# MANAGEMENT & ACCOUNTING REVIEW

Volume 20 No. 1 April 2021

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# Impact of Priority Sector Lending on Financial Profitability: Segment Wise Panel Data Analysis of Indian Banks

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# ABSTRACT

A sustainable and financially stable banking system is a prerequisite to achieve comprehensive growth as well as economic and social well-being of residents of any country. This research focused on analyzing profitability of Indian banks and how it is affected by lending in the priority sector. Priority sector lending (PSL) mainly includes deployment of credit to weaker and neglected segments of an economy. The study adopted a distinctive measure to represent total PSL by classifying it into four sub-segments i.e., agriculture, industrial, service, and personal credit. Applying panel least square regression with fixed and random effects model, the study concluded that agricultural lending has a significant negative impact on bank profitability whereas the service sector lending adds positive value towards financial profitability of banks. Industrial and personal credit were found to be insignificant factors affecting profitability. The study will be beneficial to banking professionals and policy makers to determine sensitive and risky sectors of lending and develop appropriate approaches to deal with them.

**KEYWORDS:** Priority Sector Lending, Banks, Profitability, Segment wise, Panel Data

#### ARTICLE INFO

Article History: Received: 1 Jun 2020 Accepted: 25 December 2020 Available online: 30 April 2021

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# INTRODUCTION

A robust and inclusive financial system is a precondition for any developing country like India. A sound financial system can assist in bringing the benefits of state welfare policies to every class of society. Banks and banking systems are an indispensable part of any financial economy and are significant for economic development (Yaron, Benjamin, & Charitonenko, 1998). A vigorous and sustainable banking development is achieved by consistent performance measured by profitability (Maiti & Jana, 2017). Besides a social and economic viewpoint, bank performance is also important for investors' wealth maximization just like for other companies. As banks deal in the lending business, they are exposed to credit risks that affect their financial wellbeing (Al-Eitan & Bani-Khalid, 2019). Therefore, continuous monitoring of the loan portfolio and controlling lending in sensitive sectors can help in reducing risks of default. This research aimed to analyse the effect of priority sector credit on profitability of Indian banks and its outcome will assist policymakers and practitioners. The study adopted a unique approach to represent priority sector lending by grouping it into sub-segments to distinguish their effect on financial profitability.

## **Banking Industry in India**

For countries like India where other financial institutions are not widely accepted, banks are the only medium that bridge the gap between the public and government. The Reserve Bank of India (RBI) is the apex body of the Indian banking sector which regulates and directs the monetary policy of the country. Figure 1 shows the overall glimpse of the banking sector in India including the number of banks under each segment. The Indian banking sector has achieved remarkable credit growth of CAGR at 10.94% and deposit growth of CAGR at 11.66% in the last one decade (IBEF Industry report). A favorable regulatory framework, increasing penetration of digital banking services, financial inclusion of the rural population, growing demand of infrastructural & home financing and government initiatives to promote financial literacy and accessibility of financial services are the key drivers of growth in the Indian banking sector.

#### IMPACT OF PRIORITY SECTOR LENDING ON FINANCIAL PROFITABILITY



(Source: RBI Report on Banking in India (2018))

# **Conceptual Framework of Priority Sector Lending (PSL)**

As defined by the National Credit Council (1972), the priority sector is a set of industries that require a distinctive credit and lending policy, and it indicates the activities which are of national significance and have been assigned precedence of development (Uppal, 2009). Initially, only two sectors i.e. agriculture and small scale industries were included in the priority sector which further increased to eight as mentioned below. As per the recommendation of the Krishnaswammy committee, banks are required to deploy 40% of their total credit in these sectors.

- 1. Agriculture
- 2. Micro, Small and Medium Enterprises
- 3. Export Credit
- 4. Education
- 5. Housing
- 6. Social Infrastructure
- 7. Renewable Energy
- 8. Other

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PSL and its impact on profitability as well as non-performing assets (NPA) has been studied by many research scholars (Goyal, Agrawal, & Aggarwal, 2016; Ahmed, 2010; Shabbir & Mujoo, 2014). Though the development of priority sectors is unavoidable, commercial banks are struggling with PSL on issues such as lower profitability, higher NPAs and high operating costs of maintaining an account (Uppal, 2009).

