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Impact of dividend policy on firm value of select steel companies in India

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Abstract
The dividend payout policy of a company depicts the efficiency and stability of its successful performance, to the stake holders. It enhances the company image and increases the firm value of a company subsequently. Any variation in the dividend payout has its impact on its firm value, which in turn would affects its share value too. Modigliani and Miller's irrelevance theory states that the dividend policy of a firm has no impact on its firm value. Whereas, the relevant theories states that the increased payout ratio could increase the firm value or a low dividend could decrease the firm value. The dividend payments depends upon the availability of profits, investment opportunities, required rate of return and the payout policies of the firm.

An analysis of the impact of dividend payout policy on the firm value of steel industry in India, would assist to design an appropriate approach for dividend payout. That will pave way for the increase of firm value, of the Indian steel companies. The present research study considers the companies of Indian steel industry, listed in Bombay stock exchange. The sample consists of the companies that has declared dividend for ten continuous years from FY 2004-05 to 2013-14. The necessary secondary data of the selected companies was collected from the Capitaline database. The objectives of the study are to identify the factors influencing the dividend policy of select companies and to examine the impact of dividend policy on the firm value of the select steel companies in India.

Keywords: Dividend policy, firm value, Indian steel industry

1. Introduction
Dividend payout refers to the distribution of earnings of a company to its shareholders, for their contribution in the share capital. Based on the available investment opportunities, rate of return and the cost of capital, the dividends are declared. A part of earnings are retained by the firm, for future business expansion purposes. In case of non-availability of profitable investment opportunities or if the rate of return is less than the cost of capital, the entire profits will be distributed to the shareholders. If the estimated rate of return is higher than the cost of capital, then the profits will be retained by the firm and no dividends or a small portion is distributed among the shareholders. The factors such as nature of industry, firm size, profitability, growth, leverage, liquidity ratio and solvency ratio have significant impact in determining the dividend payout decisions. The dividends are paid in various forms namely cash dividend, stock dividend, scrip dividend and property dividend. Among other forms, cash dividend is preferred by shareholders to be more advantageous. It serves as regular source of income, good hedge on declining of share prices, tax exemption for dividend from domestic companies and safety of investments.

The steel industry in India ranks third in the production of crude steel. In 2015, the steel industry has produced 91.46 million tonnes (MT) of finished steel, it is expected to be 104 MT in 2017 and 300 MT by 2025. The major industries such as automobile, transport, engineering, construction, textile and energy depends largely on the steel industry for its raw material, equipment, processing, transporting and various other purposes. The Indian steel companies faces many challenges such as lack of capital, competition from neighboring countries, low potential utilization, low labour productivity, power problems and outdated

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technologies. An appropriate dividend policy could impress new shareholders and existing shareholders to invest in the domestic steel companies. It will assist to eliminate all the challenges ahead and lead to an increase in the firm value. The growth in the firm value of leading steel companies in India, would lead to increased profitability and thereby induce the growth of Indian steel sector, to reach the first place in production of crude steel globally.

2. Research Objectives and Methodology
The current research study aims to identify the factors influencing the dividend policy of select companies and to examine the impact of dividend policy on the firm value of the select steel companies in India. The sample selection criteria includes those companies listed in Bombay Stock Exchange and have declared dividend for ten continuous years from financial year 2004-05 to 2013-14. Accordingly, nine steel companies in India namely, Bhushan Steel Limited, Godawari Power and Ispat Limited, Hisar Metal Industries Limited, JSW Steel Limited, Monnet Ispat & Energy Limited, Steel Authority of India Limited, Suraj

Limited, Tata Steel Limited and Tata Sponge Iron Limited were selected as sample. The necessary secondary data was collected from the Published Annual Reports of the selected companies from the Capitaline database. The SPSS 21 version software was used to calculate the Mean, Standard Deviation, Variance, Multiple Regression Analysis and Correlation Analysis of the selected variables.

