



PRIMARY RESEARCH

Impact of financial leverage, size of the firm, and profitability on dividend payout policy (study of non-financial companies listed on PSX)

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Keywords

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Abstract

This research attempts to ascertain the impact of different determinants of dividends on dividend payout policy in Pakistan. The total attention given to this study includes only all non-financial firms which are listed on Pakistan Stock Exchange (PSX). The sample of this study is 120 non-financial firms listed on the PSX, and the data for five years was accumulated on a yearly basis. The time period of data was from the year 2011 to 2015. In e-views software *t*-test has been done. The paper assists the management of the company in knowing how much firm size, financial leverage, and profitability impacts the dividend payout policy of a firm because, in most of the research paper related to dividend payout policy in the context of Pakistan, results revealed that financial leverage and profitability had an insignificant relationship with dividend payout policy. The study shows that timely dividend payments will improve the company's image in the long run.

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INTRODUCTION

Every year public limited companies offer a specific payout amount out of their profit to the shareholders of that company which is known as a dividend. As argued by [Asad and Yousaf \(2014\)](#), many companies pay dividends to their shareholders or investors to have their ongoing assurance and to increase their confidence in management that the money they invested in the form of shares is in safe hands and being used prudently by the management. A similar notion is also expressed in previous research. [Harvey, Michaely, Brav, and Graham \(2005\)](#), in their research, inferred that dividend payments depend on so many factors, which include perpetual income and earnings paid by well-established corporations and regularized with the time, but even then the significant question which arises regarding dividends is; "How it will be decided what will be the dividend payout policy"? [Hasan, Ahmad, Rafiq, and ur Rehman \(2015\)](#) argued that the amount of dividend that is paid and the way it is paid to the shareholders is what actually we call the Dividend Payout Policy ([Farid et al., 2021](#)). They

further explained that the companies in their dividend payout policies are closely associated with the finances of the company and explained whether dividends should be paid to shareholders now or at a later stage in the form of increased dividends. Whatever the case may be, the dividend payout policy is one of the key strategic decisions of any company that can impact the overall performance of the company and the expectations of the investors. A lot of debate has been carried out by researchers on the subject, and it is one of the most debatable topics among academicians around the world. Many such academicians ([Ahmed & Javid, 2008](#); [Al-Kuwari, 2009](#); [Collins, Saxena, & Wansley, 1996](#); [Gill, Biger, & Timbrewala, 2010](#); [Maldajian & Khoury, 2014](#); [Mehta, 2012](#); [Naceur, Goaid, & Belanes, 2006](#)). Other studies also advocate the same argument that in finance-related research, dividend payout policy is one of the key significant topic and still needs to be resolved.

Although a lot of researches have been made on the said topic but the debate among financial analysts and researchers is still not conclusive, and yet we have to find an-

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swers for many significant questions. These questions include; Can we justify the reasons to distribute dividends among the investors of a company? If yes, what will be the most suitable amount to payout dividends to investors? What could be the consequences if a firm decides to distribute or not distribute the dividends to their shareholders? Is it necessary that the firm has to distribute dividends every year? What impression of the company will reflect on the shareholder's mind if it is not paid annually? Questions like these should be answered with concrete data to help financial decision-makers of the firm make the right decisions. [Al-Kuwari \(2009\)](#) suggests that if dividends are paid at a suitable time, it will ultimately boost the overall reputation of the firm. The dividend payout decision is the most crucial and important decision that the management has to take ([Ali et al., 2010](#); [Gul, Ali, & Saeed, 2021](#); [Shahbaz, Tiwari, Jam, & Ozturk, 2014](#)). This decision can have a significant impact on the firm's performance as it is directly linked to it. The investors expect from the management and even measure the financial performance of the company on the basis of its dividend payout amount. [Murekefu and Ouma \(2012\)](#) even suggested that the dividend payout positively impacts the company's financial performance.

Analysis of Dividend Payout Policy has been carried out for a long; however, they have not yet reached any final globally accepted conclusion to the dividend payout policy of different corporations as to why there is a difference in payouts ([Black, 1976](#); [J. Khan, Saeed, Ali, & Nisar, 2021](#); [Waheed & Jam, 2010](#); [Waheed, Kaur, Ain, & Sanni, 2015](#)). He also suggested that researchers found dividend payout decisions to be very hard and complex and more like a never-ending puzzle game.

