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Deposit Insurance, Digital Transformation, and Trust in Banking: A Statistical Analysis

Dr Rachita Ota* Dr Sushree Sangita Ray* & Mr. Sudhanshu Kumar**

**Asst. Professor, Amity Global Business School, Bhubaneswar*
***Student, BBA, Amity Global Business School, Bhubaneswar*

ABSTRACT

This study explores how deposit insurance influences consumer trust in banking institutions, focusing on both public and private sector banks in today's rapidly evolving digital landscape. Despite the safety net provided by the Deposit Insurance and Credit Guarantee Corporation (DICGC), many consumers remain cautious, especially when it comes to small finance and cooperative banks. Through primary data collected from 111 respondents and supported by statistical analyses like Chi-Square, Correlation, and Regression, the research reveals a moderate connection between deposit insurance awareness and banking choices. However, significant trust gaps persist, particularly towards smaller banks, even when deposit insurance is in place. The study also highlights the critical role of effective communication from the Reserve Bank of India (RBI) in shaping public trust. Findings point to the need for stronger awareness efforts, improved financial education, policy enhancements, and more transparent digital communication to truly strengthen consumer confidence in the banking system. Ultimately, this research emphasizes the importance of bridging the gap between regulatory assurances and consumer perception to build a more stable and trusted banking environment.

Keywords: *Deposit Insurance, Banking Institutions, Financial Awareness, Regulatory Communication, Digital Banking Transparency*

Introduction

Deposit insurance plays a critical role in ensuring financial stability by protecting depositors against the risk of bank failures. It enhances public confidence in the banking sector and fosters economic growth by preventing bank runs and maintaining trust in financial institutions. The Deposit Insurance and Credit Guarantee Corporation (DICGC) in India, a subsidiary of the Reserve Bank of India (RBI), is responsible for insuring bank deposits up to a certain limit. With the rapid transformation in the banking landscape, influenced by digitalization and technological advancements, the effectiveness and awareness of deposit insurance mechanisms have become increasingly significant.

This study aims to evaluate the relationship between deposit insurance awareness, trust in banking institutions, and the impact of RBI's communication on depositors' perception of deposit safety. By employing statistical analyses such as Chi-Square tests, correlation analysis, and regression modeling, this research provides valuable insights into public perceptions of deposit safety, particularly in the context of digital transformation and evolving banking trends.

With an increasing reliance on digital banking and a growing number of financial institutions offering banking services, ensuring deposit safety has become a major concern for both policymakers and customers. A well-structured deposit insurance system plays an essential role in mitigating risks associated with banking failures. This study aims to bridge the gap between public perception and policy implementation by analyzing key factors that influence trust in banking institutions and awareness about deposit insurance.

Furthermore, the research is timely, given the RBI's recent efforts to enhance communication regarding deposit safety. Understanding the effectiveness of these initiatives will help improve strategies to increase awareness and trust among the public. The study also highlights the disparities in trust levels between public and private sector banks, which can aid policymakers in addressing concerns regarding deposit safety.

Challenges in Deposit Insurance and Banking Trust

Despite the existence of deposit insurance schemes like DICGC in India, awareness among the general public remains low, leading to misconceptions about the safety of their deposits. Additionally, the trust disparity between public and

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private sector banks poses a challenge, as customers often perceive public banks as safer despite regulatory safeguards. The effectiveness of RBI's communication on deposit safety is also a concern, as many depositors lack clarity about the extent and limitations of insurance coverage. Furthermore, small finance banks and cooperative banks struggle with trust issues, limiting their ability to attract deposits despite being covered under deposit insurance.

