



EVALUATING THE IMPACT OF KEY VARIABLES ON THE FINANCIAL PERFORMANCE OF PAYMENT BANKS: A CASE STUDY ON INDIA POST PAYMENT BANK

Dr. Kavitha Vani SD*, Dr. Latha R, Dr. Devika A*****

*Associate Professor, Department of Commerce
L.B.S. Government First Grade College, R.T. Nagar, Bengaluru-560032
Karnataka, India

**Associate Professor, Department of Commerce
L.B.S. Government First Grade College, R.T. Nagar, Bengaluru-560032
Karnataka, India

***Associate Professor, Department of Commerce
L.B.S. Government First Grade College, R.T. Nagar, Bengaluru-560032
Karnataka, India

ABSTRACT

Financial inclusion is a social goal; payment banks must strike a balance between maximizing profits and fulfilling their mission of financial inclusion. RBI reports that the payment banks sector as a whole is operating at a loss. The study aims to identify and analyze the impact of variables that contribute to the financial stability of payment banks, with a specific focus on IPPB. It finds that the key independent variables, operational efficiency and bank size, do not contribute significantly to the economic stability of the payment bank under study. The positive correlation between Asset Management and Return on Assets indicates the impact of effective Asset Management on financial stability.

Key Words: Differentiated banks, Variables, Financial Inclusion, Financial performance. IPPB (India Post Payment Bank)

Introduction

Financial inclusion plays an important role in India's economic development by delivering financial services, especially for those excluded from the digital economic system. RBI conceptualized differentiated banking, which is different from universal banks in terms of capital requirement, area, and scope of activities. Payment banks are differentiated banks meant for further financial inclusion by providing a small savings account and payment services to the migrant labour workforce, low-income households, small businesses, other unorganized sectors, and other users. Eleven applicants were approved, and six payment banks are currently operating: Airtel Payment Bank, Fin, NSDL, Jio, Paytm, and India Post Payment Bank. Payment banks operate like any other bank without involving any credit risk. It can carry out most of the banking operations, but can't advance loans or issue credit cards. The primary objective of setting up payment banks is to cater to the underserved population's savings account and transactional needs. The success of financial inclusion depends upon the financial soundness of payment banks. A financially sound payment bank will be able to carry on financial inclusion effectively, and since 2016, the financial performance of the payment banks has not been lucrative.

Review of Literature

Payment Banks can be called a paperless bank that supports the Government regarding Digital India. Awareness about digital banking may bring more popularity to payment banks (Borker & Galande). Payment banks play a very important role in financial inclusion and in implementing the government's direct benefit transfer scheme. Effective implementation of payment banks will magnify the potential of financial inclusion in the economy by empowering citizens to transact digitally (Srinivas). Payment banks have the potential to play a significant role in transforming India into a cashless economy and make a significant contribution to financial inclusion (Thakkar et. al). Payment banks can become an important player in the financial inclusion process by focusing on providing awareness about its financial services among the people of India. There is a moderate level of awareness about payment banks among people having education, and occupation in an organized sector when compared to people from other demographic characteristics (Kuriakore & Johnson). Payment banks will face competition from the existing lenders. Besides, profitability will remain a challenge as they will work on narrow margins. Great challenges have to be faced by innovative banking systems to meet ever-growing customers' expectations for faster, easier, and simpler banking facilities (Pande). The success of payment banks depends upon the level of awareness among customers regarding payment banks in India. Payment banks are a new concept in India and people belonging to low-income groups do not have adequate resources to get updates about innovations in the banking industry. Adequate efforts to create awareness of differentiated banking among the low-income group have a positive impact on the acceptability of payment banks (Bansal). There are several concerns raised about the validity of the payment banks as existing large banks have an opportunity for the services that are intended to be provided by the payment banks. A strict regulatory mechanism is required for the success of payment banks as a measure of financial inclusion (Goel). Reserve Bank of India awarded licenses to eleven applicants, only six of these were operative and not very successful both from profitability and customer growth perspectives. Lack of awareness, lack of trust, and lack of perceived need are the primary factors contributing to low adoption by customer segments (Pramani & Iyer).

Payment banks can become an important player in the financial inclusion process by focusing on providing awareness about its financial services among the people of India. There is a moderate level of awareness about payment banks among people having education, and occupation in an organized sector when compared to people from other demographic characteristics (Kuriakore & Johnson).

