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Does Promise of Niche for Differentiated Banking Matter? – A Study on Performance & Outreach of Small Finance Banks in India

[1]Mr. Debjyoti Dey & [2]CS Sapana Dey & [3]Ms. Saoni Pal

[1]Email: Debjyoti.dey1@gmail.com, Assistant Director (Academics)
Indian Institute of Banking & Finance, Mumbai
[2]Email: sapanamishra875@gmail.com, Assistant Professor, Department of Commerce with Accountancy & Finance, Smt. P. N. Doshi Women's College , SNDT University, Mumbai
[3]Email: palsaoni26@gmail.com, M.Com., Vidyasagar University, Midnapore

Abstract:

RBI issued differentiated banking licenses for Small Finance Banks (SFBs) in 2015. SFBs differ from commercial banks in terms of regulatory compliance although there are some similarities in their activities. In this paper, an attempt has been made to analyze factors affecting the profitability of SFBs, measured in terms of Return on Asset (ROA). The results of panel regression suggest that the size of the bank and non-interest income have a significant positive impact. In contrast, net non-performing assets and share of operating expenses in total expenses have a substantial adverse effect on profitability. It has been observed that the southern region of the country accounts for 30% of the total branches of SFBs present in the country whereas only 4% of the total branches are seen in the northeastern region of the country. The result of ANOVA shows a similarity in branch network distribution by the SFBs across six regions. The study also reveals that 39% of the total branches of the SFBs are located in semi-urban areas whereas rural region accounts for only 19% of the total branches of SFBs. ANOVA test revealed no similarity in branch network distribution by the SFBs across four different population groups namely rural, semi-urban, urban, and metropolitan.

Keywords: Differentiated Banking, Outreach, ROA, Small Finance Bank

JEL: E58, G21

1.1 BACKGROUND OF THE STUDY:

"*People ... were poor not because they were stupid or lazy. They worked all day long, doing complex physical tasks. They were poor because the financial institution in the country did not help them widen their economic base.*" – Muhammad Yunus.

In light of the above statement, it can be said that bringing the unbanked and underbanked section of society within the scope of the formal banking system should be one of the prime objectives of any welfare economy. The journey of financial inclusion, in India, can be traced back to 1969 with the nationalization of banks. Over the years Reserve Bank of India (RBI), the central bank of the country, has taken several initiatives to bring unbanked society within the scope of the formal banking system. To bring the underprivileged section of society within the periphery of the formal banking system, RBI, along with GoI, has laid stress upon financial inclusions by making an effort to extend the banking services in different possible ways- like 'no frills' accounts, Self-help group bank linkage movement, increasing the banking outreach through business facilitator/ correspondents and many more.

Small finance banks, a type of differentiated bank, is an almost a decade-old concept, which was first mooted by Honorable Finance Miniter on 10th July 2014, while presenting Union Budget for the fiscal year 2014-15-

"RBI will create a framework for licensing small banks and other differentiated banks. Differentiated banks serving niche interests, local area banks, payment banks, etc. are contemplated to meet the credit and remittance needs of small businesses, unorganized sectors, low-income households, farmers, and migrant workforces.[2]

For the furtherance of the goal of financial inclusion by delivering banking services to various niche segments, RBI issued differentiated banking licenses for Small Finance Banks and payment banks in 2015. (National Strategy for Financial Inclusion 2019-2024, RBI). Small Finance Banks are much more refined form, compared to earlier special-purpose financial vehicles like Regional Rural Banks (RRBs) and Local Area Banks (LABs). (Kangayan & Dhevan, 2020)

The primary objective of small finance banks is to envisage the goal of financial inclusion, the same can be achieved by:

- Providing savings vehicles to unserved and underserved sections of society,
- Supplying credit to marginal farmers, small business units, unorganized sectors, and entities belonging to the MSME sector.

In this regard it is important to note that a Small Finance Bank can perform all the operations that are performed by a normal commercial bank, but at a smaller level, targeting the low-income segment (Srinivas & Shanigarapu, 2020)

1.2 HIGHLIGHTS OF KEY REGULATORY GUIDELINES MANDATED FOR SFBs:

1.2.1 Small finance banks are to register themselves as a public limited company under the Companies Act 2013 and they are licensed by RBI under Section 22 of the Banking Regulation Act 1949. They are required to use the words "Small Finance Banks" so that people can differentiate them from other banks.

1.2.2 As per RBI circular on "Rationalisation of Branch Authorisation Policy- Revision of Guidelines" dated May 18, 2017, SFBs are required to have at least

25% of their total bank branches in the unbanked rural sector having a population up to 9999 as per the latest census. It is also important to note there this no prohibition in the area of operation of SFB. However, preference will be given to those applicants who would open banking outlets in the Northeastern, Eastern, and Central regions of the country.

1.2.3 SFBs would need to have a minimum paid-up voting capital of Rs. 200 crores. In case SFBs are converted from NBFCs/ Local Area Banks/ Micro-Finance Institutions/Payment Banks, an additional time of 18 months to given to achieve a net worth of Rs. 200 crores from the date of in-principal approval. In case SFBs are converted from Urban Co-operative Banks, an additional time of 5 years to be given to increase the net worth to Rs. 200 crores.

1.2.4 Keeping in mind, the inherent risk associated with SFBs, RBI mandated SFBs to maintain a minimum capital adequacy of 15% of its risk-weighted asset continuously.

1.2.5 Minimum 40% of the paid-up equity capital to be held by the promoters during the first five years from the day of commencement of business and gradually promoters' stake should be brought down to a maximum of 15% within 15 years from the date of commencement of business in a staggered manner.