Literature Review

The past literature highlights several interconnected factors influencing banking stability and depositor trust. Deposit insurance emerges as a foundational element in maintaining financial stability, with Demirgüç-Kunt and Kane (2002) emphasizing that while it can prevent bank runs and boost depositor confidence, its effectiveness hinges on careful structuring, regulatory oversight, and public awareness to avoid moral hazard. Building on this, Guiso, Sapienza, and Zingales (2008) underscore the role of public trust in banking institutions, noting that trust significantly shapes depositor behavior, especially during crises, with public sector banks generally enjoying greater credibility due to perceived government backing. Complementing this perspective, Ioannidou and Penas (2010) find that limited depositor awareness about insurance schemes often leads to risk-averse and inefficient financial choices, such as favoring larger banks over smaller, insured institutions. Furthermore, the communication strategies of central banks play a crucial role in reinforcing deposit safety; Blinder et al. (2008) argue that clear and transparent messaging from authorities like the RBI can mitigate public anxiety and prevent panic withdrawals. In the digital age, as Marous (2020) points out, trust in banks is increasingly shaped by technology, with AI-driven platforms enhancing convenience but also raising concerns over cybersecurity and data privacy. His study suggests that banks must pair digital innovation with transparent practices and customer education to sustain trust and confidence in deposit safety. Together, these studies underscore that a blend of regulatory mechanisms, public communication, and technological integration is essential for fostering a stable and trustworthy banking environment.

Objectives of the study

The study seeks to contribute to the existing body of knowledge by providing empirical evidence on the relationship between deposit insurance awareness and trust in banking institutions. By analyzing the effectiveness of RBI's communication and its influence on depositors' perceptions, the research offers practical recommendations for policymakers, financial institutions, and regulators to enhance public confidence in the banking system. Ultimately, strengthening the deposit insurance framework and improving awareness initiatives will ensure a more resilient financial ecosystem in India.

1. To analyze the impact of deposit insurance on depositor confidence and banking stability.

2. To assess the role of trust in public and private sector banks in influencing depositor behavior.

3. To evaluate the effectiveness of RBI communication in shaping public perception of deposit safety.

4. To examine the correlation between digital transformation and trust in banking institutions.

5. To identify challenges associated with deposit insurance and suggest improvements for better financial security.

Research Methodology

This study adopts a quantitative research approach to explore awareness, trust levels, and perceptions regarding deposit insurance and its role in ensuring banking stability, aligning closely with the study's objectives and supporting literature. Primary data was collected from 111 respondents using a structured questionnaire designed with multiple-choice and Likert-scale questions to capture insights related to the respondents' awareness of deposit insurance schemes, their trust in banking institutions, and the impact of communication and digital transformation on their financial decisions. The target population included individuals engaged in marketing and human resources, interns, and students, representing diverse educational, professional, and demographic profiles. This diversity was essential to understanding public perception, as emphasized in the literature by Guiso et al. (2008) and Ioannidou and Penas (2010), who noted the influence of trust and awareness on banking behavior. The sampling strategy involved a combination of snowball sampling and network sampling, which effectively expanded the respondent base through social and professional referrals, enabling the inclusion of varied viewpoints from across geographies and professions. Data was collected digitally via email-distributed

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questionnaires, ensuring convenience, accessibility, and broad reach. The data analysis employed Chi-square tests to identify associations between demographic or professional variables and GHRM awareness; correlation analysis to measure the strength of relationships between awareness, trust, and decision-making; and regression analysis to evaluate the predictive impact of trust, communication, and digital engagement on the perception of deposit safety. These techniques were chosen in line with the literature, which highlights the importance of regulatory communication (Blinder et al., 2008) and digital transformation (Marous, 2020) in shaping depositor confidence. Thus, the methodology effectively supports the research objectives and integrates well with the theoretical foundations established in the literature review.

