



CAPITAL STRUCTURE AND DIVIDEND PAYOUT POLICY: EVIDENCE FROM LISTED INDIAN PRIVATE SECTOR BANKS

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Article DOI: <https://doi.org/10.36713/epra31859>

DOI No: 10.36713/epra31859

ABSTRACT

This study examines the impact of earnings per share on dividend payout ratio in Indian pharmaceutical companies. The secondary data was collected from annual financial reports for the period ranging from 2015-16 to 2024-25. The study employed Random effect regression model and the results indicates the existence of positive and significant relationship between earnings per share and dividend payout ratio and firm size is considered as control variable which shows a negative relationship with dividend payout ratio. This study contributes to the literature on dividend policy in Indian pharmaceutical industry indicating higher EPS is contributing to distribution of higher dividend to shareholders.

KEYWORDS- Earnings per share, Dividend payout ratio, Firm size, Indian Pharmaceutical industry.

1. INTRODUCTION

Capital structure and dividend payout policy are two most important financial decisions that influence a company's profitability, sustainability and shareholder value. Capital structure refers to the mix of financing sources to finance the company's assets and operations. In the banking sector, capital structure assumes importance in particular because they generally operate on high leverage and also depend heavily on external sources of funds and the banks are also subject to regulatory capital requirements, which influence their financing decisions and capacity to distribute profits. Dividend payout policy, on the other hand, means a decision taken regarding the proportion of profits distributed by the company to its shareholders in the form of dividends and the rest of the proportion of the profits are retained for future investment. The Dividend Payout Ratio (DPR) is commonly used to measure the dividend policy followed by the companies.

Capital structure and dividend payout policy are the two financial decisions which are linked because both of them compete for the same pool of funds that are generated internally. When a bank or a company distributes a larger proportion of its profits as dividends it leads to fewer internal funds left which are available to finance assets and bank may need to rely more heavily on external financing and vice-versa.

Therefore, capital structure decisions and dividend decisions cannot be viewed independently because changes in one have an impact on another. This interrelationship is particularly relevant in the context of banks because maintaining adequate capital is essential for absorbing financial losses, supporting lending activities, meeting regulatory requirements, and maintaining depositor and investor confidence. Therefore, a bank's decision to distribute profits must be considered alongside its capital requirements and financing structure.

The study of this relationship is particularly important for listed Indian private sector banks. Private sector banks play a significant role in India's financial and also operate in a highly competitive and regulated environment in which maintaining adequate capital while generating attractive returns for shareholders is a continuous challenge. These banks must balance shareholder expectations for dividends with the need to retain sufficient earnings to support expansion and in maintaining financial strength. Changes in capital structure may therefore influence the amount of profit that can be distributed to shareholders.

Therefore, the present study which is "Capital Structure and Dividend Payout Policy: Evidence from Listed Indian Private Sector Banks," examines whether the capital structure of selected listed Indian private sector banks influences their dividend payout decisions.

2. REVIEW OF LITERATURE

Kaur and Kaur (2025) examined the relationship among board composition, ownership structure and dividend payout policy for the period 2019 to 20221 in India. For the study top 30 companies listed on the National Stock Exchange (NSE) in India. The findings



revealed a significant and positive relationship between board size and dividend policy but board independence did not have a significant relationship with dividend decisions and return on assets had a positive impact on dividend policy.

Gupta and Kaur (2024) conducted the study to analyse the effect of ownership structure on dividend policy in selected Indian private-sector banks. The study examined a sample of 10 private-sector banks for the period 2010–2021. The results indicated that ownership structure has an influence on dividend policy, suggesting that differences in the composition of shareholders can significantly affect the dividend distribution decisions of private-sector banks.

Sbai et al. (2024) examined the impact of ownership structure on bank dividend policy of Islamic and conventional banks in MENA and Asian countries from 2012–2020. The study found that concentrated ownership negatively affects dividend payouts but the foreign ownership has a positive influence. The study also showed that COVID-19 reduced dividend payouts for state-owned and foreign-owned banks, while national culture further influenced dividend policy.