# **REVIEW OF LITERATURE**

Bank profitability has been the focal point of many research enquiries in the field of finance and economics. Determinants such as credit risk, NPA, liquidity, efficiency of management and earning quality are used as a basis for analyzing productivity of banks. Another vital zone of research which has gained the attention of academicians and policy makers is asset quality of banks i.e., NPA and its management. This section briefly reviews the empirical findings relating to bank performance measured by profitability and asset quality.

Maiti and Jana (2017) have examined profitability of Indian banks and have concluded that profit per employee, NIM, net NPA ratio, and non-interest income are major determinants of bank performance. Further, they found an inverse relation between credit to deposit ratio and bank profitability. SBARCEA (2017) highlighted the causes of arising credit risk and its relation with financial profitability of romanian banks. He concluded with a contrary relation between credit risk and profitability. Boateng (2018) has assessed the effect of credit risk (indicated by ratio of doubtful debts to total assets) on performance of Indian and Ghanaian banks and found an adverse relation between the said variables. Apart from credit risk, the author recommended NIM, capital adequacy ratio and inflation as significant factors of profitability. Saedi (2019) considered internal variables of banks such as equity, credit-deposit ratio, cash flow, liquidity and investment to study banks' profitability measured by ROE. Ratio of total credit to deposits indicates the operating efficiency of banks as they are able to utilize the public deposits optimally and hence it has a positive impact on bank profitability (Saedi, 2019). Al-Eitan & Bani-Khalid (2019) considered a sample of 16 Jordan based banks and evaluated the impact of credit risk on ROA and ROE by controlling the effect of total deposits and size of a

bank. They confirmed the results of Boateng (2018) and also indicated the negative impact of credit risk on ROA as well as ROE.

Bank profitability substantially depends on timely repayment of loan from its customers/borrowers. A high default ratio (measured by NPA) results in substantial losses for banks. Sharma and Rathore (2016) explored the impact of NPA on bank profitability and cocluded that NPA has an adverse effect on ROA and ROE. A similar study conducted by Jathurika (2019) on Srilankan banks revealed that non-performing loans are negatively affecting profitability of banks. Interest on loan is a major factor contributing towards bank profitability. NIM is defined as the spread between the interest received and expended to total assets. Maiti and Jana (2017) and Boateng (2018) confirmed the positive relationship between bank profitability and NIM in their research work. However, Danstun & Harun (2019) studied the determinants of risky portfolio of microfinance institutes in Tanzania and they have concluded that higher interest rates lead to greater risk of default. Further the authors conveyed that the size of loans and the grace period of loans can reduce portfolio risk.

Priority sector lending is an indespensible part of the Indian banking system, however there are worries that higher PSL increases NPA (Swami, 2012). Ganesan (2003) examined the impact of priority sector advances on bank profitiability. Using subsidised interest rates, credit deployed to the priority sector have substantially increased the income loss ratios compared to profitability of public sector banks (Ganesan, 2003). Pandya (2015) used ratio of priority sector lending to total advances as the independent variable and concluded a positive relationship between ROA and priority sector advances. Memdani (2017) explored the factors affecting NPA of Indian banks and concluded that priorty sector lending leads to higher NPA in foreign banks in India. Athma, Rao & Ibrahim (2018) reviewed the financial profitability of 26 public sector banks of India using the CAMELS model along with macroeconomic indicators. They concluded that asset quality, earning quality and market sensitivity are major determinants of bank performance.

#### **Research Gap and Conceptual Model**

Based on the discussion, a conceptual model was developed (Figure – 2) highlighting the major factors identified in the literature. It is evident that very limited research has been carried out focusing on sector wise bank credit and its impact on profitability. Interest on loans is the core source of bank revenue and for that consistent monitoring of various industries is essential. Exposure in various sectors must be balanced and the portfolio of lending should be diversified enough to minimize earning volatility. Priority sector lending is a mandatory requirement by RBI and hence compliance with the same is unavoidable. Besides, research studies have indicated that PSL has significant implications on bank profitability (Ganesan, 2003; Pandya, 2015). Therefore, banks must plan their exposure in various segments of the priority sector by considering regulatory requirements as well as its impact on profitability.



<sup>(</sup>Source: Developed by Author)

# RESEARCH METHODOLOGY

A research methodology describes the operational plan of a research and mainly highlights the design of the research, research objectives, sampling procedures, data collection and statistical tools applied. This research is based on a descriptive design as it aims to describe the existing phenomena and its probable causes (Kothari, 2004).