Dividend policy is believed to be insignificant in capital markets that are completely perfect; however, when it comes to real life and the real world, markets are never perfect, and deficiencies are always there. For this purpose, a number of academicians have tried to find out the factors affecting the dividend policy decisions of corporations ([Al-Malkawi, 2008](#); [Qazi et al., 2014](#); [Ziauddin, Khan, Jam, & Hijazi, 2010](#)). Even after all the research carried out so far, the Dividend payout decision is yet considered one of the 10 most significant financial problems that remain unresolved ([Ullah et al., 2021](#)). Many empirical studies have also helped find out various determinants of dividend distribution decisions of listed companies which include; profitability, previous dividend payout patterns, legislative rules, opportunities to grow further, growth level of the industry, and the firm's capital structure.

([Maldajian & Khoury, 2014](#)) infer that despite the fact that a

lot many models and theories have been developed in an attempt to find out the determinant factors of dividend policy, however, the empirical work takes us more than six decades back to 1956, when John Lintner worked on the said topic. [Lintner \(1956\)](#) took American companies in the mid-1950s as a sample study for his research and inferred that dividend policy has two major factors that influence it, i.e., the profitability of the firm and historical dividend payout pattern, especially last year's payout.

Determination of the most appropriate dividend policy can be the most challenging thing that different corporations face, even in this modern era ([Mehta, 2012](#); [Nadeem, Saeed, & Gul, 2020](#)). He further argued that the authorities representing these companies and those who have a say in decisions related to dividend policy always try to bring the best suitable dividend payout policy, which will ultimately increase the value of the company. In this regard, he further argued that there are three schools of thought having entirely different opinions about the same topic.

- A conventional conformist group supports the idea that there exists a positive relationship between dividend payout and the value of the firm.
- A fundamentalist group that categorically denies the existence of any such relationship.
- And there is a third group that supports the theory of Miller and Modigliani, which claims that the value of the firm doesn't get influenced by the payout policies of the firm.

The same kind of categorization is also backed by [Ahmed and Javid \(2008\)](#). Yet, despite having so much literature, researchers and academicians are unable to identify any clear guiding principles for the "Payout policy of optimal value" ([Burki, Khan, & Saeed, 2020](#); [Naceur et al., 2006](#)). They further elaborated that dividend decision is also known as dividend puzzle in finance-related literature, as this is so because those companies have yet not identified the key factors that influence the dividend decisions and their driving mechanism.

So far, an effort has been made by so many researchers to find out the key determinants of dividend policy, and a few notable contributions in this regard are mentioned below.

- The existing literature indicated the impact of profitability, growth, risk, liquidity and expansion of the dividend on decision policy of a corporation.
- [Fama and French \(2001\)](#), in their research, found out the relationship between the size of the firm, profitability, and growth factor on the company's decision to pay dividends.
- [Gill et al. \(2010\)](#) conducted their research on US-

based manufacturing and service industries. Their study found that the services industry has different variables for dividend payout ratio as compared to the manufacturing industry. For the services industry, the dividend payout ratio is a function of profit margin and sales; growth and debt-to-equity ratio. For manufacturing firms, the dividend payout ratio is a function of profit margin, tax and market-to-book ratio.

- [Al-Malkawi \(2008\)](#) also analyzed the factors of corporate dividend policy in his research conducted in Jordan. He analyzed data for 11 years (for a period between 1989 and 2000). According to him, the firm size, age since its inception, and profitability of the firms are the key determinants that can affect the corporate dividend policy in Jordan-based firms.

[Asad and Yousaf \(2014\)](#) argue that the key factors influencing the dividend payout policies all over the world are: different investing opportunities, firm size, profit level of the firm, financial hurdles, and influence of shareholders. and regulatory. Authorities as mentioned above. ([Al-Kuwari, 2009](#)) also stated that the companies in which there are any means and shareholding of the government usually pays higher dividends as compared to the ones owned by the private sector and public. Also, the findings of his study suggest that when firms earn more and have greater size, then they are expected to pay more dividends.

Problem Statement

To study the effect of size of the firms; firm's Profitability and leverages on dividend payout policy.

Research Objectives

The study objectives of this research are;

- To study whether leverages have any impact on a corporation's dividend payout policy or not.
- To analyze whether the firm size influences a corporation's dividend payout policy or not.
- To find out if a firm's profitability alters the corporation's dividend payout policy or not.

Research Questions

The following questions should be answered by looking at the research objectives.

- Do leverages change a corporation's dividend payout policy or not?
- Does the size of the firm changes the corporation's dividend payout policy or not?
- Can profitability change a corporation's dividend payout policy or not?