1.2.6 SFBs are required to extend a minimum of 75% of Adjusted Net Bank Credit (ANBC) to RBI designated priority sectors, out of which a bank should lend 40% to different subsectors under PSL and the rest of 35% may be lent to anyone/ more subsectors which the bank has competitive advantages.

1.1.7 50% of its loan portfolio should constitute loans/advances made primarily towards small borrowers having loan sizes not more than 25 lakhs.

1.3 NAME OF SFBs, YEAR OF INCORPORATION AND HEADQUARTER

To continue the furtherance of financial inclusion, Small Finance Banks, since inception, have played a progressive role in mobilizing savings and providing credit to the unbanked and underbanked section of society. There are, at present, 12 Small Finance Banks operating in the country, which are as follows (names are arranged alphabetically):

Table 1: Name of Small Finance Banks, year of incorporation and their headquarter:

Serial No.	Name of the Small Finance Bank	Incorporation	State in which headquarters is present
1	Au Small Finance Bank Limited	19th April 2017	Rajasthan
2	Capital Small Finance Bank Limited	24th April 2016	Punjab
3	ESAF Small Finance Bank Limited	17th March 2017	Kerala
4	Equitas Small Finance Bank Limited	5th September 2016	Tamil Nadu
5	FINCARE Small Finance Bank Limited	21st July 2017	Karnataka
6	Jana Small Finance Bank Limited	28th March 2018	Karnataka
7	North East Small Finance Bank Limited	25th July 2016	Assam
8	Shivalik Small Finance Bank Limited	1st January 2021	Delhi
9	Suryoday Small Finance Bank Limited	23rd January 2017	Maharashtra
10	Ujjivan Small Finance Bank Limited	1st February 2017	Karnataka
11	Unity Small Finance Bank Limited	1st November 2021	Delhi
12	Utkarsh Small Finance Bank Limited	23rd January 2017	Uttar Pradesh

Source: Compiled by the researchers

The above table shows the name of SFBs presently operating in India along with the year of incorporation and the state in which they are headquartered. It shows that out of the total 12 SFBs, 5 of them are headquartered in the southern part of the country (Kerala, Karnataka, Tamil Nadu), 5 of them in the northern part (Punjab, Delhi, Uttar Pradesh, Rajasthan), 1 in the western part (Maharashtra) and 1 in the north-eastern region of the country. No SFB is headquartered in the Central and Eastern regions of the country. The above table also shows that Capital Small Finance Bank Limited was the first Small Finance Bank in the country. RBI had issued in-principal approval in September 2015 to ten entities, except Shivalik Small Finance Bank Limited and Unity Small Finance Bank Limited, to begin their functioning as SFBs. It is also to note that Shivalik Small Finance Bank Limited is the first Urban Cooperative Bank to go into transition to become an SFB.

2. DIFFERENTIATED BANKING FOR FINANCING NICHE: JUSTIFICATION FROM EXISTING ACADEMIC RESEARCH

Financial literacy is of utmost importance in reaching the goal of financial inclusion. The establishment of Small Finance Banks in our country has helped banks to create brand value in the niche and unbanked section of society by offering financial services at affordable rates. (Arora, Sharma, Pahwa, & Yadav, 2018). At the same time, it is also important to note that Non-Performing Assets (NPAs) harm the profitability of commercial banks. It leads to capital erosion and low net interest margin. A positive relation exists between non-interest income and the profitability of banks. (Mohan, 2022). Since Small Finance Banks have a niche segment of society as a target for providing loans, therefore they have higher chances of having NPAs as compared to commercial banks. (Srinivas & Shanigarapu, 2020).

Since their establishment, SFBs have progressed enormously by spreading in different parts of the country to meet the goal of financial inclusion in the underbanked and unbanked parts of the country. (Patel & Fulwari, 2021). Empirical analysis reveals there exists no relation between the cost of funds and the net interest margin of the SFBs in India. Also, the same regulatory requirements for SFBs as commercial banks and the increase in overall profit over the years have ensured their sustainability. (Kangayan & Dhevan, 2020). A positive impact of the size of the bank and debt-to-asset ratio was found on ROA whereas deposit-to-asset ratio and loan-to-deposit ratio were found to impact ROA negatively while measuring the profitability of private banks in India and Bangladesh. (Deli, Gazi, Harymawan, Dhar, & Hossain, 2022). The SFBs are efficiently allocating their funds to ensure they maintain a good net interest to total fund ratio. They are also using effective methods of collection of funds and ensuring good interest cash flow throughout which would help them in the timely repayment of debts. (Shama & Gurunathan, 2022). SFBs are acting more like business correspondents of the commercial banks. A huge population remains unaware of the functions performed by SFBs as they do not focus more on advertisement. (Subrahmanyam, Umarani, & Sultana, 2022).

3. OBJECTIVES OF THE STUDY:

"***Since inception, small finance banks (SFBs) have started playing a progressive role in mobilizing savings from and providing credit to their niche customer segments, furthering the cause of financial inclusion. In the quarter that ended March 2022, the deposits grew by 37.3 per cent on a y-o-y basis while the credit portfolio was 25.6 per cent, as against the growth rate of deposit and credit of scheduled commercial banks (SCBs) at 10.2 per cent and 10.8 per cent respectively. Although it may seem unfair to compare the concerned numbers of public and private sector banks to SFBs because of scale effects, even in terms of outreach through bank branches, SFBs represent about 4 per cent of bank branch network in India***"- (Rao, 2022). [1]

Keeping the above statement in mind, the researchers have not made any comparative study between SFBs and private or public sector SCBs. We just wanted to have an overview of the factors affecting the profitability and their expansion in terms of outreach of the branch network.

There are ***three objectives*** of the present research, which are as follows:

1. to analyze how various factors influence the performance of the select SFBs.
2. to analyze and study the growth & expansion of SFBs across various groups of populations and regions.
3. to have an overview of Priority Sector Lending (PSL) across various categories of PSL.