#### **Objective, Sample Selection and Hypothesis**

The primary objective of current research was to study the impact of sectorial advances of the priority sector on bank profitability. The Indian banking sector is highly diverse comprising of public, private, and foreign banks as key players. As PSL norms for foreign banks are different than indigenous banks, they were excluded from the study. Out of total 40 public and private sector banks, 34 banks were selected based on continuous listing and availability of data for each variable during the study period of 10 years (2009–10 to 2018–19). To establish and study the causal relationship between sectorial credit and profitability the following hypotheses were developed and tested based on the analysis.

- $H_{01}$ : Agricultural credit has no significant impact on return on asset of banks.
- $H_{02}$ : Industrial credit has no significant impact on return on asset of banks.
- $H_{03}$ : Service credit has no significant impact on return on asset of banks.
- $H_{04}$ : Personal credit has no significant impact on return on asset of banks.

#### Data Collection and Variables of Study

This research was based on secondary data collected from financial reports of the sample banks. The study covered a period of 10 years (2009–10 to 2018–19) so that results are free from any seasonal or nonrecurring fluctuations. Secondary data packages such as Prowess from the Center for Monitoring Indian Economy (CMIE) and Ace Equity were utilized for extracting time-series data. For the conceptual framework of PSL and profitability, existing literature was collected from journals and RBI publications. Table – 1 highlights the variables considered for empirical analysis.

Nature of Variable	Description	Computation Method	Source / Rationale for inclusion
Dependent Variable	Return on Asset (ROA)	EBIT Total Asset	Al-Eitan & Bani-Khalid, (2019); Maiti & Jana (2017)
	Agricultural Credit to Total Credit (ACTC)	Agricultural Credit Total PSL	As the study aims to analyse
Explanatory	Industrial Credit to Total Credit (ICTC)	Industrial Credit Total PSL	the impact of sectorial Credit on profitability, total PSL has been subdivided into four components (Ac
Variables	Service Credit to Total Credit (SCTC)	Service Credit Total PSL	into four components. (As per RBI guidelines, Banks are required to report their PSL in these sub segments
	Personal Credit to Total Credit (PCTC)	Personal Credit Total PSL	only)
	Growth in Operating Income (OI)	$\frac{OI_1 - OI_0}{OI_0}$	Growth in operating income indicates operating efficiency of banks and hence is worthy enough to be considered.
Control Variables	Non-Priority Sector Credit to Total Credit (NPTC)	Non Priority Sector Credit Total Credit	Credit deployed in non- priority sectors also have direct bearing on profitability as it contributes greatly towards interest income.
	Net Interest Margin (NIM)	Extracted from annual report of bank	Boateng (2018), Maiti & Jana (2017)

#### **Table 1: Description of Variables**

#### Methods of Data analysis

Data collected from annual reports were analyzed using descriptive as well as econometric techniques. Panel data analysis was performed using the fixed-effects and random-effects model to study variation in intercept between cross sectional units. Fixed effect model assesses firmwise variation in intercept assuming same slope, constant variations, and time invariant individual effects. On the contrary, random effects treats individual intercepts as a random variable with a mean value  $\beta_1$  and express intercept of each company as  $\beta_{1i} = \beta_1 + \varepsilon_i$  where  $\varepsilon_i$  is random error with zero mean (Gujarati, 2003). Before applying the panel model, data was validated on parameters such as normality and stationarity using suitable tests. The regression model shown below was developed for analysis based on past research by Goyal, et al., (2016), Minhas & Ahsan (2015), Sharma & Rathore (2016), Pandya (2015), Jathurika (2019).

