A Study of Profitability V/S Dividend Payout of Selected Companies of India

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Abstract:
A firm with history of the stable earnings is usually more willing to pay a higher dividend than a firm with erratic earnings [1] .For assessing how profitability affects dividend payout, Dividend Payout and Return on net worth Ratio is used. To know the influence of profitability on dividend payout, simple regression method is used. For the purpose of simple regression analysis, dividend payout rate, which is defined as the ratio of dividends per share for the firm's dividend policy. The study is based on five years data for Six selected companies of different industries. Time period used for the study is from 2012-2016. Factors or explanatory variables which are considered for the study purpose mentioned in the study.

Keywords: *Dividend Payout, Profitability*

1. Introduction

A major aspect of dividend policy is dividend payout ratio. i.e. distribution of percentage share of dividends from companies' profit. Most of the researchers found that dividend payout is correlated with subsequent unexpected earnings. Using data from 1025 US companies Benzartzi S,Michaely R and Thaler R[2] found that when there is a rise in dividend there is significant upwards drift in earnings over the next three years and concluded that dividend increase indicate past successes and that dividend increase signals that the current earning increase is permanent. The dividend announcement provides information to shareholders about the current earnings upon which their estimation of the firm's future (Expected) earnings is based[3].

2. Profitability

It is believed that profitability is the prominent factor to decide dividend policy. Theoretically profitability and dividend have positive relation, if there is a rise in profitability usually rise in dividend rate is expected. Profitability indicates how well the management has used the net worth. Profitability is the index of the business which measures the earnings power of the company. For measurement, Return on Net worth Ratio is used. This measure is an important indicator of measuring profitability of the company. The return on Net worth Ratio is also known as the return on equity funds Ratio. It measures the firm's management to realize an acceptable return on capital investment. It can be calculated by,

$$\frac{\text{Net Profit after taxes} - \text{Pref.Dividend}}{\text{Net Worth}} * 100$$

[1] Moyer Mc guigan Kretlow,Contemporary Financial management, Eight edition, Southwestern college Publishing,2001,p.523

[2] Benzartzi S Michaely R and Thaler R,'Do changes in dividends signal the future or the past?', Journal of finance July 1997 52 (3),p.1007

[3] Miller,Merton,and Kevin Rock, "Dividend Policy Under Asymmetric Information", Journal of Finance,Vol.40,September 1985,p.1031-1051

Where, Net Worth = Equity Share capital + Reserves – Fictitious Assets

3. Analysis

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.

3.1 Dabur India Ltd.

Influence of profitability on dividend payout using simple regression method for Dabur India Ltd. can be extracted from below table.

Table 1: Simple Regression Analysis for Dabur India Ltd.

Dividend payout	Profitability (return on net worth)
38.46	59.96
41.96	50.58
40.24	57.86
49.24	42.81
52.04	35.54

Output

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.983[a]	.966	.954	1.26508
a. Predictors: (Constant), PROFITABILITY				

The above table indicates that the value of R for **DABUR INDIA LTD**.is 98.3% that refers there is a positive linear correlation between explanatory variables such as profitability and the dependent variable i.e. dividend payout of the company. The R2 value (the "R Square" column) indicates how much the total change in the dependent variable can be explained by the independent variable. The adjusted R-squared is a modified version of R-squared that has been adjusted for the number of predictors in the model. Value of adjusted R- Square for **DABUR INDIA LTD** is .954. It indicates that approx. 95.4% of the change in dividend payout is due to the changes in profitability. Remaining 4.6% change in dividend payout is due to the other variables.

ANOVA						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	135.536	1	135.536	84.687	.003[b]
	Residual	4.801	3	1.600		
	Total	140.337	4			
a. Dependent Variable: DPR						
b. Predictors: (Constant), PROFITABILITY						

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) = 84.687, 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 profitability on the dividend payout of the **DABUR 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)	72.431	3.099		23.370	.000	62.567	82.294
	PROFITABILITY	-.568	.062	-.983	-9.203	.003	-.765	-.372
a. Dependent Variable: DPR								

From the above table, the general form of the equation to predict dividend payout from profitability can be obtained as under:
Predicted dividend payout
= 72.431 – (0.568*Profitability)
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 profitability is equal to -0.568. This means that for every additional increase in profitability, dividend payout decreases by 0.568.

3.2 Nestle India Ltd

Influence of profitability on dividend payout using simple regression method for Nestle India Ltd. can be extracted from below table.

Table 2: Simple Regression Analysis for Nestle India

Year	Dividend payout	Profitability (return on net worth)
2011-12	41.52	112.83
2012-13	71.39	112.69
2013-14	57.12	95.70
2014-15	48.63	75.48
2015-16	43.79	59.38

Output

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.462[a]	.213	-.049	12.43380
a. Predictors: (Constant), PROFITABILITY				

The above table indicates that the value of R for **NESTLE INDIA LTD**. is 46.2%, that refers there is a Weak linear correlation between explanatory variables such as profitability and the dependent variable i.e. dividend payout of the company. Value of adjusted R- Square for **NESTLE INDIA LTD**.is -0.049. It indicates that there is no change in dividend payout is due to the change in profitability.