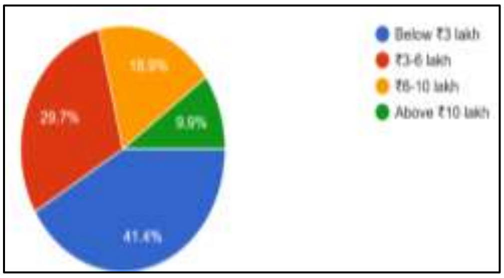
Analysis and Interpretation

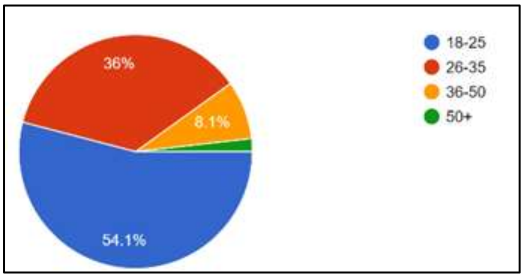
The analysis of survey data on deposit insurance and banking trust offers valuable insights into depositor confidence, awareness of insurance schemes, and the influence of digital transformation on public trust in banks. This study seeks to examine how deposit insurance contributes to banking stability, whether trust levels vary between public and private banks, and how effectively the Reserve Bank of India's (RBI) communication enhances perceptions of deposit safety.

Primary data was collected from 111 respondents across various income groups and banking experiences. The survey focused on key dimensions such as awareness of the Deposit Insurance and Credit Guarantee Corporation (DICGC), trust in different categories of banks, and the role of digital banking innovations in shaping depositor behavior. The questionnaire was designed to capture respondents' perceptions of financial security, institutional reliability, and their overall confidence in the banking system. To analyze the data, three statistical techniques were employed: Chi-square tests, correlation analysis, and regression analysis. The Chi-square test was used to determine whether trust levels significantly differ between public and private sector banks. Correlation analysis explored the relationship between awareness of deposit insurance and trust in small finance banks. Regression analysis assessed whether the RBI's communication efforts have a statistically significant influence on depositors' perceptions of banking security.

Demographic analysis

The demographic analysis of the respondents reveals that a majority (54.1%) are young adults aged 18–25, followed by 36% in the 26–35 age group, while only 8.1% fall within the 36–50 range, and a minimal 1.8% are aged above 50. In terms of income distribution, 41.4% of respondents earn less than ₹3 lakh annually, 29.7% fall within the ₹3–6 lakh bracket, 18.18% earn between ₹6–10 lakh, and 9.9% have an annual income exceeding ₹10 lakh. Regarding banking preferences, 46% primarily use Public Sector Banks, 38% use Private Sector Banks, 9% prefer Cooperative Banks, and only 7% bank with Small Finance Banks.





When respondents were asked whether they were aware that bank deposits up to ₹5 lakh are insured by the DICGC in the event of a bank failure, 72.7% answered yes, while 27.3% indicated they were not aware of this scheme. This suggests that a significant majority of individuals have a basic understanding of the deposit insurance coverage provided under RBI regulations. The findings indicate a relatively high level of financial literacy among the respondents, particularly regarding fundamental banking services and protections.

In our study we got to know that the bank officials and news & articles were the main source of information to the majority of the respondents. Getting information from friends and family was also a significant source which spreads easily between an ordinary individual. In the percentage when we talk about it comes like this

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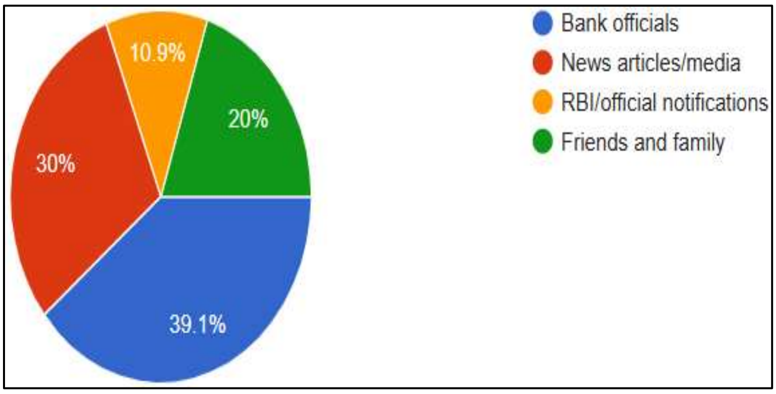

The survey further revealed that 49.5% of respondents have savings account deposits, 30.3% hold fixed deposits, 10.1% have recurring deposits, and another 10.1% maintain current account balances. These responses highlight the common types of deposits held by individuals in the banking sector.

