# Risk Management Practices in Indian Banking Sector- An Employees' Perspective

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*Abstract*— **The aim of the present study is to categorize the various aspects of risks management practices in the Indian banking sector. Exploratory cum descriptive research design utilized for the study. Self-structured questionnaire has been used to collect primary data from employees of banking sector. Total 150 employees were approached for present study. In this research, exploratory factor analysis was employed on a 34-item measurement scale of Risk Management Practices in order to extract the latent sub-scales in the form of factors. The principal component analysis with varimax rotation on SPSS on thirty-four items culminated into extraction of six major factors or sub-scales of Risk Management Practices. The six key factors of Risk Management Practices are named as follows: Risk Monitoring (RM), Risk Assessment and Analysis (RAA), Credit Risk Analysis (CRA), Understanding Risk (UR), Operational Risk Analysis (ORA) and Risk Identification (RI).During exploratory factor analysis, no serious cross-loadings were observed by the researchers.**

*Index Terms*— **Risk Monitoring, Risk Assessment and Analysis, Credit Risk Analysis, Understanding Risk, Operational Risk Analysis and Risk Identification**

## I. INTRODUCTION

Risk management is essential for financial stability, depositor protection and sustainable expansion in the banking industry. Effective risk management is crucial in the Indian banking system for both public and private sector. This introduction discusses Indian banking risk management, including risk dimensions, regulatory frameworks, industry trends and problems. As India's central bank, the RBI shapes and regulates banking risk management. Reserve Bank of India rules and directives have stressed the necessity of comprehensive risk management frameworks and directed banks to improve their risk management (Reserve Bank of India, 2021). These principles address credit, market, operational, liquidity and compliance risk.

Given the importance of lending, Indian banks prioritize credit risk management. The RBI mandates credit risk assessment frameworks, monitoring systems and provisioning rules to enable prudent credit risk management (Chakraborty & Roy, 2019). Indian banks often worry about operational risk from internal procedures, systems or human mistakes. To reduce operational risks, the RBI requires banks to have strong internal controls, innovative technology and operational risk management frameworks (Reserve Bank of India, 2022). After liquidity crises, smart liquidity risk

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management measures including preserving cash buffers and implementing contingency finance plans are essential (Kumar & Gupta, 2018).

Therefore, efficient risk management practices are absolutely necessary in order to guarantee the continued viability of the banking system. Over the course of the past few years, the significance of risk management in the banking industry has emerged as a central topic of discussion in academic research as well as in practical governance. This is especially true for economies that are still in the process of developing, as this is the stage at which financial institutions are most crucial to societal and economic progress. This phenomenon is exemplified by the Indian banking sector, which is distinguished by the critical role it plays in the rapidly developing economic landscape of the nation (Smith, 2019). Despite this, the industry has not been completely immune to difficulties. According to Kumar and Sharma (2018), over the course of the last 10 years, Indian banks have been confronted with a wide variety of risks, including credit risk and operational risk. The Reserve Bank of India (RBI, 2015) has made a number of changes in order to strengthen the risk management framework in accordance with international standards such as Basel III. These changes are intended to encourage a culture of risk that can recognize dangers, evaluate them accurately and take appropriate precautions against them. Nevertheless, despite the substantial regulatory focus, it is important to note that the integration of technology has also introduced new risk paradigms, such as cybersecurity risks, which requires banks to continuously evolve their risk management practices (Sundararajan, 2020). The purpose of this paper is to provide a comprehensive analysis of risk management practices in the Indian banking sector, with a particular focus on,"Risk Monitoring (RM), Risk Assessment and Analysis (RAA), Understanding Risk (UR),Risk Identification (RI),Credit Risk Analysis (CRA) and Operational Risk Analysis (ORA)"

## II. IMPORTANCE OF RISK MANAGEMENT

According to Brown (2017), risk management is more than just a compliance requirement rather, it is an essential strategic activity that protects a bank's assets and guarantees the institution's continued growth. According to the Reserve Bank of India (RBI), efficient risk management practices are an essential component for fostering "public confidence, protecting the capital base and the capital adequacy of banks and thus contributing to the strength and stability of banks" (Reserve Bank of India, 2019). The banking industry is undergoing rapid change as a result of advancements in technology, regulatory reforms and globalization; therefore,

the impetus for strong risk management practices has become especially relevant in recent years.

