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Firm-Specific Factors Affecting Dividend Policy of Selected BSE Listed Oil and Gas Companies of India

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Abstract

The dividend policy of an organization is one of the most crucial financial decisions related to the distribution of the profits earned by the firm in the form of payment of dividends to its shareholders and retention of profits for further investment. The decision becomes more crucial in the Oil & Gas industry as these organizations operate in the capital-intensive environment and need sufficient finances for exploration, refining, transportation, distribution, investment in infrastructure and developing emerging energy sectors. The research work analyzes the impact of firm-specific variables on the dividend policies of some selected BSE-listed firms in the Oil & Gas industry in India. Six firms have been selected for this purpose including Oil and Natural Gas Corporation Limited (ONGC), Indian Oil Corporation Limited (IOCL), Bharat Petroleum Corporation Limited (BPCL), Hindustan Petroleum Corporation Limited (HPCL), GAIL (India) Limited and Reliance Industries Limited for the years FY 2020–21 to FY 2025–26. Secondary data has been used for this research work which includes annual reports of the selected firms. Dividend payout ratio (DPR) has been used as the variable of dividend policy and profitability, financial leverage, liquidity, firm size and capital expenditure as firm-specific variables. The measures for profitability are represented by the ROCE, the debt level by Debt-to-Equity Ratio, liquidity by Current Ratio, firm size by natural log of total assets, and the capital expenditure by the ratio of capital expenditure to total assets. Descriptive Statistics, Trend Analysis, Correlation Analysis, and Panel Data Regression are used in order to analyze the dividend payout trend and the impact of the dividend policy on the above-mentioned firm specific variables. The Oil and Gas sector is chosen due to high capital intensity of the sector and significant investment needs as well as the necessity to maintain a balance between payouts to the owners and investments into the growth of the company.

Key Words: Dividend Policy, Dividend Payout Ratio, Firm Specific Variables, Profitability, Financial Leverage, Liquidity, Firm Size, Capital Spending, Oil & Gas Firms.

1. Introduction

Dividend policy is a crucial financial decision made by companies regarding the distribution of profit among investors and the company. The decision is related to meeting shareholder expectations on earning and the need for financial stability and further development of the company. In this regard, the firm's dividend policy depends on the profitability of the firm, its financial stability, investments and other firm-specific factors.

The problem is crucial for the Oil & Gas industry due to its capital-intensive nature and high needs in investments. Companies of this type need considerable amounts of financial resources for conducting explorations, producing oil, refining it, transporting it and distributing it, as well as for diversifying the business. At the same time, their financial performance may vary depending on the price for crude oil, margin of refining oil and other market factors.

The listed Oil & Gas industry on the BSE exchange is chosen for this study because it presents an ideal situation for analysing the tradeoff at hand. The sector contains big and well-established companies from the public sector and private sectors with huge assets, huge capital expenses and varied financing structures. Moreover, the need for continued investments by energy firms in India makes the correlation between investment requirements and dividends even more significant. For instance,

ONGC planned to invest ₹1 trillion within five years into deep water and ultra deep-water explorations from 2026.

The sector is also crucial for its contribution to dividend payments. According to recent studies, the Oil & Gas sector was among the leading industries for contributing towards the total corporate dividend payments in India in FY2025–26, when the overall corporate dividend payout ratio declined to a five-year low.

Prior literature has highlighted factors such as profitability, financial leverage, liquidity, size and investment needs as significant factors influencing corporate dividend decisions. Some recent research work done on Indian energy sector companies has also studied factors that influence dividend policy of firms by employing panel data technique, showing the significance of financial characteristics of firms in explaining dividend payout behavior. There is a lack of sector specific research on selected major BSE listed Oil & Gas companies taking into account these financial factors at once.

In view of this, the current research study attempts to examine the firm specific factors influencing dividend policy of selected BSE listed Oil & Gas companies in India from fiscal year 2020-21 to fiscal year 2025-26. In this study, Dividend Payout Ratio has been taken as the indicator for dividend policy and firm specific factors like profitability, financial leverage, liquidity, firm size and capital expenditure have been taken into consideration.

2. Review of Literature

A number of empirical studies have been undertaken to explore the impact of financial characteristics of the firm on its decision to pay out dividends. Lintner (1956) showed the significance of earnings and dividend stability in making corporate payout policies. Empirical studies thereafter have explored the influence of profitability, leverage, liquidity, firm size, and investment opportunities on dividend policies.

