



Critical Review of Company Performance in Response to Dividend payout Policy in the Perspective of Pakistan

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ABSTRACT

The current study explains the relationship of dividend payout policy on the business performance of companies that exist in sugar of Pakistan. 100 companies are selected from sugar sector. Relationship of dividend payout policy and business performance was controlled with four variables based on relevant theories. These variables include size of company, growth of company, leverage (debt to equity ratio) and corporate governance index. Panel data is collected from 2012-2017 (six years) and then analyzed with unit root, descriptive statistics, correlation analysis, OLS regression, Lagrange multiplier, Hausman test, Fixed effect and Random effect models. Following key findings for each research objective were obtained by applying the adopted research method on the data through the adopted method of analyses: The results of the study show sugar companies showed no sign of a relationship between their dividend payout policy and profitability and so there is no controlling factor effective due to the absence of any relationship. Thus, the hypotheses were rejected in case of these two industries.



Introduction

Profitability of a business is the major economic drive for companies and they can attribute their profit towards two main heads. Either they can go for retained earning i-e can hold their earning in the firm to use it in future investment for growth purposes or they can distribute this earning to shareholders (Yegon et al., 2014). The distribution of profit is mainly done as dividends, this is why, it is crucial for firms to design a dividend payout policy to determine that whether to pay dividends and if yes then what should be the percentage of payouts or if it is more suitable for the financial benefits of business to invest the profit in future growth (Khan, et al. 2016). Privatization, globalization and liberalization in Pakistan economy along with the growing integration of information technology in business have caused intense competitive environment in every industry and business. On the other hand, this situation has also confused, dazed and bewildered Pakistani corporate stakeholders because they know that in order to thrive in this competitive environment, it is crucial for them to increase the value of their firms (Farrukh et al., 2017). In order to do so, finance managers of companies have to deal with the decisions related to the basic budgetary of business so they can meet the goal of increasing their firms' value by expanding the engagement of shareholders along with increasing the performance and profitability

of their firms (Adediran and Alade, 2013). It is evident that financial performance is very important and financial behavior of a firm revolves around number of key decisions including management of working capital, investments and dividend policy, among which dividend distribution holds a key position (Younis and Javid, 2014). Jaffe, Westerfield & Ross (2002) stated that the importance of dividend decision greatly lies in the fact that it helps the finance managers to forecast the fund amount that they can distribute in shareholders as dividend payouts and the remaining amount to be reserved for making investments in future time period. This policy also helps the stakeholders to obtain the information associated with the performance of a company because the major interest of an investor in investing his or her savings in a business is to gain profit on them. The common source of income is seen in a dividend by the investors who are averse to in a setting where businesses operate in very competitive era and maintain its performance and quality to maintain their statuesque. All these matters make the making of dividend payout policy a very important decision as it helps in maintaining the attractiveness of an organization (Bhattacharyya, 2007). The dividend plans in corporate world varies according host country on the firm being industrialized or unindustrialized and other financial situations such as earning patterns, size and growth of the firm. It was found out that dividend payout policy varies from company to company based on internal situation and market pressure (Ramcharan, 2001).

The relevancy or irrelevancy of dividend payout policy for financial decisions in developed and developing countries has been studied in previous literature (Rahman, 2018; Hasan, 2015; Lai et al., 2016; Chauhan et al., 2019). Currently the focus has shifted to the determinants and control predictors to decide dividend policies and their significance to the business performance. It is evident that dividend policies in Pakistani stock market has a different behavior with performance of companies from that in other stock market including developed countries and other developing countries, even the behavior is different at industrial level (Khan et al, 2016). Therefore current study aims to further extend the debate related to dividend payout policy in Pakistan's industries with regards to the fact that which controlling predictors for the dividend payout ratio affects the dividend payout policy and how these predictors influence the financial performance at industrial level in terms of asset returns i-e generally abbreviated as ROA, earning per share or EPS and Tobin's Q. Sugar Sector of Pakistan are taken under study to explore and investigate the predictors related to dividend payout policy that can define the behavior of company performance mainly in these industries.