LITERATURE REVIEW

For the last few years, the dividend policy has been carefully examined and explained in previous research that the policy of firms regarding dividend payout was measured as a confused problem within the financial market. A similar thought was likewise introduced by [Black \(1976\)](#), who clarified that profit strategy is much the same as a riddle game, and it has various pieces which can't be joined together.

To discover the way that the general estimation of an organization has been influenced by the profit payout strategy, critical work, both hypothetical and observational, has been wiped out the past 40-50-year duration. Be that as it may, the vast majority of the work which has been finished during this whole period was equivocal in light of the fact that the researcher only studied these developed markets, but they might not consider the markets which were emerging into the account. All the info, which is budgetary, doesn't mirror any demonstration associated with markets that were emerging. Although the dividend policy of the emerging market is extremely different, both in characteristics and in its nature, it's different.

[Lintner \(1956\)](#) enquired that the company dividend behavior and dividend policies alongside the steadiness of implementation of those policies for the next period of your time. This study incorporates field research from where the hypothetical model will be drawn of the example information. The analysis includes the statistical analysis of all the main industry groups and identical companies in 20 smaller industry groups. This examination additionally fuses the cross-section analysis of 800 firms in the after-war period. The result indicates that there's a coffee payout ratio within the postwar period due to the unplanned current allowance of the larger investment outlays, which dividend payout isn't depressed by the tax bite out of the profit. He also elaborated a model which is named the "partial adjustment dividend model." "This model depicted that the targeted dividend payout also features a large impact on the dividend policy on the idea of which it changes. He expressed that most financial specialists are supportive of the stated dividend when contrasted with waver ones.

The prior research explained whether the share price of a firm is influenced by the profit which is given to the investors or not, and they expressed that the share price doesn't have any effect if the profit is given to investors. This concept wasn't accepted by the financial experts, and they differed from the thought of this study. They clarified that the relational word of Miller and Modigliani fundamentally doesn't base on the suppositions which are practical since their relational word is completely founded on the

ideal capital market, which is for sure impractical in this world. After this, the monetary specialists introduced different contending speculations and theories. At last, they certainly expressed that this financial market isn't totally perfect. Within the bird within the hand theory, which is said to dividend payout (preceding from the research paper of Miller and Modigliani) which elaborates investors mostly prefer stable dividends as compared to the retained earnings which aren't stable, hence so as to reinforce the worth of share the dividend payout ratio of the corporate should be large (Brigham & Gordon, 1968; Fisher, 1961; Gordon & Shapiro, 1956; Lintner, 1956; Walter, 1963).

Prior research described the idea associated with agency problems during which they specifically stated the excellence between the shareholders and managers with regard to ownership control and affairs associated with the management of the firm. Easter Brooke further elaborated on an equivalent idea. He explained that there are two sorts of agency problems associated with the value which is presented within the firm. Risk aversion is the first cost, while the monitoring cost is the other; both the managers and shareholders plan to decrease it in a balanced way. The previous research discussed the dividends on the thought of the clientele effect, and he came up with the idea that each one of the investors who were retired intended to point out more preference with regard to income. Along these lines, the organizations need to pay a huge extent of their income as dividends. Contrary thereto, when the gaining is high and smooth, then the financial specialists select to contribute to the store again and lean toward low installment with regard to the dividends.

Pruitt and Gitman (1991) Worked on a study, and therefore the prime objective of the study was to understand the connection between different decisions like an investment, financing, and dividend decision; for this study, they basically focused on 1000 US firms and accepted this firm as their example. In the wake of leading the research, they concocted the end that the gaining of a firm likewise large effect the profit payout strategy of the firm. They further explained that the profits, both current and past years, also are key elements with regard to affecting the dividend payout policy at long last; they contended that another significant factor that affects dividend payout strategy is a hazard that is constantly introduced in the firm. Burki et al. (2020); Ferris, Jayaraman, and Sabherwal (2009) studied specifically the financial organization of the UK and came up with the findings that, albeit the firms have less earning, they compensated their shareholders with dividends. But Amidu and Abor (2006); Pruitt and Gitman (1991) opposed

the thought presented by (Ferris et al., 2009; T. I. Khan, Kaewsaeng-on, & Saeed, 2019).