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	125.779	1	125.779	.814	.434[b]
	Residual	463.798	3	154.599		
	Total	589.577	4			
a. Dependent Variable: DPR						
b. Predictors: (Constant), PROFITABILITY						

The above table shows that the independent variables statistically significantly predict the Dependent variable, F (1, 3) = 0.814, 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 profitability 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)	30.727	24.760		1.241	.303	-48.071	109.525
	PROFITABILITY	.239	.265	.462	.902	.434	-.603	1.080
a. Dependent Variable: DPR								

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

Predicted dividend pay out

= 30.727 + (0.239*Profitability)

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 profitability is equal to 0.239. This means that for every additional increase in profitability, dividend payout Increase by 0.239.

3.3 Britannia Ltd.

Influence of profitability on dividend payout using simple regression method for Britannia LTD. can be extracted from below table.

Table 3: Simple Regression Analysis for Britannia

Year	Dividend payout	Profitability (return on net worth)
2011-12	22.51	25.27
2012-13	52.97	21.88
2013-14	51.26	29.40
2014-15	53.44	32.19
2015-16	54.37	35.91

Output

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.402[a]	.162	-.118	14.46870
a. Predictors: (Constant), PROFITABILITY				

The above table indicates that the value of R for **BRITANNIA LTD** is 40.2% that refers there is a Weak linear correlation between explanatory variables such as profitability and the dependent variable i.e. dividend payout of the company. Value of adjusted R- Square for **BRITANNIA LTD** is -0.118. It indicates that there is no change in dividend payout is due to the changes in profitability.

ANOVA						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	121.269	1	121.269	.579	.502[b]
	Residual	628.030	3	209.343		
	Total	749.299	4			
a. Dependent Variable: DPR						
b. Predictors: (Constant), PROFITABILITY						

The above table shows that the independent variables statistically significantly predict the dependent variable, F (1, 3) 0.579, p >0.05 (i.e., the regression model is unfitting for the data). It indicates that null hypothesis is accepted. It means that there is no significant impact of profitability 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)	18.146	38.342		.473	.668	-103.876	140.168
	PROFITABILITY	.994	1.306	.402	.761	.502	-3.163	5.151
a. Dependent Variable: DPR								

From the above table, the general form of the equation to predict dividend payout from profitability can be obtained as under:
Predicted dividend pay out
= 18.146 + (0.994*Profitability)
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 profitability is equal to 0.994. This means that for every additional increase profitability, dividend payout Increase by 0.994.

3.4 NTPC Ltd.

Influence of profitability on dividend payout using simple regression method for NTPC LTD. can be extracted from below table.

Table 4: Simple Regression Analysis for NTPC

Year	Dividend payout	Profitability (return on net worth)
2011-12	46	14.09
2012-13	42	15.21
2013-14	42	13.14
2014-15	42	13.41
2015-16	41	12.59

Output

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.343[a]	.118	-.177	2.11443
a. Predictors: (Constant), PROFITABILITY				

The above table indicates that the value of R for **NTPC LTD**. Is 34.3%, that refers there is a weak linear correlation between explanatory variables such as profitability and the dependent variable i.e. dividend payout of the company. Value of adjusted R- Square for **NTPC LTD**. is -0.177. It indicates that there is no change in dividend payout due to the changes in profitability.

ANOVA						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	1.788	1	1.788	.400	.572[b]
	Residual	13.412	3	4.471		
	Total	15.200	4			
a. Dependent Variable: DPR						
b. Predictors: (Constant), PROFITABILITY						

The above table shows that the independent variables statistically significantly predict the Dependent variable, F (1, 3) = 0.400, p >0.05 (i.e., the regression model is unfitting for the data). It indicates that null hypothesis is accepted. It means that there is no significant impact of profitability on the dividend payout of **NTPC 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)	33.548	14.346		2.338	.101	-12.108	79.205
	PROFITABILITY	.661	1.046	.343	.632	.572	-2.667	3.990
a. Dependent Variable: DPR								

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

Predicted dividend pay out

= 33.548 + (0.661*Profitability)

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 profitability is equal to 0.661. This means that for every additional increase in profitability, dividend payout Increase by 0.661.

3.5 Power Grid

Influence of profitability on dividend payout using simple regression method for POWERGRID can be extracted from below table.

