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Impact of liquidity and profitability on dividend policy: an empirical study on select IT companies in india

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Abstract
The current study examines the association among liquidity, profitability and dividend policy in one hand and determines the impact of liquidity and profitability on the dividend policy of select IT companies on the other hand. The sample size of this study is i.e. 19 Indian IT companies have been selected who have been generating profit on a continuous basis. This study is based on the secondary data collected from the annual reports and websites of the concerned companies. The study period is 12 years i.e. from 2008-09 to 2019-20. The data thus collected have been analyzed by correlation and multiple regression analysis. In this study, Current Ratio (CR), and Return on Assets (ROA) are taken as independent variables and Dividend Payout Ratio (DPR) is considered as dependent variable. The result shows that there is negative association between ROA and DPR, while there is positive association between CR and DPR. Further, the study reveals that liquidity and profitability together have lesser impact on the dividend policy. However, on individual basis ROA has significant impact on the dividend policy of select IT companies.
Keywords: - Dividend Policy, IT companies, Liquidity, Leverage, Profitability.

1. Introduction

When a company earns profits, it decides how and where that profit will be utilized. The company either retains the earned profits i.e. retained earnings or else it chooses to distribute the same in the form of the dividends to its shareholders. Dividend policy is the guideline for dividend distribution drafted by the board of directors of the company. The policy includes parameters for sharing profits with the shareholders. It also includes how often and in which form the dividends are to be distributed. There are various parameters which affect while taking decision regarding the dividend payment. Out of all the parameters of dividend policy, liquidity and profitability are two major determinants. A dividend is a distribution of profits by a corporation to its shareholders. When a corporation earns a profit or surplus, it is able to pay a portion of the profit as a dividend to shareholders. Also, a dividend represents a cash outflow, the greater the funds and the liquidity of the firm the better the ability to pay dividend. The liquidity of a firm depends very much on the investment and financial decisions of the firm which in turn determines the rate of expansion and the manner of financing. Moreover, the contribution of Indian IT sector towards the growth and development of our country has been recognized worldwide. Hence, in the present study, the researchers have made an attempt to assess the impact of Liquidity and Profitability on Dividend Policy of selected IT companies in India.

2. Importance of the Study

While making company's financial decision, establishing a dividend policy is one of the most important thing. It communicates the company's financial strength and value, creates goodwill among shareholders, and drives demand for stocks. A stable dividend policy balances the interests of shareholders, who want to maximize their investment returns, with those of the organization, which wants to ensure future financial success and growth. It gives clear direction for how a company's profits will be allocated and aligns with the organization's goals as well as its mission. Further, the Information Technology sector plays a very significant role in Indian service industry. It provides employment to over one million people, a major foreign exchange earner, helps in the growth of the service sector, contributes maximum revenue to the Indian GDP, etc. Since the role and importance of the information technology industry in Indian economy is unquestionable, a study on the dividend policy followed by this sector assumes greater importance.

3. Review of Literature

The literature review is a crucial part of the research work. It helps in identifying the methodology adopted in research studies, finding out conflicts in previous studies, opening questions left from other research, recognizing the need for additional research work, etc. Various studies related to effect of liquidity and profitability on dividend policy have been carried out by different scholars at both national and international level. Few major findings of such important studies are summarized below.

Naceur et al. (2006) in their study tested Lintner's model in the context of 48 Tunisian companies during the period from 1996 to 2002. They used dynamic panel regressions to find out the determinants of dividend policy. They found that Tunisian firms follow a stable dividend policy and rely on both current earnings and past dividends to fix their dividend payment decisions. They also found that profitable firms with more stable earnings can afford larger free cash flows and thus pay larger dividends. Furthermore, they distribute larger dividends whenever they are growing faster. The study revealed that neither ownership concentration nor financial leverage seems to have any impact on dividend policy in Tunisian firms. Further, stock market liquidity and size negatively impacted the dividend payout.

John and Muthusamy (2010) evaluated a study to determine the corporate dividend policy for the Indian Paper Industry. They adopted Ordinary least Square (OLS) regression model for the data analysis purpose. They found that the growth in sales (GS), earnings per share (EPS), market value to book value (MB), leverage (LEV), liquidity ratio (LIQ), and return on assets (ROA) are negatively significant with dividend payout ratio. Further, they suggested that the companies should borrow or raise equity financing rather than cut of dividends during the period of high level leverage and liquidity. However, they concluded that among all the selected determinants for the study, the leverage is mostly affecting the dividend payout ratio.