Fixed Effects Model

$$\begin{split} & \text{ROA}_{it} = \beta_{1i} + \beta_2 \text{OI}_{it} + \beta_3 \text{NPTC}_{it} + \beta_4 \text{NIM}_{it} + \beta_5 \text{ACTC}_{it} + u_{it} \\ & \text{ROA}_{it} = \beta_{1i} + \beta_2 \text{OI}_{it} + \beta_3 \text{NPTC}_{it} + \beta_4 \text{NIM}_{it} + \beta_5 \text{ICTC}_{it} + u_{it} \\ & \text{ROA}_{it} = \beta_{1i} + \beta_2 \text{OI}_{it} + \beta_3 \text{NPTC}_{it} + \beta_4 \text{NIM}_{it} + \beta_5 \text{SCTC}_{it} + u_{it} \\ & \text{ROA}_{it} = \beta_{1i} + \beta_2 \text{OI}_{it} + \beta_3 \text{NPTC}_{it} + \beta_4 \text{NIM}_{it} + \beta_5 \text{PCTC}_{it} + u_{it} \end{split}$$

Random Effects Model

$$\begin{aligned} &\text{ROA}_{it} = \beta_1 + \beta_2 OI_{it} + \beta_3 \text{NPTC}_{it} + \beta_4 \text{NIM}_{it} + \beta_5 \text{ACTC}_{it} + \varepsilon_i + u_{it} \\ &\text{ROA}_{it} = \beta_1 + \beta_2 OI_{it} + \beta_3 \text{NPTC}_{it} + \beta_4 \text{NIM}_{it} + \beta_5 \text{ICTC}_{it} + \varepsilon_i + u_{it} \\ &\text{ROA}_{it} = \beta_1 + \beta_2 OI_{it} + \beta_3 \text{NPTC}_{it} + \beta_4 \text{NIM}_{it} + \beta_5 \text{SCTC}_{it} + \varepsilon_i + u_{it} \\ &\text{ROA}_{it} = \beta_1 + \beta_2 OI_{it} + \beta_3 \text{NPTC}_{it} + \beta_4 \text{NIM}_{it} + \beta_5 \text{PCTC}_{it} + \varepsilon_i + u_{it} \end{aligned}$$

# DATA ANALYSIS AND INTERPRETATION

#### **Descriptive Analysis**

The descriptive results of the collected data are presented in Table – 2. It shows that Indian banks are able to generate an average return of 0.25% on their asset which is quite low though the operating revenue grew by approximately 7.1%. It indicates that banks need to improve their cost efficiency to reap the benefits of increasing revenue. Average bank credit to the non-priority sector is 67.11% with a standard deviation of 6.82% showing a relatively stable scenario. Analysis of priority sector revels that the highest credit was deployed to agriculture and allied activities (39.04%) which is followed by the service sector (24.31%), industries (19.63%) and lastly personal credit (17%). Average net interest margin was nearly 3% which is quite reasonable.

Table 2: Descriptive Statistics							
	Minimum	Maximum	Mean	Std. Deviation			
ROA	-0.0246	0.0202	0.0025	0.0103			
OI	-0.1828	0.6169	0.0706	0.1004			
NPTC	0.4995	0.8186	0.6711	0.0682			
NIM	0.0132	0.3230	0.0292	0.0261			
ACTC	0.2277	0.5048	0.3903	0.0647			
ICTC	0.0308	0.4138	0.1962	0.0630			
SCTC	0.0798	0.6803	0.2431	0.0991			
PCTC	0.0009	0.4020	0.1700	0.0852			

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Source: Compiled from SPSS Output

#### Normality Test

Validity of statistical results is highly sensitive to normality of data. The Kolmogorov-Smirnov (KM) test was applied to check whether the data follows a normal distribution or not. KM test assumes that data is normal as the null hypothesis. As per Table – 3, initially only two variables (ICTC and OI) were found to be normal (p – value > 0.05) and hence a two-stage transformation was applied (Templeton, 2011) which first convert the data into percentile rank and then perform an inverse noramlity function to obtain the desired results. Post transformation, all the selected variables were found to be normal (p – value > 0.05) so further testing could be applied.

Tak	ole 3: Results of	Kolmogorov - S	mirnov Tests	
Variables	Origina	l Data	Transform	ned Data
variables	Statistic	p – value	Statistic	p – value
ROA	0.102	0.001	0.019	0.200
OI	0.051	0.200	0.053	0.200
NPTC	0.080	0.028	0.015	0.200
NIM	0.297	0.000	0.021	0.200
ACTC	0.076	0.046	0.015	0.200
ICTC	0.057	0.200	0.016	0.200
SCTC	0.185	0.000	0.062	0.200
PCTC	0.106	0.001	0.024	0.200

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Source: Compiled from SPSS Output

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#### Unit Root Testing

Financial data when collected over a long horizon must be tested for stationarity. According to Gujarati (2003), a time series is said to be stationary when its variance, mean and autocovariance are time invariant. Augmented Ducky Fuller (ADF) test was applied to know stationarity of data and the results are presented in Table - 4. The result of the ADF test shows that the selected series is stationary.

