A Comparative Analysis of Dividend Policy

Anshika Agarwal (First Author)

Assistant Professor,

Department of Commerce

Ramanujan College, University of Delhi

Dr Purushottam Kumar Arya (Corresponding Author)

Assistant Professor,

Department of Commerce

Atma Ram Sanatan Dharma College

University of Delhi

1. Introduction

A number of researchers have advanced theories and provided empirical evidence regarding determinants of a firm's dividend policy. The dividend policy issue, however, is yet unresolved. There are many factors that could affect a firm's dividend payout behaviour.

According to partington,1987[1] these reasons include profitability, stability of dividend payout and retained earnings, liquidity and cash flows, investment variables and financial variables. According to Lintner,1956,Rozeff 1992,and Barclay 1995,investment opportunities, agency costs, financial leverage, last year's dividend and firm size influence the dividend policy of a company.Megginson,1957[2] states that there are worldwide industrial patterns in the dividend policy and important factors affecting the dividend payouts are regulations, industry growth rate, capital investment needs, profitability, earnings variability and asset characteristics such as the composition of tangible and intangible assets.

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[1]   Partington, G. H. (1987). Variables influencing dividend policy in Australia:Survey Results. *Journal of Business Finance and Accounting 16*, p.165-182.

[2]   Megginson, W. (1997). In *Corporate Finance Theory,Reading,Addison-Wesley* (p.355).

Moreover research in the past also shows that there are significant influence of growth rate of firm, systematic risk, retained earnings, liquidity, cash availability, provision for tax and firm size on dividend payout.

In this paper, issues related to dividend policies have been analysed within many framework including profitability, growth rate, liquidity, leverage and provision for taxation etc. The major focus of the research, however is to find out whether there is dividend policy of all companies ,to know the relationship between the variables and with dividend payout and the technique of correlation matrix analysis is used for the purpose, the scope, methodology used and interpretation of the result of correlation matrix are presented after discussion and an analysis of the impact of least related variable on the dividend policy of a firm, that has either been made by merely observing the data of the selected companies or hereby to go further analysis to know the extent of impact of least correlated variable on dividend payout simple regression analysis has been run. Based on application of correlation matrix least correlated variable has been found. Least correlated variable refers low value (correlation coefficient). The study is based on five years data of thirty selected companies of ten industries. The period concerned is from 2018-2023. For the purpose of simple regression analysis, dividend payout rate, which is defined as the ratio of dividends per share for the firms dividend policy is as under:

2. Dividend Payout Ratio

It measures the relationship between dividends and earnings.i.g. What percentage shares of dividend is to be distributed from profit. It is to be calculated,

D/P Ratio = Dividend Per Share *100
Earnings per Share

The factors or explanatory variables are considered for the study purpose are as under:

(1) Liquidity:

Although dividend is related to earnings, the actual payment of dividend is made from available cash. Thus, liquidity always plays an important role in any cash payment by a firm. This usually happens in case of high growth firms or firm which requires more funds for expansion purposes, which have very low liquidity because of substantial investment like profitability, liquidity etc. Also has positive relationship with dividend. Hence, greater the cash position and overall liquidity of a company, greater is the ability to pay dividend.

The Current-Ratio is one of the best-known measures of financial strength and liquidity. It is calculated as shown below:

Current-Ratio =   Total Current-Assets

Total Current-Liabilities

(2) Size and Growth:

Jahera, Lioud and Modani (1986) [3] find that size is the major factor that determines a company's policy. Big companies are usually in mature industries with higher credit levels. Therefore, due to the fact that the cost of dividend policy is relatively large companies have a stable dividend policy and moreover have a higher payout than small companies. In order to study the influence of size on dividend. Various measures such as Total Assets, Paid-up Capital, and Net worth etc. have been used by researchers to represent size. James Bales said that many arguments may be advanced against the use of any of the above measures for size. So, no measures are perfect. Moreover, since all the above-mentioned measures are correlated to each other any measures may be used. Larger firms should be able to pay higher dividends. Therefore, expect to see the positive relationship between size and dividend payment.