It is evident from studies the financial firms of Pakistan during which he stated that last year's dividend, which had been received by the investor, features a substantial and negative effect; he further explained that Pakistani investors are given more focused if the share price of company change than a change in dividend but the firms usually preferred to retain the earnings than the distribution of dividend to shareholders. On the contrary, the previous research shows and disclosed that shareholders certainly show more interest in dividends over the retained earnings. The prior research concluded that the association between the dividend which is predicted and, therefore, the dividend which has been paid to a shareholder is very positive and significant. The affiliation between the payout ratio of a firm and stock price volatility is exceedingly negative. The upper the volatility of stock price, the lower the dividend payout ratio is going to be (Ali, Ahmad, & Saeed, 2018).

The exiting literature Explained the impact of ownership structure on the distribution of a corporation that's the dividend. His research sample was 24 Australian companies, and therefore the period of time was 1991-1999. He used the standard least square method. His results were that there's a minor difference in dividend policy of state and family own firms, where the govt owns firms to pay better dividends. Those companies which have few opportunities for growth cannot pay smooth dividends.

The previous research showed a study to understand whether there's any possibility of a relationship exists between the ownership structure, corporate governance, and policy firmly associated with dividend payout and stated that the dividends of a firm increase as a rise within the earning of firms. In 2006 Kumar again examined the financial institutions of India. He collected the info of firms from 1994 to 2000 and utilized it to work out the association between corporate governance and the dividend payout policy of the firm. With the help of the company's financial structure, the trends associated with earning, and ownership structure, he concluded that there's a change in the behavior of dividends. He finally stated that with the rise in the opportunities associated with investment, the dividend payout of the firm also enhanced, and it decreased with the rise in the debt to equity ratio of the firm.

The prior research examined the effect of growth, firm profitability, associated risk within the firm, and firm liquidity by examining the financial data of around 10,000 firms that are publicly listed using the Ordinary method of Least Squares (OLS). The research finally suggested that there's

a high impact of profitability, growth, and risk on the dividend payout ratio. They further argued that the upper the danger presented within the firm, the lower the dividend payout ratio of the firm. If the managers of the firms assume higher responsibility and experience more power over the investor, then the payout ratio is going to be low because the manager wants to point out more involvement to scale back to payout ratio so as to reinforce the share price of the firm because if the share price increases than the manager are going to be compensated through different incentives and there's a possible chance of their promotion. Enhancement within the dividend leads to the reduction of liquidity of the firm, and therefore the retained earnings only increase if the return on equity increases, and if the retained earning increases, then there in additional opportunities for the firm to form new investments and if the earning per share is quite it'll permit the corporation to compensate the investor with a higher dividend.

The previous research specifically took the varied company of the UK as his sample, and he talked about the varied factors of dividend payout policy. For his study, the independent variables were the firm's earnings, its size, fluctuation within the income, etc. He concluded that the worth of a share has a positive relationship with the dividend payout policy. Fluctuation within the income doesn't have any effect on the payout policy, and more interestingly, he started the firm future earning wasn't even found as an element of dividend payout policy, and it's only applicable for the US firms.

[Al-Malkawi \(2008\)](#) intended to work out the determinant of dividend policy of all those financial companies which are listed on the stock market of Amman. He accumulated the info and studied the dividend payout policy determinants for the period of time of 1989 to 2000. For his study, he used the following independent variables, the ownership structure of firms, their growth opportunities, size of the firm, leverage, and lots of others. On the idea of their proxies, all the variables were explained. After accumulating and analyzing the info, he concluded that if the dimensions of the firm, firm profitability, and growth opportunities increase, then the dividend payout ratio also increases. And therefore, the association between the debts of the firm and dividend payout is very negative.

[Anil and Kapoor \(2008\)](#) figured out and took the IT sector of India as their target sample. For interpretation of their data, they used the SPSS tool, during which they specifically utilized both the correlation model and, therefore, the regression model. Their findings were that 21.53% is the average dividend payout within the IT sector of India. After

thoroughly studying the info eventually summarized that the dividend payout ratio increases with a rise in the profitability and liquidity of the firm.

[Al-Kuwari \(2009\)](#) tends to seek out the factors which affect the dividend policy of a firm within the Gulf cooperation council country stock exchanges. This research uses all the firms which are non-financial and registered within the GCC country stock exchanges by implying panel data set from 1999 to 2003. Moreover, this research uses a random-effects Tobit model to check the dividend policy. The results indicate that dividend payments during a dividend payout policy relate directly and firmly to the firms' profitability, government ownership, and firms' size while negatively to the leverage ratio of the firms. [Eddy and Seifert \(1988\)](#) and [Afama \(2001\)](#) explained that the upper the dimensions of the firm, the upper the dividend payout ratio are going to be; therefore there's a direct correlation between the dividend and size of the firm.