Sarvanakumar (2011) empirically analyzed the impact of determinants of dividend policy of 50 companies listed on the national stock exchange during the period from 2004-05 to 2008-09. He used Kendall’s coefficient of concordance. He found that net profit followed by growth in sales enhanced liquidity position and huge reserves. These are the most important factors for increasing dividend rate. It was also found that there was a decline in the rate of dividend payment in the period of decline in net profit, poor liquidity position and inadequate reserves. Further, he stated that sales, liquidity and reserve position along with net profit are having a significant impact on dividend payment decisions as compared to other factors considered in the study. Finally, he concluded that other factors such as mergers and acquisitions, reconstruction and expansion are also playing an important role on dividend decisions.

Kuzucu (2015) evaluated a study to investigate the firm-level factors influencing the dividend decisions of 142 firms from an emerging market from 2006 to 2013. He used Pearson correlation and the panel data analysis. He found the result that in statistically and significantly, the relationship between leverage, growth rate, profitability and family control with dividend policy is negative; whereas the relationship between size, age and P / E ratio is positive with dividend policy. However, they concluded that firms with higher debt ratios, growth rates, and higher earnings are likely to retain more of their earnings. In addition to that when a firm matures, the availability of profitable projects decreases and earnings decrease. Besides that when the investment opportunities reduce the need for resources decreases and the firm increases dividend payouts to shareholders to attract them towards the firm. Further, they suggested the shareholders to purchase their share accordingly.

Hadianto and Sahabuddin (2016) in their research revealed that debt policy owns a negative influence on dividend policy, whereas, profitability and firm liquidity have a positive effect. This situation indicates that wealth transfer from debt holders to shareholders does not exist. However, they concluded that on the effect on the probability of firm to pay dividends, debt policy has a negative, but profitability and liquidity have a positive, which states that, as companies with higher profitability, will have higher free cash flow and hence can pay higher dividend.

Olang et al. (2015) carried out a study to examine the effect of profitability, cash flows and working capital on the firms’ dividend pay-out decisions. They employed a causal comparative research design on a target population of 61 firms listed on the NSE and used purposive sampling to select 30 firms which consistently paid dividends from the year 2008 to 2012. They analyzed the data by using descriptive and inferential statistics. The study revealed that profitability plays a major role in dividend pay-out because of the higher coefficient as compared to cash flows and working capital and consequently the companies which post higher profits distribute higher dividends to investors. However, they suggested that firms should ensure that profits are stable, cash flows freely flow into the firm and working capital is efficiently managed maximize the company's stock price and thus lead to the maximization of shareholders' wealth.

Kumar and Rajgopal (2016) in their study attempted to identify the key financial variables that affects the Corporate Dividend Policy of 30 companies across 10 industries. The study covered the period of seven years from 2011 to 2015. They used a two-step multivariate procedure. They found from the results of factor analysis that leverage, liquidity, profitability, growth and ownership structure are the major factors affecting the dividend policy. Further, the regression analysis reveals that leverage is negatively associated and liquidity is positively associated with the dividend policy. Finally, they concluded that except profitability, the other factors namely leverage liquidity, ownership structure and growth revealed the expected signs in the line of the outcome of earlier empirical studies.

Kumar (2020) in his study examined the effect of a set of pre-determined factors namely, profitability, sales growth, tax, cash flows and debt on the dividend payouts of 10 pharmaceutical companies listed on the NSE, India. In this study, the panel data method has been used because the data consists of both cross sectional and the time series data and to verify this F-Limer has been used. T-statistics, probability and coefficient have also been calculated to study the impact of different factors on dividend policy. The result showed that factors namely profitability and cash flows have negative impact on dividend payouts. On the other hand, the debt factor has a positive impact on dividend payouts. Other factors such as tax and sales growth did not have any impact on dividend payout ratio.

These studies revealed that some determinants have significant impact on dividend policy whereas others have no impact on it. Against this backdrop, this research paper attempts to study the impact of liquidity and profitability on dividend policy with regard to the selected Indian IT firms.