Wardana et al. (2024) examined the determinants of capital structure in Islamic banks using data from 19 Islamic banks across 11 countries. Using panel data regression, the study found that bank value and profitability positively influence capital structure, while bank size and dividend policy have no significant effect. The study highlights the importance of profitability and bank value in maintaining an optimal capital structure in Islamic banking.

Gupta and Kaur (2024) examined the impact of ownership structure on dividend policy in 10 Indian private-sector banks using data from 2010–2021. The study considered promoter, FII, DII and public ownership along with dividend payout ratio. Using multiple regression analysis, the findings showed that ownership structure has a significant influence on dividend policy. The study highlights ownership pattern as an important determinant of dividend decisions in Indian banks.

Kadam (2023) examined the impact of financial leverage on dividends of 10 nationalized banks in India for 2001 to 2010. The main objective was to analyse the leverage position of the Indian banking sector and examine its influence on earnings per share (EPS), risk, profitability, and dividend policy. The research highlights the importance of financial leverage as a factor influencing the financial performance and dividend decisions of nationalized banks.

Handhayani et al. (2023) examined the relationship between ownership structure and dividend policy in 16 Islamic commercial banks in Indonesia during 2012–2022. Using logistic regression, the study found that government ownership has a positive and significant effect on dividend policy, while institutional ownership has no significant effect on dividend payment decisions.

Hasan et al. (2023) examined the relationship between ownership structure and dividend policy in Bangladesh. Using data from 159 non-financial firms, the study found that family and public ownership positively affect dividend payouts, while government and institutional ownership have a negative effect.

Budagaga (2020) examined the determinants of dividend payment decisions among 117 commercial banks in 11 MENA countries. Using panel Tobit and logit regression, the study found that bank size, profitability, capital adequacy, credit risk, and bank age significantly influence dividend decisions. The global financial crisis also had a negative effect on dividend payments, while growth opportunities were not a major determinant.

Acharya et al. (2017) examined the relationship between bank capital and dividend policy. The study found that dividend payments can reduce banks' equity capital and create negative externalities for other interconnected banks. It suggests that excessive dividend payments during financial crises may weaken financial stability.

Setiawan et al. (2016) examined the effect of ownership structure on dividend policy in Indonesia. Using 710 firm-year observations, the study found that government- and foreign-controlled firms have higher dividend payouts, while family-controlled firms pay lower dividends. This highlights the important role of ownership structure in determining dividend policy.

Rizvi & Khare (2011) examined the determinants of dividend payout ratios in Indian banks using banks listed in the CNX BANKEX Index. Using correlation and regression analysis, the study found that earnings per share (EPS) has a positive and significant effect on dividend payout, while stock beta has a negative and significant relationship. However, cash flow, debt-equity ratio, and tax-to-profit ratio were found to have insignificant effects on dividend payout.

Acharya et al. (2011) examined dividend payments and bank capital during the 2007–2009 financial crisis. The study found that large dividend payments reduced banks' common equity capital, contributing to weaker lending capacity during the crisis. The authors highlighted the importance of capital regulation in controlling dividend payments during financial stress.

Sudhahar and Saroja (2010) examined the determinants of dividend policy in Indian banks over a ten-year period from 1997–98 to 2006–07. The study considered actively traded banks under the Bombay Stock Exchange (BSE) A and B Groups and employed

multiple regression analysis along with several dividend models, including the Lintner model, Brittain's cash flow model, Brittain's explicit depreciation model, and Darling's model. The findings showed that Brittain's explicit depreciation model was the most effective in explaining dividend policy among Indian banks. Specifically, dividends paid in the previous year, current-year depreciation, and current-year profit after tax (PAT) were found to have a positive influence on current-year dividend policy. The study therefore highlights the importance of past dividend behaviour and current profitability in determining dividend decisions of Indian banks.

Ang et al. (1997) examined the relationship between capital structure and dividend policy using large publicly traded Indonesian firms. The study found that firms had good access to bank and equity financing and showed evidence of an optimal debt ratio. The results also indicated that profitable firms with access to alternative funding sources tend to make financing decisions strategically.

