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The Impact of Dividend Policy on Company Financial Performance During the Covid 19 Pandemic : An Empirical Analysis

Assoc. Prof. Dr. Alev Dilek AYDIN KORPES
Department of Business Administration, Nisantasi University, Istanbul, Turkiye
Email : alevdilekaydin.korpes@nisantasi.edu.tr

Abstract
Dividend policy decision is one of the most important factors of corporate policy. Stockholders and potential investors generally believe that the dividend payout decision of the companies give important clues about the firm's financial performance and its ability to generate sufficient profit. Investors are usually ready to pay a premium for a firm that follows a stable dividend policy.The purpose of this research is to investigate whether there is positive relationship between the dividend policies and the financial performances of the selected companies included in the Borsa Istanbul (BIST) Dividend Index (XTMTU). The selected companies are those 30 companies which distributed dividends regularly between 2018 and 2022. In this study, the dividend payout ratio, which is a dependent variable, is measured by the ratio of dividends paid by a company to its earnings. Two types of ratios were selected to conduct the research: profitability ratios and liquidity ratios. The result of the analysis indiates the positive relationship between profitability ratios of Return on Equity (ROE), Return on Asset (ROA), Earnings per Share (EPS) and dividend policy. On the other hand, a statistically significant relationship between the liquidity ratios of current ratio, cash ratio and net working capital ratio and dividend policy could not be determined.
Keywords : Borsa Istanbul Dividend Index, dividend policy, profitability, financial perfomance, liquidity
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1.Introduction

Dividend can be defined as the distribution of earnings of a company among its shareholders. Dividend policy decision, which is related to the amount of dividends paid out by the company to its stockholders and how often dividends are distributed, is a controversial issue in finance. The dividend policy implemented by a company may have a positive impact on the value of the entity as well as on the financial performance.

No matter which dividend policy is chosen, the selected policy should be in line with the company's aims and targets to maximize its value for the stockholders. The types of dividend policies that a company can choose are mainly four types : regular dividend policy, stable dividend policy, irregular dividend policy and no dividend policy. Under the regular dividend policy, the entity dsitributes dividends to its shareholders every year and even though the company makes a loss, the stockholders are still paid dividends as part of this policy. The difference between regular dividend policy and stable dividend policy is that, under the stable dividend policy, the percentage of profits distributed as dividends is fixed.

Factors that can have a significant affect on the dividend payout policy include profitability, cash needs of the company, need for growth, company size, taxation policy of the government, legal restrictions, possibility of profitable investment opportunities and dividend restrictions by creditors. In this context, dividend policy depends on financial as well as legal considerations.

This study aims to examine whether there is a relationship between dividend policy and the firm financial performance for the selected 30 companies that distributed regular dividends between 2018 and 2022. These companies are traded at the Borsa Istanbul (BIST) Dividend Index (XTMTU). The study is important in terms of understanding the affect of firm financial performance on the dividend payout policy when the firms in the world in general were trying to cope with Covid 19 pandemic. While many financially troubled companies chose to omit or cut dividends, on the contrary, some other companies continued to implement regular dividend policies or even increased percentages of dividends distributed to attract potential investors by signalling a better performance.

2. Dividend Policy Theories

In this section, major dividend theories will be examined beginning with the bird-in-the-hand theory and followed by dividend irrelevance theory, information content and signalling theory, tax preference theory and agency cost theory.

2.1. Bird-in-the-hand theory

This is a popular theory developed by Walter (1956) and Gordon (1959), who predicted a positive relationship

between stock price and dividend payment. This theory was also contributed by many other researchers including Lintner (1956) and Fisher (1961). According to this theory, stockholders prefer dividends to capital gains and therefore, they are ready to pay higher prices to the company shares that distibute dividends. The underlying reason behind this theory is that, share price is the present value of expected dividends and there is a relationship between firm value and dividend distributions. This is mainly due to minimizing risk for investors because dividends are less risky than promise of future capital gains.

According to both Gordon (1962) and Lintner (1963), bird-in-the-hand theory states that investors do not generally like risk, and therefore, investors' required rate of return would decrease as dividend payments increase. They claim that increase in the level of dividends will decrease the level of uncertainty and eventually increase market value of stocks. Thus, in order to maximize their share value, companies should determine higher dividend payout ratios and target higher dividend yields.

This theory was severely criticised be Miller and Modiglianni (1961), who developed dividend irrelevance theory. They stated that they strongly disagreed with this theory and called it as "bird-in-the-hand fallacy". They suggested that firm's cost of capital is not related to its dividend policy and investors are unconcerned if they receive more dividends or capital gains. Therefore, they concluded that companies do not need to follow a stable dividend policy to increase share price.

