Dividend Policy Determinants : An Experiential Study of Financial Markets

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Abstract

Purpose : The purpose of the study focused on discovering whether the dividends declared by the companies were affected by the sectors to which they belonged. This study also scrutinized various explanatory variables for dividend payment amongst multiple segments in India.

Methodology : Due to many industries, investment avenues, and various sectors, India was considered for this research study. The analysis used balanced panel data comprising firms listed on the NSE (National Stock Exchange) for 10 years, i.e., 2013–2022. The fixed effect model (FEM) and Pooled OLS regression (POLS) were employed in the study.

Findings : The research findings explained that profitability and size positively impacted Indian companies' dividend policy. The sectorized outcome showed that size and profitability were critical determinants of dividend policy across most sectors.

Practical Implications : Policymakers could use this study's outcome to make effective dividend payout decisions. Most importantly, investors could utilize the findings to make portfolio selections based on sectorized dividend payment behavior. The research authenticated that the factors impacting dividend policy varied across various sectors.

Originality : In contrast to earlier studies, this research incorporated critical variables to analyze the dividend policy of the NIFTY 500 and examined their impact on dividend decisions across various sectors within the defined index.

Keywords : **dividend policy, industrial sectors, financial markets, National Stock Exchange (NSE), fixed effect model, pooled regression**

JEL Classification Codes : G30, G32, G35, G39

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Dividend policy determinants are crucial in the financial markets, where many factors affect corporate decisions. Dividend policy is the exercise espoused by managers in making dividend payout decisions and it marks out the norm for retention and distribution of profits that becomes the base for dividend decisions (Nuredin, 2012). The dividend policy of any organization is crucial in the financial market as it attracts income-focused investors and signals the organization's economic health. It also represents the company's financial strategy and impacts the behavior of the investors and market reputation. The regulatory idea of a dividend disbursement decision is to accept a strategy that optimizes shareholders' wealth (Mukhongo et al., 2024). Despite voluminous studies, the available literature must entirely comprehend the determinants that stimulate dividend policy and the mode in which they connect. It is argued that dividend policy is still a puzzle whose pieces need to be connected (Black, 1976). The dividend policies of firms vary significantly across industrial sectors in India because of factors like business risk, profitability, and size (Pinto & Rastogi, 2019). It

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was discovered that country-specific factors influence dividend policy decisions in emerging markets (Aivazian et al., 2003). Due to these resemblances, companies in the same industry/sector may have the same dividend policies (Michel, 1979). Thus, this research attempts to answer how various essential factors shape the dividend policy across the various sectors.

Considering the research work and the evidence, this paper backs the present literature in two ways. First, the dividend determinants for developing markets are studied at length. Due to the presence of many industries, investment avenues, and multiple sectors, India is considered an emerging economy worldwide. Most of the studies in this reference have produced mixed and inconclusive results. Thus, with the support of the present study, where the dividend behavior across the industrial sectors will be evaluated, a substantial gap in the present literature can be connected. Policymakers can use the study to create effective dividend payout decisions and investors for portfolio selection.

The current research is valid and needed, as many investors prioritize dividend-paying firms for stable income. Dividends signal a company's financial health, especially in times of uncertainty. Since the dynamics of dividend policy continue to evolve in financial markets, this makes it an important area of study even in the current scenario.

Literature Review

Dividend decisions have always been considered significant financing decisions for a company. This has fascinated many academicians and researchers in developed and developing countries (Baker et al., 2007). The study investigates the problem from an emerging market's outlook by concentrating explicitly on all the sectors in a predefined set of companies.

Many existing theories clarify the motive behind a company paying dividends. These include agency cost theory, clientele inclination for dividend income, and signaling theory. The first pioneer in deciding the dividend policy arena was Lintner (1956), who studied the corporate dividend behavior of 28 well-established industrial companies from 1947 to 1953. He employed regression analysis and conducted thorough interviews with managers responsible for dividend decisions. Also, Venkataramanaiah et al. (2018) employed regression analysis to study the impact of leverage, liquidity, economic performance, and size of firms on the dividend payout policy of the firms listed on the NSE. Conversely, Miller and Modigliani (1961) scrutinized the dividends and declared them as immaterial. The results given by Fama and Babiak (1968) and Fama (1974) are, as per Lintner's view, that managers wish to have a stable dividend policy and are unwilling to raise dividends to a level that cannot be persistent.

Generating a profit alone is inadequate for a company. It must ensure that the profit exceeds the cost of capital, referred to as economic value added (Leepsa & Mishra, 2016). Labhane and Mahakud (2016) indicated that highly profitable, highly liquid, and more mature companies have high dividend payout. In contrast, organizations with high investment opportunities and financial and business risks will have lower dividend payout ratios. Thus, the study emphasized that investors considered the nature of companies for better investment.

Chee et al. (2019) studied CEO overconfidence using the system-generalized method of the moment to analyze its impact on dividend payout decisions, and the result stated a negative connection between the two variables. Roy (2022) emphasized that the effect of cash flow is significant for decisions for dividend policy, and hence, the impact of finance function could be measured. Mahdzan et al. (2016) found that firm size, leverage, position, and profitability of organizations are substantially and contrariwise related to the dividend policy of firms in Malaysia. However, the industry-specific factors of dividend policy exhibited several variances which might be used as a signal for the selection of stocks in specific industries by prospective investors.

Poornima et al. (2019) found that dividend announcements of public sector banks hurt stock returns, while private sector banks' dividend announcements positively impacted stock returns. Ullah et al. (2019) gave valuable

information to the Board of Directors for framing the dividend policy considering various factors like debt, growth, liquidity, leverage, and profitability to maximize the firm's value. This was crucial to maintain the existing investors and to attract prospective investors. Satish and Satyanarayana (2018) found a strong relationship between promoters' shareholding and the firm's performance, and their results were opposite to the theory of promoter entrenchment. Kiran and Ramesh (2021) indicated that the ownership structure of Indian non-financial companies is of a focused type and chiefly determined in the hands of promoters and groups.

Wadhwa (2019) analyzed that leverage and profitability have a strong bearing on the dividend disbursement of selected companies under study. In contrast, liquidity, ownership, and growth do not show much impact on the dividends. Pattiruhu and Paais (2020) examined the correlation between several variables, namely CR (current ratio), ROE (return on equity), ROA (return on asset), DER (debt-equity ratio), and FS (firm size), and its impact on dividend policy (DP) in the real estate firms listed on the Indonesia Stock Exchange during the years 2016–2019. The study brought the important variables to be studied in the current research. Kahle and Stulz (2020) stated that companies had higher dividend payout rates in the 2000s not because they had free cash flows and were older and larger but because they paid out of the free cash flows.

