



Impact of Liquidity, Leverage and Profitability on Dividend Pay-Out: An Empirical Study on IT Firms in India

¹Rashmi Rekha Pradhan, ²Prof. Devi Prasad Misra

¹Research Scholar, ²Officer on Special Duty cum Vice-Chancellor in Charge

¹Department of Business Management, Fakir Mohan University, Balasore, India

²Vikram Dev University, Jeypore, India

Abstract: The present study has examined the relationship of liquidity, leverage and profitability with dividend pay-out in one hand and determined the impact of liquidity, leverage and profitability on the dividend pay-out of select IT firms on the other. This study selected 19 IT firms as sample units who have been earning profit on a continuous basis during the study period. The study period covered for 12 years i.e. from 2008-09 to 2019-20. Data for the present study were collected from the annual reports and websites of the concerned companies. The data so collected were analyzed by statistical tools namely correlation and multiple regression analysis. For constructing regression model, Current Ratio, Debt-Equity Ratio and Return on Assets are taken as independent variables and they are proxy variables for liquidity, leverage and profitability respectively. The Dividend Payout Ratio is considered as dependent variable. The results of the study show that there is negative association between leverage and dividend pay-out as well as profitability and dividend pay-out. On the other hand, there is a positive association between liquidity and dividend pay-out. Further, the study reveals that liquidity, leverage and profitability have no statistically significant impact on the dividend pay-out whereas, on individual basis only ROA has significant impact on dividend pay-out of select IT firms.

Key Words: Dividend Policy, IT companies, Liquidity, Leverage, Profitability.

Introduction

Dividend decision is an integral part of firm's strategic financial decisions. It's policy and practice are always remaining a crucial area of concern for every business organization, investors, creditors, researchers, etc. Since, dividend decision involves the distribution and retention of the firm's earnings, the dividend policy should provide the clear guidelines on the proportion of net earnings to be distributed as dividend to shareholders and be kept as retained earnings for future growth and expansion of the company. Apart from this, the policy statement should also clearly spell out the frequency, quantum and mode of payment of dividend to shareholders. As per the findings of prominent researchers in this field, firm's dividend payment is still a subject matter of debate among the academicians and practitioners. One school of thought view it as irrelevant because the dividend payment does not have any effect on firm value while another school of thought opine that dividend payment has direct effect on the firm value. However, the general opinion is that if dividend policy is relevant then there must be optimum dividend policy whose primary goal is to maximize shareholders' wealth as well as the value of the firm. However, the dividend payment depends upon many factors, in which liquidity, leverage and profitability are prominent ones. Hence, in this study, the researchers have made an attempt to assess the effect of Liquidity, leverage, and profitability on Dividend Pay-out of select IT firms in India.

Statement of the problem

Dividend policy is one of the most controversial and debatable issue in the corporate finance literature and still remains a paradox in both developed and emerging economies. Many researchers have engaged in extensive research work to explain their views on why companies should pay or not pay dividend and accordingly, they developed and empirically tested various models on dividend behavior. In spite of this, there is no uniform/standard model to explain the dividend behavior of firms. Therefore, in this research paper, the researchers have made an attempt to examine the relationship and impact of three important variables namely liquidity, leverage, and profitability with dividend pay-out of select IT firms in India. In other words, the first purpose of the study is to examine whether there exists relationship of liquidity, leverage, and profitability with dividend pay-out and the second purpose is to determine the impact of liquidity, leverage and profitability on dividend pay-out of select IT firms in India.

Review of literature

The literature review is a key component of the research work. It assists in not only identifying the methodology adopted in research studies, but also pointing out the research gap present in those studies along with recognizing the need for additional research work to be conducted for improvement in the concerned area of research. Although a number of research studies have been carried out by different scholars at both national and international level, findings of few such important studies are summarized below.

The research work conducted by the eminent scholars on the relationship between determinants dividend and dividend pay-out include Fama and French (2001), Farsio et al. (2004), Foonga, et al. (2007), Franklin and Muthusamy (2010), Sang (2015), Akani and Sweneme (2016), Brahmaiah (2018), Ahmad, et al. (2019) and others. These studies revealed that there was positive as well as negative relationship between determinants of dividend and dividend pay-out. On the other hand, scholars namely, Asif (2011), Chisti et al. (2013), Ekawati and Siswoyo (2015), Ismawati (2018), Das (2020) and others studied the impact determinants of dividend on dividend pay-out. These studies disclosed that some determinants had significant impact on dividend pay-out whereas others had no significant impact on dividend pay-out. Against this backdrop, the present research paper attempts to study both relationship and effect of liquidity, leverage and profitability on dividend pay-out of select Indian IT firms.

Objectives and scope of the study

The present research study has been carried out with the following objectives.

- 1) To examine the relationship of liquidity, leverage, profitability with dividend pay-out of select IT firms in India.
- 2) To determine impact of liquidity, leverage and profitability on dividend pay-out of select IT firms in India.

Further, the scope of the study is limited to firms belonging to IT sector only. In other words, firms of non-IT sectors are excluded from the study purview.

Hypotheses of the study

With regards to the above mentioned objectives, the following hypotheses were formulated.