2.2. Dividend Irrelevance Theory

The dividend irrelevance theory of Modiglianni and Miller (1961) is undoubtedly one of the cornerstones of history of finance. M&M (1961), who proposed dividend irrelevance theory for the first time, have been subject to severe criticisms since that time. This theory mainly asserts that under certain assumptions, a managed dividend policy is irrelevant and it has no influence on the market value of the firm. M&M (1961) suggested that in perfect markets, dividend payment may not have affect on firm value because stockholders do not care about receiving their cash as dividends or in the form of capital gains. This is mainly due to the reason that the value of the share of the firm is only determined by the productivity of the firm's assets and not the type of dividend policy.

M&M (1961) further claim that with rational investors and perfect certainty, the share price is mainly determined by the earning ability of the firm and the income generated by the investment decisions managers make. In other words, shareholders are not interested in receiving their cash flows as dividend payments or in the form of capital gains as long as the company does not change its investment policy. According to M&M (1961), the share price will drop when the firm pays dividend because additional shares will be issued to finance the outgoing cash. They state that investors may obtain cash by selling their stocks in the market. Therefore, companies do not need to be worried about their dividend policy. Additionally, a change in dividend policy may convey information to the investors about the future income coming from the potential investment decisions company makes.

One of the most important criticisms directed to the dividend irrelevance theory is that it does not explain why companies and potential investors are this much interested in dividend decisions of the companies. It was widely agreed by the researchers and analysts that, this high interest should originate from the market imperfections as opposed to the perfect capital capital market assumption of M&M (1961). There are several market imperfections. Taxes are one of these main systematic imperfections in the market. If there would be higher taxes on dividends than capital gains, an optimal dividend policy would be not to pay any dividends. Information asymmetry is another market imperfection. Today, dividend announcements result in serious changes in stock prices as opposed to the main argument of M&M (1961) that a relationship does not exist between dividend payments and company share values.

Clientele effect is another market imperfection in which certain type of investors such as institutional ones demand dividends. Correspondingly, companies form their dividend policies according to the requests of these investors. Although M&M (1961) were aware of the possibility of the clienete effect, they also discounted the importance of it and claimed that the value of the share does not change despite clientele effect. Contrary to their belief, clientele effect plays a key role for the explanation of insistent demands of investors for dividends.

2.3. Information Content and Signalling Theory

The information content and signalling theory is mainly concerned with information asymmetry. The theory states that a firm's management has more information about the firm's true value than third parties and shareholders who only have acess to limited public information. In this context, managers use dividend distribution to reduce this information asymmetry by conveying useful information as an important signal concerning the current financial situation and the future prospects of the company from managers to the firm's stockholders and potential investors. The basic idea behind the signalling theory is that changes in dividend policy transmits information beyond financial reports, financial announcements and all other kinds of financial data to the investors. While initiations of dividend payments are perceived positively, reductions or omissions of dividends are perceived rather negatively among investors and therefore managers are reluctant to cut or omit dividends (Bhattacharya, 1979 ; Miller and Rock 1985).

Ross (1977) was the first researcher, who developed a formal model that contributed positively to the development of information content and signalling theory. The model indicates that investors would give importance to the consistent stream of dividens. Several other major resarchers who made valuable contributions to this theory include Bhattacharya (1979), Kalay (1980), Asquith and Mullins (1983) and Miller and Rock (1985). The common conclusion that derives from the studies of these researchers is that, dividend provides valuable information to investors by functioning as a signalling device about the current profitability of the firm.

2.4. Tax Preference Theory and Dividend Clientele

Tax preference theory, which was introduced and developed by some financial economists during 1970s and 1980s such as Elton and Gruber (1970), Brennan (1970), Litzenberger and Ramaswamy (1979), Kalay (1982) and Poterba and Summers (1984), states that if the tax rate on dividend is higher than capital gain, stockholders as rational investors will prefer capital gains to dividend. Hence, shareholders prefer retained earnings rather than dividends and potential investors and shareholders are in favor of a low dividend payment or no dividend payment policy as opposed to high dividend payment for tax related reasons. In other words, other things being equal, companies should quit distributing dividends and minimise dividend payment if they want to maximise stock value in the case of higher taxes. However, companies still continue paying dividends contrary to this expectation. This situation makes the dividend policy one of the most important research subjects in the field of finance and Black (1976) called this situation as “dividend puzzle”.