The review of previous studies shows that dividend policy has been widely examined in relation to capital structure, profitability, ownership structure, leverage, bank size, and other firm-specific factors. However, relatively limited research has specifically examined the relationship between capital structure and dividend payout policy among listed Indian private-sector banks. Existing studies often focus on general Indian firms, nationalized banks, or ownership-related determinants, while fewer studies concentrate specifically on private-sector banks. Therefore, the present study attempts to fill this gap by examining whether Total Debt to Total Assets Ratio (TDTA) influences the Dividend Payout Ratio (DPR) of selected listed Indian private-sector banks, while controlling for ROA, Bank Size, and EPS over the period 2016–2025.

3. RESEARCH METHODOLOGY

3.1. Sample - For the purpose of this study, the adopted sampling technique is purposive sampling and a total of 10 private sector banks are considered based on their market capitalisation rate.

3.2. Period of the study - the study is conducted for 10 years ranging from 2015-16 to 2024-2025.

3.3. Sources of data - The data for the research study is collected from the annual financial reports from respective banks official websites and RBI database,

3.4. Variables for the study

- Dependent Variable
Dividend Payout Ratio (DPR)- Dividend Payout Ratio measures the proportion of a bank's earnings that are distributed to shareholders in the form of dividends.
- Independent Variable
Total Debt to total assets ratio (TDTA)- It measures the proportion of a bank's assets financed through debt.
- Control variables
 1. Return on Assets (ROA) - ROA measures the bank's ability to generate profit from its assets.
 2. Bank Size- Bank size captures differences between small and large banks. It is measured using a logarithm of total assets.
 3. Earnings Per Share (EPS)- EPS measures the amount of profit attributable to each outstanding share

Variables	Type	Measurement	Expected Relationship
Dividend payout ratio (DPR)	Dependent Variable	Dividend/ Net profit x 100	Negative (-)
Total debt to total assets ratio (TDTA)	Independent Variable	Total debt / Total assets x 100	Negative (-)
Return on Assets (ROA)	Control Variable	Net profit / total assets x 100	Positive (+)
Bank Size	Control Variable	ln (total assets)	Positive (+)
Earnings per share (EPS)	Control Variable	Earnings/ No. of equity shares	Positive (+)

3.5. Objectives of the study

The main objective and aim of this study are to analyse and study the impact of capital structure on dividend payout ratio of Indian private sector banks while controlling for profitability, bank size, and earnings per share

3.6. Hypotheses

H₀₁: Total Debt to Total Assets Ratio has no significant effect on the Dividend Payout Ratio of selected Indian private sector banks.

H₀₂: Return on Assets (ROA) has no significant effect on the Dividend Payout Ratio of selected Indian private sector banks.

H₀₃: Bank size has no significant effect on the Dividend Payout Ratio of selected Indian private sector banks.

H₀₄: Earnings Per Share (EPS) has no significant effect on the Dividend Payout Ratio of selected Indian private sector banks.

3.7. Statistical tools used for the study

Descriptive statistics, Correlation, Regression and Robust standard errors are employed on selected regression model for more accurate results.

4. DATA ANALYSIS AND INTERPRETATION

The following data analysis was performed for this research study to find the impact of capital structure decisions on the dividend payout policy of selected Indian private banks.

4.1. Descriptive statistics

Initially descriptive statistics are performed to summarise the data variables considered for this study. The results are presented in a tabular format given below

Variables	N	Mean	SD	Minimum	Maximum
DPR	100	9.4900	9.4639	0.000	30.000
TDTA	100	0.8834	0.0281	0.7883	0.9385
ROA	100	1.1205	1.4988	-5.1000	4.4500
Bank Size	100	13.0158	1.0148	10.3168	15.4064
EPS	100	18.5314	24.9753	-26.3700	115.3400