Problem Statement

All the challenges which arise for financial managers of organizations in making dividend payout policy for a company and other dynamics that are mentioned in the above section makes it crucial for all the stakeholders to study that how the aspects of a dividend payout policy can influence the performance of an organization. Although number of researches are conducted to study the ups and downs of dividend payout policy but still a lot is known in terms that on what line of thoughts, an organization makes its dividend payout policy and to know that it is crucial to explore the effects that what kind of policy influence the company performance in what way. The current study has taken under study that how the companies need to interpret the controlling role of size and growth of the company, leverage and governance practices to the relationship of business performance and dividend policy.

Research Questions

- a) What is the role of company's dividend payout policy on performance in terms of returns on equity (ROE)?
- b) What is the role of company's dividend payout policy on performance in terms of earnings per share (EPS)?
- c) What is the role of company's dividend payout policy on performance in terms of Tobin's Q?

- d) Does size of company, corporate governance practices, leverage and growth of company control relationship of decided dividend payout and performance indicator returns on equity (ROE)?
- e) Does size of company, corporate governance practices, leverage and growth of company control relationship of decided dividend payout and performance indicator earnings per share (EPS)?
- f) Does size of company, corporate governance practices, leverage and growth of company control relationship of decided dividend payout and performance indicator Tobin's Q?

Primary Objectives

- a) To study the influence of decided dividend payout policy on performance of business in terms of returns on equity for sugar sector of Pakistan.
- b) To study the influence of decided dividend payout policy on performance of business in terms of earnings per share for sugar sector.
- c) To study the influence of decided dividend payout policy on performance of business in terms of Tobin's Q for sugar sector.

Secondary Objectives

- d) To study the significance of size of company, corporate governance practices, leverage and growth of company to control over the association between decided dividend payout and business performance in terms of returns on equity for sugar sector of Pakistan.
- e) To study the significance of size of company, corporate governance practices, leverage and growth of company to control over the association between decided dividend payout and business performance in terms of earnings per share for sugar sector.
- f) To study the significance of size of company, corporate governance practices, leverage and growth of company to control over the association between decided dividend payout and business performance in terms of Tobin's Q for selected sugar sector of Pakistan.

Literature Review

Decision on whether to pay dividend or not and its influence on organizational performance is considered as one of the debatable topics in financial management. Regardless of the extensive research carried out, researchers have not reached any general finding or acceptance in terms of dividend payout policy and its influence on business performance. Profit is earned by every successful business, however, in general, the question is raised that in the form of dividend, how much profit should be distributed to shares holders and how much should be retained for future needs. Such decisions are influenced by a firm's dividend policy. One of the key elements of corporate policy is the firm's dividend policy. Generally, dividend payout policy is the rules and principles which firm employs to decide payments of dividends to shareholders. As the dividend payout policy is important aspect of a company, the decision regarding optimal dividend is highly crucial. Fundamentally, dividends are the benefits awarded to shareholders in return of risking their investments in the business and it is determined by several predictors in a firm. These predictors include chances and choice of investment, size of firm, limitations of funds, regulatory administrations, shareholders pressure, and cash flows.

Generally, there are two schools of thoughts on dividend policy. Miller & Modigliani (1961) and Myer (2007) in their respective studies asserted that firm's value cannot be determined by its dividend policy, implying that dividend payout policy is irrelevant. On the other hand, the proponents i.e. Lintner (1956) and Fama & Blahnik (1968) in their studies argued that in the

developed stock markets, previous dividends influence the firms' dividend payout ratio. The irrelevance theory explains that if a firm generates profits under a fully competitive market, it does not have a positive influence on the value of the company. The value can be only increased if retained earnings are invested in projects with high yield, thus there exists no relationship between dividend payout and firm's value. Whereas, the relevance theory postulates that dividend payout are requested by investors with the anticipation that it will positively affect value of the firm. This chapter covers the literature review including the relevant theories discussing the concept of dividend payout policy and its relevancy or irrelevancy to the business performance while other related theories discussing the concept of controlling influence of size, leverage, growth and corporate governance index. Next, this chapter also covers the empirical reviews on relationship between dividend payout policy and business performance with controlling influence of size, leverage, growth and corporate governance index.