Investors may have different tax preferences and choose dividend policies according to the tax category that best suits their needs. This constitutes the core of dividend clientele effect which was proposed by M&M (1961), Black and Scholes (1974) and Miller and Scholes (1978). The theory states that each investor has their own reasons for choosing between different dividend policies based on high or low cash dividends. There are diffierent clienteles for both high and low dividend payment depending on tax position of the company (Petit, 1977). As an example, some institutional investors, who are often tax-exempt, prefer to invest heavily in high dividend yield stocks together with individuals at low tax bracket, who have to pay a higher tax on their capital gains. On the other hand, high tax bracket companies and individuals choose to invest in company stocks with low cash dividends.

2.5. Agency Theory and Free Cash Flow Hypothesis

The free cash flow hypothesis, which was originally proposed by Jensen (1986), is closely related with the agency costs. Jensen and Meckling (1976), Rozeff (1982) and Eastbrook (1984), were the researchers who contributed to the agency cost theory of why companies should make dividend payments. This theory was developed in reaction to problems which are associated with the seperation of management and ownership and conflicting interests of managers and shareholders. The theory asserts that an effective dividend policy minimizes agency cost by reducing funds available for unnecessary and unprofitable investments and forces managers to look for financing in capital markets.

The free cash flow hypothesis of Jensen (1986) asserts that, when a company has excessive surplus of free cash flow and has no profitable investment opportunities, managers may attempt to use excess cash in hand to their own personal benefits at the expense of stockholders. This situation may lead to an increase in agency costs, unprofitable investment policies and inefficient resource allocation. The traditional residual theory of dividends, which constitutes the core of free cash flow theory, claims that the company should pay any excess cash remaining on hand after funding all profitable projects. According to the residual dividend policy, share price is expected to fall with an increased dividend, as this may be interpreted as the situation of limited investment opportunities for the company. On the other hand, the share price is expected to rise when the company decreases its dividend payment as this may be a sign of profitable investment opportunities for the company.

3. Data and Methodology

This study aims to analyze the relationship between dividend policy and firm financial performance. Dividend policy has become a more and more pronounced concept in the finance literature. Although, a lot many researches have been conducted and papers have been written about dividend policy for many decades, still it is a controversial issue in finance.

The sample data of the analysis is comprised of 150 firm-year observations that covers the period from January 1, 2018 to December 31, 2022. To be included in sample, firms should be listed in Borsa Istanbul (BIST) Dividend Index (XTMTU) and should have distributed dividends for five years regularly between 2018 and 2022. There are 30 companies that obey this rule.

To investigate the relationship between dividend policy and firm financial performance two types of accounting ratios were used in the empirical analysis: profitability ratios and liquidity ratios. These ratios provide the most appropriate type of information concerning the firm financial performance. All of the data utilized in the study were manually collected from the financial statements of the companies included in the sample. Return on

Asset (ROA), Return on Equity (ROE) and Earnings per Share (EPS) are included in the empirical model to measure the profitabilities of the selected companies as part of measuring their financial performances. Current ratio, cash ratio and net working capital ratio were used to measure the liquidity degrees of the selected companies. Information about the variables used in the study is given in table 1.

Table 1 : Information about the Variables Used in the Models

Variables of the Study	Abbreviation	Types of Variables	Data Obtained From
Dividend Payout Ratio	DIVPAY	Dependent Variable	www.isyatirim.com
Return on Equity	ROE	Independent Variable	Company websites (Annual reports)
Return on Asset	ROA	Independent Variable	Company websites (Annual reports)
Earnings per Share	EPS	Independent Variable	Company websites (Annual reports)
Current Ratio	CURRENT	Independent Variable	Company websites (Annual reports)
Cash Ratio	CASH	Independent Variable	Company websites (Annual reports)
Net Working Capital Ratio	NWC	Independent Variable	Company websites (Annual reports)

To investigate the relationship between dividend policy and firm financial performance the following two hypotheses have been developed

H1 : Profitability has a signficant impact on dividend policy.

H2 : Liquidity has a signficant impact on dividend policy.

To analyze the relationship between dividend policy and accounting ratios, the following model is developed. The model is aimed to reveal the strength and direction of association between return on equity (ROE), return on asset (ROA), earnings per share (EPS), current ratio, cash ratio and net working capital ratio on dividend policy.

$$DIVPAYit = \alpha + \beta 1ROE\ it + \beta 2ROA\ it + \beta 3EPS\ it + \beta 4CURRENT\ it + \beta 5CASH\ it + \beta 6NWC\ it + \varepsilon it$$

in which, for sample firm i and year t,

ROAit = Net income divided by total assets at year t

ROEit = Net income divided by total stockholders' equity at year t

EPSit = Firm's earning divided by the number of common stock at year t

CURRENTit = Current assets divided by current liabilities at year t

CASHit = Cash and cash equivalents divided by current liabilities at year t

NWCit = Net working capital (current assets – current liabilities) divided by total assets at year t

4. Result and Discussion

The descriptive statistics for variables used in the study are presented in table 2. The table reveals that the liquidity ratios of the selected firms are relatively high. They have sufficient amount of current assets as compared to their current liabilities. Table 2 also indicates that the sample firms are moderately profitable during the selected period of 2018 and 2022.