Interpretation

1. The mean value of DPR is 9.49, with a standard deviation of 9.46 and minimum DPR is 0, while the maximum is 30. This suggests that considerable variation is seen in dividend payout practices among the selected private sector banks and across the study period. The variation suggests that banks differ in the proportion of earnings distributed to their shareholders.
2. TDTA has a mean value of 0.8834 and a standard deviation of 0.0281 and minimum and maximum values ranges from 0.7883 to 0.9385 which indicates banks are highly leveraged institutions.
3. ROA shows a mean value of 1.1205 and a standard deviation is 1.4988 and the minimum value is -5.10, while the maximum value is 4.45. The negative minimum value indicates that some bank-year observations experienced negative profitability, whereas other observations recorded positive returns. The relatively high standard deviation compared with the mean indicates variation in the profitability of the selected banks over the study period.
4. Bank Size has a mean of 13.0158 and a standard deviation of 1.0148. The minimum and maximum values are 10.3168 and 15.4064, respectively. The range indicates differences in the scale of operations and asset base among the selected private sector banks.
5. EPS has a mean value of 18.5314 and a standard deviation of 24.9753. The minimum EPS is -26.37, whereas maximum is 115.34. The relatively large standard deviation indicates substantial variation in earnings per share across the banks and years. The negative minimum value also indicates that some bank-year observations recorded negative earnings per share.

4.2. Correlation analysis

	DPR	TDTA	ROA	Bank Size	EPS
DPR	1.0000				
TDTA	0.1924 0.0551	1.0000			
ROA	0.2476* 0.0130	-0.3031* 0.0022	1.000		
Bank Size	0.1309 0.1942	0.1774 0.0775	0.1333 0.1861	1.000	
EPS	0.1945 0.0525	-0.0081 0.9359	0.4260* 0.000	0.3534* 0.0003	1.000

Interpretation

1. DPR and TDTA have a weak positive but insignificant correlation between them with $r = 0.1924$ and $p = 0.055$.
2. DPR has a positive and statistically significant correlation with ROA as $r = 0.2476$ and $p = 0.0130$.
3. The correlation between DPR and Bank Size is positive but weak ($r = 0.1309$) and statistically insignificant ($p = 0.1942$)
4. The highest correlation is observed between ROA and EPS ($r = 0.4260$, $p < 0.001$).

4.3. Variance inference test (VIF)

To check for multi collinearity among the variables, VIF test was conducted

Variable	VIF	1/VIF
EPS	1.38	0.725444
ROA	1.38	0.727167
Bank Size	1.19	0.84077
TDTA	1.17	0.855679
Mean VIF	1.28	

Interpretation: The mean value of VIF is 1.28 which is less than the threshold limit of indicating no evidence of serious multicollinearity.

4.4. Panel Regression Model Selection

To select the most suitable regression model, following specifications tests conducted are as follows-

Initially, F- test is conducted to choose between pooled OLS or fixed effect regression test. The result of the F test indicates the Fixed Effects Model is preferred to the pooled OLS model as it shows F-test result as $F(9, 86) = 2.68$ and $p = 0.0086$.

The Breusch–Pagan Lagrange Multiplier (LM) test was conducted to determine the regression model between the pooled OLS model or random effect model. The results of the LM test produced a chi-square statistic of 2.26 with a p-value of 0.066. The LM test therefore provides relatively weak evidence in favour of the Random Effects Model over pooled OLS. Therefore, pooled OLS preferred at 5%, but RE has marginal support at 10%.

The Hausman specification test was conducted to determine whether the Fixed Effects Model (FEM) or the Random Effects Model (REM) is more appropriate for analysing the relationship between capital structure and dividend payout policy. The results of the Hausman test shows $\chi^2(4) = 5.99$, $p = 0.1995$, Therefore, based on the mentioned results Random Effects Model is preferred over the Fixed Effects Model.

Considering the results of the panel model selection tests, the F-test indicates significant bank-specific effects, while the Hausman test supports the Random Effects specification. Although the Breusch–Pagan LM test is not significant at the 5% level, its p-value of 0.0664 provides marginal evidence in favour of random effects at the 10% level. On balance, the Random Effects Model is selected as the preferred model for the main analysis

Following diagnostic tests are performed-

1. Test for Heteroskedasticity

The Breusch–Pagan/Cook–Weisberg test was conducted to determine presence of heteroskedasticity. The test results show a chi-square statistic of 0.83 with a p-value of 0.3630. Therefore, the results provide no statistical evidence of heteroskedasticity in the model.