Dividend

In any corporation, the management decides whether to pay out earnings in forms of dividends to its shareholders or the amount must be retained to support internal operations. When the firms earn profits, they usually pay dividends to their shareholders. There are different proposed definitions of dividends. Dividends are paid after the declaration from Board of Directors (Toby, 2014). Dividends are earnings of the firms that are left after tax deduction and are distributed to shareholders (Rustagi, 2001). Dividends are the portion of the net earnings that shareholders get in form of cash or non-cash. Dividends are distributed to the equity shareholders and it is a sort of reward because they have invested in the company (Shah, 2015). Dividends are the return on the investment for shareholders because they have invested in the firm through purchasing shares (Maheshwari, 1999). According to business jargons, dividend payout policy is another name of a financial decision that explains about how the earnings/proportion of earnings of the firm will be distributed among its shareholders (Business Jargons, 2017). This is on company's discretion that if it will distribute portion of profits as dividends or it will retain the earnings to plough it back into business and raise the price of share (Motley, 2017). Dividend payment ratio is the determinant of the investor's decision to invest (Omodero & Amah, 2017). The firms paying huge amounts of dividends are more likely to attract the investors. However, in perspective of firms, the high dividends are financial burden for the firm. To reduce this burden, the firms that pay high dividends tries to reduce the payments at a certain level so that financial position can be maintained (Tara & Raja, 2014). The performance of the asset is dependent on the policies of the managers. This performance of asset basically determines the dividend, and every financial manager should work hard so that shareholder's wealth can be maximized, pay them a handsome dividend and gives a complete understanding of dividend payout policy to the shareholder (Omodero & Amah, 2017). Dividend decision is crucial decision out of all financial decisions a firm make. Dividend payout policy is a key that helps the manager to decide the allocation of financial resources. Dividend payout policy also helps the firms in maximization of the wealth of its shareholders (Kuzucu, 2015). If the dividend decisions are not opted well, it can affect shareholder's wealth. Dividends have been the most debatable and core topic in the finance domain as it proposes answers to dividend-puzzle. There are a lot of financial aspects that can help in determining the dividends for shareholders. These aspects include the mergers, acquisitions, asset pricing, capital budgeting, and capital structure theories. There are various determinants of dividends and some predictors that can help the firms and researchers about the dividend-puzzle. These predictors include nature of industry, area of work, profit distribution ratio, additional capital and methods of financing, age of the corporation, trade cycles, policies of government, political stability, taxation policies, liquidity position and cash balance (Islam et al., 2017). The theoretical basis of the dividend payout policy and dividend models are agency costs, transaction costs, taxes, demands or preferences of shareholders, informational content and clientele effects. The firm-specific predictors usually influence the dividend-payout ratios and are the determinants of the dividends. Dividend payments can be affected by many predictors like size, capital structure, industry, profitability, maturity, firm's structure and ownership structure (Kuzucu, 2015). Dividends that a firm pays to its

shareholders can be evaluated on the basis of the earnings. One of the earliest studies Lintner (1956) shows that earnings of the firm are core determinant of the dividend policy. This study proposed that expected earnings and changes in earnings are two main determinants of the firm's dividend policy. Earnings have been the most focused area in determining the dividend payout policy (Pruitt & Gitman, 1991; Fama & Blahak, 1968; Baker & Powell, 1999).