4. RESEARCH METHODOLOGY

4.1 MODEL FORMULATION

The ***following model*** has been tested to analyze how various factors affect the performance of the select Small Finance Banks (SFBs).

ROA = á+ â1 ADR + â2 INS+ â3 SF + â4 NNPA + â5 CDR + â6 PSL + â7 NNI + â8 NB+ â9 OE+ å t

ROA= Return on Asset

ADR = Advance to Deposit ratio

INS = Interest Spread

SF = Size of firm (log value of total assets)

NNPA = Net non-performing asset on net advances

CDR= Cost to deposit ratio

PSL =% of total advances made towards Priority Sector

NB = Number of bank branches

OE= % Operating expenses on total expenses

The above nine variables have been identified based on extensive literature surveyed. The table given below shows the formula used to calculate the above-mentioned variables and their respective possible impact on return on equity.

Table 2: Formula used to calculate the above-mentioned variables and their respective possible impact on return on equity

Name of Variable	Formula Used to Calculate	Perceived Impact on Profitability
ROA = Return on Asset ***(Independent variable)***	$\frac{Net\ Profit}{Total\ Assets} x100$	NA
Explanatory variables		
ADR = Advance to Deposit ratio	$\frac{Advance}{Deposits}$	Higher ADR is not good in terms of liquidity but it is believed to have a positive impact on profitability.
IS = Interest Spread	Interest Income - Interest Expended	The higher the interest spread; the higher will be the profitability.
SF = Size of Firm	Value of the total assets of the bank	The more the assets, the better will be the profitability.
NNPA= NPA as % to Net Advances	$\frac{Gross\ NPA-Provision}{Net\ Advances}$x100	It denotes the proportion of advances that turned into NPA after adjusting for the provisions already made for NPA by the Bank. The higher the NNPA, the lower will be the profitability.
CDR = Cost to Deposit Ratio	$\frac{Interest\ expanded\ on\ deposits}{Total\ Deposit.}$	Cost deposit is the amount of interest paid by the banks on its deposits, generally, it is believed that higher CDR would negatively impact profitability. On the other hand, a higher CDR may attract more deposits that enhance the loanable funds available with the bank and increase its profitability.
PSL= % of Priority Sector Lending	$\frac{Advances\ made\ towards\ Priority\ Sector}{Total\ Advances}$x100	RBI mandated SFBs to 75% of their total advances towards priority sectors. The expected impact is that since this credit is directed there is little consideration of profitability. However, it is also important to note that the banks are free to decide their interest rates.
NNI = Non-Interest Income	Amount of non-interest income as reported in the income statement	Non-interest income is believed to have a positive impact on the profitability of the Banks.
NB = Number of Branches	Number of branches including the branches through business correspondents and Business facilitators.	It is believed that a greater number of branches would increase the profitability of the banks.

Source: Compiled by the researchers

4.2 SOURCE OF DATA & STUDY PERIOD

To analyze the model mentioned in 4.1 and to attain the other objectives, we have considered 10 SFBs out of the 12 SFBs presently in existence. The SFBs, that are considered for the study, are AU Small Finance Bank Limited, Capital Small Finance Bank Limited, ESAF Small Finance Bank Limited, Equitas Small Finance Bank Limited, FINCARE Small Finance Bank Limited, Jana Small Finance Bank Limited, North East Small Finance Bank Limited, Suryoday Small Finance Bank Limited, Ujjivan Small Finance Bank Limited, Utkarsh Small Finance Bank Limited. We did not consider Shivalik Small Finance Bank Limited and Unity Small Finance Bank Limited, since both of them were incorporated in 2021, just 2 years back. We have considered a study period of 5 years starting from 2018-19 to 2022-2023.

We have collected all the relevant data from *the Prowess* database as well as from the annual reports of the select SFBs. We have also collected data from the RBI database of the Indian economy.

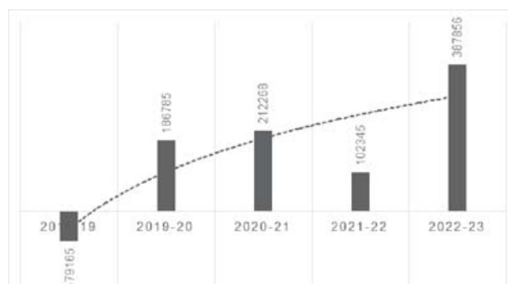
4.3 USE OF STATISTICAL TECHNIQUES & SOFTWARE

To analyze the factors influencing the profitability of the SFBs, we have applied panel data regression. Panel Ordinary Least Square (POLS), Random Effect (RE), and Fixed Effect (FE) methods have been used to run the panel regression. To choose the appropriate method out of the three models mentioned above, we have conducted the Bruesch-Pagan Test, Housman test, and Wald test. To analyze the outreach of the branches network across various regions and population groups as specified by RBI, we applied the ANOVA test. Apart from the tests mentioned above, we have used Pie-chart, Bar-graphs, Map of India, etc. wherever it is found feasible to use.

5. RESULTS AND DISCUSSION

5.1 FACTORS INFLUENCING FINANCIAL PERFORMANCE OF THE SFBs

Figure 1: Profit after tax (PAT) of 10 Small Finance Banks over 5 years (2018-19 to 2022-2023) {Rs. in Crore}



Source: Compiled by the researchers

The above figure shows the consolidated profit after tax (PAT) of the 10 SFBs over 5 years starting from the financial year 2018-19 to 2022-23. We observed PAT has increased gradually in the last 5 years except in the financial year 2021-2022. In the 2021-22 financial year, we witnessed a decline in the consolidated PAT, and the same can be linked to the economic slowdown due to the pandemic covid-19.