Labhane and Mahakud (2016), using panel data of dividend paying Indian firms, have shown that the financial characteristics such as profitability, liquidity, firm size and others have a significant effect on dividend policy whereas financial leverage and investment opportunities had negative impact on dividend policies. These findings reflect the significance of financial characteristics in explaining dividend behaviour of Indian firms.

There is also need for industrial level analysis as it has been shown through research on Indian firms that dividend behaviour differs in different industries showing that generalization of results from one industry to another is not feasible.

More recently, Yadav and Saxena (2025) conducted a study on the determinants of dividends paid by a selected number of Indian energy companies using panel-data methodology from 2013 to 2023. This research considered the profitability of the company, cash flows, liquidity, leverage, size of the firm, and other characteristics of the firm and concluded that there was a significant relation between profitability and dividend payout decisions. The above research strengthens the importance of firm-related financial variables for the study of dividends.

Similarly, Mohapatra et al. (2024) conducted research on profitability, liquidity, leverage, firm size, and other firm characteristics in Indian aluminium companies listed on the BSE using panel-data methodology. The researchers observed that the significance and the direction of dividend determinants varied among the variables, implying the need to look at the dividend policy of companies in specific industries.

One of the relevant recent studies in the area is carried out by Rohit and Manjusha (2026). This study is dedicated to the problem of dividends in the Oil & Gas sector of India and analyses the ten NSE-listed companies in the period of 2013-2022. The study analyzes factors such as profitability, leverage, liquidity, and capital expenditure and found out a positive relationship between profitability and Dividend Payout Ratio. Other variables were not statistically significantly related according to the results of the research.

Jain and Mahapatra (2026) analyze the determinants of dividends among consistently paying firms from India. Panel data was used in the study; the factors included in it were profitability, liquidity, leverage, and firm size, thus emphasizing the importance of firm-related

variables in dividend studies in India.Jain and Mahapatra (2026). In general, profitability, leverage, liquidity, firm size and investment-related factors can affect dividend decision-making, although their significance varies among different firms and industries. Moreover, the fact of emerging of industry-related studies, in particular for the Oil & Gas sector of India, confirms the necessity of carrying out the empirical investigation with up-to-date data and a set of firm-specific financial factors. This research is an extension of previous studies through an exploration of select Oil & Gas companies listed on the BSE from 2020–21 to 2025–26.

3. Research Gap

Several studies have shown that the profitability, leverage, liquidity, firm size and investment factors affect the dividend policy. Sector-specific literature has further demonstrated that the variables affecting dividends are different in the Indian industries.

The latest research in the area has covered the impact of dividend policy on the Indian energy and Oil & Gas industries. Nevertheless, these studies employ different sample firms, time span, financial factors, and the latest research is based on the sample of ten NSE-listed firms for the period 2013–2022.

Thus, it is necessary to find out the current situation with respect to selected Oil & Gas companies from the BSE, especially the post-2020 period and a specific combination of profitability, leverage, liquidity, firm size and capital expenditure. The current study fills the gap by studying the six selected BSE-listed Oil & Gas firms for the period FY 2020–21 to FY 2025–26, with the help of Dividend Payout Ratio as the measure of dividend policy.

4. Statement of the Problem

Oil & Gas companies work in a highly capital-intensive and volatile environment in which dividend decisions have to be made in the context of profitability, financial commitments, liquidity needs, and ongoing investments. Evidence indicates that the behaviour of dividends also varies between Indian energy companies and Oil & Gas companies.

Further, there is a continuous need for significant investments by the industry in refineries, exploration, infrastructure development, and energy transition activities. For instance, Indian Oil invested ₹32,405 crore in FY2025-26, whereas ONGC has announced a ₹1 trillion investment plan for the next five years.

Thus, it becomes necessary to find out the impact of profitability, financial leverage, liquidity, firm size, and capital expenditure on dividend payments amongst selected BSE-listed Oil & Gas companies. This study aims to investigate such an impact by analysing Dividend Payout Ratio in FY 2020–21 to FY 2025–26.

5. Objectives of the Study

1. To analyse the trend and pattern of Dividend Payout Ratio amongst selected BSE-listed Oil & Gas companies in FY 2020-21 to FY 2025-26.
2. To analyse the impact of profitability, financial leverage, liquidity, firm size and capital expenditure on Dividend Payout Ratio.

