Impact of COVID-19 on the performance of Commercial Banks, risk management, mitigation and tools for risk management - A study w.r.t. commercial banks at Bengaluru

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Abstract

Indian banking industry is facing customer relational difficulties on account of Covid-19 a global pandemic. Borrowers and business houses are facing jobs loss and closure. The start up industry in Bengaluru most futurist provided of jobs to millions now is reeling in trouble. Banks are facing credit risk on account of postponement of payment of EMI and in certain cases severe risk emerges on account of permanent and temporary closure of industrial purpose unit borrowers. There may be hike in deposits in certain new generation private commercial banks but not in debt collection. The quality of loans and its portfolios access many economies at the global level stayed comparatively stable until the emergence of 2007-08 financial crisis (Saeed M. S. et al. 20016). Since them the quality of bank assets declined quickly and further damaged by Covid-19 where in it is common to observe closure of many units. Banks faces many risks on account of expanded role played and efficient risk management is required. The future road for banking industry is precarious one which is driven by epidemiological uncertainty in the global macro economy (Kevim Bhehler et al. 2020).

KEYWORDS : Risk Mitigation, Risk Management, Covid-19, risk identification.

2. Introduction

Banks in their normal course of business faces a multiple number of risks. Globalisation impacted banking industry to explore new business opportunities rather than confining to produce revenue in the traditional streams (Swarajeet Arora et al. 2014). In order to manage the risk environment the banks need to identify risk factors and a proper assessment of assessment of such risk factors (Arora et al 2011). Risk identification is the first stage of risk management. (Tihankova, 2002) and very significant step in risk management (Al-Tamimi et al. 2007). If risk is correctly identified it ensures effective risk management. Any failure to identify all losses or gains that challenge the organizations, then there unidentified one becomes unmanageable (Greenie and Trieschmam 1984). According to Tehankova (2002) systematic risk identification involves 4 elements, sources of risk, hazard factors, perils and exposures to risk. All these bring negative or positive outcomes, increases the chances of losses or gains, cause always loss (Hance et al. (1991)) and objects facing possible losses or gains correspondingly. Successful banks apply proper instruments and tools to mitigate the risk and unsuccessful banks fail to implement suitable strategies to tackle the credit risk and fail in proper management. Banks face many serious problems on account of unsuccessful credit risk management but the credit lending remains the chief activity of banking sector. They lend out of deposits mobilised and greater responsible.

3. Review of literature

Tirupathi Kanchy et al. (2013) in their effort to identify in risks faced by the banking industry and due risk of risk management revealed that existence of an organisation depends mainly on its capabilities to anticipate and prepare for the change.

Khalil Elian Abdetrahim (2013) analysed the features of credit risk management, determinants of credit risk management and the most serious challenges facing the effectiveness of credit risk management of Saudi banks. Camel model was used for analysing effectiveness of credit risk management. The researcher found out that major challenges of effectiveness of credit risk management are low quality assets, inadequate training, weak corporate governance, lack of credit diversification etc., The author suggested that Saudi banks should adopt sophisticated mitigating techniques of credit risk.

Brown etc (2014) define credit risk as the risk related with the loans, banks lend to the borrower and normally charge a fee against it. The banks disburses the collected money / savings in the form of debt to the borrowers. However, there is no assurance of the fact that such disbursed amount in the form of debt would be paid back by the borrowers and the risk of default is always there for the lend loans.

Patil Jaykar Bhaskar (2014) dismissed regarding different tools and techniques to manage credit risk. He is of the opinion that various levels of authority for credit approval help to guarantee that decisions are prudent and are made within defined parameters. He has suggested that organisations should have procedures in place to govern the collection of principal, interest and other charges as per established terms of repayment. Further, he has recommended some kind of mechanism to address the issue of non performing loans should be present.

Mohammed Bayyond et al. (2015) here expressed in relation to profitability of commercial banks and investment banks of Palestine. They have confirmed that credit risk management policy define the profitability on the Palestine banks upto significant extent. At the end they have summarized that there is no difference in the involvement and commercial banks in relation to the association between credit risk and profitability.

The study by Ebrahim Al-Camel et al. (2020) aims at highlighting on credit risk management review, to find out the importance of credit risk management, and to examine credit risk management techniques. The study suggested that banks have to focus on credit risk management and improve the techniques of mitigating the risk.