To ascertain how certain factors are influencing the profitability of SFBs, we developed a model, the same is mentioned in *para 4.1*. The model mentioned in *para 4.1* considers nine independent variables and as we know independent variables often suffer from multicollinearity, we have applied the VIF test to check whether the problem of multicollinearity exists or not.

Table 3: VIF test results (Test for multicollinearity)

Independent Variables	Tolerance	VIF
ADR	.685	1.461
INS	.437	2.288
SF	.495	2.020
NNPA	.501	1.995
CDR	.659	1.517
PSL	.897	1.115
NNIC	.599	1.669
NB	.338	2.959
OE	.495	2.022

Source: Compiled by authors (*E-views outcome*)

The above table shows VIF test results, conducted to check whether the problem of multicollinearity exists or not. It is found from the table that all the variables have VIF values less than 4. Considering a threshold value of 4 (thumb rule) we conclude that there exists no multicollinearity.

Table 4: Regression Results (Dependent Variable: ROA)

Variable	Ordinary Least Squares			Fixed Effect Model			Random Effect Model		
	Co-efficient	t-test	Prob.	Co-efficient	t-test	Prob.	Co-efficient	t-test	Prob.
C	0.34	3.98	0.00	0.42	2.94	0.00	0.61	9.28	0.00
ADR	0.38	2.55	0.01	0.02	0.25	0.80	0.08	0.98	0.32
INS	0.17	0.84	0.40	0.08	0.57	0.57	0.30	2.74	0.00
SF	0.04	0.24	0.80	0.51	2.19	0.04*	0.24	2.19	0.03
NNPA	0.13	1.29	0.20	-0.16	-2.18	0.03*	-0.18	-2.82	0.00
CDR	0.60	4.62	0.00	0.09	1.01	0.32	0.27	3.56	0.00
PSL	0.03	0.45	0.65	-0.18	-1.44	0.16	-0.12	-2.67	0.01
NNIC	0.10	0.90	0.37	0.23	3.38	0.00*	0.16	2.62	0.01
NB	0.06	0.63	0.52	0.20	-1.46	0.15	0.09	1.72	0.09
OE	0.62	6.85	0.00	-0.42	-5.67	0.00*	0.33	5.76	0.00
Summary Statistics:									
Adjusted R^2	0.288			0.795			0.711		
F-Stat	3.36			11.58			14.42		
Prob.	0.00			0.00			0.00		
Durbin – Watson	1.01			1.84			1.38		

Source: Compiled by authors *(E-views outcome)*

The above table shows the co-efficient value of each independent variable, t-statistic, and their respective probability for each of the three models. The table also shows the adjusted R^2 value, F-statistics, probability of F-statistic, and Durbin-Watson result. We applied the Bruesch-Pagan Test, Housman test, and Wald test to determine the appropriate model:

Bruesch-Pagan Test

H0: Pooled Ordinary Least Squares is more appropriate than the Random Effect Model.

H1: Alternate hypothesis: Pooled Ordinary Least Squares is not appropriate.

Table 5: Breusch-Pagan Test

Lagrange Multiplier Tests for Random Effects Null hypotheses: No effects Alternate hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives			
	Cross-section	Test Hypotheses Time	Both
Breusch-Pagan	4.65494 (0.0310)	0.462577 (0.4964)	5.11517 (0.0237)*

* Significant @ 5%

Source: Compiled by authors

Since the *p-value* is less than 0.05, therefore null hypothesis is rejected, which means Pooled Ordinary Least Squares (POLS) is not appropriate.

To determine which model is appropriate between the Random Effect Model and the Fixed Effect Model we applied the Hausman test. The hypothesis and the result of the test are shown below:

H0: The random Effect Model is more appropriate than the Fixed Effect Model.

H1: Fixed Effect Model is more appropriate.

Table 6: Hausman Test

Correlated Random Effects – Hausman Test Equation: Untitled Test cross-section random effects			
Test Summary	Chi-sq. Statistic	Chi-sq. d.f.	Prob.
Cross-section random	25.395	9	0.0026*

* Significant @ 5%

Source: Compiled by authors

The above Hausman test result shows *a p-value* less than 0.05, so we reject the null hypothesis that the Random Effect Model is more appropriate than the Fixed Effect Model.

Lastly, to compare the Pooled Ordinary Least Squares and Fixed Effect Model we applied the Wald test. The hypothesis is given below:

Null hypothesis: The pooled Ordinary Least Squares regression model is appropriate.

Alternative hypothesis: Fixed Effect Model is appropriate.

Table 7: Wald Test

Wald Test Equation: Untitled			
Test Statistic	Value	df	Probability
F-statistic	11.53	(8,41)	0.000*
Chi-square	92.31	8	0.000*

* Significant @ 5%

Source: Compiled by authors

Since *the p-value* is less than 0.05, therefore we reject the null hypothesis and accept the alternative hypothesis. Therefore, the Fixed Effect Model is more appropriate than Pooled Ordinary Least Squares.

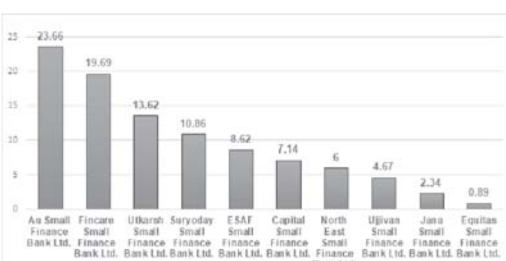
The fixed Effect Model is found to be the appropriate model.