Theories of Dividend

Miller and Modigliani's Dividend Irrelevance Theory

Gordon's Bird in the Hand Theory

Tax Preference Theory and Dividend Payout Policy

Signaling Theory and Dividend Policy

Pecking Order Theory of Dividends

Agency Theory of Dividends

Clientele Effect

Catering Theory of Dividends

Types of Dividend

Every company has some earnings and distributing these earnings or part of these earnings to the equity shareholders is known as dividend. Board of Directors usually decide that what amount should be paid as dividends. Dividends represent the financial soundness of the company and shareholder's value. If the distribution of earnings is good, then it's an indicator of positive future and strong performance. If the stable dividends are paid, it depicts that the company is performing well. There are different types of dividends like cash, bonus share, share repurchase, property, stock, scrip and liquidating dividends. Most common of all types is the cash dividend is paid to shareholders after decision on the date of declaration in form of cash (Borad, 2019). Property dividend is the non-monetary dividend that a company pays to its shareholders rather than paying stock or cash dividend. Usually there is a difference in fair market value and the book value of the asset. This difference is recorded as gain or loss. Property dividends are issue to alter the taxable/reported income. If a company issues a promissory note to the shareholders in case in near future, company runs out of enough funds for dividend payments, this is known as scrip dividend. The scrip dividend may or may not include interest (Corporate Finance Institute, 2018). When the shareholders get back the capital they invested in form of dividends, this is known as liquidating dividends. These are distributed on decision of board of directors. Liquidating dividends are usually an antecedent of the business shut down. In accounting, the liquidating and cash dividends are entered as same entities (Bragg, 2018). Bonus share and stock dividends are same entities. When the companies have low operating cash, they issue bonus shares. Share repurchase is the phenomenon when the company buy backs its own shares. In this way the number of outstanding shares is reduced. This is an alternate to the dividend payments (Borad, 2019).

Effect of Dividend Payout Policy on Business Performance

In the field of corporate financial management, dividend payout policy is one of the most controversial issues. Why companies should pay the dividends and why they do not pay dividends is still a debatable question for the financial managers and academia as well. There are numerous empirical and theoretical researches that explain the dividend policies and its effects on the organizational performance. However, no consensus is found on unresolved issue of dividend payment. Among the topic unresolved issues in the field of corporate finance, dividend policy decision as important one (Ideweke & Murad, 2019; Velnampy et al., 2014; Brealey and Myers, 2003). Therefore Black (1976) claimed that dividend puzzle is most difficult puzzle to solve. This is why it has been regarded as a "dividend puzzle" (Black, 1976). Now the dividend payout policy has become the global issue because it has been accepted that it affects the firm performance. Investors

usually face a lot of risks and uncertainties that cannot be predicted at the time of investment. However, the economic conditions prevailing in country, political stability of a country and firm's performance are the predictors that can help in reducing the risks an investor takes. Financial reports of any company depict a true picture about the company's performance. Investors can take investment decision on the basis of these financial reports. If the company has capability to raise profits, it can attract investors. However, dividend is announced for shareholders at Annual General Meeting (AGM) of the company. There are basically four decision areas of corporate finance; financing, management of working capital, investment and allocation of profits. If an investor or the stakeholder wishes to assess the company's performance, the dividend payout policy will provide the best information on this. This is because the investors usually invest for reasonable rate of return or source of income. Dividend is the source of income and most of the companies strive to operate efficiently and adopt a favorable dividend policy. The profit gained is allocated in either dividend payout or retained earnings. The dividend payout policy basically determines where the profits should be allocated (Velnampy et al., 2014).

Relationship of Dividend and Business Performance

A study conducted in Pakistan examined the sugar sector's performance. Data was collected from Pakistani public listed company for the period 2012-2016 and financial data of sample companies was used. OLS regression was applied for data analysis. Results showed that dividend per share (DPS) is positively associated with ROE but the relationship is insignificant. This was concluded that if the DPS is increased, the ROE also rises. The earning per share (EPS) and firm's size also tends to have a positive and significant association with ROE (Rahman, 2018). Ghanaian Stock Exchange was also examined using the published audited annual reports of different firms. 6 years data was collected from period 2009-2014. Analysis method was OLS regression to study the relationship of business performance and dividend payout. This study revealed that GDP growth, interest rates, ROE, age of the firm, taxes and tangibility all predictors significantly explain the dividend policy. Shareholder's wealth is taken as a proxy for firm's performance. There is a positive strong relationship of dividend payout policy and shareholder's wealth and managers should focus on dividend payout policy as well as investment activities so that shareholder's wealth can be maximized (Ofri-Sasu et al., 2017).