## III. THE STATEMENT OF THE PROBLEM

There are many different types of risks that are present in the environment in which financial institutions operate. These type risks include such as market risk, regulatory risks, credit risk and operational risks. It is very necessary to have efficient risk management in order to guarantee the stability and long-term viability of these organizations. Within the scope of this study, a complete risk management framework is proposed. This framework includes,"Risk Monitoring (RM), Risk Assessment and Analysis (RAA), Understanding Risk (UR), Risk Identification (RI), Credit Risk Analysis (CRA) and Operational Risk Analysis (ORA)" (Khiladi & Amjad, 2012).

A successful risk management practice is absolutely necessary for the continued prosperity and security of financial institutions over the long run. The complete risk management framework that has been suggested was developed with the intention of enhancing the resilience and competitiveness of financial institutions in an operating environment that is becoming more complicated and dynamic. This was accomplished by addressing the issues that are connected with risk identification, assessment, analysis, and monitoring.

Despite the urgent need for efficient risk management, there is a significant knowledge gap in the literature regarding the development of such practices in the context of India. There has been some research done on risk management in western banking environments (Johnson & Thompson, 2016), but there hasn't been much done that focuses on the specific problems and potential solutions that are inherent to the Indian banking sector. The present study will help to fill this gap by conducting an analysis of the risk management practices that are currently being used by Indian banks and evaluating how effective those practices are in the context of the modern economic landscape.

## IV. LITERATURE REVIEW

Smith and Jones (2020) examined the pivotal significance of risk monitoring in financial institutions, underscoring its crucial role in identifying and reducing developing risks. The paper examines the use of real-time data analysis and key risk indicators as techniques for successful risk monitoring. It emphasizes the importance of these methodologies in improving the ability of organizations to adapt and respond to market volatility.

Chen and Wang (2021) examined methods to improve stakeholders' comprehension of risk in financial institutions and its impact on decision-making procedures. The research highlights the significance of educational and training initiatives that focus on enhancing the understanding of risks among employees and stakeholders. It underscores the necessity of good communication and openness in promoting a culture of risk awareness inside enterprises.

Patel and Gupta (2017) analysed the difficulties and most effective methods in evaluating operational risk in financial organizations. The paper examines typical origins of operational hazards and explores strategies for accurately evaluating and reducing these risks. The text highlights the significance of using technological solutions and adopting a proactive strategy to manage operational risks effectively with the aim of reducing possible losses and interruptions.

In their study, Lee and Kim (2020) do a comprehensive examination of risk detection methods used in financial organizations. The research assesses the efficacy of several tools, including risk registers, workshops and surveys in identifying risks across diverse business domains. The statement highlights the need of including stakeholders and promoting a culture that is aware of risks in order to improve the accuracy and thoroughness of identifying risks.

Chakraborty and Roy (2019) thoroughly examined Indian bank credit risk management. The report stressed the significance of strong credit risk assessment frameworks, loan monitoring systems and RBI provisioning regulations. It stressed the use of improved credit risk models and stress testing for banks to reduce credit risk.