The fixed Effect Model is found to be the appropriate model based on the above discussion (with reference to tables no. 5, 6, and 7). Table 4 shows that the regression equation based on the fixed effect model has an adjusted R^2 of 0.795, which implies 79.5% of the variation in ROA (i.e., Return on Assets) is explained by the nine independent variables considered in the equation. *Prob.* of F-Stat is found to be less than 0.05 and Durbin-Watson is also very close to 2. The above indicators justify the robustness of the model. Out of the nine independent variables considered in the model, we found SF (i.e., size of firm) and NNIC (i.e., non-interest income) have a significant positive impact on ROA, whereas NNPA (i.e., percentage of net non-performing asset) and OE (i.e., percentage of operating expenses on total expenses) has significant negative influence on ROA.

5.2 OUTREACH OF SFBs THROUGH BRANCH NETWORK

In this section of the study, we have emphasized analyzing the physical outreach of SFB branches across various regions of the country and various population groups. We have also attempted to have an overview of how effective the outreach is, in terms of priority sector lending across various categories namely agricultural and allied activities, MSME, Personal Loans, and others.

Figure 2: Compounded Annual Growth Rate (CAGR) of increase in numbers of branches of SFBs over last 5 years (i.e., 2018-19 to 2022-23)



Source: Computed by the researchers

The above figure represents the CAGR of increase in the number of bank branches of 10 SFBs over the last five years starting from 2018-19 to 2022-23. It is found AU Small Finance Bank Ltd. has a CAGR of 23.66% followed by Fincare Small Finance Bank Ltd, Utkarsh Small Finance Bank Ltd., and so on. The lowest growth rate is observed in the case of Equitas Small Finance Bank Ltd.

5.3 ANALYSIS OF THE SPREAD OF BRANCHES ACROSS SIX REGIONS INCLUDING STATE-WISE DISTRIBUTION

The different States and UTs have been grouped into six regions namely, Northern Region, Western Region, Southern Region, Central Region, Eastern Region, and North-Eastern Region, as per RBI's database. The map and the table given below represent the present status (as on 30th November 2023) of branch network distribution of the 10 SFBs-

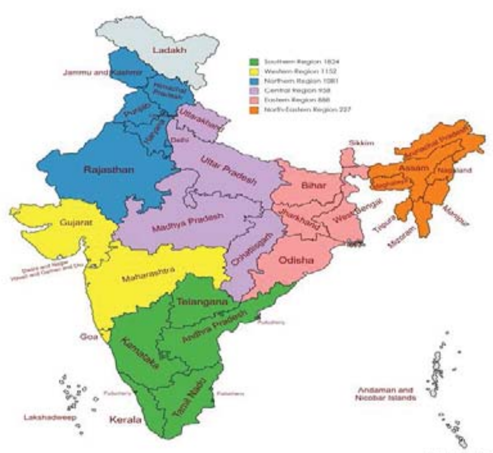
Table 8: Present status (as on 30th November 2023) of branch network distribution of the 10 SFBs

Southern Region		Western Region		Northern Region		Central Region		Eastern Region		North Eastern Region	
Tamil Nadu	784	Maharashtra	725	Rajasthan	490	Madhya Pradesh	411	Bihar	326	Assam	174
Bihar	326	Gujarat	419	Punjab	269	Uttar Pradesh	366	Odisha	284	Tripura	16
Odisha	284	Goa	8	Haryana	197	Chhattisgarh	145	West Bengal	147	Meghalaya	16
West Bengal	147			Delhi NCT	83	Uttarakhand	36	Jharkhand	122	Nagaland	10
Jharkhand	122			Chandigarh	16					Mizoram	7
Sikkim	9			Himachal Pradesh	23					Manipur	2
				Jammu & Kashmir	3					Arunachal Pradesh	2
Total	1824	Total	1152	Total	1081	Total	958	Total	888	Total	224

Source: Compiled by researchers

The above table shows Madhya Pradesh has the highest number of branches i.e., 411 out of the four states that represent the Central Region, Uttarakhand has the lowest number of branches of SFBs in the Central Region. In the Eastern region, Bihar has 326 branches, the highest and Sikkim has only 9 branches. Assam has the highest number of branches in North-Eastern Region. Arunachal Pradesh and Manipur have only 2 branches each. In the Northern Region, we found Rajasthan has 490 SFB branches followed by Punjab, Haryana, and so on. In the Southern Region, Tamil Nadu has 784 branches, the highest across all the States and UTs in the country. In the western part, Maharashtra has 725 branches, the second highest across all the States and UTs. Goa has the lowest number of branches in the Western Region of the country.

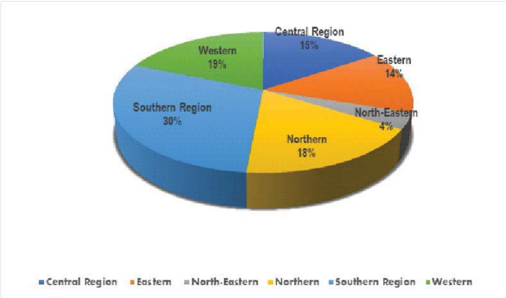
Figure 3: Branch Networks of SFBs



Source: RBI database

The above map shows the highest number of branch networks of 10 SFBs are located in the southern region of the country comprising Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, Telangana, and Puducherry (area marked in green colour in the map). The total number of branches of the 10 SFBs in this region is 1824 in these 5 states and 1 UT (Puducherry). The second highest number of branches is seen in the western region comprises three states namely, Maharashtra, Gujrat, and Goa (Marked in yellow colour in the map). The total number of branches in this region is 1152. The northern region (marked in blue on the map) has got third highest number of branch networks having 1081 branches. The region comprises Rajasthan, Punjab, Haryana, Jammu & Kashmir, Himachal Pradesh, and Delhi NCR. Central region comprises Uttarakhand, Uttar Pradesh, Madhya Pradesh, and Chhattisgarh, the region accounts for a total of 958 branches of SFBs. The central region in the map is marked in purple. Eastern region has 888 branches spreading across the states of Odisha, Jharkhand, Bihar, West Bengal & Sikkim. The area on the map is marked in pink. Lastly, North-eastern states like Assam, Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Tripura & Mizoram have only 227 branches (region marked in orange), which implies north-eastern region accounts for the least number of branches compared to the other five regions.