4. Statement of the Problem

Dividend policy is one of the most controversial and debatable issues in the corporate finance literature and still keeps its important place both in developed and emerging markets. Many researchers have engaged in extensive research to explain why companies should pay or not pay dividend and empirically tested various models to explain dividend behavior. But there is no uniform result among all those studies. Therefore, in this paper, the researchers have decided to conduct a study on the association between these two important variables of dividend policy and dividend payout ratio of selected IT firms in India. The first purpose of this study is to determine whether there exists a relationship between liquidity and profitability with dividend policy of IT companies. The second purpose is to determine the impact of liquidity and profitability on dividend policy of IT companies selected for the study.

5. Objectives and Scope of the Study

The present research study has been carried out on 19 selected Indian IT companies and the objectives are as follows.

1) To examine the relationship between liquidity, profitability and dividend policy of selected IT companies in India.
2) To determine impact of liquidity and profitability on dividend policy of selected IT companies in India.

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

6. Hypotheses of the Study

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

H_{01}: Liquidity has no significant impact on dividend policy of selected IT companies.
H_{02}: Profitability has no significant impact on dividend policy of selected IT companies.
H_{03}: Liquidity and profitability together have no significant impact on dividend policy of selected IT companies.

7. Conceptual Framework and Measurement of Variables

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

Liquidity (CR):

Liquidity of a firm occupies a leading role in dividend payment decision. The firms may generate profits but suffer from insufficient liquid cash to declare dividends. Hence, it is anticipated 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), Hadianto and Sahabuddin (2016) and Benyadi and Andrianantenaina (2020) have included the current ratio as an important variable in their studies. The formula to calculate the current ratio is as follows.

$$CR = \text{Current Assets}/\text{Current Liabilities}$$

Profitability:

In a survey Lintner (1956) found that the key factor affecting the dividend decision of a firm is the net earnings. As the dividends are paid directly from the profit after tax, it is logical that the level of profitability of firm has a direct bearing on the dividend payments. Hence, the level of profitability is one of the most significant factors that may impact the company's dividend pay-out decisions. Return on Assets can be defined as the ability of the firm's resources to generate profit. The ROA variable has been used by scholars namely Labhane and Das (2015), Kannadhasan et al. (2017) and Tahir et al. (2020). The formula to calculate ROA is stated below.

$$ROA = \text{Net Income}/\text{Total Assets}*100$$

Dividend Policy (DPR):

The dividend payout ratio is defined as the ratio of total annual dividend paid to profit after tax. The cause and effect relationship studies pertaining to dividend policy generally takes into account the dividend payout ratio 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.

$$DPR = \text{Dividend Paid}/\text{Profit After Tax}*100$$

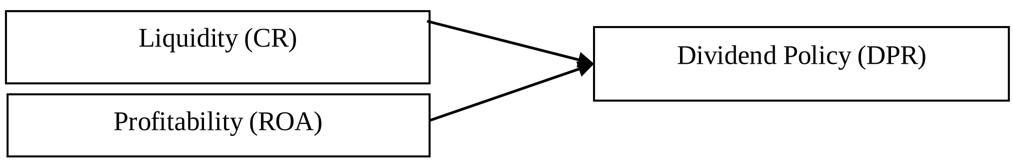

Figure-1 Proposed Dividend Model

8. Methodology

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

8.1 Data Collection

The data for the present study has been collected from the secondary sources i.e. annual reports and websites of selected IT companies. From the collected data, the important variables namely Current Ratio (CR), Return on Assets (ROA) and Dividend Pay-out Ratio (DPR) were calculated to make them fit for the analysis. In this study CR and ROA are taken as the independent variables whereas DPR represents as the dependent variable.

8.2 Period of the Study

The period of the present study is 12 years i.e. from 2008-09 to 2019-20. The researchers consider that a minimum of 10 years continues data is necessary to study the association between the variables in one hand and examine the impact of independent variables on the dependent variable on the other.

8.3 Sample Size

The sample size for this study is 19 i.e. 19 IT companies have been selected to conduct the research work.

8.4 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.

9. Analysis and Interpretation of Data

The analysis and interpretation of the entire work has been presented in two sections i.e. section-1 deals with descriptive analysis and section-2 deals with inferential analysis.
The descriptive analysis is carried out on the data collected from selected IT companies with regard to CR, ROA and DPR and presented in the following table.