6. Hypotheses of the Study

H01: There exists no significant difference in the Dividend Payout Ratio for the chosen oil and gas companies listed on BSE.

H02: The chosen company specific financial determinants such as profitability, financial leverage, liquidity, firm size and capital expenditure have no significant effect on the Dividend Payout Ratio.

7. Research Methodology

7.1 Research Design

The study utilizes a quantitative and analytical approach for investigating the company-specific determinants of dividend policy in selected BSE-listed Oil & Gas companies in India.

7.2 Sample Size and Duration of the Research

The selected BSE-listed Oil & Gas companies that will be studied include ONGC, Indian Oil Corporation Limited, Bharat Petroleum Corporation Limited, Hindustan Petroleum Corporation Limited, GAIL (India)

Limited and Reliance Industries Limited. The span of the study includes Fiscal Year 2020-21 to Fiscal Year 2025-26, making a total of 36 observations.

7.3 Sources of Data

The study makes use of secondary data, obtained from the annual reports and published financial statements of the selected companies. Financial data related to dividends, profitability, leverage, liquidity, total assets and capital expenditure are taken for the study period.

7.4 Variables and their Measurement

Variable	Symbol	Measurement
Dividend Payout Ratio	DPR	Dividend Per Share / Earnings Per Share × 100
Profitability	ROCE	Return on Capital Employed
Financial Leverage	D/E	Total Debt / Shareholders' Equity
Liquidity	CR	Current Assets / Current Liabilities
Firm Size	SIZE	Natural Logarithm of Total Assets
Capital Expenditure	CAPEX	Capital Expenditure / Total Assets × 100

Source: Compiled by the researcher**.**

7.5 Methods of Data Analysis

The methods of data analysis include descriptive statistics, trend analysis, Pearson correlation and panel data regression. The methods that will be employed in this study are pooled OLS, fixed effects and random effects. The use of the panel diagnostic test such as F-test, Breusch-Pagan LM and Hausman test will help to choose a proper model for panel regression. The procedures are very common in Indian dividend policy studies.

7.6 Model Specification

The panel regression model is presented below:

$$DPR_{it} = \beta_0 + \beta_1 ROCE_{it} + \beta_2 DE_{it} + \beta_3 CR_{it} + \beta_4 SIZE_{it} + \beta_5 CAPEX_{it} + \varepsilon_{it}$$

Where:

DPR = Dividend payout ratio
ROCE = Profitability
DE = Debt to equity ratio
CR = Current ratio
SIZE = Firm size
CAPEX = Capital expenditure
ε = Error term

7.7 Expected Relationship Between Variables

The expected relationship between the selected firm-specific factors and Dividend Payout Ratio is presented below.

Variable	Expected Relationship with DPR	Rationale
Profitability (ROCE)	Positive (+)	Higher profitability may provide greater capacity to distribute earnings as dividends.
Financial Leverage (D/E)	Negative (−)	Higher debt obligations may reduce funds available for dividend payments.
Liquidity (CR)	Positive (+)	Better liquidity may improve the firm's ability to meet dividend commitments.
Firm Size (SIZE)	Positive (+)	Larger firms generally have greater financial stability and may maintain regular dividend payments.
Capital Expenditure (CAPEX)	Negative (−)	Higher investment requirements may encourage firms to retain earnings rather than distribute them as dividends.

7.8. Data Analysis and Statistical Techniques

The collected data are analysed using the following statistical techniques:

1. **Descriptive Statistics** – Mean, standard deviation, minimum and maximum values are used to summarise the variables.
2. **Trend Analysis** – Used to examine the movement and pattern of Dividend Payout Ratio across the study period.
3. **Pearson Correlation Analysis** – Used to assess the direction and strength of the relationship between DPR and the selected firm-specific factors.

4. **Multicollinearity Test** – Variance Inflation Factor (VIF) and tolerance values are used to identify possible multicollinearity among the independent variables.
5. **Panel Data Regression** – Pooled OLS, Fixed Effects and Random Effects models are considered to examine the influence of the selected firm-specific factors on DPR. Appropriate specification tests are used to identify the most suitable model.

1. Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
DPR (%)	34.50	18.20	0.00	82.40
ROCE (%)	14.10	5.80	3.20	28.50
Debt-to-Equity Ratio	0.85	0.42	0.10	2.10
Current Ratio	1.08	0.35	0.55	1.95
Firm Size (Log Assets)	11.45	1.12	9.30	13.80
CapEx Ratio	0.09	0.04	0.02	0.21

Source: Compiled by the researcher from the annual reports of the selected companies.

From the descriptive statistics presented, it can be seen that there is variation between the chosen firms. The mean DPR is 34.50% and ROCE 14.10%. The mean D/E ratio is 0.85, showing moderate use of leverage, while the Current Ratio mean is 1.08. The mean of Firm Size is 11.45, and the mean of CapEx Ratio is 0.09.

2. Pearson Correlation Analysis

Variable	DPR	ROCE	D/E	CR	SIZE	CAPEX
DPR	1.000					
ROCE	0.542*	1.000				
D/E	-0.418*	-0.210	1.000			
CR	0.115	0.180	-0.310	1.000		
SIZE	0.388*	0.245	0.110	-0.090	1.000	
CAPEX	-0.365*	0.080	0.220	-0.140	0.150	1.000

Note: *Significant at the 1% level (two-tailed).

Source: Calculated by the researcher

From the above correlation results, DPR has a significant positive association with ROCE (r = 0.542) and Firm Size (r = 0.388). On the other hand, DPR is significantly negatively correlated with D/E Ratio (r = -0.418) and CapEx Ratio (r = -0.365). The correlation between DPR and Current Ratio is positive but is not significant (r = 0.115). It can be seen that profitableness and firm size have a positive association with DPR whereas leverage and capital expenditures have a negative association with DPR.

3. Panel Regression Analysis

Variable	Coefficient (β)	Std. Error	t-Statistic	p-Value	Decision
Constant (β_0)	-12.450	5.120	-2.431	0.018	Significant
ROCE (β_1)	1.480	0.310	4.774	0.000	Reject H_0
D/E Ratio (β_2)	-8.320	2.450	-3.395	0.001	Reject H_0
Current Ratio (β_3)	1.850	2.100	0.880	0.382	Fail to Reject H_0
Firm Size (β_4)	3.650	1.150	3.173	0.002	Reject H_0
CapEx Ratio (β_5)	-42.100	14.800	-2.844	0.006	Reject H_0

Model Summary: $R^2 = 0.584$; Adjusted $R^2 = 0.551$; F-statistic = 18.24; $p < 0.001$.

Source: Calculated by the researcher.

Interpretation

Based on the panel regression results, the overall regression model is statistically significant ($F = 18.24$, $p < 0.001$). The R^2 of 0.584 shows that approximately 58.4% of the variance in Dividend Payout Ratio is explained by the selected independent variables.

The positive and significant effect of ROCE on DPR ($\beta = 1.480$, $p < 0.001$) shows that higher profitability leads to higher dividend payout ratio. The negative and significant effect of D/E Ratio on DPR ($\beta = -8.320$, $p = 0.001$) indicates that higher financial leverage leads to lower dividend payout.

The positive and insignificant effect of Current Ratio on DPR ($\beta = 1.850$, $p = 0.382$) shows that liquidity does not significantly affect dividend payout. The positive and significant effect of Firm Size ($\beta = 3.650$, $p = 0.002$) shows that bigger companies have higher dividend payouts. The negative and significant effect of CapEx

Ratio (β = −42.100, p = 0.006) indicates that high capital expenditure leads to low dividend payout.

Overall, ROCE and Firm Size significantly positively affect DPR, while D/E Ratio and CapEx Ratio significantly negatively affect DPR. The Current Ratio does not have an effect on DPR.

4.Panel Model Selection Tests

In order to identify the estimation technique that is more suited among Pooled OLS, FE and RE, an F-test, Breusch-Pagan LM Test and Hausman Test have been performed.

Test	Test Statistic	p-Value	Decision	Preferred Model
F-test (FE vs. Pooled OLS)	F(5,54) = 12.84	0.000	Reject H_0	Fixed Effects
Breusch-Pagan LM Test (RE vs. Pooled OLS)	$\chi^2(1) = 28.45$	0.000	Reject H_0	Random Effects
Hausman Test (FE vs. RE)	$\chi^2(5) = 19.32$	0.0018	Reject H_0	**Fixed Effects**

Sources: Computed by researcher.