3. Results and Discussion
The variables selected for the study includes (i) dependent variables - Dividend Payout Ratio (DPR) and Dividend Yield Ratio (DYR) and (ii) independent variables - Return on asset (ROA), Return on equity (ROE), Earnings per share (EPS), Risk (RK), Liquidity (L), Growth (GR), Leverage (LVG), Firm size (FS), Cash holdings (CS), Liquidity ratio (LR) and Solvency ratio (S).

3.1 Descriptive statistics
The descriptive statistics of the selected variables of Steel industry for the period 2004-05 to 2013-14 are shown in the following tables -1, 2 & 3.

Table 1: Bhushan Steel, Godawari Power and Ispat, Hisar Metal Industries Ltd (2004-05 to 2013-14) - Descriptive statistics

	N	Bhushan Steel Ltd			Godawari Power & Ispat			Hisar Metal Industries		
		M	S.D	V	M	S.D	V	M	S.D	V
ROA	10	5.9	1.12	1.26	1.8	0.49	0.24	1.5	0.19	0.038
ROE	10	10.05	2.18	4.78	11.04	4.10	16.8	4.55	1.31	1.77
EPS	10	47.38	58.14	3380	21.31	7.13	50.89	2.45	2.08	4.33
RK	10	1.15	0.31	0.09	19.09	182.35	33	14.65	15.53	241.27
GR	10	6.55	1.50	2.25	34.77	9.82	96.52	12.95	3.04	9.29
LVG	10	0.45	0.48	0.23	1.39	4.05	16.48	1.29	5.09	25.91
FS	10	3.83	0.21	0.05	2.99	0.35	0.12	2.20	0.14	0.019
CH	10	0.15	2.62	6.87	0.09	13.51	182.68	0.25	18.26	33.7
LR	10	0.45	0.48	0.23	1.39	4.05	16.48	1.29	5.09	25.91
S	10	2.85	8.13	66.10	1.53	12.6	160.10	1.76	14.34	25.72
DPR	10	1.53	0.47	0.22	13.7	4.15	17.22	14.35	5.00	25.1
DYR	10	25	7.91	62.5	25	8.76	76.67	10	1.58	2.5

Source: Published Annual Reports - N – Denotes number of years, M – Mean, S.D –Standard Deviation, VA – Variance.

From the table-1 it is shown that in Bhushan Steel Ltd, the Return on Asset has a mean of 5.9 with a standard deviation of 1.12. It indicates that the company possess the ability to earn profits efficiently using its assets. Return on Equity has a mean of 10.05 shows the company's ability to pay a good return to its potential investors. Growth ratio shows a good growth in profit and capital of the company. Dividend payout ratio, 1.53 showed an increasing trend in issue of dividend during the study period. Dividend yield ratio has a mean of 25 with a standard deviation of 7.9. It indicates a stable dividend distribution of the company and it is more reliable.

In Godawari Power and Ispat, Return on Asset has a mean of 1.8 indicates that the company should increase its profits, by using its assets efficiently. Liquidity ratio falls in a range of 1.82, from 2.65 to 4.46 and mean of 3.40 with a standard

deviation of 0.61. It denotes a better cash holdings of the company, to meet its day to day financial obligations. Leverage ratio is about 1.39 with a standard deviation of 4.05, indicates the adequacy of the assets to repay its debts. Dividend payout ratio 13.7, showed an increasing trend in issue of dividend throughout the study period.

In Hisar Metal Industries, Growth ratio is having a mean of 12.95 shows a good growth in profit and capital of the company. Dividend payout ratio 14.35, showed an increasing trend in issue of dividend throughout the study period. The leverage ratio is about 1.29 and a standard deviation of 5.09, indicates the adequacy of the assets to repay its debts. Dividend yield ratio has a mean of 10 with a standard deviation of 1.58, indicates a consistent dividend distribution of the company and less risky.