	ADF Test Statistic	p – value	Nature of Series					
ROA	-9.0740	0.0000	Stationary					
OI	-9.0043	0.0000	Stationary					
NPTC	-1.1884	0.0054	Stationary					
NIM	-11.3062	0.0000	Stationary					
ACTC	-10.3255	0.0000	Stationary					
ICTC	-11.9971	0.0000	Stationary					
SCTC	-9.8347	0.0000	Stationary					
PCTC	-8.3353	0.0000	Stationary					

Table 4: Results of Unit Root (ADF) Test

Source: Compiled from E-Views Output

# Serial Correlation Test

Pair wise correlation between the dependent and independent variables is summarized in Table -5. The results show that operating income growth and net interest margin are positively and significantly related with ROA. Further, on observing the priority sector credit, it was revealed that only personal sector credit has insignificant relation with ROA. Agricultural and industrial credit are negatively related with ROA whereas service sector credit has a positive relation with profitability. The relation between ROA and credit in agriculture, industry and service industry are statistically significant and hence banks must consider these relations while evaluating any loan proposal.

Table 5: Correlation Matrix								
	ROA	OI	NPTC	NIM	ACTC	ICTC	SCTC	PCTC
ROA	1							
OI	0.717**	1						
NPTC	0.524**	0.496**	1					
NIM	0.720**	0.539**	0.218**	1				
ACTC	-0.245**	-0.190*	-0.379**	-0.185*	1			
ICTC	-0.174*	-0.039	0.090	-0.101	-0.451**	1		
SCTC	0.169*	0.140	-0.100	0.142	-0.242**	-0.451**	1	
PCTC	-0.060	-0.163	0.146	-0.082	-0.239**	-0.165	-0.448**	1

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\*: Significant at 5% \*\*: Significant at 1% Source: Compiled from SPSS Output

#### Results of Econometric Models and Hypothesis Testing

Results of regression models using profitability as the dependent variable and priority sector credit as the independent variable is presented in Tables 6 to 9. As the study was based on panel data the fixed and random effect model was applied to know any cross sectional and time variations. The Hausman chi square test was applied to check the suitability of models and it showed that the fixed effect model was suitable in every case (p – value < 0.05). The Result of the Hausman test is further supported by R-square values that show that the fixed effect model can explain a higher proportion of variations. To check for multicollinearity and autocorrelation, variance inflation factor (VIF) and the Durbin Watson (DW) test was conducted and showed the highest values 1.905 and 2.125, respectively. It showed that both phenomena were within the control limit (Gujarati, 2003). Overall model fit was also tested using F test and results (p – value < 0.05) conclude that the exploratory variables, included in the research, play a significant role in predicting ROA for all models.

#### Agricultural Credit and ROA

The summary output of Table -6 shows that agricultural credit had a significant negative impact on ROA (p - value < 0.05). Usually, agricultural credits are in small amounts and deployed at subsidized rates. Besides, farming in India is still in the phase of adopting modernization and therefore crop output largely depends on weather conditions. These reasons may be attributed to such a negative association between profitability and agricultural credit.

(using agricultural credit as dependent variable)						
	Fixed	Effect Mod	el	Random Effect Model		
	Co-efficient	t – value	p – value	Co-efficient	t – value	p – value
Intercept	-0.0677	-7.5774	0.0000	-0.0571	-7.6169	0.0000
OI	0.0078	1.6060	0.1113	0.0100	2.2278	0.0276
NPTC	0.1852	5.1519	0.0000	0.2338	9.7129	0.0000
NIM	0.1035	8.9666	0.0000	0.0764	8.7598	0.0000
ACTC	-0.0134	-1.1161	0.0269	-0.0020	0.2184	0.0897
F – Value	17.49 (0.00)			49.17 (0.00)		
R <sup>2</sup> / Adj. R <sup>2</sup>	0.8378/0.7899			0.5983/0.5862		

Table 6: Regression Output of Model 1

DW: 1.9876; VIF: 1.775; Hausman Test: 17.42 (0.002) Source: Compiled from EViews Output

#### Industrial Credit and ROA

Table 7 shows the abridged view of regression results of Model 2. Industrial credit had a negative but insignificant effect on bank profitability. Most of Indian SMEs are ancillary units that produce raw materials and spare parts for other giant players. Reducing industrial output, declining effective demand and inadequate infrastructural facilities are major blocks to development of the Indian industrial sector. Such causes lead to adverse effects of industrial credit on bank profitability.