India Post Payment bank concentrates on various financial services and to make it more effective, there is a need to improve the awareness level of account holders and employees. Proper marketing of services and training to employees will facilitate IPPB to successfully provide the services of payment banks (Venkatachalam). India Post Payment Bank intends to deliver targeted financial services to the target demographic at a cheap cost. The Presence of post offices in rural areas and linking payment banking services to post offices will facilitate reaching the unbanked and underbanked across all cross-sections of society and geographics (Balreddy et.al). India Post Payment Bank has a positive impact on financial inclusion as it leverages Aadhar-based payment system services. It can be forecasted that India Post Payment Bank will ignite the digital financial inclusion drive in isolated areas (Mondel). India Post Payment Bank leverages the network of the Department of Post which has the largest postal network in the world. The major challenge for IPPB is that they are not allowed to advance loans which is the primary source of income to the banks. There arises a need for generating income through unconventional ways. Behavioural barriers and lack of technological literacy can pose the biggest challenge to financial inclusion by payment banks (Sahu & Minj).

Research Gap

Most of the studies on payment banks concentrate on assessing the awareness level of the respondents about the services offered by the payment banks. The authors of the above literature relate the awareness level to the success of the financial inclusion process by payment banks. The success of financial inclusion programmes through payment banks depends upon their financial stability. The financial viability of payment banks needs to be assessed as RBI statistics indicate that out of eleven licensed payment banks, only five of these are operative and not very successful, both from profitability and customer growth perspectives. There are very few studies analyzing the financial performance of the payment banks. The need arises to assess the financial stability of payment banks and identify the variables impacting their financial performance. The study aims to analyze the key variables that influence the financial performance of payment banks with specific reference to the India Post Payment Bank.

Research Questions

The following research questions are raised based on the research gap identified through a review of the literature:

- Why are only five payment banks operative out of eleven financial banks?
- Is there a need to assess the financial performance of the payment banks to achieve the mission of financial inclusion?
- What are the key variables influencing the profitability of payment banks?

Objectives

The study aims to achieve the following objectives:

- To evaluate the financial performance of India Post Payment Bank in contrast with the overall performance of Payment Banks.
- To analyze the impact of bank-specific variables on the financial performance of India Post Payment Bank.

Hypothesis

The following hypothesis is framed to achieve the objectives of the study:

H0: Bank-specific variables significantly impact the bank's performance variables.

H1: Bank-specific variables do not significantly impact the bank's performance variables.

The hypothesis is further analyzed by testing individual bank-specific dependent variables on the independent variables.

H1: There is a significant impact of Operating Efficiency on Return on Assets.

H2: There is a significant impact of Business Size on Return on Assets.

H3: There is a significant impact of Asset Management on Return on Assets.

H1: There is a significant impact of Operating Efficiency on Interest Income.

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Research Methodology

Sample Design: The study focuses on Payment Banks, specifically the India Post Payment Bank.

Data Source: Desk research involved reviewing various published and unpublished materials related to the study area, annual reports from the bank, and the RBI website.

Selected variables for the study:

The following dependent and independent variables were identified through a review of the literature to analyze the impact of bank-specific variables on the bank performance variables.

Dependent Variables	Independent Variables
Return on Assets	Operational Efficiency
Interest Income	Business Size
	Asset Management

Statistical Tools: The statistical analysis involved in this study utilized correlation, ANOVA, and regression analysis with the SPSS 30.0 version as the chosen tool.

Limitations of the Study

- The present study has identified key variables based on the previous literature on financial performance evaluation.
- The study does not include the evaluation of the financial performance of all payment banks. The consolidated performance data are drawn from RBI annual reports.

Results and Discussion

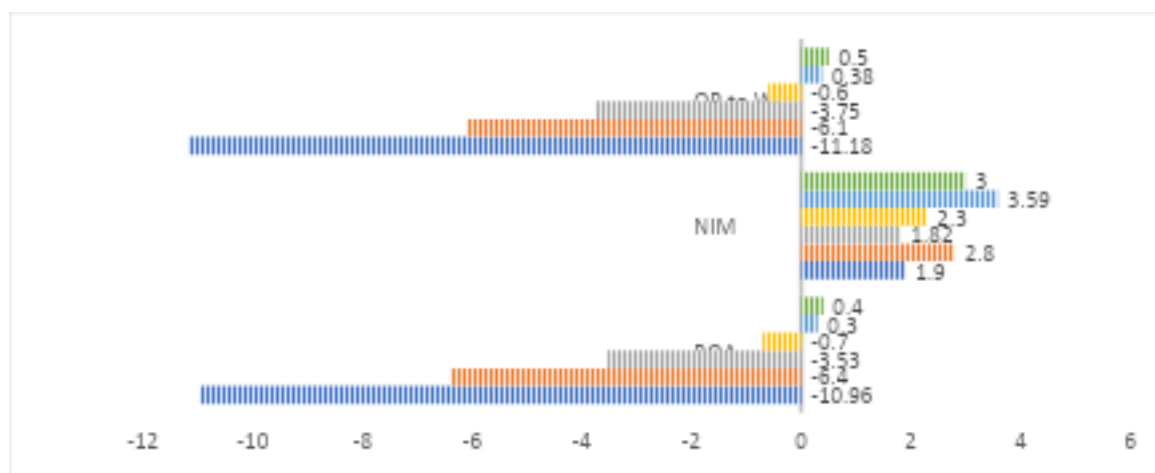
RBI Report on Trend and Progress of Banking in India highlights that payment banks turned profitable during 2022-23 for the first time since their inception, indicating financial instability among all payment banks. The consolidated financial performance comprises five payment banks, which might have contributed divergently. A comparative study of the selected payment bank's performance is made to assess its financial performance with the consolidated payment banks' performance to know the level of divergence.