Kim et al. (2021) argued that research and development (R&D) in financially constrained firms with dividend payout policies had a significantly greater positive effect on firm value than in financially constrained firms that do not pay dividends. Additionally, managers of financially constrained firms are motivated to use dividend payments to enhance the positive impact of R&D performance on their value. It was suggested that the dividend policy of firms with financial constraints can be used to provide a positive indicator to financial markets. Athari (2022) explained that higher dividend payout leads to more robust investor protection, and the organization increases dividends due to increased disclosure and director liability. The study indicated that in more developed financial markets and environments with strong investor protection, the firms pay fewer dividends. Ebrahim (2023) proved that stock liquidity influences dividend policy favorably, bolstering the claim that stock liquidity informs the market and motivates insiders to distribute dividends. Researchers, analysts, and investors can have an understanding of how stock liquidity affects business practices through this study.

In the latest studies, Zhao et al. (2024) explained that financial constraints can be one of the reasons companies pay lower dividends, and payment of higher dividends can be used to signal that potential damage to reputation can be limited. The study suggested that dividend policy is being used as an essential tool to reduce the potential harm that can happen due to the perception of social irresponsibility of the firm. Kumari and Pathak (2024) unveiled that mandating companies to disclose their dividend policy led to an increase in dividend payments to the shareholders. Saini et al. (2024) used meta-analysis and synthesized all research on the relationship between dividend payout and its determinants. They found leverage had a detrimental correlation with dividend payout.

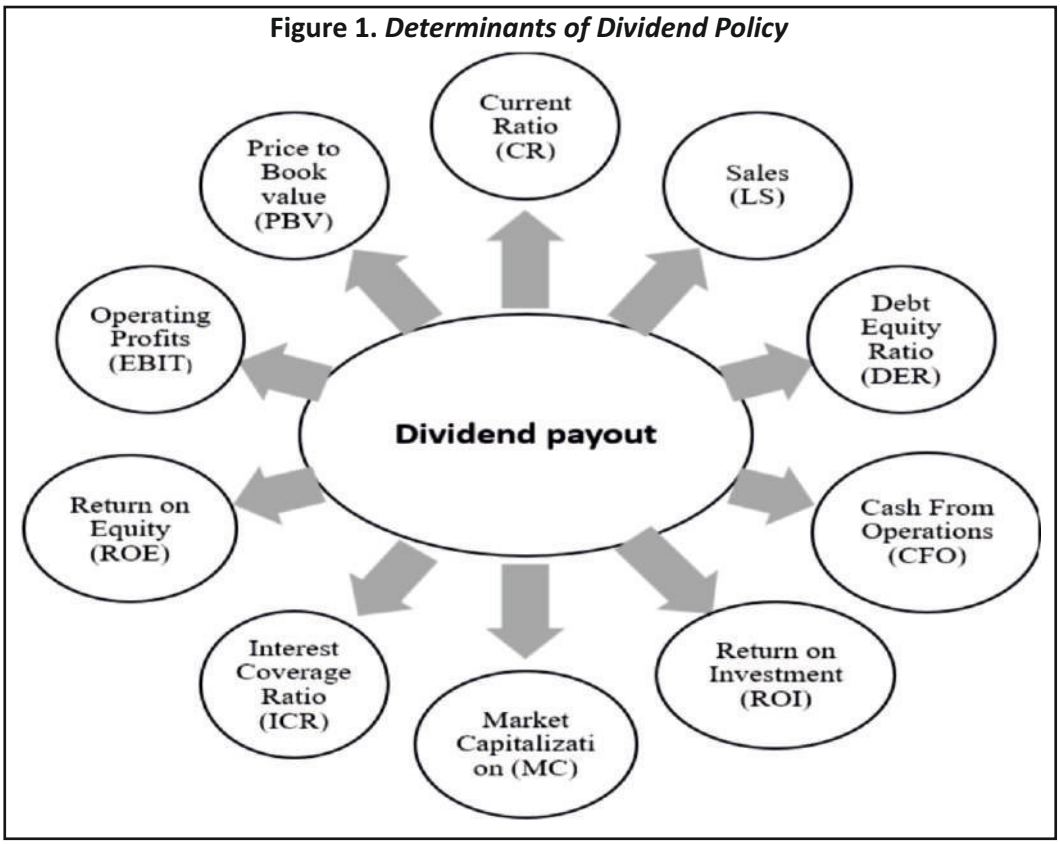
All the above literature enhanced the efficacy of this empirical analysis by providing the essential variables for examining the dividend policy of a chosen index and its implications for all other financial market sectors.

Research Methodology and Data Collection

Research Framework

After reviewing the studies related to this topic one can comprehend that papers reflecting the sectoral impact on dividend policy are very few. Studies have acknowledged various factors that are antecedents of dividend policies of firms. The DP ratio (dividend payout ratio) has been taken as the dependent variable. The explanatory (independent) variables are constructed on the theoretical framework and wide literature was incorporated into the same. The objective of the study is to determine how these explanatory variables affect the dividend policies of the

Figure 1. ***Determinants of Dividend Policy***



companies in the various sectors represented by the NIFTY 500. In all, 10 variables have been taken and have been separated into three measures — operating measure, debt measure, and summary measure (refer to Figure 1).

Type of Research and Sample Selection

Descriptive research is being used in the present study as it summarizes the collected data and current practices and allows for a significant understanding of how various factors influence dividend policy across the different companies and sectors. The National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE) have historically been the two main stock exchanges in the Indian stock market. The majority of Indian businesses are listed on both of these exchanges. All of the NIFTY-500 companies that were listed there between 2013 and 2022 were included in the data gathering for the current study. The index of NIFTY 500 describes the top 500 NSE-registered firms based on their complete market capitalization. Additionally, it shows that as of March 31, 2022, 95% of equities with free-float market capitalization were listed on the NSE. The Prowess database, powered by the Centre for Monitoring Indian Economy (CMIE), was used to generate the data. Though the data has been taken for all 500 companies due to the unavailability of data/variables, the analysis could be done only on 418 companies. Based on the industry groups, the 418 companies have been grouped into 20 sectors. Outliners were also deleted using the Sigma method. Thus, the data for 10 years was used for analysis purposes under the balanced panel approach. The dividend payout ratio (DPR) computed as the dividend percentage paid by the organization in a year from its earnings has been taken as the dependent variable in this research study. The explanatory variables are sensibly elected based on the literature review. Table 1 displays the count of entities examined within each sector alongside the sectoral average of the DP ratio.