[Adesola and Okwong \(2009\)](#) studied the quoted firms of Nigeria and stated that the firm's current earnings and last year's dividend, which is being paid to shareholders, have an outsizes impact on dividend payout policy and that they further elaborated that the dimensions of the firm and growth opportunities don't have any impact on the dividend payout policy of all those Nigerian quoted corporations. Moreover, if the share price of the firm enhances, then the payout ratio of dividend also increases, so there's a positive association between the share price and payout ratio consistent with findings of previous researchers who studied the US Firms alongside all those market which are emerging. After studying the firms, they came up with the thought that if the profit of the firms is enhanced, then the dividend payout ratio also increases; therefore, the association between them is positively correlated. They finally concluded that the factors which are similar are being crucial for both the US firms and, therefore, the emerging market, but the firms of the emerging market are more vulnerable to few factors as compared to the firm's folks market.

The prior research discussed the capital structure of the firm and its income, and furthermore, they talked about specifically the dividend payout of the company sector and eventually suggested that just in case of capital structure, the firm features a negative association with the dividend payout policy while on the opposite hand, they found a positive association between income and dividend payout.

The existing literature primarily gave their attention and focused on the dividend payout policy determinants, and they took the banking sector of the country Ghana as their sample. For analysis and interpretation, they accumulated the

info for four years, from 1999-2003. After the interpretation of knowledge, they contended that the association of dividend policy is critical and positive within the case of firm fixed asset, its financial leverage, and, therefore, the size of the firm (Zia, Saeed, & Khan, 2018). They further concluded that the firm age and its rate of growth have a negative association with payout policy, and their relationship is substantial; moreover, they finally highlighted the key determinants which have a high impact on the dividend payout policy, which are firm probability, firm age, all the fixed assets of the firm and its capital structure (Fatima, Majeed, & Saeed, 2017).

DATA METHODOLOGY

Research Framework

The focus of this study is to find out the impact of leverages, a firm's size, and profitability on dividend payout pol-

icy. Many researchers have tried to find out the relationship of leverages with the dividend payout policy of the firm and have found a negative relationship. The results are supported by many types of research (Ahmed & Javid, 2008; Al-Kuwari, 2009; Al-Malkawi, 2008; Gill et al., 2010; Mehta, 2012; Naceur et al., 2006; Zameer, Rasool, Iqbal, & Arshad, 2013). Furthermore, many types of research have also been done to find out the profitability of the firm. Resultantly it is inferred by academicians that the profitability of a firm positively affects its dividend payout policy (Al-Kuwari, 2009; Al-Malkawi, 2008; Gill et al., 2010; Mehta, 2012; Naceur et al., 2006; Zameer et al., 2013). Similarly, firm size has a positive relationship with dividend payout policy, and this concept also has backing from many academician (Al-Kuwari, 2009; Al-Malkawi, 2008; Mehta, 2012; Naceur et al., 2006).

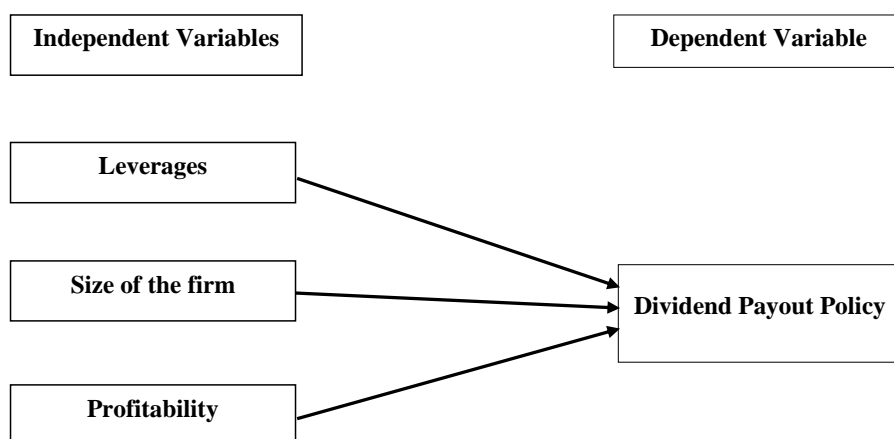


FIGURE 1. Framework

Variables

There are four variables of this study, which are;