Figure 4: Branch distribution data of Select 10 SFBs across six different regions:



Source: Compiled by researchers (from the RBI database of the Indian Economy**)**

The above figure shows the distribution of branches of Small Finance Banks (SFBs) as on 30th November 2023 across the six regions of the country. It is seen that the Western, Northern, Central, and Eastern regions have almost similar share of branch network distribution ranging from 14% to 19%. The northeastern region has only 4% of the total branches spread across the country. The southern region has the highest 30% of the branches of SFBs.

We further wanted to statistically test the similarity of branch network distribution by SFBs across the six regions of the country by applying Anova. The test below uses the following hypothesis:

H0: There is a similarity in branch network distribution by SFBs across the six regions.

H1: There is no similarity in branch network distribution by SFBs across the six regions.

The table shown below represents the results of Anova:

Table 9: Test of Homogeneity & ANOVA

Levene Statistic	df1	df2	Sig.
1.779	5	54	.133

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1794.392	5	358.878	.803	.552
Within Groups	24128.779	54	446.829		
Total	25923.171	59			

Source: Compiled by researchers ***(SPSS 23 output)***

The assumption of homogeneity of variance is tested by applying Levene's test before comparing the independent groups with the help of Anova. If *the p-value* of the Levene test is found to be more than 0.05, then the assumption of homogeneity of variance is not violated. We also have found from the ANOVA table that the *p-value* of F-statistic is more than 0.05, therefore, we accept the null hypothesis that there is a similarity in branch network distribution by the SFBs across six regions.

5.4 ANALYSIS OF DISTRIBUTION OF BRANCHES ACROSS DIFFERENT POPULATION GROUP

Based on the size of the population, where a bank branch is located, is classified either into rural, semi-urban, urban, or metropolitan. The basis of classification-

Population less than 10,000 – Rural

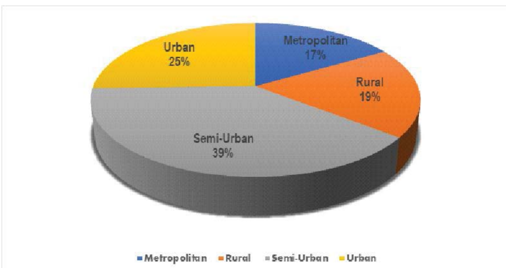
Population 10,000 and above but less than 1 lakh- Semi-urban

1 lakh and above and less than 10 lakh – Urban

10 lakh and above – Metropolitan

We have attempted to have an overview of the branch distribution network of these 10 SFBs across the above-mentioned population groups. The figure given below represents the same:

Figure 5: Branch distribution data of Select 10 SFBs' different population groups as on 30th November'2023:



Source: Compiled by researchers (from the RBI database of Indian Economy)

The above figure shows that 39% of the total branches of 10 SFBs are located in semi-urban areas, and 25% of the total branches are situated in urban areas. 19% of the total branches are present in the rural areas and lastly, 17% of the total branch network of the 10 SFBs are present in Metropolitan areas.

We further wanted to test whether there is any similarity in branch distribution network by SFBs across the four population groups as mentioned above, by applying the ANOVA test. The test below uses the following hypothesis:

H0: There is a similarity in branch network distribution by SFBs across the four population groups namely, rural, semi-urban, urban, and metropolitan.

H1: There is no similarity in branch network distribution by SFBs across population groups.

The table shown below represents the results of Anova along with a test of homogeneity:

Table 10: Test of Homogeneity& ANOVA

Levene Statistic	df1	df2	Sig.
.607	3	36	.615

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2704.027	3	901.342	6.745	.001
Within Groups	4810.389	36	133.622		
Total	7514.416	39			

Source: Computed by researchers *(SPSS 23 output)*

The assumption of homogeneity of variance is tested by applying Levene's test before comparing the independent groups with the help of Anova. If *the p-value* of the Levene test is found to be more than 0.05, then the assumption of homogeneity of variance is not violated. Here we found p-value of Levene's statistic is more than 0.05. Therefore, the assumption of homogeneity of variance is not violated. It was found from the ANOVA table that the significance level of the F-statistic is less than 0.05, therefore, we accept the alternative hypothesis that there is no similarity in branch network distribution across various population groups. We further performed post-hoc analysis by Fisher's Least Significant Difference (LSD) method to determine which groups had significant differences.

Table 11: Post-hoc analysis by LSD method to determine which groups have significant differences:

Population group	Population group	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
Metropolitan	Rural	-8.40	.113	-18.89	2.07
	Semi-Urban	-22.89*	.000	-33.37	-12.40
	Urban	-8.71	.101	-19.19	1.77
Rural	Metropolitan	8.40	.113	-2.07	18.89
	Semi-Urban	-14.48*	.008	-24.96	-3.99
	Urban	-.30	.954	-10.78	10.182
Semi-Urban	Metropolitan	22.89*	.000	12.40	33.37
	Rural	14.48*	.008	3.99	24.9
	Urban	14.18*	.009	3.69	24.66
Urban	Metropolitan	8.71	.101	-1.77	19.19
	Rural	.30	.954	-10.18	10.786
	Semi-Urban	-14.18*	.009	-24.66	-3.69

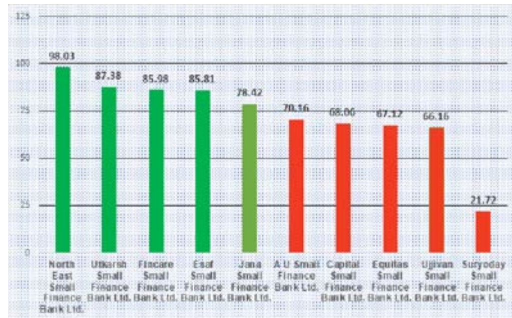
Source: Computed by researchers (*SPSS 23* output)

The above post-hoc test shows distribution of branches in semi-urban areas is significantly different from the distribution of branches in metropolitan, rural, and urban areas. Therefore, it can be concluded that the branch network is mostly concentrated in the semi-urban areas.