Table 1. ***Companies' Details Considered Under Each Sector Along with the Sectoral Mean of Dividend Payout Ratio***

S. No.	Sector	NIFTY 500	Final Sample	Mean (DP Ratio)
1	Telecom	7	6	39.42
2	Textiles	12	10	30.37
3	Power	13	10	35.90
4	Services	19	14	33.33
5	Pharma	41	35	28.20
6	Paper and Jute	2	2	13.50
7	Oil & Gas	16	12	30.01
8	Metals	21	17	25.75
9	Media Entertainment & Publication	7	3	27.83
10	Information Technology	27	22	38.93
11	Healthcare Services	10	7	36.03
12	Fertilisers & Pesticides	13	10	21.56
13	Industrial Manufacturing	48	42	32.12
14	Consumer Goods	67	60	33.73
15	Construction	23	20	25.13
16	Chemicals	26	24	31.90
17	Cement & Cement Products	14	11	46.08
18	Automobile	30	27	29.64
19	Financial Services	85	72	34.57
20	Consumer Services	20	14	29.40

Note. 1. Under https://www.nseindia.com/products/content/equities/indices/nifty_500.htm, given is a detailed description of the NIFTY 500 enterprises.

2. On https://prowessiq.cmie.com, all variables are defined in full under the Prowess dictionary.

Variable Description and Expected Relationship

↳ **Dividend Payout Ratio (DP Ratio):** This is the dependent variable in the study and represents the amount of dividend paid by the company out of its earnings. It can be calculated as:

DP Ratio = Dividend Per Share/Earning Per Share

The rest of the variables are independent variables, and the same has been shown in the given table (Table 2) for their explanation and expected sign.

The dependent and independent variables that make up the empirical model shown in Equation 1 are reviewed in Table 2. A regression equation is calculated using the remaining variables because, for a small number of enterprises, the data for LgCFOA, PBV value ratio, and OpProfit were not readily available.

The three models are being considered under the panel data to analyze the present data – REM (random effect model), FEM (fixed effect model), and POLS (pooled OLS regression model). Firstly, a comparison between the effectiveness of POLS and REM is being done through the Breusch-Pagan test. *F*-statistics was the first-panel diagnostic test. This test suggests that if α is more than the *p*-value, the null hypothesis is rejected, and thus, REM

Table 2. ***Explanation of Variables with Expected Signs***

Variable Name	Definition	Symbol	Expected Relationship
A. Operating Measures			
1. Size of business	The natural logarithm of sales in local currency	*LgSales* (Log of Sales)	+
2. Size	Market capitalization's natural logarithm in local currency	*LgMcap* (Log of Market Capitalization)	+
3. Ratio of operating profit	Ratio of EBIT and net sales	*OpProfit* (Operating Profit)	+
B. Measures of Debt			
1. Ratio of debt and equity	Debt divided with shareholder's equity	*DER*	–
2. Ratio of interest coverage	Earning before interest and tax divided by interest amount	*ICR*	+
3. Ratio of current assets (CA) and current liabilities (CL)	CA divided with CL	*CR*	+
C. Summation Measure			
C.1 Profitability			
1. Income from Equity	Net income (NI) dividend with shareholder's equity	*ROE*	+
2. Return on Investment	EBIT dividend with capital employed	*ROI*	+
C.2 Measure of Growth			
3. Ratio of market price (MPS) to book value	MPS dividend with book value per share	*PBV*	–
C.3 Liquidity Measure			
4. Cash from Operation	Natural logarithm of cash flow from operation (Earning before interest and tax – tax + depreciation)	*LgCFOA* (Log of Cash from Operation)	+/–

becomes the better method as compared to POLS for the given data. HAUSMAN test is applied to check the feasibility of these two methods for the given data set. The null hypothesis explains that REM is better. Since the *p*-value is significant at a 5% level, the null hypothesis is eliminated. Thus, finally, the FEM is applied to measure the regression for all data given.

Empirical Results & Discussion

Discussion on Total Results of Regression

In this section, we represent panel regression results that identify the dividend determinants for the selected NSE companies. Since we must identify an appropriate panel data model, the panel diagnostic tests have been used for the same. The results in Table 3 reveal that the *p*-value of *F* - statistics is 0.765, which is more than α (i.e., 0.05); thus we must accept the null hypothesis, and hence, the POLS techniques become more appropriate for data as compared to FEM. Thus, the outcomes are conveyed as per the POLS regression estimate.

The results depicted in Table 3 explain that sales, market capitalization, current ratio, ROE, ROI, PBV ratio, and interest coverage ratio have a positive relation to the dividend policy. This proposes that the organizations with higher scale of operations, higher liquidity, profitability, and higher interest coverage ratios are most likely to pay

Table 3. ***Consolidated (NIFTY 500) Panel Regression***

Explanatory/ Independent Variables	Value	Coefficients	Significance at the 5% Level
Constant	0.001	(0.675)	
LgSales	0.001	(0.002)	***
LgMcap	0.001	(0.026)	***
OpProfit	0.000	(0.335)	
DER	–0.041	(0.001)	***
ICR	0.001	(0.026)	***
CR	0.000	(0.003)	***
ROE	0.001	(0.002)	***
ROI	0.003	(0.000)	***
PBV	0.002	(0.005)	***
LgCFOA	–0.004	(0.030)	***
F - Statistics	0.765 (0.835)	Breusch – Pagan Test	2.476 (0.132)
Hausman Test	20.124 (0.026)	Appropriate Model	POLS
Durbin - Watson	1.768	*R* Square	0.174
Number of Companies	418	Number of years	10

Note. The total number of observations is 4,180.

higher dividends. The relationship also recommends that cash flow and DER have a negative relationship and thereby suggests that companies having higher DER or higher cash flows will tend to pay less dividends to the shareholders.

The results for operating measures, debt measures, and summary measures are in accordance with the given hypothesis, except for the PBV ratio, which signifies a positive association with the dividend policy. The anticipation was confirmed that companies with greater growth prospects tend to distribute lower dividends. However, in our dataset, the PBV ratio exhibited a positive coefficient contrary to the expected relationship. In the case of variables like operating profit, there was no substantial relationship with the dividend payout ratio.