Independent variable

- Leverages
- Size of the Firm
- Profitability

Dependent variable

- Dividend Payout Policy

Sampling Technique and procedure

The population for this research includes all the non-financial firms listed on Pakistan Stocks Exchange 100 index. For the collection of data for our research, this study used a stratified simple random sampling method. This sampling technique is used in order to collect the data easily and to save time. To start with sample collection, first

of all, various strata in each sector from the entire population were made. Each stratum made in each sector was selected on the basis of their dividend payout, i.e., those non-financial companies listed on the PSX 100 index which are paying dividends regularly for the last 5 years (2015-2019). Once all the firms were identified, a total of 120 firms were selected randomly from the strata, which have been paying dividends continuously for the last 5 years. At last, different calculations and formulas were used to find the desired value of different variables. The dividend payout ratio, which is our dependent variable, is calculated by the profit percentage out of the total net profits of the firm, distributed among the investors as their dividend share against the ownership they have. As far as leverages are concerned, our study will use debt to equity ratio, total the ratio of total liabilities and shareholder equity will be use a as a proxy for financial leverage. In order to study the

impact of a firm's profitability on dividend payout decision, this study will be using ROE; Return on Equity as a proxy for a firm's profitability. A natural log of total will be used in order to find out the size of the firm, which will eventually let us know about its effect on dividend decision.

Sources of Data

To collect the data for this study, financial statements of non-financial companies of Pakistan listed on PSX were downloaded. The financial statements were available on their respective websites, along with annual reports or on PSX. Some of the data was also collected from Open doors.com, a website having compiled data of all these listed companies.

Data Collection Method

Data for this study which is used is collected from various websites, including PSX and Open doors, and if not available on both these forums, it was collected directly from the official websites. The data collected for our study is secondary in nature as it is extracted from the websites of PSX and the companies. Data required against each variable was extracted from these financial statements and was saved in an excel sheet.

Time-series data were collected, which means data from 2015-2019 was collected from each company for this research. Once the data was extracted in MS Excel Sheet, values against each company were calculated by using formulas as defined earlier in the research to find values against our dependent and independent variables. Once the values were calculated, it was organized in order to get our desired results by running the tests on them. E-Views software was used to test our model, and a T-Test was run on the data. After that multiple regression model was also used to find the impact of our three independent variables on the dependent variable, other software was also available for running these tests, but as per empirical evidence, E-Views is the preferred software for this kind of research to get reliable and more accurate results.

Variables Identification

Dependent variable

Dividend Payout Policy: The dependent variable of this research is dividend payout, as in this study it finds out the impact of profitability, leverages and the size of firm on dividend payout policy. There are two types of dividends one is retained earnings that is the earning accumulated in previous years which was not distributed while the other is dividend of current year (Lintner, 1956). According to Fama and French (2001), the firm's dividend payout decision in

last 10 to 15 years has attain great attention as it directly affects the reputation of firms, while dividend declaration policy is still a major problem. The major questions were not yet to be answered while some were contradictory to each other and some queries are still pending.

The research use Dividend payout ratio as proxy of dividend payout.

Independent Variables

Leverages: According to Al-Malkawi (2008), a capital structure of a firm can be formed by long-term debt and equity, and the firms that rely on debt are called financial leverages. Financial leverage can benefits a firm through tax advantage and increased return on equity, but a financial charge risk associated with it as interest and principal deduction but their failure to pay may lead to liquidation.

According to Gill et al. (2010), financial risk or gearing is the proportion of debt and equity that is used in financing firm's assets. He said that there is a mixed relationship between leverages and industries payout behavior as in some industries there is a positive relationship while in other it is negative. Similar concept is also supported by Mehta (2012) as well as by Maldajian and Houry (2014). Many researchers Al-Kuwari (2009); Al-Malkawi (2008); Maldajian and Houry (2014); Mehta (2012) suggest, that firms that have high leverage have lower dividend payout, and the reasons for this are:

- Debt covenants (Bond indenture).
- For external financing, the transaction cost should be minimized.

So a negative relationship exists between the leverages and dividend payout policy. The debt Covenant or bond indenture will restrict shareholders from paying huge dividends at the expense of bondholders (Naceur et al., 2006).

Leverages and dividend payout policy are negatively related, which means that firms are usually not able to pay dividends because they have to fulfill their obligations after maintaining their internal cash flow (Al-Kuwari, 2009; Al-Malkawi, 2008; Naceur et al., 2006). To find out the debt influence dividend decisions, this study will use the debt to equity ratio as a proxy for leverage.