Higher Growth companies have lots of investment opportunities and are likely to pay low dividends because they have profitable uses for the capital. Therefore, high growth companies prefer to capitalize on their favourable investment prospects and have clear disincentive's in paying operating cash flows and profits as dividends. (Gaver and Gavert,1993)[4]this ratio indicates the rate of growth of the total assets in the business and is expressed in percentage.

(3) Leverage:

A firm with large amounts of debts will follow a more conservative dividend policy. The reason is that if a firm has relatively high financial leverage, its dependence on external finance is increased. Therefore, such firms' pay low dividends to avoid borrowing i.e. a firm with higher leverage will pay a lower fraction of earnings in order to lower its dependence on external financing leverage can be calculated by Debt/Equity Ratio. The Debt/Equity or Leverage Ratio indicates the extent to which the business is reliant on debt financing.

Debt/Equity Ratio =Long-term funds/Shareholder's fund

[3]   Jahera, J. L. (1986). Growth,Beta and Agency Costs as Determinants of Dividend. *Akron Business and Economic Review 17*, p.55-69.
[4]   Gaver, J. a. (1993). Additional Evidence on the Association between Investment Opportunity Set and Corporate Financing,Dividend and Compensation plocies . *Journal of Accounting and Economics*, p.185-209

(5) Provision for Taxation:

In India, dividends were taxed in the hands of investors. Since investor did not give significance to tax matter individual tax rates were irrelevant while determining dividend policy in the Indian context. However, shareholders in the high tax bracket may have preferred dividend income rather than capital gains. This is because, though dividend income for the individual was free, capital gains are taxable in India.

Under the Finance Act 1997[5], no tax was payable on dividends by a company and consequently there was no withholding tax on dividends paid by a company to its shareholders. However, a company declaring a dividend was required to pay income-tax at the rate of 10% on the amount of dividend distributed. If, tax on dividends is viewed from point of view of the corporate sector, they have to pay dividend tax and changes individual tax rates may influence the company's dividend policy. For Example, a cut in dividend tax from 20% to 10% on the dividend declared by companies had been viewed as positive.

This variable shows that how much amount from profit is kept for payment of tax. This is a provision from profit formula used for calculation of provision taxation is,

$$= \frac{\text{Amount provided for tax}}{\text{Net Profit}}$$

3. Analysis of Selected Companies

Hypothesis No-1

H_0 = There is no significant influence of least related variable on dividend payout of selected companies.

H_1 = There is significant influence of least related variable on dividend payout of selected companies.

Values for different variables are calculated for different companies which are as follows:

3.1 Dabur India Ltd.

Table 1: Dividend payout ratio and all independent variables of Dabur India Ltd.

Year	Dividend payout	Liquidity (current ratio)	Size & growth (total assets)	Leverage (debt-equity ratio)	Provision for taxation
2018-19	38.46	0.948818	31.19367	0.032815	13.25648
2019-20	41.96	1.121894	57.04753	0.191405	12.10353

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5   T.N.Pandey,Budget 1997:New Tax Concept Relating to Dividend Income, Chartered Secretary, April 1997,p.365-366

2020-21	40.24	-1.06165	60.6	0.146824	17.77887
2021-22	49.24	1.512513	177.2301	0.347733	20.93885
2022-23	52.04	1.513449	17.97409	0.352974	21.08751

In order to know the correlation of different variables with dividend payout above table is used and on the basis of that, below correlation matrix is as follows:

Correlations		DPY	LQ	SG	LV	PT
DPY	Pearson Correlation	1	.589	.282	.961[**]	.815
	Sig. (2-tailed)		.296	.645	.009	.093
	N	5	5	5	5	5
LQ	Pearson Correlation	.589	1	.173	.485	.118
	Sig. (2-tailed)	.296		.781	.408	.850
	N	5	5	5	5	5
SG	Pearson Correlation	.282	.173	1	.435	.387
	Sig. (2-tailed)	.645	.781		.464	.520
	N	5	5	5	5	5
LV	Pearson Correlation	.961[**]	.485	.435	1	.794
	Sig. (2-tailed)	.009	.408	.464		.108
	N	5	5	5	5	5
PT	Pearson Correlation	.815	.118	.387	.794	1
	Sig. (2-tailed)	.093	.850	.520	.108	
	N	5	5	5	5	5
**. Correlation is significant at the 0.01 level (2-tailed).						