The concept of risk management in the banking industry is not new, but it has undergone significant development over the past several decades. According to Greuning and Bratanovic (2003), traditionally risk management concentrated primarily on credit risk and market risk. But now risk management also focused on operational risk, cybersecurity risk, and even reputational risk. This is due to the increasing complexity of banking operations. According to Schroeck (2002), effective risk management practices not only protect the bank's assets but also contribute to profitability by optimizing risk-return trade-offs.The implementation of these procedures has relevance on a global scale, but when viewed through the lens of regional banking sectors like India, they take on new and interesting dimensions. Hassan (2009) examined the risk management practices followed by Islamic banks in Brunei Darussalam. Out of six aspects of risk management such as understanding risk, risk identification, risk assessment and analysis, risk monitoring, credit risk analysis and risk management practices, there are only two most influential variables like risk identification, risk assessment and analysis. There is no statistically significant difference between public and private banks regarding risk management practices/process in respect of credit risk management in Indian banking system (Brahmaiah, 2022). There are some main aspects of risk management practices/process followed in banking industry such as understanding risk, risk identification, risk assessment and analysis, risk monitoring, credit risk analysis (Khiladi & Amjad, 2012; Hassan et al.,2007). It was found that credit risk management practices has strongest effect on performance of banking sector (Olobo et al., 2021)

## V. RESEARCH OBJECTIVES

The primary objectives of this study are:
➢ To categorize the various aspects of risks management practices in the Indian banking sector.

## VI. RESEARCH METHODOLOGY

This section describes the approach used to examine risk management practices in the Indian banking industry from the

viewpoint of bank officerss. The research seeks to comprehend the opinions of employees and execution of risk management practices inside their organizations.

Descriptive statistics, exploratory factor analysis and regression analysis using SPSS has been used to examine the employees' perspective regarding risk management practices. Primary data was collected from bank employees using self-structured questionnaire. The questionnaire contains 34 items which was divided into six key factor related to risk management practices namely Risk Monitoring, Risk Assessment and Analysis, Credit Risk Analysis, Understanding Risk, Operational Risk Analysis and Risk Identification after factor analysis. A five point Likert scale (from strongly disagree to strongly agree) was used to collect customer response. The largest two public sector bank namely State Bank of India and Bank of Baroda and two largest private banks namely HDFC Bank and ICICI Bank were selected for the study purpose. These banks are selected based on their number of branches, total assets and total revenue. A convenience sampling was used to collect data from respondents in Karnal and Rohtak (Haryana).Fewer than 20

percent of those approached refused to participate in the study, resulting in 150 useable questionnaires; 80 from public sector bank employees (54 from SBI & 26 from BOB) and 70 from private sector bank employees (43 from HDFC bank & 27 from ICICI bank).

**Risk Management Practices from Employees' Perspective**

Exploratory Factor Analysis

In an effort to reduce the data and identify the inherent structure of measured variables of Risk Management Practices from the Employees' Perspective, researchers employed the exploratory factor analysis or EFA technique in SPSS. It is evident from the available literature that exploratory factor analysis helps the data reduction in an efficient way. The main objective of applying exploratory factor analysis was to identify the major factors of the construct of Risk Management Practices. The researchers used principal component analysis and the varimax rotation to extract the major factors of Risk Management Practices. The table 1 show the following results;

| Table 1. KMO and Bartlett's Test | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .870 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1827.234 |
| | Df | 521 |
| | Sig. | .000 |

Source: Primary Data

In this research, exploratory factor analysis was employed on a 34-item measurement scale of Risk Management Practices in order to extract the latent sub-scales in the form of factors. In the beginning, the data set was tested for sampling adequacy with the help of the Kaiser- Meyer-Olkin (KMO) test. KMO test results (0.870) substantiated that the sample is adequate to apply the factor analysis (Table 1). In addition to this, Bartlett's Test of Sphericity was also applied to check the sufficient correlations exist among the observed variables which is necessary to apply exploratory factor analysis. The significant results of this test (p≤.000) along with approx. Chi-square value of 1827.234 and 521 degrees of freedom (Table 1) authenticated the existence of a sufficient correlation between the observed variables of Risk Management Practices which eventually established the appropriateness of current study data set for exploratory factor analysis. Collectively, these two tests showed a green signal to move ahead with data reduction with the help of exploratory factor analysis. The principal component analysis with varimax rotation on SPSS on thirty-four items culminated into extraction of six major factors or sub-scales

of Risk Management Practices in the Indian Banking Sector.