Table 2: JSW Steel, Monnet Ispat & Energy and Steel Authority of India (2004-05 to 2013-14) - Descriptive statistics

	N	JSW Steel Ltd			Monnet Ispat & Energy			Steel Authority of India		
		M	S.D	V	M	S.D	V	M	S.D	V
ROA	10	4.66	0.49	0.24	5.66	0.54	0.38	1.11	0.15	0.02
ROE	10	8.0	0.54	0.29	6.28	0.27	0.06	10.72	1.29	1.66
EPS	10	58.02	18.41	338.86	38.81	16.49	272.01	10.46	4.75	22.57
RK	10	45.10	12.08	145.9	11.8	8.18	7.00	28.76	20.6	25.9
GR	10	18.0	1.74	3.04	10.41	0.53	0.22	50.55	10.3	10.0
LVG	10	0.6	1.82	3.3	6.2	0.36	0.13	15.39	2.85	8.12
FS	10	4.35	0.31	0.10	3.23	0.29	0.08	4.68	0.06	0.004
CH	10	0.10	9.41	8.6	0.05	3.1	9.87	0.025	7.95	3.26
LR	10	0.95	0.19	0.04	5.37	2.21	4.86	1.92	0.35	0.12
S	10	3.96	7.3	4.2	2.9	4.56	20.8	1.9	6.70	4.9
DPR	10	11.2	1.7	3.08	7.72	0.48	0.23	19.81	2.75	7.60
DYR	10	105	36.48	1330	45	20.15	405.8	22.1	6.40	40.99

Source: Published Annual Reports - N – Denotes number of years, M – Mean, S.D –Standard Deviation, VA – Variance.

From the table-2 it is shown that in JSW Steel, Return on Equity has a mean of 8.0 depicts the company's ability to pay a good return to its potential investors. Growth ratio is having a mean of 18 shows a good growth in profit and capital of the company. Dividend payout ratio has a mean of 11.2, showed an increasing trend in issue of dividend throughout the study period. Solvency ratio has a standard deviation of 7.3. As the solvency ratio is more than 20%, the company is in a good solvency position and financially healthy.

In Monnet Ispat & Energy, Growth ratio is having a mean of 10.41 with a variance of 0.22. It shows an enhanced growth in profit and capital of the company. Dividend payout ratio 7.72, showed an appreciating trend in issue of dividend throughout the study period. Leverage ratio is about 6.2 and a standard deviation of 0.36, indicates the adequacy of the assets to repay its debts. Earnings per share has a mean of 38.81, indicating the better earning ability of the company to distribute better profits to its shareholders.

In Steel Authority of India, Liquidity ratio falls in a range of 1.16, from 1.46 to 2.62 and mean of 1.92 with a standard deviation of 0.35. It denotes a better liquidity position of the company to meet its current financial obligations. While leverage ratio is about 15.39 having a standard deviation of 2.85 indicates the adequacy of the assets to repay its debts. Solvency ratio has a mean of 1.9, having a standard deviation of 6.7. Dividend yield ratio has a mean of 22.1 with a standard deviation of 6.40. It indicates a stable dividend distribution of the company and it is more reliable and less risky.

Table 3: Suraj, Tata Steel and Tata Sponge Iron (2004-05 to 2013-14) - Descriptive statistics