Under the DICGC (Deposit Insurance and Credit Guarantee Corporation) scheme, deposits in savings accounts, fixed deposits, and recurring deposits are all covered up to ₹5 lakh per depositor per bank. Current accounts, while typically associated with business transactions, are also covered under the DICGC scheme for individual account holders, up to the same ₹5 lakh limit. The survey results indicate that most respondents are holding deposits that are indeed covered by the DICGC scheme, particularly in savings and fixed deposits. However, there seems to be some potential misunderstanding regarding current account balances, where some individuals may not be aware that these accounts are also insured under DICGC, as long as they are held by individuals and not businesses. In conclusion, while respondents are largely holding insured deposits, there is a need for better awareness, especially regarding the coverage of current accounts.

Statistical Analysis

In this report, various statistical techniques have been applied to analyze the survey data, providing deeper insights into the relationships between different variables. To evaluate the significance and dependencies between categorical variables, Chi-Square Analysis was used. This test helps determine if there is a significant association between the variables in the dataset.

Additionally, Correlation Analysis was performed to explore the strength and direction of the linear relationship between continuous variables, identifying whether any variables move together in a consistent pattern. Finally, Regression Analysis was conducted to model the relationship between independent variables and predict the dependent variable, allowing for a clearer understanding of the factors influencing the outcomes.

Together, these statistical methods provide a comprehensive analysis, enabling data-driven conclusions and actionable insights from the survey responses.

1. Chi Square Test:

In this study, the Chi-Square test is applied to analyze the relationship between deposit insurance awareness and trust in different banking institutions. The objective is to evaluate whether trust levels significantly vary among public sector banks, private banks, and small finance banks, and to assess how deposit insurance influences depositor confidence.

By applying this test, we aim to determine whether customers' trust in banks is independent of their awareness of deposit insurance or if there is a meaningful relationship between these factors. A significant Chi-Square value would indicate that trust in banking institutions is closely linked to awareness and perception of deposit security, while a non-significant result would suggest no strong association.

Hypothesis:

- Null Hypothesis (H_0): There is no significant difference in trust levels between public and private banks.
- Alternative Hypothesis (H_1): There is a significant difference in trust levels between public and private banks.

Since the p-value (0.013) is less than 0.05, we reject the null hypothesis (H_0), which assumed that there is no relationship between trust level and bank type. This means that there is a statistically significant relationship between customers' trust levels and whether they bank with a public or private institution.

Public banks have a significantly higher proportion of customers who trust them at a "Very High" level compared to private banks. Private banks have a greater proportion of customers at the "Moderate" trust level, indicating that while they are trusted, fewer customers exhibit very high confidence.

Low or No Trust levels are present in both bank types, but private banks have slightly higher distrust levels overall. This suggests that deposit insurance policies, service transparency, and banking history may influence customers' trust in public banks more than in private banks.

Correlation Analysis

Correlation analysis helps determine the relationship between awareness of DICGC and trust in small finance and cooperative banks. This study examines whether individuals who know about deposit insurance feel safer keeping money in small banks.

By assigning numerical values to responses and calculating the Pearson correlation coefficient, we measure the strength of this association. The findings will highlight whether financial awareness influences trust in banking institutions, aiding in better policy decisions and financial literacy efforts.

The correlation coefficient of 0.376 indicates a positive but moderate relationship between awareness of DICGC (Deposit Insurance and Credit Guarantee Corporation) and the impact of deposit insurance on trust in small finance and cooperative banks. This suggests that individuals who are aware of deposit insurance are somewhat more likely to feel safer keeping their money in smaller banks.