5.5 ACHIEVEMENT OF SET TARGETS TOWARD PRIORITY SECTOR(PSL) LENDING

Small Finance Banks are required to extend 75% of their Adjusted Net Bank Credit (ANBC) as loans and advances to the sectors categorized as priority sectors by RBI. The same has been manded by the regulator keeping in mind the objective of SFBs to provide banking services to the niche segment i.e., the unbanked and underbanked population of the society. In this section, we will discuss the average % of PSL of the 10 SFBs considered in the study. The result of the same is depicted below in Figure 5.

Figure 6: Bank-wise Average Percentage of PSL of last 5 years



Source: Compiled by researchers

The above figure shows, that out of 10 SFBs considered in the study, 5 SFBs have having average PSL of more than 75% as on the reporting date of the Balance Sheet. The highest average percentage is witnessed in the case of North-East Small Finance Bank followed by Utkarsh Small Finance Bank Ltd., Fincare Small Finance Bank Ltd., and so on. The lowest average percentage of PSL is seen in the case of Suryoday Small Finance Bank Ltd.

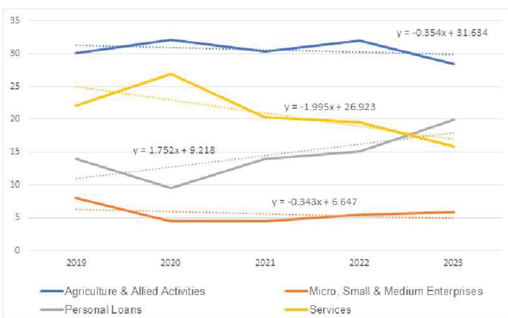
SFBs have disclosed Priority Sector Lending (PSL) in their annual report, dividing the same into the following groups namely - **Agriculture & Allied activities**, **Micro, Small & Medium Enterprises**, **Personal Loans**, **Services, and Others**. It is, however, to note that as per RBI guidelines, there are many other sub-categories of priority sector.

Table 12: Category-wise breakup of average % PSL of 5 years by the 10 SFBs

Categories of Priority Sector (based on the disclosure given in the annual report)	2019	2020	2021	2022	2023
Agriculture & Allied Activities	30.09	32.14	30.28	31.92	28.43
Micro, Small & Medium Enterprises	8.05	4.39	4.4	5.44	5.81
Personal Loans	13.98	9.46	13.9	15.12	19.91
Services	22.13	26.88	20.32	19.53	15.83

Source: Compiled by researchers

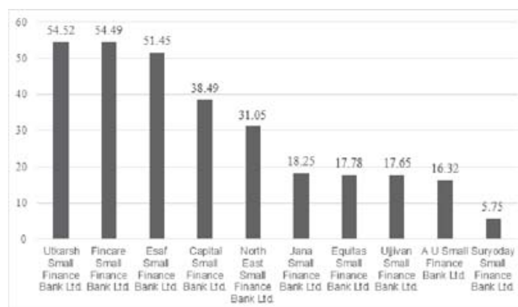
Figure 7: Analysing the trend of the percentage of PSL across the four categories as mentioned in Table 11:



Source: Compiled by researchers *(drawn based on the data represented in Table 12)*

The above table (Table 12) shows the category-wise breakup of the average % PSL of 5 years (2018-19 to 2022-23) by the 10 SFBs. A trend line chart has also been depicted based on the above table. It shows that out of the four categories of PSL disclosed by the SFBs in their annual reports, the highest average lending has been in agriculture and allied activities. However, there has been a slow decline in the same over the 5 years. A similar declining trend has also been witnessed in lending towards Micro, Small & Medium Enterprises and Services by the 10 SFBs. Personal loans have been the only category where the average % PSL has gradually increased. It may be because the rate of interest can be imposed a little higher in the case of personal loans as compared to other categories of priority sectors. This draws attention as it indicates that SFBs are gradually shifting their focus from the objective of providing loans to niche segments of society at lower rates of interest towards making a profit by providing more personal loans in the priority sector.

Figure 8: Average % PSL of last 5 years towards Agricultural and Allied Activities

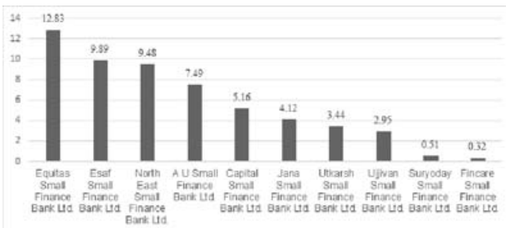


Source: Compiled by researchers

The above graph depicted in Figure 8 shows the average % PSL of the last 5 years towards agricultural and allied activities. It shows that Utkarsh Small Finance Bank, Fincare Small Finance Bank, and ESAF Small Finance Bank are the highest lenders (lending more than 50% on average) in the agricultural and allied activities category in the last 5 years. The lowest lending in this category is witnessed in the case of

Suryoday Small Finance Bank with an average lending of just 5.75% over 5 years.