1. H₀: Liquidity has no significant relationship with dividend pay-out of select IT firms.
2. H₀: Leverage has no significant relationship with dividend pay-out of select IT firms.
3. H₀: Profitability has no significant relationship with dividend pay-out of select IT firms.
4. H₀: Liquidity, leverage and profitability have no significant impact on dividend pay-out of select IT firms.

Theoretical framework on a proposed dividend model and measurement of variables

To achieve the objective of the study, the following variables are selected and included in the construction of the proposed model.

Liquidity: Liquidity of a firm plays leading role in dividend payment decision. The firms may generate profit but suffer from insufficient liquid cash to declare dividend. Hence, it is expected that the high liquid firms would pay higher dividend due to the excess amount of cash. Generally, the current ratio is employed to evaluate the liquidity position of a firm. Olang et al. (2015), Hadiananto and Sahabuddin (2016) and Benyadi and Andrianantenaina (2020) have included the current ratio as an important variable in their respective studies. The formula to calculate the current ratio is as follows.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Leverage: A firm's leverage is considered as an important factor for dividend pay-out decision. Debt-equity proportion in the capital structure indicates the ratio of capital that is being financed by creditors and shareholders. The debt-equity ratio is used to measure the leverage of a firm. Azhagaiah and Gejalakshmi (2014), Labhane and Das (2015) and Brahmaiah et al. (2018) have used debt-equity ratio as an important variable in their studies. The formula to calculate the debt-equity ratio is as follows.

$$\text{Debt-Equity Ratio} = \frac{\text{Long-term Debt}}{\text{Shareholder's Equity}}$$

Profitability: Lintner (1956) in his survey work found that the key factor affecting the dividend decision of a firm was the net earnings. As the dividend is paid directly from the profit after tax, it is logical that the level of profitability of firm has a direct bearing on the dividend payment. Hence, the level of profitability is one of the most significant factors that could affect the dividend pay-out decision of the company. Return on Assets (ROA) is used as a proxy variable for profitability. The ROA variable has been used by scholars namely Labhane and Das (2015), Kannadhasan et al. (2017) and Tahir et al. (2020) in their studies. The formula to calculate ROA is stated below.

$$\text{Return on Assets} = \text{Net Income After Tax} / \text{Total Assets} * 100$$

Dividend Pay-out Ratio: The dividend payout ratio is defined as the ratio of total annual dividend paid to profit after tax. To study the cause and effect relationship between determinants of dividend and dividend payment, generally the dividend payout ratio is taken as the dependent variable. Important studies conducted by Kannadhasan et al. (2017), Nurchaqiqi and Suryarini (2018), Yusuf et al. (2020), and others used DPR as dependent variable in their studies. The formula to calculate DPR is mentioned below.

$$\text{Dividend Pay-out Ratio} = \text{Dividend Paid} / \text{Profit After Tax} * 100$$

With the above discussed variable, the researchers have constructed a proposed dividend model to examine the impact of independent variables on the dependent variable. Here, CR, DER and ROA are taken as independent variable and DPR is considered as dependent variable.

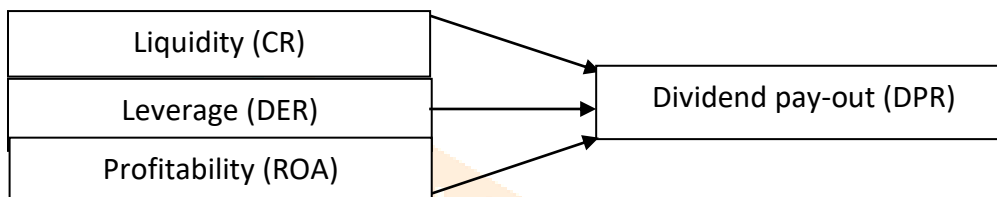


Fig. 1: Proposed dividend model

Methodology for the study

For the present research study, the following methodology has been adopted.

Data collection: The data for the study has been collected mainly from the secondary sources i.e. annual reports and websites of select Indian IT companies. From the collected data, the important variables namely Current Ratio Debt-Equity ratio, Return on Assets and Dividend Pay-out Ratio were calculated to make them fit for the analysis.

Period of the study: The period of the study is 12 years i.e. from 2008-09 to 2019-20. The researchers consider that a minimum 10 years of continues data is necessary to study the relation between the independent variables and dependent variable as well as to examine the impact of independent variables on the dependent variable.

Sample Size: The sample size for this study is nineteen units i.e. nineteen IT firms have been selected to conduct the research work.

Tools and techniques used for the study: Both descriptive and inferential statistics have been used for the purpose of data analysis. The statistical tools used in this study include mean, standard deviation, variance, correlation and multiple regression analysis.

Results and discussion

The data analysis for the entire work has been presented in two sections i.e. section-1 deals with descriptive analysis and section-2 deals with inferential analysis.

Results of descriptive statistics of study variables

The descriptive analysis is carried out on the data collected from selected IT firms with regard to CR, DE, ROA and DPR and presented in the following table.