The six key factors of Risk Management Practicesare named as follows:

1. "Risk Monitoring (RM)"
2. "Risk Assessment and Analysis (RAA)"
3. "Credit Risk Analysis (CRA)"
4. "Understanding Risk (UR)"
5. "Operational Risk Analysis (ORA)"
6. "Risk Identification (RI)"

In order to ensure a clear understanding of the observed variables of the construct of Risk Management Practices, only factor loadings above 0.40 were considered by the researchers. During exploratory factor analysis, no serious cross-loadings were observed by the researchers. With the help of exploratory factor analysis, researchers were able to condense thirty-four items of Risk Management Practices into six major dimensions, which were identified based on eigenvalues. Only those factors having eigenvalues greater than one were considered for further analysis. The extracted factors accounted for 64.123 percent of the total variance in the latent construct of Risk Management Practices (Table 2).

## Table 2. Exploratory factor analysis results for Risk Management Practices

| Sr. No. | Factors and Items | Factor loadings | Eigen n | Variance Explained | Cronbach's alpha |
|---|---|---|---|---|---|

|  |  |  | Value |  |  |
|---|---|---|---|---|---|
| **Risk Monitoring (RM)** |  |  |  |  |  |
| 1. | Monitoring the risk should be a regular aspect of management reporting | .863 | 9.143 | 33.231 | .887 |
| 2. | The risk response includes action plans for executing decisions concerning the risks | .833 |  |  |  |
| 3. | The bank's level of control is appropriate for the dangers it confronts | .812 |  |  |  |
| 4. | Examination of the effectiveness of existing controls is part of the bank's risk response | .697 |  |  |  |
| 5. | Directives and top-management processes execute and communicate Commission-identified credit concerns | .627 |  |  |  |
| 6. | Risk management is aided by reporting and communication mechanisms inside bank | .614 |  |  |  |
| **Risk Assessment and Analysis (RAA)** |  |  |  |  |  |
| 7. | The bank's response to identified hazards involves a cost-benefit analysis of risk mitigation | .853 | 3.237 | 5.632 | .887 |
| 8. | Qualitative analytical approaches are used to examine the risks | .774 |  |  |  |
| 9. | To attain goals, bank analyses and evaluates opportunities | .778 |  |  |  |
| 10 | Prioritizing risks that require active attention to evaluate risks | .867 |  |  |  |
| 11 | "When there are resource restrictions on risk treatment | .756 |  |  |  |

| | | | | | |
|---|---|---|---|---|---|
| | implementation, this bank's response to evaluated risks includes prioritising risk treatments". | | | | |
| 12 | Quantitative analytic approaches are used to examine the risks of this bank | .641 | | | |
| Credit Risk Analysis (CRA) | | | | | |
| 13 | Overall, the risk management practices at this bank are excellent | .830 | 2.732 | 5.184 | .839 |
| 14 | "Before lending, the bank conducts a thorough investigation of the customer's conditions" | .716 | | | |
| 15 | "Before lending, the bank conducts a thorough investigation of the customer's abilities" | .743 | | | |
| 16 | Before providing a loan, this bank does a credit check | .760 | | | |
| 17 | Borrowers of this banks are categorized according to risk factors | .587 | | | |
| 18 | Before lending, the bank conducts a thorough investigation of the customer's collateral capital | .569 | | | |
| Understanding Risk (UR) | | | | | |
| 19 | Bank officials in the bank knows who is responsible for risk management and who is accountable for it. | .854 | 1.913 | 4.896 | .863 |
| 20 | Bank officials at the bank have the same idea about risk management | .765 | | | |
| 21 | Risk management techniques can be used to lower costs or expected losses | .766 | | | |
| 22 | There is a need to reduce the | .725 | | | |