Table 5: Simple Regression Analysis for Power Grid

Year	Dividend payout	Profitability(return on net worth)
2011-12	33.16	11.27
2012-13	33.16	11.56
2013-14	30.93	12.80
2014-15	30.04	12.63
2015-16	30.01	13.86

Output

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.905[a]	.819	.758	.78415

a. Predictors: (Constant), PROFITABILITY

The above table indicates that the value of R for **POWERGRID** is 90.5%, that refers there is a positive linear correlation between explanatory variables such as profitability and the dependent variable i.e. dividend payout of the company. Value of adjusted R- Square for **POWERGRID** is .758. It indicates that approx. 75.8% of the change in dividend payout is due to the changes in profitability. Remaining 24.2% change in dividend payout is due to the other variables.

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.335	1	8.335	13.556	.035[b]
	Residual	1.845	3	.615		
	Total	10.180	4			

a. Dependent Variable: DPR

b. Predictors: (Constant), PROFITABILITY

The above table shows that the independent variables statistically significantly predict the Dependent variable, F (1, 3) = 13.556, 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 profitability on the dividend payout of the **POWERGRID.**

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	48.751	4.710		10.352	.002	33.764	63.739
	PROFITABILITY	-1.392	.378	-.905	-3.682	.035	-2.594	-.189

a. Dependent Variable: DPR

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

Predicted dividend payout
= 48.751 – (1.392*Profitability)
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 profitability is equal to -1.392. This means that for every additional increase in profitability, dividend payout Decreases by -1.392.

3.6 Tata Power

Influence of profitability on dividend payout using simple regression method for TATA POWER can be extracted from below table.

Table 6: Simple Regression Analysis for Tata Power

Year	Dividend payout	Profitability (return on net worth)
2011-12	27.17	11.66
2012-13	26.32	11.37
2013-14	30.39	9.39
2014-15	31.55	9.37
2015-16	27.59	10.87

Output

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.954[a]	.910	.880	.77678
a. Predictors: (Constant), PROFITABILITY				

The above table indicates that the value of Adjusted R for **TATA POWER** is 95.4%, that refers there is a positive linear correlation between explanatory variables such as profitability and the dependent variable i.e. dividend payout of the Tata Power. Value of adjusted R- Square for **TATA POWER** is 0.880. It indicates that approx. 88% of the change in dividend payout is due to the changes in profitability. Remaining 12% change in dividend payout is due to the other variables.

ANOVA						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	18.360	1	18.360	30.428	.012[b]
	Residual	1.810	3	.603		
	Total	20.170	4			
a. Dependent Variable: DPR						
b. Predictors: (Constant), PROFITABILITY						

The above table shows that the independent variables statistically significantly predict the Dependent variable, F (1, 3) = 30.428, 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 profitability on the dividend payout of the **TATA POWER.**

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	49.337	3.775		13.071	.001	37.324	61.349
	PROFITABILITY	-1.968	.357	-.954	-5.516	.012	-3.104	-.833
a. Dependent Variable: DPR								

From the above table, the general form of the equation to predict dividend payout from profitability can be obtained as under:
Predicted dividend pay out
= 49.337 – (1.968*Profitability)
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 profitability is equal to -1.968. This means that for every additional increase in profitability, dividend payout Decreases by 1.968.

4. Summary Details

Sr.	Name of companies	Variable	R-value	Adjusted r-value	P-value	Null hypothesis accepted or rejected
1	Dabur India Ltd.	profitability	0.983	0.954	0.003	Rejected
2	Nestle India Ltd.	profitability	0.462	-0.049	0.434	Accepted
3	Britannia Industries Limited	profitability	0.402	-0.118	0.502	Accepted
4	NTPC Limited	profitability	0.343	-0.177	0.572	Accepted
5	Power Grid Corporation of India Limited (POWER GRID)	profitability	0.905	0.758	0.035	Rejected
6	Tata Power	profitability	0.954	0.88	0.012	Rejected

5. Conclusion

As per theory, profitability and dividend payout should have positive relation. The study reveals that dividend payout does not go hand in hand with profitability in many companies. It reflects that in most of the companies, profitability has weak influence on dividend payout and in some of the companies; profitability has strong influence on dividend payout. Moreover, considering the opinion of shareholders the study reflects that Age-group is positively and significantly influenced the investment purpose of shareholders. It can be said that with the increased age, shareholders invested in companies because of receiving continuous dividend, since they consider dividend as their regular source of income.

Dividend policy has been the subject of considerable research by financial economists but despite extensive research, the dividend controversies still remain unresolved. In a survey of literature on dividend policy, Allen and Michaely[4] concluded that “much more empirical and theoretical research on

[4] Allen, Franklin and Roni Michaely,” Dividend Policy”, Working paper, The Wharton school, University of Pennsylvania,1994

the subject of dividends is required before a consensus can be reached. "Fisher Black[5] had said, "The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together. "The same situation is observed in this study too; hence a fair, clear and complete picture of the dividend decision is still not made.

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