Table-1: Descriptive statistics of sample companies

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

From the above table, it is noticed that the standard deviation of DPR i.e. 12.8646 shows the maximum variance in the DPR during the study period, followed by ROA. However, a rest CR variable is having very low variance throughout the study period. Apart from this, the mean, minimum and maximum values of key variables are shown in the above mentioned table-1.

Inferential Analysis

The inferential analysis carried out on the data collected from the selected IT companies with regard to the association between CR, ROA and DPR and the impact of CR and ROA on DPR and discussed on the following section.

Correlation Analysis

Table-2: Showing the relationship between the determinants with dividend policy

Sl. No.	Variables	r-value	t-value	p-value*	Hypotheses	Remarks
01	CR and DPR	0.0258	9.2637	0.0000	H_{01}:There is no significant association between CR and DPR of selected IT companies in India.	Rejected
02	ROA and DPR	-0.6763	2.6177	0.0239	H_{03}:There is no significant association between ROA and DPR of select IT companies in India.	Rejected

* at 5% level of significance

The above table depicts that the liquidity variables has positive relationship with the DPR while ROA is having negative relationship with DPR. To test the relationship between independent and dependent variables 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 framed are rejected. In other words, all independent variables have significant relationship with DPR.

Multiple Regression Analysis

Table-3.1 Model Summary

Model	R	R square	Adj. R Square	Std. Error of the Estimate
1	0.6884	0.4739	0.3570	10.3155

a. Predictors: (Constant) CR and ROA

Table-3.2 ANOVA

Model		Sum of Squares	df	Mean Square	F	Significance F
1	Regression	862.7899	2	431.3949	4.0541	0.0499
	Residual	957.6931	9	106.4103		
	Total	1820.4830	11			

a. Dependent Variable: DPR

b. Predictors: (Constant) CR and ROA

Table-3.3 Beta Coefficient of Regression Model

		Unstandardized Coefficients	Std. Error	t-stat	Sig.
1	Constant	109.7282	33.72474	3.25364	0.00994
	CR	-4.5608	8.59757	-0.53048	0.60862
	ROA	-2.4539	0.86239	-2.84547	0.01923

Y=109.7282-4.5608X1-2.4539X2

From the model summary at table-3.1, it is revealed that the model is explaining only 47.39% variation on dividend policy as per the R square value. Since F probability value is 0.0499 which is less than 0.05 (at the 95% confidence level), the third hypothesis stands rejected. In other words, the liquidity and profitability together have significant impact on the dividend policy of IT companies selected for the study. However, looking at the individual p-values of determining factors, only ROA is found to be significant in impacting the dividend policy of select IT firms and the other explanatory variable namely CR is found to be insignificant as per the p-value.

10. Summary of Findings

Followings are some major findings of the study:-

- The standard deviation of CR, ROA and DPR shows that the dividend policy has the maximum variation followed by profitability while liquidity variable has low variation during the study period of the sample IT companies.
- From the correlation analysis, it is revealed that there is a negative relationship between ROA and DPR; while a positive association between CR and DPR.
- It is found from the ANOVA table that all the explanatory variables namely CR and ROA together are statistically significant at 5% level since the calculated f-significance value is less than 0.05.
- On individual basis, ROA variable significantly impacts the dividend policy, whereas the other variable namely CR does not impact significantly on the dividend policy of selected IT companies.

11. Conclusion

The present research work has been carried out to examine the dividend policy of IT sector in keeping the view of role and importance of IT industry in the economic growth and development of our country. Since liquidity, profitability and dividend payment are important aspects in the area of financial management, the study aimed at finding out the relationship between liquidity, profitability and dividend policy of the selected Indian IT firms. Further, the impact of liquidity and profitability on dividend policy of selected Indian IT companies is also examined. The correlation analysis shows that negative relationship of profitability with dividend policy; whereas positive relationship between liquidity and dividend policy of the selected IT companies. The application of multiple regression analysis reveals that there is significant impact of liquidity and profitability taken together on dividend policy of selected IT companies; whereas individually, ROA is found to be significant in impacting the dividend policy of selected IT companies.

Conflict of Interest

The authors declare that there is no conflict of interest.

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