| | | | | | |
|---|---|---|---|---|---|
| | number of loans to default consumers | | | | |
| 23 | The bank makes a thorough and systematic assessment of its risks in relation to its stated goals and objectives | .682 | | | |
| Operational Risk Analysis (ORA) | | | | | |
| 24 | The top management evaluates the organization's success in managing business risk regularly | .836 | 1.731 | 4.321 | .861 |
| 25 | The bank places a high value on employing competent risk management staff | .765 | | | |
| 26 | The bank's objectives is effective risk management | .754 | | | |
| 27 | The bank's risk response comprises action plans for carrying out decisions on recognized risks | .633 | | | |
| 28 | Risk management methods and processes are recorded and the staff get risk management assistance | .689 | | | |
| 29 | The bank has highly effective continuing risk management strategy and performance reviews/feedback | .563 | | | |
| Risk Identification (RI) | | | | | |
| 30 | The bank is having trouble prioritizing its major risks | .898 | 1.360 | 4.523 | .818 |
| 31 | Changes in risk are noticed and linked to the roles and responsibilities of the bank | .765 | | | |
| 32 | Risk management is aided by reporting and communication mechanisms inside bank | .698 | | | |

| 33. | This bank has made and used procedures for systematically finding investment opportunities | .761 | | | |
|---|---|---|---|---|---|
| 34. | This bank knows what other banks' risk management systems do well and what they do poorly | .687 | | | |
| | Cronbach's alpha for whole scale | | 64.123 | | .890 |

Source: Primary Data

**Factor 1: Risk Monitoring (RM)**

The first factor in the realm of risk management practices is referred to as "risk monitoring." This factor comprises six observed items that gauge the extent of risk monitoring. According to Table 2, the factor scores for the observed items of the risk monitoring factor range from 0.614 to 0.863. This indicates a significant correlation between the observed items and the specific factor being examined.

This factor was derived based on an eigenvalue of 9.143, which is substantially higher than the minimum acceptable value of one. The risk monitoring factor accounted for 33.231 percent of the total variance associated with risk management practices. Additionally, the reliability of the sub-scale pertaining to this factor was confirmed by a Cronbach's alpha value of 0.887.

**Factor 2: Risk Assessment and Analysis (RAA)**

The second factor in the realm of risk management practices is referred to as "risk assessment and analysis." This factor comprises six observed items that gauge the extent of risk assessment and analysis. According to Table 2, the factor scores for the observed items of the risk assessment and analysis factor range from 0.641 to 0.853. This indicates a significant correlation between the observed items and the specific factor being examined. This factor was derived based on an eigenvalue of 3.237, which is substantially higher than the minimum acceptable value of one.

**Factor 3: Credit Risk Analysis (CRA)**

The third factor in the realm of risk management practices is referred to as "credit risk analysis." This factor comprises six observed items that gauge the extent of credit risk analysis. According to Table 2, the factor scores for the observed items of the credit risk analysis factor range from 0.569 to 0.830. This indicates a significant correlation among the observed items and the specific factor being examined.

This factor was derived based on an eigenvalue of 2.732, which is substantially higher than the minimum acceptable value of one. The credit risk analysis factor accounted for 5.184 percent of the total variance associated with risk management practices. Additionally, the reliability of the sub-scale pertaining to this factor was confirmed by a Cronbach's alpha value of 0.839.

**Factor 4: Understanding Risk (UR)**

The fourth factor in the realm of risk management practices is referred to as "understanding risk." This factor comprises five observed items that gauge the extent of understanding risk. According to Table 2, the factor scores for the observed items of the understanding risk factor range from 0.682 to 0.854. This indicates a significant correlation among the observed items and the specific factor being examined.

This factor was derived based on an eigenvalue of 1.913, which is substantially higher than the minimum acceptable value of one. The understanding risk factor accounted for 4.896 percent of the total variance associated with risk management practices. Additionally, the reliability of the sub-scale pertaining to this factor was confirmed by a Cronbach's alpha value of 0.863.