- Moderate Positive Association – Awareness of deposit insurance influences trust in small banks, but the effect is not very strong.
- Mixed Perceptions – While many respondents feel safer due to insurance, a significant portion still distrusts small banks despite the guarantee.
- Financial Awareness Matters – Educating people about deposit insurance could potentially improve confidence in smaller banking institutions.
- Need for Policy Improvements – More transparency and stronger consumer protection measures may enhance trust in deposit-insured banks.

Regression Analysis

In the financial sector, trust plays a crucial role in shaping public perception and confidence in banking institutions and regulatory bodies. One of the key aspects of financial stability is the effectiveness of communication from regulatory authorities, such as the Reserve Bank of India (RBI), regarding deposit safety. This study aims to analyze the relationship between public trust in banks (both public and private sector) and their perception of RBI’s communication about deposit safety. This aligns with the objective of evaluating RBI’s role in deposit safety. It helps predict whether better RBI communication can improve customer confidence in banking security.

To achieve this, we conducted a multiple regression analysis using survey data from 110 respondents, examining the impact of:

- Trust in Public Sector Banks for Deposit Safety
- Trust in Private Sector Banks for Deposit Safety

on how effectively people perceive RBI’s communication about deposit safety.

Dependent variable: Effectiveness of RBI’s communication about

Independent variable X: Trust public sector banks for deposit safety Independent variable Y: Trust private sector banks for deposit safety

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Regression Statistics	
Multiple R	0.376909741
R Square	0.142060953
Adjusted R Square	0.126024709
Standard Error	0.667032889
Observations	110

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	7.883091417	3.941546	8.858742	0.000275
Residual	107	47.60781767	0.444933		
Total	109	55.49090909			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	1.300997771	0.250211813	5.199586	9.66E-07	0.804982	1.797014
X Variable 1	0.275653096	0.097278143	2.833659	0.005502	0.082811	0.468496
X Variable 2	0.152955436	0.102107947	1.497978	0.137083	-0.04946	0.355373

The regression analysis reveals that the R-Square value is 0.142, indicating that 14.2% of the variance in the dependent variable is explained by the independent variables included in the model. The Adjusted R-Square, which accounts for the number of predictors, stands at 0.126, reflecting modest explanatory power. The F-statistic value of 8.86 demonstrates the overall significance of the regression model, and the Significance F (p-value) of 0.00027 confirms that the model is statistically significant at the 1% level, validating the relevance of the predictors in explaining the dependent variable.

Variable	**Coefficient**	**t-Statistic**	**P-Value**	**Significance**
Intercept	1.301	5.20	0.00000097	Significant
X Variable 1 (Trust in Public Sector Banks)	0.276	2.83	0.0055	Significant
X Variable 2 (Trust in Private Sector Banks)	0.153	1.50	0.1370	Not Significant

• Trust in Public Sector Banks (X Variable 1) has a positive and significant relationship with the perceived effectiveness of RBI's communication ($p = 0.0055$, which is < 0.05). This means that people who have higher trust in public banks are more likely to perceive RBI's communication as effective.

• Trust in Private Sector Banks (X Variable 2) has a positive but statistically insignificant relationship ($p = 0.137$), meaning that trust in private banks does not significantly impact people's perception of RBI's communication.

The regression model is statistically significant ($p < 0.01$), and at least one independent variable—trust in public sector banks—has a meaningful impact on deposit safety perception, leading to a partial acceptance of the hypothesis that the effectiveness of RBI's communication influences how depositors perceive safety. The analysis indicates that trust in public sector banks plays a stronger role in shaping this perception compared to private sector banks. However, the relatively low R-Square value (14.2%) suggests that additional factors—such as media influence, financial literacy, and past banking experiences—also contribute to how the public interprets RBI's communication regarding deposit insurance.