2. Test for Serial Correlation

The Wooldridge test for serial correlation in panel data was employed to examine whether the error terms are correlated over time within the same bank. The test results show an F-statistic of 7.441 with a p-value of 0.0233. The presence of serial correlation suggests that conventional standard errors may not provide reliable statistical inference. Therefore, the final Random Effects regression should account for within-bank dependence by using cluster-robust standard errors at the bank level. This adjustment provides more reliable standard errors and significance tests in the presence of serial correlation.

4.5. Random Effects Regression Analysis Results

The final Random Effects GLS regression was estimated using standard errors clustered at the bank level to account for the serial correlation identified by the Wooldridge test. The model examines the effect of capital structure (TDTA) on dividend payout ratio (DPR) while controlling for ROA, Bank Size, and EPS.

Regression model - $DPR_{it} = \beta_0 + \beta_1 TDTA_{it} + \beta_2 ROA_{it} + \beta_3 SIZE_{it} + \beta_4 EPS_{it} + \varepsilon_{it}$

Where:

DPR = Dividend Payout Ratio (Dependent Variable)

TDTA = Total Debt / Total Assets (Independent Variable)

ROA = Return on Assets (Control Variable)

SIZE = Bank Size, measured as $\ln(\text{Total Assets})$ (Control Variable)

EPS = Earnings Per Share (Control Variable)

β_0 = Constant/intercept

β_1 – β_4 = Regression coefficients

ε = Error term

i = Individual bank

t = Year



Variable	Coefficient	Robust Standard Error	Z	p- value
TDTA	65.03921	67.21121	0.97	0.333
ROA	1.99710	0.503649	3.97	0.000
Bank Size	-0.72105	1.515272	-0.48	0.634
EPS	0.03951	0.054720	0.72	0.470
Constant	-41.54983	62.36252	-0.67	0.505

Model Summary:

No. of observations	100
Wald chi2 (4)	47.63
Prob > chi2	0.0000
Within R ²	0.1126
Between R ²	0.1635
Overall R ²	0.1239

Interpretation-

The Wald chi-square statistic of 47.63 is statistically significant at the 1% level ($p < 0.001$). This indicates that the explanatory variables, taken together, have a statistically significant relationship with the dividend payout ratio.

The overall R² of 0.1239 indicates that approximately 12.39% of the variation in dividend payout ratio is explained by TDTA, ROA, Bank Size, and EPS in the Random Effects model. The remaining variation is attributable to other factors not included in the model and random variation.

1. The coefficient of TDTA is 65.039 which shows a positive relationship between total debt-to-total-assets ratio and dividend payout ratio but the p-value is 0.333 making the relationship not statistically significant. Hence, the study does not find sufficient evidence that capital structure significantly affects the dividend payout ratio of the selected Indian private sector banks.
2. ROA has a positive coefficient of 1.997 and is statistically significant ($p = 0.000$). This indicates that profitability has a positive and statistically significant association with dividend payout ratio. Therefore, an increase in ROA is associated with an increase in dividend payout ratio.
3. Bank Size has a negative coefficient of -0.721 , but the relationship is statistically insignificant ($p = 0.634$). Thus, bank size does not have a statistically significant effect on the dividend payout ratio in the model.
4. EPS has a positive coefficient of 0.0395, suggesting a positive relationship with dividend payout ratio. However, the p-value of 0.470 indicates that this relationship is not statistically significant.

5. FINDINGS

The findings of the study reveals that capital structure, bank size and EPS do not have a significant influence on the dividend payout ratio of the selected Indian private sector banks. Whereas ROA is the only variable that demonstrates a statistically significant relationship with dividend payout showing profitability measured by ROA is the only factor having an impact on dividend payout ratio among the selected private sector banks.

6. CONCLUSION

The study provides evidence that the relationship between capital structure and dividend payout policy is not statistically significant for the selected Indian private sector banks, whereas profitability emerges as the key significant factor in explaining dividend payout behaviour.

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