance fails to accept null hypotheses and accepts the alternative.

Table-5 : Respondents awareness of mitigation of risk

Awareness level of respondents towards mitigation of risk	SA	A	SWA	T
Charge higher rate of interest to borrowers of likely default	53	45	14	112
Periodic report about financial condition of borrowers	45	34	8	87
Guard against fund transfers to new companies	50	48	11	109
Transfer of risk	47	38	9	94
Reduce risk by reducing the amount of credit extended	45	36	13	94
Prefer deposit insurance	43	39	22	104
Total	283	240	77	600

Source : Field Survey

Note : SA - Strongly Agree, A - Agree, SWA - Somewhat Agree

Hypotheses

H0: Credit risk management and awareness of risk management through awareness level of risks mitigation is not positively related and there exist no significant variations in the drivers of awareness mitigation of risk	Reject
H1: Credit risk management and awareness of risk management through awareness level of risks mitigation is positively related and there exist significant variations in the drivers of awareness mitigation of risk	Accept

ANOVA Table

Source of variation	SS	df	MS	F ratio	5% F limit (from F table)
Between the sample	3937.707	(3-1)=2	3937.707/2 =1968.8535		1968.8538/ 27.7261
With in the sample	341.6668	(18-3)=15	341.6668/15 =22.7778	86.4373	(3, 24) =3.68
Total	4279.3738	(18-1)=17			

Source : Field Survey

ANOVA Analysis: The calculated value being 86.4373 higher than the TV = 3.68 @ 5% level of significance with $df = V1 = 3$ and $V2 = 24$ with 5% level of significance fails to accept null hypotheses and accepts the alternative.

Table-6 : Challenges of implementation of Basel II

Drivers of challenges	SA	ASWA	T
G-10 countries are finding difficulties in implementing Basel-II	45	28	8 81
Training the manpower is a huge challenge	65	38	14 117
Implementation itself requires huge resources	63	31	9 103
Basel-II requires huge data collection and preservation and hence banks required integration, modification and introduction of new software	48	29	13 90
Non availability of historical data pertaining to the individual loan transactions	51	35	8 94
Implementation of Basel-II may adversely effect lending towards priority sector	64	37	14 115
Total	336	198	66 600

Source : Field Survey

Note : SA - Strongly Agree, A - Agree, SWA - Somewhat Agree

Hypotheses

H0:	Credit risk management and awareness of risk management through challenges of implementation of Basel-II is not positively related and there exist no significant variations in the drivers of challenges of implementation of Basel-II	Reject
H1:	Credit risk management and awareness of risk management through challenges of implementation of Basel-II is positively related and there exist significant variations in the drivers of challenges of implementation of Basel-II	Accept

ANOVA Table

Source of variation	SS	df	MS	F ratio	5% F limit (from F table)
Between the sample	6076.0002	(3-1)=2	6076.0002/2 =3038.0001		3038.0001/ 35.87
With in the sample	538.0000	(18-3)=15	538/15 =35.87	=84.69	(2, 15) =3.68
Total	6614.0002	(18-1)=17			

Source : Field Survey

ANOVA Analysis: The calculated value being 84.69 higher than the TV = 3.68 @ 5% level of significance with $df = V1 = 2$ and $V2 = 15$ with 5% level of significance fails to accept null hypotheses and accepts the alternative.