3.1.1 Positive correlation

The correlation Matrix shows that dividend payout ratio is significantly and strong positively correlated with leverage. It is also nearer to strong positively correlated with provision for taxation. It is partially correlated with liquidity. It also shows weak correlation with growth. Liquidity is weakly correlated with growth, leverage and provision for taxation. Growth is also weakly correlated with leverage and provision for taxation. Leverage is weakly correlated with liquidity and growth. Leverage is also nearer to strong positively correlated with provision for taxation.

Considering above correlation matrix, least correlated value is 0.282 which indicates that there is low correlation between dividend payout and growth. Simple regression method is used in order to know the Influence of growth on dividend payout which can be extracted from below table.

Table 2: Simple regression analysis for Dabur India Ltd.

Year	Dividend payout	Size & growth (total assets)
2018-19	38.46	31.19
2019-20	41.96	57.05
2020-21	40.24	60.6
2021-22	49.24	177.23
2022-23	52.04	17.97

3.1.2 Output of Simple Regression

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.282[a]	.080	-.227	6.56110
a. Predictors: (Constant), SG				

The above table indicates that the value of R for Dabur India Ltd. 28.2% that refers there is a weak linear correlation between explanatory variables such as growth and the dependent variable i.e. Dividend payout of the company. The R2 value (the "R Square" column) indicates how much of the total change in the dependent variable can be explained by the independent variable. Value of adjusted R- Square for Dabur India Ltd. is -0.227. It indicates that there is no change in dividend payout due to the changes in growth.

ANOVA[a]

	Model	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	11.193	1	11.193	.260	.645[b]
1	Residual	129.144	3	43.048		
	Total	140.337	4			

a. Dependent Variable: DPR

b. Predictors: (Constant), SG

The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data. The above table shows that the independent variables statistically significantly predict the dependent variable, $F(1, 3) = 0.260$, $p > 0.05$ (i.e., the regression model is unfit for the data). It indicates that null hypothesis is accepted. It means that there is no significant impact of size and growth on the dividend payout for Dabur Company.

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	42.566	4.624		9.206	.003	27.851	57.281
	GR	.026	.052	.282	.510	.645	-.139	.192

a.Dependent Variable: DPR

From the above table, the general form of the equation to predict dividend payout from growth can be obtained as under:

Predicted dividend payout

$= 42.566 + (0.026 \times \text{growth})$

Unstandardized coefficients indicate how much the dependent variable varies with an Independent variable when all other independent variables are held constant.

•In the above table, the unstandardized coefficient for growth is equal to 026Which means for every additional increase in growth, dividend payout increases by 0.026.

3.2 Nestle India Ltd.

Table 3: Dividend payout ratio and all independent variables of Nestle India Ltd.

Year	Dividend payout	Liquidity (current ratio)	Size & growth (total assets)	Leverage (debt-equity ratio)	Provision for taxation
2018-19	41.52	0.673967	13.56818	0.001727	30.89238
2019-20	71.39	0.602199	20.00081	#VALUE!	28.56924
2020-21	57.12	0.626476	44.91131	#VALUE!	28.50777
2021-22	48.63	1.143477	61.16	1.3033	30.72267
2022-23	43.79	1.0154	17.31337	1.243925	31.2186

In order to know the correlation of different variables with dividend payout above table is used and on the basis of that, below correlation matrix is as follows:

Correlations		DPY	LQ	SG	LV	PT
DPY	Pearson Correlation	1	-.525	.050	-.469	-.885[*]
	Sig. (2-tailed)		.364	.936	.426	.046
	N	5	5	5	5	5
LQ	Pearson Correlation	-.525	1	.453	.983[**]	.710
	Sig. (2-tailed)	.364		.444	.003	.180
	N	5	5	5	5	5
SG	Pearson Correlation	.050	.453	1	.368	-.140
	Sig. (2-tailed)	.936	.444		.542	.822
	N	5	5	5	5	5
LV	Pearson Correlation	-.469	.983[**]	.368	1	.675
	Sig. (2-tailed)	.426	.003	.542		.211
	N	5	5	5	5	5
PT	Pearson Correlation	-.885[*]	.710	-.140	.675	1
	Sig. (2-tailed)	.046	.180	.822	.211	
	N	5	5	5	5	5
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

3.2.1 Positive correlation

Dividend payout shows weak positive correlation with Growth ratio. Liquidity and leverage are significant and strongly positively correlated. Liquidity is also partial positive correlated with growth and provision for taxation. Growth and leverage are also partially correlated. Leverage is also partially correlated with provision for taxation.

3.2.2 Negative correlation

Dividend payout shows negative correlation with liquidity, leverage and provision for taxation. Growth and provision for taxation are negatively correlated. Considering above correlation matrix least correlated value is -0.885 that indicates low correlation between dividend payout and provision for taxation. Simple regression method is used in order to know the Influence of provision for taxation on dividend payout which can be extracted from below table.

Table 4: Simple regression analysis for Nestle India

YEAR	DIVIDEND PAYOUT	PROVISION FOR TAXATION
2018-19	41.52	30.89
2019-20	71.39	28.57
2020-21	57.12	28.51
2021-22	48.63	30.72
2022-23	43.79	31.22

3.2.3 Output of simple regression

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.885[a]	.782	.710	6.53942
a. Predictors: (Constant), PT				

The above table indicates that the value of R for NESTLE INDIA LTD.88.5% that refers there is a Positive linear correlation between explanatory variables such as provision for taxation and the dependent variable i.e. dividend payout of the company. Value of adjusted R- Square for Nestle India Ltd. is 0.710. It indicates that there is 71% change in dividend payout due to the changes in Provision for taxation.

ANOVA[a]						
	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	461.285	1	461.285	10.787	.046[b]
	Residual	128.292	3	42.764		
	Total	589.577	4			
a. Dependent Variable: DPR						
b. Predictors: (Constant), PT						

The above table shows that the independent variables statistically significantly predict the dependent variable, $F(1, 3) = 10.787$, $p < 0.05$ (i.e., the regression model is fit for the data). It indicates that null hypothesis is rejected. It means that there is significant impact of provision for taxation on the dividend payout of the NESTLE INDIA LTD.

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1 (Constant)	294.570	73.766		3.993	.028	59.815	529.326
TX	-8.074	2.458	-.885	-3.284	.046	-15.898	-.250

a.Dependent Variable: DPR

From the above table, the general form of the equation to predict dividend payout from provision for taxation can be obtained as under:

Predicted dividend payout

= 294.570 - (8.074*prov.for taxation)

Unstandardized coefficients indicate how much the dependent variable varies with an Independent variable when all other independent variables are held constant.

In the above table, the unstandardized coefficient for provision for taxation is equal to-8.074. This means that for every additional in increase provision for taxation, dividend payout decreases by 8.074.

3.3 Britannia Industries Ltd.

Table no. 5: Dividend payout ratio and all independent variables of Britannia Industries Ltd.

Year	Dividend payout	Liquidity (current ratio)	Size & growth (total assets)	Leverage (debt-equity ratio)	Provision for taxation
2018-19	22.51	1.589052	41.1866	0.140376	17.7632
2019-20	52.97	1.304996	-0.67749	0.030517	22.41447
2020-21	51.26	1.073139	-0.85606	1.0842	3.532209
2021-22	53.44	0.647407	79.50668	1.275161	26.64344
2022-23	54.37	1.141355	12.80616	0.332744	26.00547

In order to know the correlation of different variables with dividend payout above table is used and on the basis of that, below correlation matrix is as follows:

