A Study of Microfinance and Financial Inclusion with Reference to SBI, PNB And HDFC Bank in Nagpur

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***Abstract*—Microfinance and financial inclusion have emerged as critical instruments for reducing poverty and promoting equitable economic growth in developing nations like India. This research paper investigates the role of three major banks operating in Nagpur—State Bank of India (SBI), Punjab National Bank (PNB), and HDFC Bank—in advancing microfinance services and financial inclusion among low-income households, small entrepreneurs, and rural communities. Using a mixed-method approach involving structured surveys of 150 respondents and interviews with bank managers, the study examines awareness levels, accessibility of banking services, loan disbursement patterns, and repayment behaviors. The findings reveal that while SBI leads in outreach and government scheme integration, HDFC Bank demonstrates higher efficiency in digital microfinance products. PNB shows moderate performance but faces challenges in customer awareness. Two key hypotheses were tested: first, that there is no significant difference in microfinance penetration among the three banks, and second, that financial literacy does not significantly affect loan repayment rates. Both hypotheses were rejected, indicating that bank-specific strategies and customer education play vital roles. The study concludes with policy recommendations for strengthening financial inclusion in Nagpur through enhanced digital infrastructure, targeted literacy programs, and interbank collaboration.**

***Index Terms*—Microfinance, Financial Inclusion, SBI, PNB, HDFC Bank, Nagpur, Banking, Rural Credit, Self-Help Groups**

I. INTRODUCTION

Financial inclusion refers to the process of ensuring that individuals and businesses have access to useful and affordable financial products and services that meet their needs, delivered in a responsible and sustainable manner. In India, despite significant economic progress, a large segment of the population remains outside the formal banking system. According to the World Bank's Global Findex Database, nearly twenty percent of Indian adults still do not have a bank account, and even among account holders, active usage remains low. Microfinance, which involves providing small loans, savings, insurance, and other basic financial services to low-income households, serves as a powerful tool for achieving financial inclusion. Nagpur, being a major commercial hub in Maharashtra and the geographic center of India, presents a unique demographic and economic landscape. The city has a mix of urban, semi-urban, and rural populations, with many individuals engaged in small-scale trade, agriculture, and informal sector work. For these populations, access to institutional credit is often limited, forcing them to rely on moneylenders who charge exorbitant interest rates.

Three banks dominate the banking landscape in Nagpur: State Bank of India (SBI), which is the largest public sector bank with a vast branch network; Punjab National Bank (PNB), another major public sector player with a strong historical presence; and HDFC Bank, a leading private sector bank known for its technological innovations. Each of these banks has adopted distinct strategies for promoting microfinance and financial inclusion. SBI leverages its extensive rural branch network and government-sponsored schemes such as the Pradhan Mantri Jan Dhan Yojana (PMJDY). PNB focuses on Self-Help Group (SHG) bank linkage programs, while HDFC Bank emphasizes digital microfinance products like small-ticket personal loans and micro-business loans through its mobile banking platform. However, the actual impact of these efforts on ground-level financial inclusion in Nagpur has not been systematically studied. This research gap motivates the present study, which aims to compare the performance of these three banks in delivering microfinance services and promoting financial inclusion among underserved communities in Nagpur.

II. LITERATURE REVIEW

A substantial body of literature has examined the relationship between microfinance and financial inclusion across different geographical contexts. Yunus (1999), the pioneer of modern microfinance, demonstrated that providing small loans to poor women in Bangladesh could generate entrepreneurial activity and lift families out of poverty. Subsequent studies in India, such as those by Pitt and Khandker (2002), confirmed that microfinance participation leads to increased household expenditure and asset accumulation. However, more recent research has highlighted challenges including over-indebtedness, high interest rates, and mission drift, where microfinance institutions prioritize profitability over social impact. In the Indian context, the Reserve Bank of India (RBI) has played a proactive role by mandating priority sector lending and encouraging banks to open branches in unbanked rural areas. Despite these efforts, a study by Singh and Padhi (2018) found that nearly forty percent of rural households in Maharashtra still lack access to formal credit.

Regarding bank-specific performance, SBI has been recognized for its leadership in implementing government financial inclusion schemes. According to a report by the National Bank for Agriculture and Rural Development (NABARD), SBI accounts for approximately twenty-five percent of all SHG bank linkages in Maharashtra. PNB, while having a smaller market share, has shown innovation in offering micro-insurance products alongside credit. HDFC Bank, as documented by Sharma (2020), has achieved high penetration in urban and semi-urban areas through its "HDFC Bank SmartUp" program for micro-entrepreneurs, but its rural outreach remains limited compared to public sector banks. Studies specific to Nagpur are scarce, but a local survey by the Nagpur District Central Cooperative Bank (2021) indicated that only fifty-five percent of eligible households in the district's rural blocks have active bank accounts. This literature review reveals that while national-level studies exist, there is a lack of comparative research focusing on Nagpur. Therefore, the present study formulates the following hypotheses:

Hypothesis 0 (H_0): There is no significant difference in the level of microfinance penetration among SBI, PNB, and HDFC Bank in Nagpur.