Sectoral Impact on Dividend Policy

Table 1 depicts that the highest dividend payout ratio is of the cement & cement products, telecom, information technology, and healthcare services. Their DP ratio ranges from 36%–47%. The power sector, financial services, consumer goods, services sector, industrial manufacturing, chemicals, textiles, and oil & gas have a DP ratio between 30% to 36%. The sectors like automobile, consumer services, pharma industries, media entertainment & publication, metals, and construction sectors have a dividend payment between 25% to 30%. The paper & jute industry showed the lowest DP ratio (13.5%) followed by the fertilizers & pesticides sectors (21.56%). In order to determine the association between dividend policy and different industries, a one-way variance analysis test was conducted. The test was conducted (results not displayed), and it was discovered that the average dividend policy across 20 sectors varied significantly. At a 5% threshold of significance, the *p*-value (0.001) is significant, and the null hypothesis is thus rejected. This implies that the 20 sectors included in the NIFTY 500 have drastically different dividend policies.

Discussion on Regression Analysis of the Sectors of NIFTY 500

As deliberated in the research methodology section, the results obtained from panel diagnostic tests are employed to govern the proper panel data model for every sector. As seen in the Appendix, the *p*-value of *F*-statistics is 0.026 and 0.021 for telecom and fertilizers & pesticides sectors, i.e., less than 0.05, so we reject the null hypothesis. This implies that the FEM technique is more suitable for estimating the determinants of dividend policy in the telecom and fertilizers & pesticides sectors. The result conveys that for all other 18 sectors, the POLS model is more suitable as their *p*-value of *F* - statistics is more than 0.05. Therefore, in our analysis, we report the findings using the POLS regression estimations for 18 sectors and FEM regression estimates for telecom and fertilizers & pesticides sectors.

The overall *R*-square is highest for the automobile sector (0.796) and lowest for chemicals (0.243) and the pharma sector (0.174). For oil & gas and financial services, the *R* squared value ranges from 0.60–0.65. The value of *R* square for telecom, information technology, and textiles ranges from 0.50 – 0.60. For the power sector, fertilizers & pesticides, consumer goods, and cement & cement products, the value ranges from 0.45–0.50. For all other sectors, i.e., paper & jute, metals, healthcare services, consumer services, media entertainment & publication, industrial manufacturing, services, and construction, the R^2 value ranges from 0.35–0.45. These overall *R*-squared values in the range of 0.35–0.80 recommend that the independent variables have better illustrative power than the individual sector panel regression.

Operating Measures

For the scale of operations, which is measured by sales (LgSales), we have expected a positive relation with the DP ratio of companies in all sectors, but the findings show that no sectors except fertilizers & pesticides are substantially impacted by it. Because the sales parameters differ for the financial services sector, the LgSales variable is not considered while estimating the panel regression. For these industries, the effect of size on dividend policy is estimated using the market capitalization log. Since there was no information on LgMCap for every company in the textile sector, panel regression estimation did not include this sector. The investigation reveals a favorable and significant correlation between LgMcap and dividend payments made by the pharmaceutical, metals, media entertainment and publishing industries, healthcare services, industrial manufacturing, consumer goods, construction, cement, and chemical industries. The beneficial effect demonstrates that businesses from these sectors are large and able to pay higher dividends. This is because these companies may access the capital market without much difficulty, thereby having less dependence on the retained profits.

Further, the Appendix displays that operating profits have a positive influence on dividend policy for the power, paper & jute, oil & gas, healthcare services, automobile, and consumer services sectors. This implies that the sectors that are not earning enough operating profits will have a lower dividend payout ratio (Li & Lie, 2006). Nevertheless, the results are contrary for sectors like information technology, industrial manufacturing, and cement & cement products. Thus, it may be concluded that the companies under these sectors continue paying dividends despite operating profits being less so as to maintain the dividends payments' stability (Bhat & Pandey, 1994). The OpProfit variable is not taken for panel regression estimation for the financial services sector due to the inaccessibility of data for most of the firms under it. The operating measures are utilized to review the effect of size or scale of operation on the dividend policy of Indian firms. Most of the studies in the literature have testified that firms with big size pay higher dividends. In my research, I have also found that greater market capitalization and higher operating profits positively impact dividend payments.

Measures of Debt

The results of the Appendix show that the dividend policies of the telecom, metals, information technology, fertilizers & pesticides, construction, and automotive sectors are negatively correlated with DER. It means that sectors and companies under these segments with high debt levels seem to pay fewer dividends (Aivazian et al., 2003; Gupta & Banga, 2010; Li & Lie, 2006). However, for the financial services sector, the result portrays a significant positive effect. For the rest of the sectors, the debt-equity ratio or levels of debt do not significantly impact the dividend policy of given sectors. This implies that these sectors do not rely on debt levels for the finalization of their dividend policy (Abor & Bokpin, 2010; Farooq & Jabbouri, 2015). It has been experienced from earlier studies that a low-interest coverage ratio leads to the desertion of dividend payments of a few companies in India (Denis & Osobov, 2008). Our results, as per the Appendix, show that the interest coverage ratio affects the dividend policy of the textile and financial services sectors positively. However, the results show no significance of this ratio on the dividend policy of the remaining sectors.

According to the consolidated panel estimations, the results of sectorize regression displays that the dividend payment and current ratio are positively and significantly related in the oil & gas, paper & jute, metals, media entertainment & publications; healthcare services, construction, and consumer services. This implies that liquidity has a very important role, and higher liquidity leads to higher dividend payments. As a result, we examined how higher interest coverage ratios, higher current ratios, and lower debt-equity ratios impact the dividend policy of Indian enterprises.