The dividend payout policy also has a significant association with the Deposit Money Bank's performance. Analysis was done from 15 deposit money banks that were listed on Nigerian Stock Exchange and these were selected as a sample for study and panel data regression was used as analysis method. Dividend payout ratio was used as proxy for dividend payout policy and results indicated that as dividend payout ratio increases the financial performance gets better. So, the managers should focus on the healthy dividend policies by making investments in the projects that increases net present values and generate earnings. These earnings can be used to pay dividends (Idewele & Murad, 2019). In Pakistani context, the association of dividend policy and firm performance was studied. For this, data was collected from energy and sugar sectors. Time span was from 1996-2008. ROA and EPS are proxied for business performance and analysis method used was logarithmic regression. In this study, the results are little bit contradictory to general perception about dividend payout policy having positive influence on business performance. In this study, the dividend payout ratio tends to have negative influence on the business performance, hence giving new dimensions to researchers (Hasan, 2015).

Size of Firm and Business Performance

Performance of the firm is related to the firm's size. Almost every firm strives to expand its size to gain competitive advantage. The theoretical support for increasing firm's size to achieve better performance can be best defined with help of economies of scale (Oyelade, 2019). The association of firm size and performance has been a controversial topic in the corporate finance. This depends on the firm type and organizational economists are still working to find the exact relationship. The economies of scale are the main factor that can explain the negative relationship of firm size and performance. As the firm size increases, its resources pool is also expanded and hence performance can be increased (Valeiras, 2016). If the firm size increases, the asset return increases

(Chaddad & Mondelli, 2013). It may also increase the return on equity or capital employed (Adenauer & Heckeley, 2011). The other theoretical grounds on which the firm size can have direct association with the performance are that profit margins and returns on scale increases (Garcia-Fuentes et al., 2013). The market opportunities are also higher for the large firms that can cause the economies of scale. Not only economies of scale, but the large firms have higher customer base, more negotiating powers with suppliers and customers and they can also access the international market easily. Large firms can save taxes and their market value and position is also greater than the small firms (Valeiras, 2016). There are many reasons in literature that explains the firm size as key indicator for judging the performance of the firm. If balance sheet is taken as proxy for the size of firm, increase in balance sheet results in better earnings. Small firms operating in a large number will act as a driving force for regulatory bodies. Securities and Exchange Commission will be active in implementation of policies like dividend payout policy, structure of capital and the corporate governance and thus improve performance. The diversification in size of firms will help in variation in performance of firms (Shah et al., 2016).

Growth of Firm and Dividend payout policy

Dividends are paid to shareholders because shareholders seek some benefit out of their investments. If the business is growing, then investors may anticipate that firm will pay dividends to its shareholders. Growth in business makes sure that the dividend payout policy will be smooth overtime (Lintner, 1956). The payments of dividends are determined by several predictors including financial position, company policy and growth of the company. By no means, dividend payments are mandatory for any company however, if the company wants, they can pay dividends to its shareholders. Sometimes the companies do not pay dividends and invest the earnings in low-cost capital projects. Managers decide to invest these earnings into projects because of their personal interests due to which agency problem is raised. Annual sales growth of the company is often an evaluation parameter for managers and that is why managers do not want to pay dividends (Bushra & Mirza, 2015). However, literature says that more profitable the firm is, it pays huge dividends. If the firms have more opportunities for growth, its dividend payouts are less (Ahmad & Javid, 2009). Generally, if the firm is in the stage in which it is transitioning from growth to maturity, it pays more dividends.