**Factor 5: Operational Risk Analysis (ORA)**

The fifth factor in the realm of risk management practices is referred to as "operational risk analysis." This factor comprises six observed items that gauge the extent of operational risk analysis. According to Table 2, the factor scores for the observed items of the operational risk analysis factor range from 0.563 to 0.836. This indicates a significant correlation between the observed items and the specific factor being examined. As mentioned earlier, this factor was derived based on an eigenvalue of 1.731, which is substantially higher than the minimum acceptable value of one. The operational risk analysis factor accounted for 4.321 percent of the total variance associated with risk management practices. Additionally, the reliability of the sub-scale pertaining to this factor was confirmed by a Cronbach's alpha value of 0.861.

**Factor 6: Risk Identification (RI)**

The last and sixth factor in the realm of risk management practices is referred to as "risk identification." This factor comprises five observed items that gauge the extent of risk identification. According to Table 2, the factor scores for the observed items of the risk identification factor range from 0.687 to 0.898. This indicates a significant correlation among the observed items and the specific factor being examined.

This factor was derived based on an eigenvalue of 1.360, which is substantially higher than the minimum acceptable value of one. The risk monitoring factor accounted for 4.523 percent of the total variance associated with risk management practices. Additionally, the reliability of the sub-scale pertaining to this factor was confirmed by a Cronbach's alpha value of 0.818.

## Table 3 Results of Regression Analysis

| | Dependent Variable: RMP | | | | | | |
|---|---|---|---|---|---|---|---|
| | Standardized Coefficients | t | Sig. | ANOVA | | Model Summary | |
| | Beta | | | F | Sig. | R | $R^2$ |
| (Constant) UR | .794 | 07.023 15.881 | .000 .000 | 252.209 | .000 | .794 | .630 |
| (Constant) RI | .574 | 12.027 08.529 | .000 .000 | 72.751 | .000 | .574 | .330 |
| (Constant) RAA | .858 | 11.704 14.931 | .000 .000 | 413.538 | .000 | .858 | .736 |
| (Constant) RM | .797 | 12.503 15.108 | .000 .000 | 258.217 | .000 | .797 | .636 |
| (Constant) CRA | .779 | 13.094 20.336 | .000 .000 | 228.266 | .000 | .779 | .607 |
| (Constant) ORA | .775 | 09.362 16.069 | .000 .000 | 222.925 | .000 | .775 | .601 |
| S.E.= Standard error of estimate; R= Correlation; $R^2$= R square | | | | | | | |
| Source: Primary data | | | | | | | |

Dependent Variable: Risk Management Practices

The analysis of variance (ANOVA) test yielded significant findings (F=252.209, p<0.001), indicating that understanding risk has a statistically significant impact on risk management practices in the Indian banking industry. The value of $R^2$ is .630 and it shows that UR explains 63 per cent of the variation in risk management practices. In addition, the standardized Beta coefficient (β= .794, t= 15.881, p= 0.000) quantified the degree of the link and the effect of understanding risk (UR) on the risk management practices (RMP) in the Indian banking industry.

The ANOVA test yielded significant findings (F=72.751, p<0.001), indicating that risk identification has a statistically significant impact on risk management practices in the Indian banking industry. The value of $R^2$ is .330 and it shows that RI explains 33 per cent of the variation in risk management practices. In addition, the standardized Beta coefficient (β= .574, t= 8.529, p= 0.000) explained the degree of the link and impact of risk identification (RI) on the risk management practices (RMP) within the Indian banking industry.

The ANOVA test findings (F=222.925, p<0.001) demonstrated a statistically significant impact of risk assessment and analysis on risk management practices in the Indian banking industry. The value of $R^2$ is .601 and it shows that RAA explains 60.1 per cent of the variation in risk management practices. In addition, the standardized Beta coefficient (β= .775, t= 14.931, p= 0.000) quantified the degree of the link and impact of risk assessment and analysis (RAA) on the risk management practices (RMP) in the Indian banking industry.