Summation Measures

Nonetheless, operating profit has already been used in operating measures, and a positive affiliation has been found between profitability and dividend payout decisions, but here we have used ROI and ROE as an indicator of profitability. It is discovered that there is a positive and significant influence of ROI in 17 sectors, though ROE shows a positive and significant effect in only three sectors (services, media entertainment & publication, and health care services). For the above-mentioned sector, ROI shows an insignificant relationship with the DP ratio. Thus, the analysis specifies that the companies having higher profitability will lead to higher dividend payments in these sectors. The results are in line with the earlier results (Aivazian et al., 2003; Benito & Young, 2003; Bostanci et al., 2018; DeAngelo et al., 2004; Mitton, 2004). It is also possible that the measure of profitability diverges for each sector. The analysis declares that the PBV (price to book value ratio) ratio is significantly and positively related to the dividend policy of only three sectors (textiles, automobile, and financial services). The result is in line with the findings of Al-Malkawi (2007), Al-Shubiri (2011), Foroghi et al. (2011), Imran (2011), and Yusof and Ismail (2016). Information relating to PBV was not available for telecom, pharma, chemicals, and fertilizers & pesticides, and thus, it was not taken for the panel regression estimation of these sectors.

In summary measure, the liquidity is represented by LgCFOA. As expected, it was noticed that liquidity is positively or negatively associated with the dividend payout ratio. The result of panel regression exhibits that there is an important and positive effect of CFAS on dividend payment of the power, services, oil & gas, and automobile sectors. This implies that businesses in these industries are more likely to pay bigger dividends, given their increased liquidity. However, the findings for the paper and jute and consumer services sectors are contradictory. This shows that companies in these industries are still paying dividends despite having little cash on hand. It has already been said that the availability of cash is not a vital criterion to judge the dividend policy as some of the companies follow the stable dividend policy. Information on LgCFOA was not available for telecom, textiles, pharma, fertilizers & pesticides, and chemicals sectors, and thus, they have been excluded for the estimation of regression in these sectors.

Table 4. ***Summary of Variables Affecting the Various Sectors in NIFTY 500***

S. No.	Sector	Significant Variables/Determinants Affecting Dividend Policy of the Given Sectors
1	Telecom	DER
2	Textiles	ICR, PBV
3	Power	OpProfit, LgCFOA
4	Services	ROE, LgCFOA
5	Pharma	LgMcap, ROI and LgCFOA
6	Paper and Jute	OpProfit, CR and ROI
7	Oil & Gas	OpProfit, CR, ROI and LgCFOA
8	Metals	LgMcap, DER, CR and ROI
9	Media Entertainment & Publication	LgMcap, CR and ROE
10	Information Technology	OpProfit, DER, and ROI
11	Healthcare Services	LgMcap, OpProfit, CR and ROE
12	Fertilisers & Pesticides	LgSales, DER and ROI
13	Industrial Manufacturing	LgMcap, OpProfit, and ROI
14	Consumer Goods	LgMcap and ROI
15	Construction	LgMcap, DER, CR and ROI
16	Chemicals	LgMcap and ROI
17	Cement & Cement Products	LgMcap, OpProfits and ROI
18	Automobile	OpProfits, DER, ROI, PBV and LgCFOA
19	Financial Services	DER, ICR, ROI and PBV
20	Consumer Services	OpProfit, ROI and LgCFOA

Hence, it can be reckoned that the dividend policy factors vary across sectors in India. Thus, the above analysis can be put in Table 4 representing various sectors and the variables affecting them significantly.

Table 4 symbolizes all the variables or dividend policy determinants of various sectors. As already stated, dividends' determinants differ across India, and not all factors affect the dividend policy of the same sector. Table 4 reflects that LgMcap (market capitalization, i.e., size of firm) is a prominent variable affecting the dividend policy to many sectors like pharma, metals, industrial manufacturing, consumer goods, construction, chemicals, cement & cement products, media entertainment & publication, and healthcare services.

ROI (a profitability indicator) is one of the very significant variables that impact the dividend policy of all the sectors except telecom, textile, and power & services. OpProfit is also a very important and effective factor affecting dividend policy decisions of almost nine sectors (Table 4). LgCFOA, DER, and CR are also very important indicators across the sectors as they affect the dividend policy decision for six, seven, and seven sectors, respectively. Other variables are important, but a few specific sectors, like ICR, are significant for the textile and financial services sector. PBV is important for textiles, automobile, and financial services. Also, ROE is imperative for services, media entertainment & publication, and healthcare services only. Finally, the above analysis of regression results exhibits that the scale of operation as measured by LgSales does not significantly influence the dividend policy of any of the sectors in India except fertilizers & pesticides.

Summary and Conclusion

This study uses financial data from Indian-listed companies included in the NIFTY 500 index to give unique information regarding the primary determinants of dividend policy in a growing country. The data was analyzed using the statistical methods of Pooled OLS and fixed effect model (FEM) to investigate the factors influencing dividend policy.

In general, the results from this study advise that companies with larger size, low business risk (using less amount of debt), high profitability, and greater interest coverage ratio are likely to pay larger dividends in India. As per this analysis, there is a direct association between cash flows and profitability. However, the results also suggested that organizations with fewer cash flows and higher growth opportunities are also continuing to pay dividends. I also looked at how dividend policies varied across 20 major Indian manufacturing sectors. The study demonstrates how different sectors are affected by different aspects when it comes to dividend policy. According to the sectorized results, size (LgMcap) and profitability (ROI) are significant determinants of dividend policy in most industries. Also, OpProfit is an important indicator in around 50% of the sectors mentioned in the study (refer to Table 4). DER in the category of debt measures has also affected the dividend policy of major sectors like IT, metals, construction, fertilizers & pesticides, automobile, financial services, and telecom.

In Summary Measure, ROI, as an indicator of profitability, shows a positive relationship with dividend payment for the maximum (17) industrial sectors, though liquidity measure and growth measure represented by LgCFOA and PBV, respectively, do not significantly affect the dividend policy of many sectors.

The research highlights that there is no single common set of variables or factors that universally influence the dividend policy across all industrial sectors. It is difficult to make a "one size fit" factor for all the companies across the sectors. It is apparent from the research that debt, size, and profitability are the factors that impact the dividend policy of almost all sectors. However, the predilection of one factor over the other may occur because of firm-level or sector-level impact on dividend policy, as documented in past empirical research. Also, these results give an impartial indication to the investors of the factors impacting the dividend disbursement of Indian companies. Last but not least, the research's findings demonstrate that the majority of theories based on developed markets may be applied to emerging markets like India because the characteristics outlined in research on developed markets are thought to be significant in determining the dividend policy determinants of Indian companies.

Managerial/Theoretical Implications/Policy Implications

This research has important implications for managers, theorists, and policymakers. For managers, it informs capital allocation decisions and various strategies for dividends, and it guides policy that attracts and satisfies customers for dividend payments. Theoretically, the findings contribute to understanding how the various sectors' dividend policy determinants affect the firm's value. For policymakers, it discusses policies that affect dividend payouts among different sectors and offers insights into how dividend policies respond to changes in the economy.