Table 2: Descriptive Statistics of the Variables Used in the Research

Variable	Observations	Mean	Std. Deviation
ROE	150	0.16	0.18
ROA	150	1.76	0.52
EPS	150	0.34	0.72
CURRENT	150	2.10	0.58
CASH	150	1.08	0.64
NWC	150	0.98	0.82

The estimation results of the logistic regression are presented in table 3. The emprical result of the logistic regression clearly reveals that profitability ratios are significantly related to the dependend variable of dividend policy. However, the same situation is not valid for the liquidity ratios. Based on these results, the hypothesis of H1, which states that profitability has a significant impact on dividend policy, should be accepted. On the contrary, the hypothesis of H2, which states that liquidity has a significant impact on dividend policy should be rejected. The estimation results of our model indicates that profitability ratios of Return on Equity (ROE), Return on Asset (ROA) and Earnings per Share (EPS) have all positive affects on dividend payment. Consequently, profitability ratios are useful in explaining firms' dividend policy, whereas liquidity ratios are not.

Table 3: The Estimation Results of Logistic Regression

Variable	Coefficient	S.E.	Significance
ROE	3.650	2.123	0.014
ROA	2.750	1.850	0.025
EPS	6.558	3.128	0.034
CURRENT	-0.422	0.922	0.659
CASH	3.938	1.562	0.148
NWC	-0.820	0.610	0.378
Constant	-0.940	2.480	0.459

According to the results of Hosmer and Lemeshow's goodness-of-fit test (p-value of 0.564), logistic regression model fits the empirical data well as this result (p = 0.481> 0.05) indicates that the variables in the model are uitable for our model. Nagelkerke R square is interpreted as the adjusted version of the Cox & Snell R Square. The values for the sample data are 0.258 and 0.339 respectively. These results indicate that our model is useful in explaining the relationship between dividend policies and financial performances of the sample firms.

Table 4: The Results of Goodness of Fit Tests

Hosmer Lemeshov Test	**Chi-square** 6.973	**d.f.** 8	**Sig.** 0.564
Model Summary	**-2 Log likelihood** 78.732*	**Cox & Snell R Square** 0.258	**Nagelkerke R2** 0.339

5.Conclusion

During the Covid-19 pandemic, which has had an extremely negative impact on the majority of the industries and on the world economy in general, shareholders and investors have been more demanding on obtaining more information on the future prospects of the company. In this context, a regular dividend payment and a stable dividend policy transmits a positive signal on the firm's future earnings to the investors. Consequently, companies that do not normally distribute dividends may choose to make dividend payments to its shareholders with the aim of creating a positive perception about the financial strength and the degree of profitability of the company.

This study study covers a period between January 1, 2018 and December 31, 2022. This period is important in terms of providing a chance to compare the pre pandemic period with the pandemic period. The data of the study was obtained from the Borsa Istanbul (BIST) Dividend Index (XTMTU) and the financial statements of the selected companies from their annual reports. The sample of the study consists of 30 firms, which distributed dividends regularly in the selected period and 150 firm-year observations were obtained from these selected companies. Findings of the study reveal that there is a significant positive relationship between the profitability ratios of Return on Equity (ROE), Return on Asset (ROA), Earnings per Share (EPS) and dividend policy. However, a significant relationship between the liquidity ratios of cash ratio, current ratio and the net working capital ratio and dividend payment could not be obtained. Having found this fact, it can be interpreted that liquidity has no significant affect on dividend policy. On the other hand, the result of the study indicates that profitability has an important impact on the formation of dividend policies of the selected firms. Companies with higher profitability are more likely to follow a more stable dividend policy and maintain their current dividend levels instead of decreasing or omitting them even during a degrading economic environment like the Covid-19 pandemic. As a suggestion for further research, dividend strategies of companies in different industries could be analyzed separately in order to investigate whether dividend payment policy varies across different industries depending on the industry dynamics. Additionally, some other firm characteristics such as size, structure of asset, business risk and growth could be added to the future studies in order to increase our level of prediction of dividend policy behaviours of different firms.

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