Table No:1 Table showing comparative analysis of the financial performance of India Post Payment Bank with consolidated financial performance of payment banks

	2020-21 (%)		2021-22(%)		2022-23(%)	
	IPPB	Consolidated	IPPB	Consolidated	IPPB	Consolidated
ROA	-10.96	-6.4	-3.53	-0.7	0.30	0.4
NIM	1.90	2.8	1.82	2.3	3.59	3
Operating Profits as Percentage of Working Funds	-11.18	-6.1	-3.75	-0.6	0.38	0.5

Source: computed from annual reports of IPPB and RBI

Chart No: 1 Chart showing the comparative financial performance of IPPB with Payment banks



The ROA of IPPB and all payment banks are negative for the assessment periods 2021 and 2022 and positive for the year 2023 indicating the financial difficulties faced by the payment banks. The Percentage of negative ROA of India Post Payment Bank is much higher than the overall return on assets of all payment banks during the years 2021 and 2022. The Net Interest Margin of IPPB is almost on par with the consolidated net interest margin of all payment banks during the years 2021 and 2022 and has generated a higher NIM when compared to all payment banks. The comparison of operating profits to working funds shows a similar trend of performance by IPPB.

The hypothesis is tested using correlation, multiple regression analysis, and ANOVA. The following inferences are made based on the results of multiple regression, Correlation, and ANOVA.

Correlations

		ROA	OE	BS	AM
Pearson Correlation	ROA	1.000	-.925	.543	.992
	OE	-.925	1.000	-.467	-.901
	BS	.543	-.467	1.000	.558
	AM	.992	-.901	.558	1.000
Sig. (1-tailed)	ROA	.	.004	.133	<.001
	OE	.004	.	.175	.007
	BS	.133	.175	.	.125
	AM	.000	.007	.125	.
N	ROA	6	6	6	6
	OE	6	6	6	6
	BS	6	6	6	6
	AM	6	6	6	6

The Correlation results in the above table show that the correlation coefficient between Return on Assets and Operational Efficiency is -.925, which is negatively correlated, and the p-value of .004 < .05 indicates that the negative correlation is statistically significant. The correlation coefficient between Return on Assets and Bank Size is .543 indicates a moderate positive correlation, and the p-value is .133, showing no significant relationship between the variables. The correlation coefficient between Asset Management and Return on Assets is .992 indicates that the variable Asset Management is correlated positively with the Return on Assets. The p-value is .000 less than .005, indicating the statistical significance of the positive relationship between Asset Management and Return on Assets.

Regression Model for Return on Assets on Operational Efficiency, Bank Size, and Asset Management

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.995 ^a	.990	.974	1.71732	.990	64.043	3	2	.015
a. Predictors: (Constant), AM, BS, OE									

The R = .995 indicates a high degree of relationship between Operational Efficiency, Bank Size, and Asset Management variables. The R Square = .990 depicts that 99% of the variance of the dependent variable Return on Assets is explained by the independent variables.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	566.620	3	188.873	64.043	.015 ^b
	Residual	5.898	2	2.949		
	Total	572.518	5			
a. Dependent Variable: ROA						
b. Predictors: (Constant), AM, BS, OE						

The dependent variable Return on Assets was regressed on the predicting variables of Operational Efficiency, Bank Size, and Asset Management. The independent variables significantly predict the Return on Assets $F(3,2) = 64.043$, $p=.015 < 0.05$ indicates that the three independent variables under study significantly impact the Return on Assets.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.129	1.944		.581	.620
	OE	-.469	.465	-.167	-1.008	.419
	BS	-3.013E-9	.000	-.007	-.085	.940
	AM	98.990	20.697	.846	4.783	.041
a. Dependent Variable: ROA						

Additionally, coefficients were assessed to ascertain the influence of each factor on the dependent variable Return on Assets.