Correlations		DPY	LQ	SG	LV	PT
DPY	Pearson Correlation	1	-.713	-.212	.395	.165
	Sig. (2-tailed)		.177	.732	.511	.791
	N	5	5	5	5	5
LQ	Pearson Correlation	-.713	1	-.469	-.847	-.209
	Sig. (2-tailed)	.177		.425	.070	.736
	N	5	5	5	5	5
SG	Pearson Correlation	-.212	-.469	1	.448	.478
	Sig. (2-tailed)	.732	.425		.450	.415
	N	5	5	5	5	5
LV	Pearson Correlation	.395	-.847	.448	1	-.257
	Sig. (2-tailed)	.511	.070	.450		.677
	N	5	5	5	5	5
PT	Pearson Correlation	.165	-.209	.478	-.257	1
	Sig. (2-tailed)	.791	.736	.415	.677	
	N	5	5	5	5	5

3.3.1 Positive correlation

Dividend payout shows partial positive correlation with leverage and provision for taxation. Liquidity is partially correlated with leverage and provision for taxation. Leverage and growth are also partially correlated. Provision for taxation and growth are also partially correlated.

3.3.2 Negative correlation

Dividend payout shows negative correlation with liquidity and growth. Liquidity is negatively correlated with growth, leverage and provision for taxation. Growth and leverage are also negatively correlated.

Considering above correlation matrix least correlated value is -0.713 that indicates low correlation between dividend payout and liquidity. Simple regression method is used in order to know the Influence of Liquidity on dividend payout which can be extracted from below table.

Table No. 6: Simple Regression Analysis for Britannia Ltd.

Year	Dividend payout	Liquidity (current ratio)
2018-19	22.51	1.59
2019-20	52.97	1.30
2020-21	51.26	1.07
2021-22	53.44	0.65
2022-23	54.37	1.14

3.3.3 Output of simple regression

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.713[a]	.508	.344	11.08297
a.Predictors: (Constant), LQ				

The above table indicates that the value of R for BRITANNIA LTD. is 71.3% that refers there is a Positive linear correlation between explanatory variables such as liquidity and the dependent variable i.e. Dividend payout of the company. Value of adjusted R- Square for BRITANNIALTD. is 0.344. It indicates that there is 34.4% change in dividend payout due to the changes in liquidity.

ANOVA[a]						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	380.802	1	380.802	3.100	.177[b]
	Residual	368.497	3	122.832		
	Total	749.299	4			
a. Dependent Variable: DPR						
b.Predictors: (Constant), LQ						

The above table shows that the independent variables statistically significantly predict the dependent variable, $F_{(1, 3)} = 3.100$, $p > 0.05$ (i.e., the regression model is unfit for the data). It indicates that null

hypothesis is accepted. It means that there is no significant impact of liquidity on the dividend payout of the BRITANNIA LTD.

Coefficients							
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**95.0% Confidence Interval for B**
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**
1	(Constant)	79.492	19.157		4.149	.025	18.525	140.459
	LQ	-28.303	16.075	-.713	-1.761	.177	-79.460	22.854
a.Dependent Variable: DPR							

From the above table, the general form of the equation to predict dividend payout from liquidity can be obtained as under:

Predicted dividend payout

= 79.492 - (28.303*liquidity)

Unstandardized coefficients indicate how much the dependent variable varies with an Independent variable when all other independent variables are held constant.

•In the above table, the unstandardized coefficient for liquidity is equal to -28.303. This means that for every additional increase in liquidity, dividend payout decreases by 28.303.

4. Summary Details

Sr no.	Name of companies	Least related variable	R-value	Adjusted r-value	P-value	Null hypothesis accepted or rejected
1	Dabur India Ltd.	Size and growth	0.282	-0.227	0.645	Accepted
2	Nestle India Ltd.	Provision for Taxation	0.885	0.71	0.046	Rejected
3	Britannia Industries Limited	Liquidity	0.713	0.344	0.177	Accepted

References

1. Gaver, J. A. (1993). Additional Evidence on the Association between Investment Opportunity Set and Corporate Financing,Dividend and Compensation plocies . Journal of Accounting and Economics, p.185-209

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