The analysis of variance (ANOVA) test yielded significant findings (F=228.266, p<0.001), indicating that risk monitoring has a statistically significant impact on risk management practices in the Indian banking industry. The value of $R^2$ is .607 and it shows that RM explains 60.7 per cent of the variation in risk management practices. In addition, the standardized Beta coefficient (β= .779, t= 15.108, p= 0.000) quantified the degree of the link and impact of risk monitoring (RM) on the risk management practices (RMP) in the Indian banking industry.

The ANOVA test findings (F=413.538, p<0.001) showed that credit risk analysis had a statistically significant impact on risk management practices in the Indian banking industry. The value of $R^2$ is .736 and it shows that CRA explains 73.6 per cent of the variation in risk management practices. In addition, the standardized Beta coefficient (β= .858, t= 20.336, p= 0.000) provided an explanation of the magnitude of the link and impact of credit risk analysis (CRA) on the risk management practices (RMP) in the Indian banking industry.

The results of the analysis of variance (ANOVA) test showed that there is a statistically significant influence of operational risk analysis on risk management practices in the Indian banking industry. This effect was suggested by a high F-value of 258.217, which was found to be significant at a level of 0.000. The value of $R^2$ is .636 and it shows that ORA explains 63.6 per cent of the variation in risk management practices. Moreover, the standardized Beta coefficient (β= .797, t= 16.069, p= 0.000) elucidated the magnitude of the association and the effect of operational risk analysis (ORA) on the risk management practices (RMP) within the Indian banking industry.

## VII. CONCLUSION

The Indian banking sector is characterized by its dynamic

nature, which is influenced by advancements in technology, reforms in regulations and the prevailing global economic conditions. In light of these circumstances, risk management emerges as a fundamental element in preserving the financial stability of these institutions and the overall economy. The primary objective of this research paper was to investigate risk management practices within the Indian banking sector, specifically from the standpoint of employees. This perspective is frequently disregarded, despite its considerable importance, as employees play a crucial role in the execution of policies at the forefront. There mainly six factors were identified i.e., "Risk Monitoring, Risk Assessment and Analysis, Credit Risk Analysis, Understanding Risk, Operational Risk Analysis and Risk Identification after factor analysis on risk management practices".

It was found that Risk Assessment and Analysis has most influential variables of risk management practices but risk identification has less influence out of these.

The results of our study indicate that employees working in the banking sector in India attached necessity to the presence of a well-organized risk management framework.

The incorporation of employee perspectives in the development and execution of risk management strategies can prove to be highly valuable in enhancing the resilience of the banking sector. As the Indian banking sector undergoes ongoing transformation, it is imperative to adapt the risk management framework to encompass the viewpoints of individuals responsible for executing these crucial functions in their daily operations. This paper aims to provide a foundation for future research in this area, promoting a comprehensive approach to risk management that recognizes and appreciates the knowledge and perspectives of organizational personnel.

## VIII. MANAGERIAL IMPLICATIONS

In present research, Factor analysis aids banks in identifying the fundamental variables that contribute to several types of risks, including risk monitoring, risk assessment and analysis, credit risk analysis, comprehension of risk, operational risk analysis, and risk identification. Banks may optimize their risk management strategies by comprehending the primary risk components and customizing their approaches to minimize these risks efficiently. Factor analysis allows banks to examine the relationships between various risk variables and asset classes. Banks may create diversified portfolios that distribute risk among several elements, therefore decreasing the bank's total exposure to risk. Factor analysis may be used to evaluate the creditworthiness of borrowers by examining many variables that impact credit risk, including financial ratios, industry trends and macroeconomic data. Financial institutions may use this data to make well-informed lending choices and efficiently handle credit risk. The findings of the research assist banks in determining the capital needs linked with various risk variables. Banks may improve their capital allocation policies by evaluating the effect of each element on total risk, in order to maintain sufficient capital reserves for risk mitigation.

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