Table 7: Regression Output of Model 2 (using industrial credit as dependent variable)						
	Fixed E	Effect Mode		Randor	n Effect Mo	del
	Co-efficient	nt t – value p – Co-efficient t – value p – value				
Intercept	-0.0721	-9.1991	0.0000	-0.0551	-9.5119	0.0000
OI	0.0079	1.6356	0.1049	0.0099	2.2081	0.0289
NPTC	0.1925	5.4838	0.0000	0.2345	9.9784	0.0000
NIM	0.1024	8.8538	0.0000	0.0752	8.8779	0.0000
ICTC	-0.0012	-0.1799	0.0876	-0.0021	-0.3063	0.1586
F – Value	17.46 (0.00)	50.01 (0.00)				
R² / Adj. R²	0.8362/0.7883		0.6011/0.5890			

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DW: 1.9339; VIF: 1.779; Hausman Test: 17.65 (0.001) Source: Compiled from EViews Output

#### Service Credit and ROA

The impact of service sector credit is summarized in Table 8 which shows that service credit improves profitability of banks. Service sector commands the highest share in Indian GDP i.e., approx. 61%. Stable growth, increasing demand of quality services, technological advancement and skilled manpower are the major success drivers of Indian services. Service sector credit has a positive and significant impact on ROA (p-value < 0.05) conveying that credit in this sector can add value to bank performance.

Table 8: Regression Output of Model 3 (using service credit as dependent variable)						
	Fixed	Effect Mod	el	Randon	n Effect Mo	del
	Co-efficient	t – value	p – value	Co-efficient	t – value	p – value
Intercept	-0.0681	-7.8319	0.0000	-0.0573	-9.7350	0.0000
OI	0.0075	1.5429	0.1259	0.0098	2.2041	0.0292
NPTC	0.1869	5.2829	0.0000	0.2333	10.2930	0.0000
NIM	0.0999	8.4751	0.0000	0.0748	9.0395	0.0000
SCTC	0.0971	-1.0606	0.0025	0.0084	1.4356	0.0935
F – Value	17.21 (0.00)			52.58 (0.00)		
$R^2$ / Adj. $R^2$	0.8355/0.7870			0.6143/0.6027		

DW: 1.9444; VIF: 1.802; Hausman Test: 21.49 (0.000) Source: Compiled from EViews Output

## **Personal Credit and ROA**

Under the priority sector, personal credit includes educational loan, housing loan fulfilling specified conditions and other non-classified areas. The regression results as shown in Table -9 indicates that personal credit has a negative but insignificant effect on ROA of banks.

(using personal credit as dependent variable)						
Fixed	Effect Mod	el	Randor	n Effect Mo	del	
Co-efficient	t – value	p – value	Co-efficient	t – value	p – value	
-0.0777	-9.8819	0.0000	-0.0562	-9.8986	0.0000	
0.0076	1.6356	0.1049	0.0098	2.2626	0.0253	
0.1657	4.7383	0.0000	0.2319	10.0584	0.0000	
0.1014	8.9053	0.0000	0.0762	8.9495	0.0000	
-0.0403	3.1773	0.2154	-0.0004	0.0626	0.2501	
19.27 (0.00)			47.52 (0.00)			
0.8505/0.8063			0.5902/0.5777			
	Fixed Co-efficient -0.0777 0.0076 0.1657 0.1014 -0.0403 19.27 (0.00) 0.8505/0.8063	Fixed Effect Mod    Co-efficient  t - value    -0.0777  -9.8819    0.0076  1.6356    0.1657  4.7383    0.1014  8.9053    -0.0403  3.1773    19.27 (0.00)  0.8505/0.8063	Fixed Effect Model    Co-efficient  t – value    -0.0777  -9.8819  0.0000    0.0076  1.6356  0.1049    0.1657  4.7383  0.0000    0.1014  8.9053  0.0000    -0.0403  3.1773  0.2154    19.27  (0.00)  0.8505/0.8063	Fixed Effect Model  Randor    Fixed Effect Model  Randor    Co-efficient  Co-efficient    -0.0777  -9.8819  0.0000  -0.0562    0.0076  1.6356  0.1049  0.0098    0.1657  4.7383  0.0000  0.2319    0.1014  8.9053  0.0000  0.0762    -0.0403  3.1773  0.2154  -0.0004    19.27 (0.00)	Fixed Effect Model  Random Effect Model    Co-efficient  t - value  p - value  Co-efficient  t - value    -0.0777  -9.8819  0.0000  -0.0562  -9.8986    0.0076  1.6356  0.1049  0.0098  2.2626    0.1657  4.7383  0.0000  0.2319  10.0584    0.1014  8.9053  0.0000  0.0762  8.9495    -0.0403  3.1773  0.2154  -0.0004  0.0626    19.27 (0.00)  47.52 (0.00)  0.5902/0.5777  0.5902/0.5777	