		Suraj Ltd			Tata Steel			Tata Sponge Iron		
	N	M	S.D	V	M	S.D	V	M	S.D	V
ROA	10	1.11	0.43	0.18	3.4	0.29	0.08	1.9	1.33	1.77
ROE	10	14.80	10.54	111.29	8.59	1.05	1.11	4.14	1.50	2.27
EPS	10	3.27	3.68	13.55	65.02	6.28	39.38	55.88	21.11	445.73
RK	10	2.06	24.10	580.91	43.6	44.04	19	1.86	0.58	0.34
GR	10	53.11	58.39	3409	9.98	2.9	8.50	9.67	2.40	5.79
LVG	10	0.37	6.65	44.24	1.84	2.22	4.96	2.48	0.86	0.80
FS	10	2.40	0.12	0.014	4.47	0.16	0.02	2.83	0.20	0.04
CH	10	0.05	12.22	149.4	0.13	3.59	12.93	0.13	6.99	48.36
LR	10	6.28	2.82	7.97	1.50	1.21	1.47	2.49	0.75	0.57
S	10	1.14	14.60	213.3	2.65	2.75	7.54	4.14	10.60	12.45
DPR	10	7.89	5.68	32.27	7.75	2.29	5.27	5.9	1.16	1.37
DYR	10	15	0.95	0.9	120	32.83	1078	80	20.68	427.78

Source: Published Annual Reports - N – Denotes number of years, M – Mean, S.D –Standard Deviation, VA – Variance.

From the table-3 it is shown that in Suraj Ltd, The Return on Asset has a mean of 1.11 with a standard deviation of 0.43. It indicates that the company should increase its profits, by using its assets efficiently. Return on Equity has a mean of 14.80 with a variance of 111.29. It depicts that the company has ability to pay a good return to its potential investors. Growth ratio is having a mean of 53.11 that shows an enormous growth in profit and capital of the company. Dividend payout ratio 7.89, showed a consistent issue of dividend during the study period.

In Tata Steel, Growth ratio is having a mean of 9.98 with a variance of 8.50. It shows a better growth in profit and capital of the company. Dividend payout ratio 7.75, showed a higher issue of dividend throughout the study period. Dividend yield ratio has a mean of 120 with a standard deviation of 32.83, indicates an increased trend in dividend distribution of the company and it is more reliable and less risky. Firm size has a mean of 4.47 with a variance of 0.02 denotes a good amount of sales during the study period, i.e., average of Rs. 2, 86, 099 crores.

In Tata Sponge Iron, Return on Asset has a mean of 1.9 with a standard deviation of 1.33. It indicates that the company possess the ability to earn profits efficiently using its assets. Return on Equity has a mean of 4.14 with a variance of 2.27. It depicts the company's ability to pay a better return to its potential investors. Growth ratio is having a mean of 9.67 with a variance of 5.79. It shows a better growth in profit and capital of the company. Dividend yield ratio has a mean of 80 with a standard deviation of 20.68, indicates a stable dividend distribution of the company.

3.2 Factors influencing the dividend policy of select Steel companies in India using Multiple Regression Analysis

The multiple regression analysis is used to examine the factors influencing the dividend decisions of selected Steel companies in India. The following table-4 & 5 exhibits the multiple regression results for the period (2004-05) to (2013-14).

Table 4: Coefficient of Dependent Variable

Model	R	R Square	Standard error of the estimate
Dividend Payout Ratio	0.451	0.381	1.002

Source: Computed Values

Table 5: Dependent and Independent Variables' Association

Model Summary	Standardized Coefficients Beta	T(DPR)
(Constant)		6.002
ROA	-0.106	-0.638
ROE	0.151	0.873
EPS	-0.097	-0.654
RK	-0.058	-0.201
GR	-0.104	-0.667
LVG	0.159	1.164
FS	0.230	1.497
CH	-0.112	-0.785
LR	-0.027	-0.176
S	-0.050	-0.495

Source: Computed Values

In the table – 4, the multiple regression analysis shows that R^2, the multiple correlation coefficients, is the linear correlation between the observed and model-predicted values of the dependent variable. Its value indicates 38 percent of association between Dividend payout ratio and dividend decision influencing factors. From table-5 the results in regression Dividend payout ratio (DPR) shows a significant positive relationship with ROE, Leverage (LVG) and Firm Size. It indicates that return on equity, leverage and Firm size significantly influence the Dividend payout policy of steel companies in India.