Limitations of the Study and Scope for Future Research

Since the dividend policy keeps on changing due to evolving market conditions, a limited time frame cannot hold the effects of important economic events. However, the current research has not taken the company's specific important factors like corporate governance, demographics of investors, and some non-financial variables like investors' attitudes, the behaviour of management people, etc. Thus, further research can be done to see the impact of such non-financial factors too on the dividend policy of Indian companies.

Author's Contribution

Dr. Ritu Wadhwa has developed the entire idea, concept, analysis, and discussion.

Conflict of Interest

The author certifies that she has no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

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References

Abor, J., & Bokpin, G. A. (2010). Investment opportunities, corporate finance, and dividend payout policy: Evidence from emerging markets. *Studies in Economics and Finance*, *27*(3), 180–194. https://doi.org/10.1108/10867371011060018

Aivazian, V., Booth, L., & Cleary, S. (2003). Do emerging market firms follow different dividend policies from U.S. firms? *The Journal of Financial Research*, *26*(3), 371–387. https://doi.org/10.1111/1475-6803.00064

Al-Malkawi, H.-A. (2007). Determinants of corporate dividend policy in Jordan: An application of the Tobit model. *Journal of Economic and Administrative Sciences*, *23*(2), 44–70. https://doi.org/10.1108/10264116200700007

Al-Shubiri, F. N. (2011). Determinants of changes dividend behavior policy: Evidence from the Amman Stock Exchange. *Far East Journal of Psychology and Business*, *4*(1), 1–15. https://ideas.repec.org/a/fej/articl/v4by2011i1p1-15.html

Athari, S. A. (2022). Does investor protection affect corporate dividend policy? Evidence from Asian markets. *Bulletin of Economic Research*, *74*(2), 579–598. https://doi.org/10.1111/boer.12310

Baker, H. K., Saadi, S., Dutta, S., & Gandhi, D. (2007). The perception of dividends by Canadian managers: New survey evidence. *International Journal of Managerial Finance*, *3*(1), 70–91. https://doi.org/10.1108/17439130710721662

Benito, A., & Young, G. (2003). Hard times or great expectations? Dividend omissions and dividend cuts by UK firms. *Oxford Bulletin of Economics and Statistics*, *65*(5), 531–555. https://doi.org/10.1111/j.1468-0084.2003.00060.x

Bhat, R., & Pandey, I. M. (1994). Dividend decision: A study of managers' perceptions. *Decision*, *21*(1), 67–86.

Black, F. (1976). The dividend puzzle. *The Journal of Portfolio Management*, *2*(2), 5–8. https://doi.org/10.3905/jpm.1976.408558

Bostanci, F., Kadioglu, E., & Sayilgan, G. (2018). Determinants of dividend payout decisions: A dynamic panel data analysis of Turkish stock market. *International Journal of Financial Studies*, *6*(4), 93. https://doi.org/10.3390/ijfs6040093

Chee, C. M., Ab Razak, N. H., & Wong, D. H. (2019). CEO overconfidence and dividend policy: Evidence from tiger cub economies. *Indian Journal of Finance*, *13*(10), 34–48. https://doi.org/10.17010/ijf/2019/v13i10/147746

DeAngelo, H., DeAngelo, L., & Skinner, D. J. (2004). Are dividends disappearing? Dividend concentration and the consolidation of earnings. *Journal of Financial Economics*, *72*(3), 425–456. https://doi.org/10.1016/s0304-405x(03)00186-7

Denis, D. J., & Osobov, I. (2008). Why do firms pay dividends? International evidence on the determinants of dividend policy. *Journal of Financial Economics*, *89*(1), 62–82. https://doi.org/10.1016/j.jfineco.2007.06.006

Ebrahim, R. (2023). Does stock liquidity determine dividend policy? New evidence from an emerging market. *Asian Economic and Financial Review*, *13*(9), 610–620. https://doi.org/10.55493/5002.v13i9.4823

Fama, E. F. (1974). The empirical relationships between the dividend and investment decisions of firms. *The American Economic Review*, *64*(3), 304–318. https://www.jstor.org/stable/1808884

Fama, E. F., & Babiak, H. (1968). Dividend policy: An empirical analysis. *Journal of the American Statistical Association*, *63*(324), 1132–1161. https://doi.org/10.1080/01621459.1968.10480917

Farooq, O., & Jabbouri, I. (2015). Cost of debt and dividend policy: Evidence from the MENA region. *The Journal of Applied Business Research*, *31*(5), 1637–1644. https://doi.org/10.19030/jabr.v31i5.9379

Foroghi, D., Karimi, F., & Momeni, Z. (2011). The investigation relationship of dividend behavior and like hood of paying dividend with financial variables in Tehran stock exchange: Interdisciplinary. *Journal of Contemporary Research in Business*, *3*(8), 390–397.

Imran, K. (2011). Determinants of dividend payout policy: A case of Pakistan engineering sector. *The Romanian Economic Journal*, *14*(41), 47–59.

Kahle, K., & Stulz, R. M. (2020). *Why are corporate payouts so high in the 2000s?* (NBER Working Paper No. 26958). National Bureau of Economic Research. https://doi.org/10.3386/w26958

Kim, J., Yang, I., Yang, T., & Koveos, P. (2021). The impact of R&D intensity, financial constraints, and dividend payout policy on firm value. *Finance Research Letters*, *40*, Article ID 101802. https://doi.org/10.1016/j.frl.2020.101802

Kiran, A. S., & Ramesh, K. (2021). Impact of ownership structure on dividend policies of Indian non-financial firms. *Indian Journal of Finance*, *15*(2), 49–61. https://doi.org/10.17010/ijf/2021/v15i2/157639

Kumari, P., & Pathak, R. (2024). Does mandating disclosure on dividend payout policy benefit shareholder? *Economics Letters*, *236*, Article ID 111587. https://doi.org/10.1016/j.econlet.2024.111587

Labhane, N. B., & Mahakud, J. (2016). Determinants of dividend policy of Indian companies: A panel data analysis. *Paradigm, 20*(1), 36–55. https://doi.org/10.1177/0971890716637698

Leepsa, N. M., & Mishra, C. S. (2016). Performance of acquirer in the manufacturing sector: Analysis of economic value added in different industries of the manufacturing sector in India. *NMIMS Management Review, 31*, 41–72.