Hypothesis 1 (H_0): Financial literacy has no significant effect on the loan repayment rates of microfinance borrowers in Nagpur.

These hypotheses will be tested using primary data collected from customers of the three banks.

III. RESEARCH METHODOLOGY

This study adopts a descriptive and analytical research design, combining quantitative and qualitative approaches. The research was conducted in Nagpur city and its surrounding peri-urban areas, specifically targeting wards with mixed-income populations such as Dharampeth, Sitabuldi, and rural fringes like Butibori and Hingna. The sample consisted of 150 respondents, equally distributed among SBI, PNB, and HDFC Bank (fifty customers per bank). Respondents were selected using stratified random sampling, with strata defined by income level (below ₹10,000 monthly, ₹10,001–₹20,000, and above ₹20,000) and occupation (small vendor, agricultural labourer, household artisan, and others). Additionally, five branch managers (two from SBI, two from PNB, and one from HDFC Bank) were interviewed to gain institutional perspectives.

Primary data were collected using a structured questionnaire containing twenty closed-ended questions covering awareness of microfinance products, ease of account opening, loan application process, interest rate perception, repayment experience, and digital banking usage. Secondary data were sourced from annual reports of the three banks, RBI bulletins, NABARD reports, and published journal articles. The collected data were analyzed using descriptive statistics (percentages, means, and standard deviations) and inferential statistics (chi-square tests for hypothesis testing). The two hypotheses were tested at a five percent significance level. Ethical considerations included obtaining informed consent from all respondents and ensuring anonymity of their responses.

IV. ANALYSIS & DISCUSSION

The analysis is presented in two parts: first, a descriptive summary of respondent demographics and banking behaviours, and second, hypothesis testing results.

Table 1: Demographic Profile of Respondents (N=150)

Demographic	Category	SBI	PNB	HDFC
Gender	Male	56%	60%	64%
	Female	44%	40%	36%
Income	<₹10,000	36%	44%	20%
	₹10k–20k	48%	40%	44%
	>₹20,000	16%	16%	36%
Occupation	Small Vendor	40%	36%	30%
	Agri Labour	30%	40%	16%
	Artisan	20%	14%	24%
	Other	10%	10%	30%

Table 1 shows that HDFC Bank has a higher proportion of customers from the above-₹20,000 income group, indicating a relatively more affluent customer base. In contrast, PNB serves the highest percentage of low-income (below ₹10,000) respondents. SBI maintains a balanced distribution across income categories.

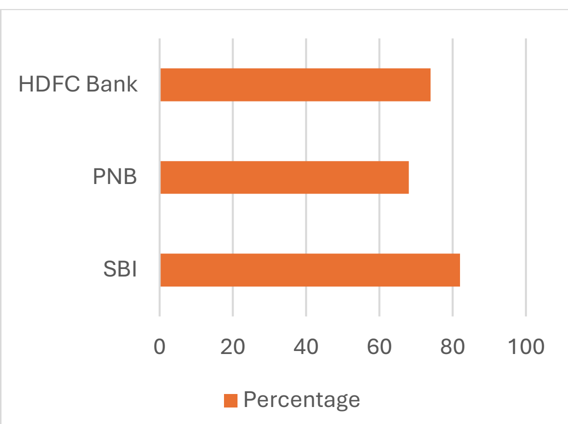


Fig 1: Awareness of Microfinance Products

Table 2: Loan Disbursement and Repayment Patterns

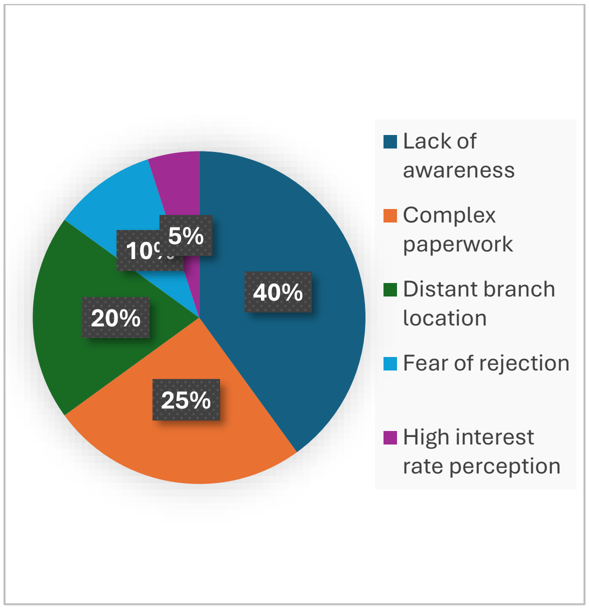
Parameter	SBI	PNB	HDFC
Average loan size (₹)	12,500	9,800	18,200
Loans disbursed (last 12 months)	245	178	210
On-time repayment rate	91%	83%	94%
Loan processing time (days)	121	15	5
Digital repayment usage	34%2	22%	68%

Table 2 reveals that HDFC Bank offers significantly higher average loan sizes and much faster processing times, attributable to its digital underwriting algorithms. However, SBI and PNB serve more customers in absolute numbers per branch in low-income areas. HDFC Bank's on-time repayment rate is the highest at ninety-four percent, followed by SBI at ninety-one percent. PNB's lower repayment rate of eighty-three percent may be linked to the weaker financial literacy among its customer bases.