Hypothesis	Regression Weights	B	t	p	Results
H1	OE-ROA	-.469	-1.008	.419	Not supportive
H2	BS-ROA	-3.013	-.085	.940	Not Supportive
H3	AM-ROA	98.990	4.783	.041	Supportive

Regression II

Correlations					
		II	OE	BS	AM
Pearson Correlation	II	1.000	-.621	.876	.536
	OE	-.621	1.000	-.467	-.901
	BS	.876	-.467	1.000	.558
	AM	.536	-.901	.558	1.000
Sig. (1-tailed)	II	.	.094	.011	.136
	OE	.094	.	.175	.007
	BS	.011	.175	.	.125
	AM	.136	.007	.125	.
N	II	6	6	6	6
	OE	6	6	6	6
	BS	6	6	6	6
	AM	6	6	6	6

The results of the correlation presented in the above table indicate that the correlation between Interest income and Operational efficiency -.625 is negatively correlated and not statistically significant with a p-value $>.05$. The correlation coefficient between Business Size and Interest Income is .876 indicating a positive correlation between the variables and p-value .011 shows the relation between the variable is statistically significant. Similarly, a moderate positive correlation between Asset Management and Interest income exists with an R-value of .536 and a p-value of .136 $>.05$.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.960 ^a	.921	.803	262327.973399	.921	7.809	3	2	.116
a. Predictors: (Constant), AM, BS, OE									

The R = .960 indicates a high degree of relationship between Operational Efficiency, Bank Size, and Asset Management variables. The R Square = .921 depicts that 92% of the variance of the dependent variable Interest Income is explained by the independent variables.

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1612227483535.643	3	537409161178.548	7.809	.116 ^b
	Residual	137631931255.690	2	68815965627.845		
	Total	1749859414791.333	5			
a. Dependent Variable: II						
b. Predictors: (Constant), AM, BS, OE						

The dependent variable Interest Income was regressed on the predicting variables of Operational Efficiency, Bank Size, and Asset Management. The independent variables significantly predict the Return on Assets $F(3,2) 7.809$, $p=.116 > 0.05$ indicating that the three independent variables under study significantly have no impact on the Interest Income.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	260972.969	296978.708		.879	.472
	OE	-139091.766	71106.019	-.897	-1.956	.190
	BS	.020	.005	.885	3.683	.066
	AM	-4950401.415	3161619.376	-.765	-1.566	.258
a. Dependent Variable: II						

Coefficients were assessed to ascertain the influence of each factor on the dependent variable Interest Income.

Hypothesis	Regression Weights	B	t	p	Results
H1	OE-II	-139091.766	-1.956	.190	Not supportive
H2	BS-II	.020	3.683	.066	Not Supportive
H3	AM-II	-4950401.415	-1.566	.258	Not Supportive

Findings

- Operational efficiency has no impact on India Post Payment Bank's performance as the variables are negatively correlated.
- A moderate positive correlation exists between the return on assets and the bank size, with $r = .543$, which is statistically significant.
- Asset management impacts the performance of the India Post Payment Bank, as the variables are positively correlated with $r = .992$ and are statistically significant.
- Interest income has no impact on the financial performance in generating interest income as the variables are negatively correlated with $r = -.625$.
- The output of regression analysis indicates that independent variables identified in the study have no impact on the dependent variable interest income.
- The financial performance of IPPB in terms of ROA, NIM, and operating profits to working funds are on par with the consolidated payment banks' performance.

Conclusion

Payment banks are specialized financial institutions designed to facilitate low-value payments, accept deposits, and provide remittance services to underserved populations. The success of financial inclusion through payment banks depends on the financial stability of these differentiated banks. The journey of payment banks seems to be not lucrative. Out of eleven licenses granted, only five are currently in operation, and not all are financially stable. The major source of income generation for banks is through lending, and the same is restricted to the payment banks. Competition from scheduled commercial banks, restricted mobilization of deposits, and restrictions on lending are some of the reasons attributable to the poor financial performance of the payment banks. The study analyses the variables impacting the financial performance of the India Post Payment Bank and finds that effective asset management has an impact on financial performance.

Policy Implications

The findings of the study suggest that the financial stability of payment banks can be boosted by effective asset management. The bank under study, India Post Payment Bank, is a division under the ownership of the Department of Posts under the Ministry of Communication. The reach of the Department of Post has enabled the extension of financial services to the last mile, which might have facilitated better liquidity management, operational efficiency, and cost management, and efficiency. The policymakers could elevate the success of the mission of financial inclusion by extending licenses to well-established entities and having a presence across India that can balance the motto of profits with the social mission of financial inclusion.

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