Table 9: Regression Output of Model 4 (using personal credit as dependent variable)

DW: 2.1247; VIF: 1.905; Hausman Test: 28.04 (0.002)

Source: Compiled from EViews Output

# **Hypothesis Testing**

Table -10 depicts the hypothesis testing based on the regression results. It presents the statement of hypothesis, decision, and the relationship observed from the results.

	Table TO: Hypothesis resting						
	Hypothesis	Decision	Observed Relation				
H <sub>01</sub> :	Agricultural credit has no significant impact on return on asset of banks.	Rejected	Negative & Significant				
H <sub>02</sub> :	Industrial credit has no significant impact on return on asset of banks.	Fail to Reject	Insignificant				
H <sub>03</sub> :	Service credit has no significant impact on return on asset of banks.	Rejected	Positive & Significant				
H <sub>04</sub> :	Personal credit has no significant impact on return on asset of banks.	Fail to Reject	Insignificant				

Table 10: Hypothesis Testing

Source: Compiled by Author

# POLICY IMPLICATIONS

The Indian financial ecosystem is highly regulated, and participants are required to abide by the norms and policies of the governing body. Policy decisions supported by empirical research are highly acceptable and hence the current research has the following implications for making policies.

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Though banks have experienced significant growth in operating revenue as well as stable net interest margins, profitability ratio is quite low. Therefore, banks must probe into their operational management to achieve cost effectiveness and improve returns.

Analyzing PSL, agricultural credit has the highest share among all sectors which may be due to higher targets of the same. It has an adverse effect on bank profit and therefore RBI should rethink over the targets set for deployment of credit. Similar conclusion can be drawn for industrial credit as well. Industrial credit, having an average share of 19.62%, also leads to erosion of bank profitability because of high maintenance costs and subsidized interest rates.

Service sector lending has found to have positive impact on bank performance. Growing demand, increasing share in GDP, government schemes such as 'Skill India' are major drivers of services growth. Based on empirical findings, it can be suggested that focus should be diverted from the agriculture to service sector to boost economic growth and development.

# CONCLUSION AND SCOPE OF FURTHER RESEARCH

A healthy and stable banking network is essential for the growth of the financial system of any country. Profitability is a benchmark for measuring sustainability of banks just like any other business. Bank performance is a function of deployment of credit in various segments. One of the segments of lending is the priority sector which is promoted to provide enough financial resources to weaker or neglected but important sectors. This study analyzed the impact of PSL on bank profitability by breaking down total lending into four broad categories i.e., agriculture, industrial, service, and personal. Based on regression results, it is concluded that agriculture and industrial lending are negatively affecting ROA of banks whereas service sector lending is found to have strong positive association with bank profitability. The outcome of this research will help policy makers and banking professionals to devise strategies for improving profitability by reducing exposure to unfavorable sectors and diverting the focus on more promising industries.

Besides theatrical and policy contributions, this research provides several important insights for extending the research in future. First, as this study is based on accounting measures of profitability, future research can be conducted considering market-based performance measures such as Tobin's Q ratio and market-to-book value ratio. Second, the moderating role of bank ownership structure (public sector and private sector) can be studied to obtain more robust results. Third, a cross-country study can be conducted to know international differences and to control for the effect of macroeconomic factors.

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