Profitability: Many researchers like Gill et al. (2010) concluded that corporate profitability is the main factor in paying dividends. (Mehta, 2012) considers profitability as an important influence on dividend payout policy. But their results were mixed on a profitability-dividend relationship. For example, previous research suggest that there is a negative relationship in which the higher return on equity, the greater the firm's intention to increase retained earnings

that, which results in a lower dividend payout.

However, most of the researchers [Ahmed and Javid \(2008\)](#); [Maldajian and Khoury \(2014\)](#); [Mehta \(2012\)](#) suggest that profitability is positively related to dividend payout and that the reason for this is stable earnings which are profitability and lead to larger dividends. [Al-Kuwari \(2009\)](#) suggests that dividend policies are different in developing and developed countries due to differences in their legal framework and corporate governance.

The previous research, suggests that profitability is an important determinant of companies' dividend policy. It refers to the Pecking order hypothesis that a firm's first priority is internal financing (retained earnings) in investment opportunities, and if that is not sufficient, then the firms will prefer debt over equity to reduce the Asymmetric information and other transaction costs. He concludes that the dividend decision will be in such a way that less profitable firms will be reluctant to pay dividends than highly profitable firms. [Naceur et al. \(2006\)](#) also supports the same idea in his research.

To examine the influence of profitability in firm's dividend decision, this study use Return On Equity (ROE), as a proxy for profitability. Based on the above discussion, a positive association is expected between dividends and profitability.

Size of the firm: [Mehta \(2012\)](#) argues that a relationship exists between the size of the firm and the dividend policy. It suggests that big firms pay higher dividends than small size firms because big size firms have more access to the capital market than small firms to raise funds, so it demonstrates that there is a positive relationship between the size of the firm and dividend payout.

[Al-Kuwari \(2009\)](#) explains that big firms contribute enough portion of their net profits as dividends in order to reduce the agency costs and to increase their control and monitoring of the organization by creditors, so he considers it an important explanatory variable. His findings also support the view of [Jensen \(1976\)](#) that agency costs are linked with firm size. According to [Maldajian and Khoury \(2014\)](#), many large companies have more access to capital and have better credit ratings with more customers, thus enhancing their

profitability and enough dividends. The same view is also presented by [Naceur et al. \(2006\)](#). The precious research suggests that many big firms have easy access to markets to raise capital with lower cost with fewer constraints as compared to smaller firms; he suggests that depending on internal financing will reduce as firm size increases, so other things remain constant large firms pay higher dividends to their shareholders. So he concluded that there is a positive relationship between firm size and dividend payout policy. [Naceur et al. \(2006\)](#) also link diversification that regular and less volatile cash flows with larger firms will suggest a positive relationship.

According to existing literature, mature large firms should be able to pay more dividends. As having a low chance of bankruptcy as they can manage their debt level effectively and efficiently.

According to previous research, there were different measures of firm sizes, such as employment, sales, assets, capitalization, etc. To examine the effect of a firm's size on dividend decisions, this study will use a natural log of the total in order to find out the size of the firm. Based on the above discussion, a positive association is expected between dividends and a firm's size.

Research Hypothesis

Based on the literature reviewed, the following hypothesis can be inferred from our study.

H1: An increase in Financial leverages will decrease the firm's dividend payout policy.

H2: The firm's size if increased, will increase the firm's dividend payout policy.

H3: Increase in firm's Profitability increase dividend payout policy

RESULTS AND DISCUSSION

After running the tests using e-Views software, we have inferred that a firm's size has a significant impact on the dividends payout policy of the firm. It also depicts that the rest of the two variables, which are the firm's profitability and financial leverage does not have any significant relationship with the dividend payout policy of the firm.

TABLE 1. Regression analysis

Dependent Variable: DPR				
Method: Panel, Least, Squares				
Sample: 2015 2019				
Cross-Sections Included: 120				
Total Panel (Balanced) Observations: 600				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-23.59595	10.49290	-2.248754	0.0267
PR	2.826528	1.497600	1.887372	0.0620
FS	1.358007	0.539426	2.517506	0.0134
FL	-0.033261	0.052549	-0.632962	0.5282
R-squared	0.119969	Mean dependent var	4.024014	
Adjusted R-squared.	0.093830	S.D. dependent var.	6.155180	
S.E. of regression	5.859300	Akaike info criterion	6.411288	
Sum squared resid.	3467.470	Schwarz criterion	6.512391	
Log-likelihood	-332.5926	F-statistic	4.589564	
Durbin-Watson stat.	2.081324	Prob(F-statistic)	0.004701	

Significance level is 5% (0.05).