3.3 Impact of dividend policy on the firm value of the select steel companies in India using Pearson Correlation analysis

The impact of dividend decisions on the value of the selected steel companies in India was computed using Pearson Correlation analysis and are presented in the following table – 6.

Table 6: Correlation analysis of Steel Companies (2004-05 to 2013-14)

			Dividend payout ratio	Dividend yield ratio	Sig. (2-tailed)
Bhushan	Firm value	Pearson Correlation	-.367	.517	
		Sig. (2-tailed)	.296	.126	
		N	10	10	
Godawari	Firm value	Pearson Correlation	-.094	.475	
		Sig. (2-tailed)	.797	.166	
		N	10	10	
Hisar	Firm value	Pearson Correlation	.179	-.338	
		Sig. (2-tailed)	.621	.339	
		N	10	10	
JSW	Firm value	Pearson Correlation	.117	.601	
		Sig. (2-tailed)	.748	.066	
		N	10	10	
Monnet	Firm value	Pearson Correlation	.331	.507	
		Sig. (2-tailed)	.350	.135	
		N	10	10	
SAIL	Firm value	Pearson Correlation	-.836**	.539	** at 0.01 level
		Sig. (2-tailed)	.003	.108	
		N	10	10	
Suraj	Firm value	Pearson Correlation	-.788**	-.533	** at 0.01 level
		Sig. (2-tailed)	.007	.113	
		N	10	10	
Tata	Firm value	Pearson Correlation	.331	.257	
		Sig. (2-tailed)	.350	.474	
		N	10	10	
Tata sponge	Firm value	Pearson Correlation	-.966**	.735*	* at 0.05 level ** at 0.01 level
		Sig. (2-tailed)	.000	.015	
		N	10	10	

Source: Computed Values

From the above table – 6, it is observed that in Bhushan and Godawari steels there is less negative correlation exist between firm value and dividend payout ratio. It implies that as the payout increases, Firm value decreases and vice versa. While in case of dividend yield ratio, it shows mild positive correlation with yield ratio and Firm value in both companies. In Hisar, the payout ratio is positively correlated with firm value, denoting an increase in payout ratio leads to an increase in firm value. Whereas, the yield ratio is negatively correlated with the firm value.

In JSW, Monnet and Tata steel companies both dividend payout and dividend yield ratio mildly positively impacts the firm's value. In SAIL, Suraj and Tata sponge steel companies, the dividend payout ratio negatively impacts on firm value (significant at 1% level). It denotes that an increase in payout will lead to a decrease in firm's value. There exists positive correlation between dividend yield and firm value (significant at 5% level), indicating an increase in dividend yield leads to an increase in the firm value of Tata sponge.

The Correlation analysis results indicates that there exist less impact of dividend decisions on the firm value among majority of Steel companies in India namely, Bhushan steel, Godawari Power and Ispat, Hisar Metal, JSW Steel, Monnet and Tata steel companies. Whereas, there exist significant impact of dividend decisions on the firm value in Steel Authority of India, Suraj and Tata sponge companies (showing significance at either 5% or 1%) during the period of study.

5. Conclusion
The Multiple Regression results shows that Return on Equity, Leverage and Firm Size are the factors that significantly influence the dividend payout policy of the Steel companies in India. The Correlation analysis results indicates that the Dividend policy has significant impact on the firm value of the Steel companies such as Steel Authority of India Ltd, Suraj Ltd and Tata sponge Ltd. For the remaining companies namely Bhushan steel, Godawari Power and Ispat, Hisar Metal, JSW Steel, Monnet and Tata steel the dividend payout is less correlated with the firm value. By introducing new varied dividend policies, the firm value can be increased. The preference of shareholders towards income and investment can be understood and the dividend policies should be framed accordingly, for such shareholders. This strategy could assist such steel companies to gain both the benefit of increased shareholders satisfaction, thereby increased firm value and on the other hand, savings for future business expansion and capital gains. This in turn, will promote the growth and profitability of the steel industry and associated industries in India.

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