4. Types of risk :

The important types of risk applicable to Indian banking sector includes the following.

4.1 Credit risk - Credit risk arises when a borrower or counterpart will fail to meet their obligations as per agreed terms and conditions.

4.2 Market risk - Market risk emerges on account of movement in market price. This risk encompasses interest rate loss due to fluctuations or stock price or due to international currency exchange rate. This risk also arises on account of fluctuations in agricultural, industrial and energy commodities.

4.3 Operational risk - This risk arises mainly on account of unsuccessful internal processes, people and system or from external events.

4.4 Liquidity risk - It arises mainly due to inability to meet its day to day cash transactions. It occurs when long term assets are funded by short term liabilities.

4.5 Reputation risk - It is a probable loss of the banks reputation capital on account of conducting activities by the bank, rumours about the bank, noncompliance with regulation, data manipulation, bad customer service etc.

4.6 Systematic risk - It is a risk that affects the entire banking industry.

4.7 Business risk - Basically this risk emerges on account of not performing well according to predicted expectation.

5 Process of risk management

5.1 Risk Identification

In the process of risk management risk identification assumes importance. It is the first step in the risk management process. It is an informal one and performed in multiple ways. Risk identification much depends upon past experience and study of similar projects. In order to identify the risk a combination of tools and techniques may be used. Risk and threats are difficult to diagnise but when once they are identified it becomes easy to find solutions. Further, it also becomes easy to control when once the source of risk is identified. The overall objective of risk identification is to stop further impact on the performance of banks.

5.2 Risk assessment

It is the second step in the risk management process. During this stage the collected and compiled data is analysed to understand the potential risk. In this stage risks are listed from lowest to the highest. Risk assessment involves qualitative and quantitative risk assessment.

5.3 Qualitative risk assessment

Qualitative risk assessment contains the following.

(i) Clear classification and reference to data.
(ii) Describe the risk
(iii) Establishment of relationship of risk to other risks
(iv) Understand the potential risk
(v) Define the mitigating factors
(vi) Allocate risk to the different stakeholders.

5.4 Quantitative risk assessment

This type of risk arises in case of high, critical and unmanageable risk as per qualitative assessment. This type of risk needs elaborate analysis of data. The intention under this risk type is to insert the amount of contingency to be inserted. There should be no mismatch between effort and outcome and always it should be benefited. The methods used may be, scenario technique, Monte Carlo simulation, sensitivity analysis, decision free multiple estimation using rank analysis.

5.5 Risk response planning

Risk response planning will be in the form of mitigation by adopting required strategies in respect of positive and negative risks.

6. Mitigating and controlling risk

Tools and techniques adopted for monitoring and controlling risks are given below:

Risk avoidance : Change the project management plan to eliminate threat.

Risk Transfer : Shift the negative impact of threats. Take insurance.

Risk reduction : Prepare to take any natural disaster. Remove structural barriers, strengthen quality assurance procedure.

Risk acceptance : This is adopted when elimination of risk is not possible.

7. Research Methodology

7.1 Universe - The present study is confined to Bengaluru urban commercial banks. A sample of 200 covering different respondents considered for the study.

7.2 Source of data - The present study is based on both the primary and secondary data. Data on impact of Covid-19 on the performance of commercial banks, mitigation of risks of commercial banks, available instruments and tools for risk management collected through a well designed questionnaire. Secondary data compiled from e-journals, books etc.,

7.3 Tools used - The bipolar opinions expressed by respondents are presented by means of 3 point scale of Likert and then data is tabulated. ANOVA quantitative metric was performed to measure the good fit of data and variation.

7.4 Sample and sampling technique - Convenient sampling technique was adopted to meet the respondents. In a natural setting while the respondents were present in the bank data was collected and also through e-mails the necessary data and collected. The sample structure is presented below.

Respondents	Number	%
Government employees	25	12.5
Private employees	40	20.0
Business persons and entrepreneurs	40	20.0
Self employed	25	12.5
College teachers and professors	70	35.0
Total	200	100

8. Objectives

1. To analyse the impact of Covid-19 on the performance of commercial banks at Bengaluru.
2. To measure the awareness of mitigation of risk by banks.
3. To analyse the respondents awareness about instruments and tools for risk management.