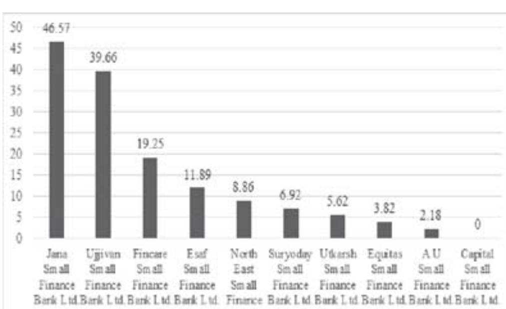
Figure 9: Average % PSL of last 5 years towards Micro Small and Medium Enterprises



Source: Compiled by researchers

The above graph depicted in Figure 9 shows the average % PSL of the last 5 years towards MSME. It shows that Equitas Finance Bank is the highest lender (lending around 12.83% on average) in this category in the last 5 years. The lowest lending in this category is witnessed in the case of Suryoday Small Finance Bank and Fincare Small Finance Bank with average lending of just 0.51% and 0.32% over 5 years respectively.

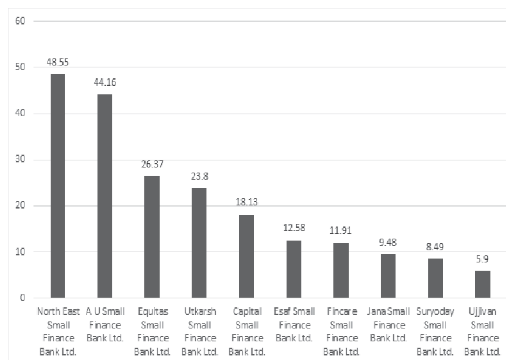
Figure 10: Average % PSL of last 5 years Priority Sector Personal Loan:



Source: Compiled by researchers

The above graph depicted in Figure 10 shows the average % PSL of the last 5 years towards Personal Loans. It shows that Jana Small Finance Bank is the highest lender (lending around 46.57% on average) in this category in the last 5 years. The lowest lending in this category is witnessed in the case of AU Small Finance Bank and Capital Small Finance Bank with average lending of just 2.18% and 0% over 5 years respectively.

Figure 11: Average % lending of last 5 years towards services sectors belonging to Priority Sector:



Source: Compiled by researchers

The above graph depicted in Figure 10 shows the average % PSL of the last 5 years towards Services sectors belonging to Priority Sector. It shows that North-Esat Small Finance Bank is the highest lender (lending around 48.55% on average) in this category in the last 5 years. The lowest lending in this category is witnessed in the case of Suryoday Small Finance Bank and Ujjivan Small Finance Bank with average lending of just 8.49% and 5.9% over 5 years respectively.

6. RECOMMENDATIONS

6.1 Empirical panel regression analysis indicates the share of operating expenses has a significant negative impact on the profitability of the SFBs. It is, therefore, suggested that SFBs must make efforts to reduce O/E by ensuring optimum utilization of resources.

6.2 It has also been found from the panel regression analysis that net non-performing asset has a significant negative impact on the profitability of the SFBs, it is also important to note gross NPA percentage of SFBs has increased by about 4% on a y-o-y basis in 2020, 2021 and 2022.[1] SFBs are suggested to implement appropriate credit monitoring action in order curve raise NPA percentage.

6.3 Although the scope is limited, SFBs are suggested to make an effort to increase non-interest income as it was found to have a significant positive impact on the profitability of the SFBs.

6.4 The Northeastern region has got only 4% of the total branches of SFBs. RBI has taken quite a few steps for incentivizing the expansion of branches in the north-eastern region such as an easy licensing policy for the banks wanting to open branches in the north-eastern region, 25% extra weightage towards the certain districts which are mostly present in the north-eastern states.

6.5 SFBs are also required to have 1/4th i.e., 25% of branches present in a locality having a population of not more than 9999 people (which is designated as a rural area as per RBI). But while analyzing the distribution of branches across various groups of population, we found SFBs are having 19% of their branches present in rural areas, which implies that they are deviating from what they are expected. Therefore, it is suggested that they should open more branches in rural areas keeping their objective of profit enhancement aside.

6.6 Analysing the trend of percentage of PSL across the four categories namely agricultural and allied activities, MSME, Personal Loan, and Services, it has been observed that SFBs are gradually shifting their focus from the objective of providing loans to niche segments of society at lower rates of interest towards making profit by providing more personal loans in priority sector.

7. CONCLUSION

Small Finance Bank is a relatively new concept in the banking system of the country. To date, RBI has permitted 12 SFBs. All these entities belong private sector. Some of them are already listed and some of them are in the process of being listed. It has been observed that the highest number of bank branches are seen in the southern region of the country the reason behind the same is majority of the SFBs were previously NBFC-MFIs. It is a known fact that MFIs had a strong base in the southern region of the country. Northern-eastern states have the lowest number of branches and it has been observed that only the north-east small finance bank has ensured its coverage in the north-eastern region but in the case of other small finance banks, it has been observed that the north-eastern region has been highly neglected. SFBs are also required to have 25% of branches present in the locality having a population of not more than 9999 people. Analyzing the distribution of branches across various groups of the population, we found SFBs have 19% of their branches present in rural areas, which implies that they are deviating from what they are expected. Analyzing the trend of the percentage of PSL across the four categories namely agricultural and allied activities, MSME, Personal Loan & Services, it has been observed that SFBs are gradually shifting their focus from the objective of providing loans to a niche segment of society at lower rates of interest towards making a profit by providing more personal loans in priority sector where there is a liberty of charging a little higher rate of interest. It is however to mention, that over the last 5 years, the profit after tax of the SFBs has grown rapidly so as their branches.

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