Interpretation

As p -value is 0.0620, which is greater than 05% therefore, H 1 Is rejected the test results depict that there is no effect of a firm's profitability on its dividend payout policy. H 2 The study is accepted because it illustrates that the firm's size impacts the firm's dividend payout policy. The test results show that firm size has an effect on dividend payout policy. This effect of a firm's size can also be seen from the results, i.e., p -Value is 0.0134, which is less than 05%. The p -value also illustrates a value of 0.5282 (greater

than 05%) when it comes to finding the relationship of financial leverage with the firm's size, thus clearly rejecting. H 3 Which ultimately means that the firm's leverages do not have any significant effect on dividend payout policy. The R-Squared value which is 0.119969 demonstrates nearly 11% of change. is the dependent variable is because of independence variables. The value of Prob (F -test) which is 0.004701 helps to know about whether is entire model is accepted or not. So, in this case the model is valid because it is less than 5%.

TABLE 2. Regression analysis with fixed dummy variables

Dependent Variable: DPR				
Method: Panel, Least, Squares				
Sample: 2015 2019				
Cross-Sections Included: 120				
Total Panel (Balanced) Observations: 600				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-23.14887	11.89997	-1.945288	0.0552
PR	2.680679	1.693223	1.583182	0.1173
FS	1.335106	0.614802	2.171604	0.0328
FL	-0.006074	0.057063	-0.106446	0.9155
Effects Specification				
Cross-Section Fixed (Dummy Variables)				
R-squared	0.327360	Mean dependent var	4.024014	
Adjusted R-squared	0.136363	S.D. dependent var	6.155180	
S.E. of regression	5.720137	Akaike info criterion	6.523494	
Sum squared resid	2650.317	Schwarz criterion	7.130114	
Log-likelihood	-318.4834	F-statistic	1.713954	
Durbin-Watson stat	2.710312	Prob(F-statistic)	0.040759	

Interpretation

H 1 Implies that profitability has an impact on dividend payout policy but the results depicts that there is no influence of profitability on dividend payout policy because the t -value which is 0.1173 is greater than 5%, so H 1 is rejected.

H 2 Is accepted which means that firm size has an effect on dividend payout policy because the test result shows that p -value is less 5% so it is accepted.

H 3 States that financial leverage has an impact on payout policy of dividend, but according to the test result it is insignificant as the t -value is more than 5% so he is also rejected.

The value of R -squared is 0.327260 which indicates that the influence of independent variables over-dependent variable is 32.7%. Prob (F -test) 0.040759 implies that model is valid as the value is less than 5%.

CONCLUSION

This complete research study is conducted to determine the association of different determinants of dividend and dividend payout policy of the firm. We have tried to examine whether the independent variables of our study have any positive or negative impact on the dependent variable. Also, we tried to find that whether that relationship is significant enough to be considered as concrete evidence to be used in future studies. The dependent variable of our research was dividend payout policy. We also chose three of the determinants of dividend payout policy as our independent variables, which include the firm's financial leverage, firm's size and profitability of the firm. We tried to find out the relationship between these three independent variables with our dependent variable i.e. dividend payout policy. 120 non-financial listed companies were selected as our population sample. All of these companies were taken into account

because these firms are listed on PSX 100 Index and also have a history of paying out dividends to their shareholders. Time series data of these firms against the requisite variables was collected from 2015 to 2019. e-Views software was used to run tests on the collected data from our sample. The tests included none, fixed and random tests. The result of the study depicted some astonishing results. The test result showed that only firm size has a significant relationship with dividend payout policy. The association between firm size and payout policy is negatively related. Furthermore, the other two variables, i.e., the firm's leverage and profitability, were not significant for dividend payout.

The most accepted test as per the R -squared value was the fixed method test, and in this test, the whole model was significant. The other two variables also showed a significant relationship in research of other countries. However, as stated in prior research, a dividend is more like a jigsaw puzzle and is still a mystery that needs to be solved that why Pakistani Listed companies don't have any significant relationship between their dividend payout with leverages and profitability. Maybe adding more variables which were our limitations, could change the results.

RECOMMENDATIONS

As the two variables were insignificant in our study, adding more variables might make the research better in the context of Pakistan, which must be carried out. More reliable and valid results might be obtained if dummy variables and length of time series data might be increased. Also, a sample size of the research could be increased to get a better picture of the relationships between dividend payout policy with its determinants.

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