9. Hypotheses

1. Covid-19 is not impacting on the performance of commercial banks at Bengaluru.
2. Respondents are not aware of mitigation of risks by the banks.
3. Respondents are not aware of instruments and tools for risk management.

10. Limitations

1. The study is confined to Bengaluru.
2. Any generalizations requires in-depth study.
3. In the altered conditions impacted by Covid-19 the problem of management was faced and during the free hours the respondents were met and appealed to give information.

11. Survey Findings

Table - 1 highlights data about impact of Covid-19 on the performance of commercial banks. 105 respondents out of 200 stated strongly agree followed by 65 agree and 30 some what agree. Variation analysis of 105 respondents reveals that 25 respondents expressed about hospitalization of borrowers, 23 felt about minimum or no cash to run business, 21 voiced about labour left Bengaluru, 20 pointed about repeated lock-down disturbs the borrowers leading to low loans recovery and 16 expressed about debt recovery is a problem.

Variation analysis of 65 who said agree reveals that 15 each spoke about hospitalisation of different borrowers and debt recovery is a problem, 13 felt about repeated lock-down are disturbing borrowers, 12 spoke about labourers both skilled and unskilled leaving Bengaluru and 10 pointed about minimum or no cash reserve to run business. Further, the table also reveals that out of 30 respondents, 8 respondents stated about debt recovery is a problem, 7 expressed that repeated lock-down disturbs the borrower resulting in low recovery, 6 said about minimum or no cash reserve to run the business and 4 pointed about labourers are leaving Bengaluru on account of Covid-19. ANOVA fails to accept H0 and accepts H1 and hence it is concluded here that there exist significant variation in the data.

Table - 2 highlights data about respondents awareness of mitigation of risk by banks. 120 respondents out of 200 said strongly agree over the different mitigation factors followed by 60 agree and 20 some what agree. Variation analysis of 120 respondents who said strongly agree reveals that 27 spoke about deposit insurance, 26 expressed about reduce credit risk, 25 respondents transfer of risk, 22 reported about reduce concentration risk, and 20 spoke about risk based pricing.

Variation analysis of 60 respondents who expressed agree reveals that 16 stated about transfer of risk, 15 spoke about risk based pricing, 12 pointed about deposit insurance , 9 felt about reduce concentration risk and 8 insisted about reduce credit risk. Further, the table also reveals data about 20 respondents who said some what agree, 7 spoke about deposit insurance, 5 reported about risk based pricing, 3 each revealed about transfer of risk and reduce concentration risk and finally 2 pointed about reduce credit risk. ANOVA test fails to accept H0 and accept H1 and hence it concluded about existence of significant variation in the data.

Table - 3 highlights data about awareness of instruments and tools for risk management. 122 respondents expressed strongly agree followed by 48 stated agree and 30 pointed about some what agree variation analysis of 122 respondents who felt strongly agree reveals that 25 expressed about loan review mechanism, 24 stated about pricing, 18 voiced about exposure ceilings, 17 indicated about review by multi tier credit approving agency and 15 pointed about setup risk scoring system.

Variation analysis of 48 respondents who said agree 10 each expressed about classification of business and review by multi-tier credit approving agency, 8 spoke about exposure ceilings, 7 each felt about loan review mechanism and risk based scientific pricing and 6 voiced about set up risk scoring system.

Variation analysis of 30 respondents who said some what agree reveals that 7 expressed about loan review mechanism, 6 felt about diversification of business, 5 each voiced about exposure ceilings and risk based scientific pricing, 4 pointed about review by multi-tier credit rating agency and finally 3 said about set up risk scoring system. ANOVA test fails to accept H0 and accepts H1 and hence it is concluded that there exist significant variation in the data.

12. Conclusion

Covid-19 severely damaged the progress and performance of commercial banks in India. This paper examined the impact of Covid-19 on the performance of commercial banks in Bengaluru, analysed the mitigation factors and studied about instruments and tools of risk management. Risk identification in the process of risk management assures permanent significance. Unless and until the present pandemic problem is solved the fear in the mind of people may further delay the progress of commercial banks.