Recommendation

Enhance RBI's Communication on Deposit Safety: The study indicates that the effectiveness of RBI's communication plays a crucial role in shaping public perception of deposit safety. To improve trust, the RBI should strengthen its awareness campaigns through digital platforms, mass media, and financial literacy programs. Special attention should be given to small finance and private sector banks, where depositor confidence is relatively lower.

Improve Transparency and Accountability: Transparency in banking operations is essential to build and maintain depositor confidence. Banks should implement clear and accessible policies on deposit safety, ensure regular disclosure of financial stability reports, and strengthen risk mitigation strategies. Providing customers with periodic updates on financial health and safety measures can improve trust, especially in private and small finance banks.

Strengthen Regulatory Oversight: The findings suggest that depositors have higher trust in public sector banks compared to private ones. To bridge this trust gap, the RBI should enforce stricter monitoring and compliance requirements, conduct periodic stress tests, and enhance regulatory interventions to ensure financial stability. A well-defined grievance redressal mechanism should be in place to resolve customer concerns effectively.

Expand Financial Literacy Programs: A significant portion of the population lacks awareness regarding deposit insurance and bank safety measures. Government and banking institutions should actively promote financial literacy by conducting educational workshops, social media campaigns, and collaborations with fintech platforms. Targeted programs should be designed to address customer concerns about small finance and cooperative banks, ensuring informed decision-making.

Encourage Customer- Centric Initiatives: Banks should focus on customer engagement strategies to enhance trust and confidence. Personalized advisory services, assurance programs, and frequent financial stability updates can provide customers with the necessary reassurance. Private banks, in particular, should implement initiatives to directly address customer concerns regarding deposit safety, thereby improving overall perception.

Increase Awareness of Deposit Insurance: The study highlights a correlation between awareness of DICGC deposit insurance and trust in small finance banks. To enhance this awareness, the DICGC should launch targeted outreach programs using advertisements, regional banking workshops, and simplified banking literature. Banks should proactively educate customers on deposit insurance benefits and security measures.

Enhance Risk Management in Private Banks: The lower trust in private sector and small finance banks suggests a need for stronger risk management frameworks. These banks must conduct regular audits, ensure compliance with regulatory guidelines, and adopt proactive risk assessment models to mitigate financial instability. Strengthening corporate governance and ensuring robust financial practices will help in improving depositor confidence over time.

Conclusion

This study comprehensively analyzed the impact of RBI's communication on deposit safety perception, examining key factors such as trust in public and private banks, awareness levels, financial literacy, and regulatory effectiveness. The findings indicate that while RBI plays a crucial role in ensuring financial stability, its communication regarding deposit protection is not entirely effective, as a significant portion of respondents remains unaware or uncertain about deposit insurance schemes. The correlation analysis revealed a strong relationship between trust in banks and the perception of deposit safety, with public sector banks enjoying a higher trust level than private banks. This highlights a trust deficit in private banking institutions, which can be attributed to past financial crises, fraud cases, and a general preference for government-backed institutions. The chi-square test further confirmed that depositor trust varies significantly across different banking sectors, emphasizing the need for targeted confidence-building measures. From the regression analysis, we found that trust in public sector banks significantly influences perceptions of RBI's communication effectiveness, while trust in private banks showed a weaker impact. This suggests that stronger governance, transparency, and regulatory enforcement in private banks are necessary to enhance depositor confidence. Moreover, financial literacy emerged as a critical factor, with many individuals lacking awareness of deposit insurance protections, leading to uninformed decision-making and financial insecurity. The study also highlights challenges such as ineffective communication strategies, limited financial education, and regulatory hurdles, which hinder a well-informed and secure banking environment. The findings suggest that RBI should strengthen its outreach efforts, banks must prioritize transparency, and financial

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education programs should be integrated into mainstream learning platforms. In conclusion, the study underscores the urgent need for improved regulatory communication, enhanced financial literacy, and greater transparency in the banking sector. By addressing these issues, the Indian banking system can build stronger public confidence, encourage financial inclusion, and ensure long-term deposit safety.

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