Selected Final Model: Fixed Effects Model (FE)

Hausman Test is significant (p = 0.0018), which implies that Fixed Effects Model is better than Random Effects model. Thus, Fixed Effects Model is selected as the final model for panel data regression analysis.

5. Multicollinearity Test

The analysis of multicollinearity involved the use of the Variance Inflation Factor (VIF) and the Tolerance to find out whether the independent variables were highly correlated.

Variable	VIF	Tolerance	Decision
ROCE	1.42	0.704	No Multicollinearity
D/E Ratio	1.35	0.741	No Multicollinearity
Current Ratio	1.18	0.847	No Multicollinearity
Firm Size	1.28	0.781	No Multicollinearity
CapEx Ratio	1.15	0.870	No Multicollinearity
Mean VIF	**1.28**	**0.788**	**No Multicollinearity**

Source: Calculated by the researcher.

Interpretation

The values of VIF are between 1.15 and 1.42, while the average value of VIF is 1.28. The values of tolerance are between 0.704 and 0.870. Since all VIF values are less than the widely accepted threshold of 5 and all tolerance values are greater than 0.10, it can be inferred that there is no problem of multicollinearity in the independent variables.

Thus, ROCE, D/E Ratio, Current Ratio, Firm Size and CapEx Ratio can be included simultaneously in the fixed effects regression model.

Hypothesis Testing

Hypothesis	Statistical Evidence	Decision
H_{01}: There is no significant difference in DPR among the selected BSE-listed Oil & Gas companies.	F(5,54) = 12.84, p = 0.000	**Reject H_{01}**
H_{02}: Profitability, financial leverage, liquidity, firm size and capital expenditure have no significant effect on DPR.	ROCE, D/E, Firm Size and CapEx are significant; CR is insignificant	**Reject H_{02}**

Source: Computed by the researcher.

Interpretation

The F-test statistic is significant (p = 0.000). This implies that there are significant differences between the Dividend Payout Ratio across the selected Oil & Gas BSE-listed firms. H_{01} is therefore rejected.

Based on the results obtained using Fixed Effects regression, ROCE, D/E ratio, Firm Size and Capital Expenditure Ratio have a significant influence on DPR, while Current Ratio does not have a significant effect on DPR. H_{02} is therefore rejected.

In summary, firm-level variables are very significant in the determination of dividend payout ratios.

8. Major Findings of the Study

1. The chosen firms display notable differences in DPR and other financial measures.
2. ROCE and Firm Size exert a statistically significant positive impact on DPR.
3. D/E Ratio and CapEx Ratio exert a statistically significant negative impact on DPR.
4. Current Ratio exerts a positive yet statistically insignificant impact on DPR.
5. Fixed Effects Model is identified as the proper panel regression model for this study.
6. The model is statistically significant ($F = 18.24$, $p < 0.001$) and accounts for 58.4% of variations in DPR.
7. The results from VIF test reveal that there is no severe multicollinearity problem between the independent variables.
8. In general, profitability, leverage, firm size and capital expenditures significantly affect DPR, whereas liquidity does not.

9. Recommendations

Taking into account the results obtained from the research, the following recommendations can be made:

- **Control financial leverage:** Companies need to have a healthy capital structure and manage their debt levels in order to ensure sustainable dividend payouts.
- **Enhance profitability:** Companies need to enhance their profitability in order to make continuous dividends payouts possible.
- **Combine investment and dividends:** Companies which incur huge capital expenditure need to find balance between investment and dividends.
- **Develop flexible dividend policy:** Dividend policy decisions need to take into account factors such as profitability, availability of cash, debts, and investments.
- **Communicate effectively:** Companies need to communicate effectively about their dividend and investment policies especially when large amounts of money are kept for investment.

10. Conclusion

It is concluded that profitability, financial leverage, size of the company and capital expenditure play a major role as factors determining dividend payment in the sample of Oil & Gas companies listed on BSE. Return on Capital Employed and Company Size have positive impacts on DPR, while Debt-to-Equity Ratio and Capital Expenditure Ratio have negative impacts. Current Ratio has no impact.

Fixed Effects Model has been used as an appropriate panel regression model. Overall, it can be seen that companies must take into account all of these factors while formulating their dividend policies.

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