Dividend payments are a unique feature of the business cycle. The firms that have achieved the maturity stage have fewer positive NPV (Net Present Value) projects but the cash reserves are higher. So, financial managers of mature firms can favorably distribute dividends. Mature firms have more sticky dividends and this is why it is a positive signal for investors because variations in dividend payout are considered negative signaling for investors (Moyen, 2004). The sales growth of the firm also affects the dividend policies of the firm. In some scenarios, despite achieving the higher sales growth, firms still manage to pay dividends to its shareholders. Firms usually want sales growth so that their market position can be sustained and retained. If the sales growth is higher, it implies that profitability is increasing overtime so the financial managers have more cash to reward their shareholders. To retain free cash flows (FCF), firms usually opt to increase their sales growth (Afza & Mirza, 2010). The firms that have higher opportunities for the growth and expansion, pay higher dividends from their free cash flows so that their reputation can be maintained (Bushra & Mirza, 2015). The companies that have higher sales growth, they also have the need for extra funds, so that investments can be made. As, investments are cheapest financing source. Mature firms are already at the optimum level so they do not usually invest in high-growth projects. So, they pay their shareholders a huge amount of profits as dividends (Afza & Mirza, 2011). Mature companies usually have expanded to their maximum and their growth is slower so capital expenditure is also less. Growth opportunities are usually proxied by the market-to-book (M/B) Ratio. This is most popular measure to test the growth opportunities of a firm. Growth firm having higher M/B ratio pays lower dividends. This is because if there are investment opportunities for the firms that are in growth stage, they will prefer to invest and need retained earnings for this investment. So, in this way the dividend payout is less. Growth firms also depend on the internal

financing for the investments so that costs of external financing can be avoided. So, these firms pay less dividends (Bushra & Mirza, 2015). The firms pay smooth dividends when they are growing rapidly because these firms usually want to send positive signals to the shareholder's regarding the value of firm (Epaphra & Nyantori, 2018).

Growth of Firm and Business Performance

There are some theories that propose and explains the association between the growth of firms and their performance. These include managerial theory, neo classical theory, Penrose model and the theory of optimum firm size (Sangosanya, 2011).

Leverage of Firm and Dividend Payout Policy

The decision about source of financing a firm needs and dividend payout policy are the most important decisions, a firm ever makes. For financing, the firm always have a choice between internal financing and external financing. External financing includes debt and equity financing while the internal financing includes finances from depreciation and retained earnings. Therefore, a firm has to choose or evaluate two of its choices. First it must choose between the dividend payments and retained earnings. This implies that how much of the profits or earnings be kept within firm and ploughed back and how much amount must be paid as dividends. Second choice is about the capital structure/leverage. Either the firm will go for debt or equity financing (Sang et al., 2015). Dividend payout policy is the determinant of the financing choice of the firm. This is basically decided by the financial managers that whether the firm will release the corporate earnings from the control of enterprise or not. This is because dividend payout policy can have influence on the corporate liquidity, liquid fund's flow, satisfaction of the investor and stock prices (Weston & Brigham, 1981). The major decision that a financial manager can face is the distribution of dividends (Franklin & Roni, 1995). Not only the capital structure but dividend payout policy is crucial to understand theories of asset pricing, acquisitions, mergers and capital budgeting. Capital structure can be defined as the ratio of the funding arrangement of the firm in terms of debt or equity financing. Capital structure may comprise of debt, equity and hybrid securities that the firm issues (Brealey & Myers, 2005). If the financial leverage increases, the returns to some shareholders can get better but at the same time, risk also increases because of the agency costs and financial distress (Jensen & Mecking, 1976).

Leverage of Firm and Business Performance

When the companies decide to structure their finance, they face difficulty because its an important decision that can affect their performance. The capital structure is very important for survival and value of the firm. It is upon manager's discretion to decide about the capital structure. Managers decide whether to finance the investments through internal financing, debt or equity. Therefore, the decision of the capital structure is very important for enhancing the financial performance of the firms (Bhattarai, 2016). In literature, it is identified that debt ratio (capital structure) and performance of the firm are negatively associated (Pouraghajan et al., 2012; Salteh et al., 2012). Some researchers have concluded that capital structure and firm's performance are directly associated (Kazempour & Aghaei, 2015; Adesina, Nwidobie & Adesina, 2015). In the developing countries where the stock exchange is barely functional and capital markets are inefficient, firms have only choice to finance its investments through debts. Therefore, financing decisions of the firm may face irregularity (Eldomiaty, 2007). First theory regarding capital structure was given by Modigliani & Miller (1958, 1961) that is also known as irrelevance theorem. This theory proposes that under certain (unrealistic) assumptions like if there are no taxes and agency costs, there must be no bankruptcy and markets must operate perfectly, the capital structure is irrelevant, and it has nothing to do with the value/performance of firm. According to proposition of irrelevancy of the capital structure, there are three main assumptions. Market value of the firm is not related to and is not affected by the debt-equity ratio. But this is possible only under certain assumptions like capital market is perfect, capital structure irrelevancy with and without taxes. The authors basically studied two firms having different capital structures. One having debt while other without debt in its capital structure. They made a conclusion that market value of the firms is not affected by the financial decisions of the firms (assuming both firms having equal cash flows)