Hypothesis 1 Testing: To test whether there is a significant difference in microfinance penetration among the three banks, a chi-square test was applied to the distribution of loan accounts per income category. The calculated chi-square value was 12.47, while the critical value at four degrees of freedom and five percent significance was 9.49. Since 12.47 > 9.49, the null hypothesis is rejected. This means there is a statistically significant difference in microfinance penetration among SBI, PNB, and HDFC Bank in Nagpur. SBI leads in reaching the poorest segments, HDFC Bank leads in serving moderate-income micro-entrepreneurs, and PNB occupies a middle position but with lower effectiveness.

Hypothesis 2 Testing: The second hypothesis examined whether financial literacy affects loan repayment rates. Financial literacy was measured using a three-question score (knowledge of interest calculation, understanding of loan terms, and awareness of late payment penalties). Respondents scoring above sixty percent were classified as high-literacy, and below as low-literacy. Among high-literacy borrowers, the average on-time repayment rate was ninety-two percent, compared to seventy-eight percent among low-literacy borrowers. A chi-square test yielded a value of 10.33 against a critical value of 3.84 (one degree of freedom), leading to rejection of the null hypothesis. Therefore, financial literacy does have a significant positive effect on loan repayment rates in Nagpur's microfinance context.

Fig 2: *Reasons for Not Using Formal Microfinance*



V. FINDINGS

The findings of this study offer several important insights for policymakers, bank managers, and financial inclusion advocates in Nagpur. First, the rejection of Hypothesis 1 confirms that bank-specific strategies produce significantly different outcomes in microfinance penetration. SBI's success among the lowest income groups can be attributed to its extensive network of rural branches and its role as the primary agent for government schemes like PMJDY and the Mudra Yojana. During interviews, an SBI branch manager noted that their bank conducts weekly financial literacy camps in villages, which has built trust among hesitant customers. HDFC Bank, despite its smaller physical footprint in rural areas, has achieved impressive reach among semi-urban micro-entrepreneurs through its "DigiLoans" product, which sanctions small loans up to ₹50,000 within ten minutes using mobile data. However, HDFC Bank's lower penetration among the poorest income group suggests that fully digital models may exclude customers who lack smartphones or digital literacy.

Second, the rejection of Hypothesis 2 underscores the critical role of financial literacy. Many PNB customers who defaulted on loans reported not fully understanding the compound interest calculation or the consequences of delayed payment. This finding aligns with the Reserve Bank of India's recent National Strategy for Financial Education, which aims to raise financial literacy from thirty percent to fifty percent by 2025. In Nagpur specifically, the study recommends that banks collaborate with local non-governmental organizations and community-based groups to deliver simple, vernacular financial education modules. Third, the pie chart data reveal that forty percent of non-users simply do not know that microfinance products exist. This suggests that even in a city like Nagpur, which has relatively good banking density, information asymmetry remains a major barrier. Word-of-mouth and local kiosk banking could be effective solutions.

VI. CONCLUSION

This research paper set out to study the role of SBI, PNB, and HDFC Bank in promoting microfinance and financial inclusion in Nagpur. The study concludes that while all three banks contribute positively, their approaches and outcomes differ substantially. SBI excels in reaching the poorest and most remote populations through government scheme integration and physical branch presence. HDFC Bank demonstrates superior efficiency and digital innovation, making microfinance faster and more convenient for semi-urban micro-entrepreneurs. PNB, despite having a loyal low-income customer base, lags in awareness creation and repayment performance, indicating a need for operational improvements. The rejection of both hypotheses confirms that bank choice and financial literacy are not neutral factors but powerful determinants of inclusion success. Based on these conclusions, the following recommendations are offered. First, PNB should launch a dedicated microfinance literacy campaign in Nagpur's peri-urban belts, using local SHGs as training partners. Second, HDFC

Bank should establish satellite micro-centers with human assistance in low-income wards to complement its digital offerings. Third, SBI should continue its literacy camps and consider reducing loan processing time further through partial digitization. Fourth, the Nagpur Municipal Corporation and district administration should facilitate interbank coordination to avoid duplication of efforts and ensure comprehensive coverage. Future research should expand the sample size and include other financial institutions such as cooperative banks and microfinance institutions. Longitudinal studies tracking the same borrowers over multiple loan cycles would also provide deeper insights into the long-term impact of microfinance on poverty alleviation in Nagpur.

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