Although the banks learned lesser from financial crisis of 2008 but still there is a requirement to improve the credit risk management system avoid credit risks. The loan review committee should strongly monitor the loan utilisation. The empirical evidence in the Indian banking system suggests that banks primarily focus on credit risk management system.

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Table - 1 : Impact of Covid-19 on the performance of commercial banks

Impact of Covid-19	SA	A	SWA	T
Innumerable entrepreneur, borrowers and other who availed loan are in the hospitals, unable to pay EMI	25	15	5	45
Repeated lockdowns are disturbing the borrowers leading to low recovery.	20	13	7	40
Skilled and unskilled labours flee Bengaluru on account of Covid-19	21	12	4	37
Debt recovery is a problem and hence delayed or no EMI payments	16	15	8	39
Minimum or no cash reserve to run business by the borrwers	23	10	6	39
Total	105	65	30	200

Source: Field Survey

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

Hypotheses

H0	There exist no significant variation in the data	Reject
H1	There exist significant variation in the data	Accept

ANOVA Table

Source of Variation	SS	d.f.	MS	F-ratio	5% F-limit (from the F-table)
Between sample	563.3335	(3-1)=2	563.3335/2 = 281.6668	281.6668/6.0833 = 46.3016	
Within sample	73.0000	(15-3)=12	78/12 =6.0833		(2,12) =3.88
Total	636.3335	(15-1)=14			

Source : Field Survey

ANOVA Analysis

The calculated value being 46.3016 higher than the TV = 3.88@5% level of significance with df = v1 = 2, v2 = 12 fails to accept H0 and accepts H1. Therefore it is concluded here that there exist significant variation in the data.

Table - 2 : Awareness of mitigation of risk by banks

Different mitigation factors	SA	A	SWA	T
Risk based pricing - charging high rate of interest to borrowers who are most likely defaulters	20	15	5	40
Transfer of risk - Insurance or credit derivatives	25	16	3	44
Reduce credit risk by reducing the amount of credit extended - Tightening	26	8	2	36
Reduce concentration risk i.e., lending to a small number of borrowers and opt diversification of the borrower pool	22	9	3	34
Deposit Insurance encourages the customers to hold their savings in the banking system	27	12	7	46
Total	120	60	20	200

Source: Field Survey

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

Hypotheses

H0	There exist no significant variation in the data	Reject
H1	There exist significant variation in the data	Accept

ANOVA Table

Source of Variation	SS	d.f.	MS	F-ratio	5% F-limit (from the F-table)
Between sample	1013.3335	(3-1)=2	1013.3335/2 = 506.6667	506.6667/8.3333 = 60.8	
Within sample	100.0000	(15-3)=12	100/12 =8.3333		(2,12) =3.88
Total	1113.3335	(15-1)=14			

Source : Field Survey

ANOVA Analysis

The calculated value being 60.8 higher than the TV = 3.88@5% level of significance with df = v1 = 2, v2 = 12 fails to accept H0 and accepts H1. Therefore it is concluded here that there exist significant variation in the data.

Table - 3 : Awareness of instruments and tools for risk management

Different instruments and tools	SA	A	SWA	T
Diversification of business portfolio management	24	10	6	40
Exposure ceilings	18	8	5	31
Review by multi-tier credit approving agency	17	10	4	31
Loan review mechanism	25	7	7	39
Setup risk scoring system	15	6	3	24
Risk based scientific pricing	23	7	5	35
Total	122	48	30	200

Source: Field Survey

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

Hypotheses

H0	There exist no significant variation in the data	Reject
H1	There exist significant variation in the data	Accept

ANOVA Table

Source of Variation	SS	d.f.	MS	F-ratio	5% F-limit (from the F-table)
Between sample	792.0756	(3-1)=2	7920.0756/2 = 396.0378	396.0378/7.4222 = 53.3585	
Within sample	111.3334	(18-3)=15	111.3334/15 =7.4222		(2,15) =3.68
Total	903.4090	(18-1)=17			

Source : Field Survey

ANOVA Analysis

The calculated value being 53.3585 higher than the TV = 3.68@5% level of significance with df = v1 = 2, v2 = 15 fails to accept H0 and accepts H1. Therefore it is concluded here that there exist significant variation in the data.