Li, W., & Lie, E. (2006). Dividend changes and catering incentives. *Journal of Financial Economics*, *80*(2), 293–308. https://doi.org/10.1016/j.jfineco.2005.03.005

Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American Economic Review*, *46*(2), 97–113. https://www.jstor.org/stable/1910664

Mahdzan, N. S., Zainudin, R., & Shahri, N. K. (2016). Interindustry dividend policy determinants in the context of an emerging market. *Economic Research-Ekonomska Istraživanja*, *29*(1), 250–262. https://doi.org/10.1080/1331677x.2016.1169704

Michel, A. (1979). Industry influence on dividend policy. *Financial Management*, *8*(3), 22–26. https://doi.org/10.2307/3665034

Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, *34*(4), 411–433. https://doi.org/10.1086/294442

Mitton, T. (2004). Corporate governance and dividend policy in emerging markets. *Emerging Markets Review*, *5*(4), 409–426. https://doi.org/10.1016/j.ememar.2004.05.003

Mukhongo, E. M., Fadhil, P. N., & Kamau, C. G. (2024). The interdependence among dividend policy, investment decision, financial performance and survival of the firms in Kenya. *East African Finance Journal*, *3*(2), 223–233. https://doi.org/10.59413/eafj/v3.i2.7

Nuredin, M. (2012). *Determinants of dividend policy of insurance companies in Ethiopia* (Doctoral Dissertation, Addis Ababa University). Department of Accounting and Finance.

Pattiruhu, J. R., & Paais, M. (2020). Effect of liquidity, profitability, leverage, and firm size on dividend policy. *The Journal of Asian Finance, Economics and Business*, *7*(10), 35–42. https://doi.org/10.13106/jafeb.2020.vol7.no10.035

Pinto, G., & Rastogi, S. (2019). Sectoral analysis of factors influencing dividend policy: Case of an emerging financial market. *Journal of Risk and Financial Management*, *12*(3), 110. https://doi.org/10.3390/jrfm12030110

Poornima, B. G., Morudkar, V., & Reddy, Y. V. (2019). Impact of dividend announcements of banks on stock returns and the determinants of dividend policy. *Indian Journal of Finance*, *13*(5), 7–24. https://doi.org/10.17010//ijf/2019/v13i5/144182

Roy, D. (2022). Finance decisions and cash flow sensitivity: An empirical study of the Indian industry. *Indian Journal of Finance*, *16*(1), 39–49. https://doi.org/10.17010/ijf/2022/v16i1/160017

Saini, D., Surbhi, & Sharma, P. (2024). Relationship between dividend payout and its determinants: A meta-analysis. *Indian Journal of Finance*, *18*(8), 44–66. https://doi.org/10.17010/ijf/2024/v18i8/174242

Satish, D., & Satyanarayana, S. V. (2018). Firm value and its non-linear relationship with endogenous promoter ownership in India. *Indian Journal of Finance*, *12*(6), 7–24. https://doi.org/10.17010/ijf/2018/v12i6/128107

Ullah, K., Bagh, T., & Arif, M. (2019). Factors affecting dividend policy: An empirical investigation of food sector of Pakistan. *Research Journal of Finance and Accounting*, *10*(5), 12–28. https://doi.org/10.7176/RJFA/10-5-02

Venkataramanaiah, M., Latha, C. M., & Rao, K. S. (2018). Determinants of dividend policy in the Indian corporate sector: A study of companies listed on Nifty 50, NSE. *Indian Journal of Finance*, *12*(1), 37–46. https://doi.org/10.17010/ijf/2018/v12i1/120740

Wadhwa, R. (2019). What factors drive the dividend policy of Indian companies? *Indian Journal of Research in Capital Markets*, *6*(3), 37–48. https://doi.org/10.17010/ijrcm/2019/v6/i3/148882

Yusof, Y., & Ismail, S. (2016). Determinants of dividend policy of public listed companies in Malaysia. *Review of International Business and Strategy*, *26*(1), 88–99. https://doi.org/10.1108/ribs-02-2014-0030

Zhao, R., Nguyen, P., & Rahman, N. I. (2024). *Do firms adjust their payout policy to public perception of their social irresponsibility?* Available at SSRN. https://doi.org/10.2139/ssrn.4927226