Table-1: Descriptive statistics of sample companies

Variables	Mean	Variance	Standard Deviation	Maximum	Minimum
CR	2.4809	0.1377	0.3711	3.2475	1.8374
DE	0.0995	0.0048	0.0690	0.2545	0.0474
ROA	25.0787	13.6882	3.6998	31.7518	17.4314
DPR	36.8724	165.4985	12.8646	67.7319	21.1726

Source: Calculated and compiled from annual reports of sample companies

From the above table, it is noticed that the maximum standard deviation/variance is recoded with DPR which is followed by ROA. However, rest two variables, namely CR and DE are having very low

standard deviation/variance throughout the study period. Apart from this, the mean, minimum and maximum values of key variables are also shown in the said table.

Results of inferential statistics

The inferential analysis is carried out on the data collected from the select IT firms with regard to the relation between independent variables and dependent variable as well as the impact of independent variables on the dependent variable. They are presented in the following section.

Correlation analysis

Table-2: Relationship between the dividend determinants and dividend pay-out

Sl. No.	Variables	r- value	t-value	p-value*	Hypotheses	Remarks
1.	CR and DPR	0.0258	9.2637	0.0000	1.H ₀ : Liquidity has no significant relationship with dividend pay-out of select IT firms.	Rejected
2.	DER and DPR	-0.3434	9.8836	0.0000	2.H ₀ : Leverage has no significant relationship with dividend pay-out of select IT firms.	Rejected
3.	ROA and DPR	-0.6763	2.6177	0.0239	3.H ₀ : Profitability has no significant relationship with dividend pay-out of select IT firms.	Rejected

* at 5% level of significance

The above table depicts that the liquidity variable has positive relationship with the DPR while leverage and profitability variables have negative relationship with DPR. To test the relationship between independent and dependent variable individually, two tailed t-test has been applied. Looking at the p-values of different independent variables, it is noticed that the p-values are less than 0.05 in all cases. Hence, the above mentioned null hypotheses are rejected. In other words, all independent variables namely liquidity, leverage and profitability have significant relationship with dividend pay-out of sample IT companies.

Multiple regression analysis

Table-3.1: Model summary

Model	R	R square	Adj. R Square	Std. Error of the Estimate
1	0.7303	0.5333	0.3583	10.3051

a. Predictors: (Constant). CR, DER and ROA

Table-3.2: ANOVA

Model		Sum of squares	D f	Mean square	F- value	F- sig.
1	Regression	970.9212	3	323.6404	3.0476	0.0922
	Residual	849.5618	8	106.1952		
	Total	1820.4830	11			

a. Dependent Variable: DPR

b. Predictors: (Constant) CR, DER and ROA

Table-3.3: Beta coefficient of regression model

Model		Unstandardized coefficients	Std. Error	t-stat	Sig.
1	Constant	128.2200	38.3521	3.3432	0.0102
	CR (X1)	-12.2784	11.5005	-1.0676	0.3168
	DER (X2)	-65.6677	65.0772	-1.0091	0.3425
	ROA (X3)	-2.1673	0.9071	-2.3892	0.0439

$$Y=128.22 -12.27X1-65.66 X2-2.16X3$$

From the model summary at table-3.1, it is revealed that the model is explaining only 53.33% variation on dividend pay-out as per the R^2 value. Further, the explanatory variables namely CR, DER and ROA are found to be insignificant as per the p-value. Since F significance value is 0.0922 which is higher than 0.05 (at the 95% confidence level), the forth null hypothesis stands accepted. In other words, the liquidity, leverage and profitability together have no significant impact on the dividend pay-out of sample IT companies selected for the study. However, looking at the individual p-values of independent variables, only ROA is found to be significant in impacting the dividend pay-out since its p-value is less than 0.05.

Summary of findings

Followings are some of the major findings of the study.

- The descriptive statistics shows that standard deviation of dividend pay-out has the maximum variation followed by profitability while liquidity and leverage have least variation during the study period.
- The correlation analysis discloses that there is negative relationship between DER and DPR as well as between ROA and DPR. However, there is positive association between CR and DPR.
- The model summary reveals that independent variables cause 53.33% variation on dependent variable as revealed from R^2 value.
- The ANOVA table shows that the regression model is not statistically significant since the calculated f-value is less than tabulated value at 5% level.
- Based on p-value, ROA variable significantly impacts the dividend pay-out, whereas other two variables namely CR and DER do not impact significantly on the dividend pay-out of select IT firms.

Conclusion

This research work has been carried out to examine the dividend payment behavior of IT firms keeping the view of role and importance of IT industry in the economic growth and development of our country. Since liquidity, leverage and profitability are important factors that affect the dividend payment, this study aimed at finding out the relationship of liquidity, leverage and profitability with dividend pay-out of the select IT firms. Further, the impact of liquidity, leverage and profitability on dividend pay-out of select IT firms was also examined. The correlation analysis shows negative relationship of leverage and profitability with dividend pay-out; whereas positive relationship is noticed between liquidity and dividend pay-out. The multiple regression analysis reveals that there is no significant impact of liquidity, leverage and profitability on dividend pay-out of select IT companies. However, on individual basis, ROA is found to be significant variable in impacting the dividend pay-out of select IT firms.

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