Appendix. *Sector Wise Panel Regression*

Sector	Constant	*LgSales*	*LgMcap*	*OpProfit*	*DER*	*ICR*	*CR*	*ROE*	*ROI*	*PBV*	*LgCFOA*	No. of observations (balanced)	*R* Squared value	*F*-Statistics	Breusch-Pagan Test	Hausman *p*-value
Telecom	0.018	0.002*	0.000	0.015	–0.043*	0.002	0.000	–0.021	0.074*	N/A	N/A	60	0.576	2.873	1.231	9.400
	(0.132)	(0.037)	(0.412)`	(0.113)	(0.004)	(0.433)	(0.056)	(0.216)	(0.002)					(0.026)	(0.287)	(0.623)
Textiles	–0.006	–0.002	N/A	0.006	0.005	0.001*	0.000	–0.001	0.062*	0.001*	N/A	100	0.527	0.812	0.485	16.344
	(0.321)	(0.423)		(0.353)	(0.511)	(0.042)	(0.326)	(0.382)	(0.001)	(0.007)				(0.652)	(0.457)	(0.501)
Power	–0.008	0.000	0.002	0.032*	–0.035	0.005	0.002	–0.004	0.089	0.001	0.000*	100	0.487	0.765	1.564	9.879
	(0.389)	(0.153)	(0.834)	(0.001)	(0.211)	(0.822)	(0.064)	(0.679)	(0.001)	(0.798)	(0.024)			(0.786)	(0.321)	(0.687)
Services	–0.011	0.003	0.002	0.012	–0.024	0.001	0.000	0.074*	0.018	0.001	0.000*	140	0.375	1.463	1.674	24.178
	(0.319)	(0.253)	(0.244)	(0.601)	(0.421)	(0.682)	(0.878)	(0.041)	(0.327)	(0.177)	(0.003)			(0.094)	(0.284)	(0.036)
Pharma	0.023	–0.016	0.003*	–0.066	–0.037	0.000	0.004	0.007	0.218*	N/A	N/A	350	0.174	0.765	0.431	10.834
	(0.767)	(0.573)	(0.041)	(0.217)	(0.622)	(0.879)	(0.568)	(0.431)	(0.001)					(0.772)	(0.678)	(0.690)
Paper and Jute	0.056	0.000	0.001	0.026*	–0.035	0.001	0.000*	0.002	0.062*	0.001	–0.000*	20	0.423	1.435	1.432	28.764
	(0.226)	(0.181)	(0.384)	(0.003)	(0.211)	(0.212)	(0.013)	(0.764)	(0.001)	(0.667)	(0.004)			(0.162)	(0.357)	(0.001)
Oil & Gas	–0.002	0.002	0.006	0.041*	–0.042	0.004	0.004*	–0.005	0.072*	0.005	0.002*	120	0.612	0.675	1.668	10.919
	(0.218)	(0.233)	(0.762)	(0.000)	(0.323)	(0.711)	(0.027)	(0.651)	(0.010)	(0.871)	(0.034)			(0.814)	(0.422)	(0.754)
Metals	–0.025*	–0.001	0.029*	0.004	–0.035*	0.002	0.005*	0.001	0.041*	0.001	0.003	170	0.432	1.671	0.032	22.108
	(0.001)	(0.217)	(0.002)	(0.523)	(0.013)	(0.571)	(0.023)	(0.361)	(0.005)	(0.454)	(0.823)			(0.436)	(0.772)	(0.048)
Media	–0.027	0.001	0.005*	0.022	–0.042	0.002	0.005*	0.028*	–0.015	0.003	0.006	30	0.347	0.451	2.346	12.231
Entertainment	(0.453)	(0.720)	(0.038)	(0.073)	(0.593)	(0.275)	(0.004)	(0.023)	(0.496)	(0.556)	(0.242)			(0.834)	(0.147)	(0.732)
& Publication																
Information	–0.019	–0.004	0.002	–0.034*	–0.039*	0.000	0.003	0.006	0.312*	0.001	0.001	220	0.567	1.341	0.431	24.814
Technology	(0.462)	(0.419)	(0.675)	(0.000)	(0.048)	(0.902)	(0.187)	(0.713)	(0.003)	(0.256)	(0.392)			(0.213)	(0.465)	(0.008)
Healthcare	–0.023	0.004	0.002*	0.045*	–0.056	0.005	0.001*	0.037*	–0.026	0.000	0.010	70	0.435	0.522	2.455	11.543
Services	(0.291)	(0.619)	(0.041)	(0.038)	(0.487)	(0.185)	(0.009)	(0.017)	(0.390)	(0.622)	(0.292)			(0.768)	(0.236)	(0.674)
Fertilisers	0.029	–0.002*	0.003	0.027	–0.052*	0.001	0.007	–0.018	0.058*	N/A	N/A	100	0.468	2.479	1.227	10.210
& Pesticides	(0.156)	(0.035)	(0.487)`	(0.156)	(0.022)	(0.643)	(0.087)	(0.257)	(0.001)					(0.021)	(0.389)	(0.623)
Industrial	–0.047	0.001	0.003*	–0.052*	–0.002	0.002	0.004	0.006	0.206*	–0.005	0.001	420	0.379	1.367	0.540	18.674
Manufacturing	(0.006)	(0.528)	(0.020)	(0.000)	(0.820)	(0.879)	(0.156)	(0.465)	(0.000)	(0.264)	(0.195)			(0.264)	(0.641)	(0.087)
Consumer	–0.120	0.003	0.006*	–0.002	–0.016	0.001	0.004	–0.034*	0.214*	0.000	0.001	600	0.452	1.204	0.003	7.864
Goods	(0.004)	(0.673)	(0.037)	(0.892)	(0.721)	(0.764)	(0.217)	(0.002)	(0.001)	(0.539)	(0.082)			(0.527)	(0.896)	(0.673)
Construction	–0.017	–0.002	0.026*	0.001	–0.023*	0.008	0.002*	0.003	0.034*	0.002	0.006	200	0.367	1.342	0.021	24.708
	(0.005)	(0.215)	(0.007)	(0.461)	(0.000)	(0.487)	(0.012)	(0.236)	(0.001)	(0.344)	(0.787)			(0.337)	(0.872)	(0.039)
Chemicals	0.032	–0.027	0.005*	–0.082	–0.056	0.003	0.001	0.004	0.327*	N/A	N/A	240	0.243	0.652	0.384	12.441
	(0.665)	(0.655)	(0.038)	(0.361)	(0.533)	(0.572)	(0.769)	(0.359)	(0.000)					(0.812)	(0.579)	(0.587)
Cement &	–0.056	0.004	0.004*	–0.039*	–0.001	0.006	0.002	0.001	0.321*	–0.006	0.006	110	0.457	1.477	0.448	19.414
Cement	(0.020)	(0.435)	(0.018)	(0.002)	(0.781)	(0.775)	(0.266)	(0.545)	(0.004)	(0.384)	(0.295)			(0.366)	(0.548)	(0.092)

Products																
Automobile	0.039	0.018	0.002	0.032*	–0.026*	0.002	0.001	–0.004*	0.326*	0.002*	0.001*	270	0.796	0.564	1.768	14.278
	(0.004)	(0.203)	(0.890)	(0.014)	(0.002)	(0.312)	(0.416)	(0.021)	(0.004)	(0.047)	(0.002)			(0.921)	(0.273)	(0.497)
Financial	–0.052	N/A	0.001	N/A	0.032*	0.014*	0.000	–0.002	0.226*	0.009*	0.003	720	0.643	1.451	1.423	19.876
Services	(0.013)		(0.765)		(0.003)	(0.028)	(0.879)	(0.652)	(0.001)	(0.005)	(0.214)			(0.076)	(0.321)	(0.037)
Consumer	–0.021	0.004	0.004	0.031*	–0.042	0.004	0.005*	0.003	0.074*	0.002	–0.001*	140	0.435	1.607	0.012	16.298
Services	(0.362)	(0.271)	(0.297)	(0.000)	(0.341)	(0.332)	(0.031)	(0.642)	(0.003)	(0.721)	(0.010)			(0.387)	(0.879)	(0.243)

The sectors given above are sectors to which a company belongs based on the CMIE classification. The regression analysis has been estimated using the FEM (fixed effect model) for Telecom and Fertilizers & Pesticides sectors. The POLS model of regression has been employed for the rest of the 18 sectors.

Note. * represents the significance at the 5% level of significance.

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