(Brigham & Ehrhardt, 2010).

Corporate Governance Practices of Firm and Dividend Payout Policy

Aligning the interests of managers and investors is known as corporate governance. With corporate governance, it is made sure that company exists for the benefits of investors and shareholders (Mayer, 2007). Corporate governance is a sort of promise that investor will get a return on the amount invested and that the firm will be operated with some specific rules and regulation in interest of the shareholders (Metrick & Ishil, 2002). Corporate governance was needed because there was a clear conflict between the interests of managers and shareholders. Corporate governance is the basic answer for agency problems. There are different corporate governance practices even in the same country. Different firms can operate under different regulations (Ikunda et al., 2016).

Managers usually retain the dividends so that risk of human capital loss can be mitigated. If the firm pays lower dividends, this implies that corporate governance is not up to the mark and hence the rights of shareholder's are not protected. The investors in the countries where rights are more protected and legal standards are high receive more dividends. However, in the countries where the legal protection is weak, dividend payout is low (La Porta et al., 2000). If the shareholder's rights are strong, then the severity of agency costs decreases (Gompers et al., 2003). In the companies where the rights of the shareholders are repressed are more likely to be exposed to agency problems. There is a wide gap between property and control in such companies. This is claimed that better the corporate governance practices are, higher the dividends paid by the company (Bebczuk, 2005). Quality of corporate governance can be tested with the help of Transparency Disclosure Index (TDI). Corporate governance code is the tool that helps in determining the dividend policy. Researchers found that the transparency disclosure index and dividend policy are correlated positively (Kowalewski et al., 2008). Agency problems become severe if the minority stockholder's rights are weak therefore, a separation is required between control and property of the firm. Managers usually prefer control and pays low dividends (Montalvan et al., 2017). Dividend policy and how it is affected by the corporate governance is what agency theory explains. The companies with stronger corporate governance are the ones that pays high dividends to its shareholders (Jang-chul & Young, 2011). If the ownership structure is highly concentrated, then the dividend payout ratio may decrease because there is absence of supervision mechanisms.

Board Size

Number of directors in the board is known as board size and it is key determinant for the success and competence of the board (Ikunda et al., 2016). The bigger the board is, more effective is the company's management and reduced are the agency costs. If these agency costs rise, the poor management can lead to poor financial results and performance (Hamdouni, 2012). Board diversity increases as the size of board increases. Board diversity may include skills, gender diversity, nationality, experience and skills. Smaller boards do not have this diversity of experience and opinion (Dalton et al., 2009). But there are some costs related to the larger board sizes. There are costs related to coordination, planning, work coordination, decision-making and meeting costs. Holding meetings also become difficult when the board size is large. Corporate governance was a solution for agency problems but with the larger board sizes, the agency problems may increase. The role of board of directors can become more conflicting rather than functioning as a part of management. The possibility of free riding by the directors can be reduced if the board sizes are smaller. This also increases decision-making process (Raheja, 2005). If the board size is large, then usefulness of the board can be enhanced because a larger board size brings the expertise and skills that can be used for decreasing agency problems. According to some authors, the efficient board size of the firm is eight or above eight members. Small board sizes can cause the decision-making of directors to be inclined towards the decisions that are beneficial to them only rather than the firm. But if board size increases the difference in opinion can make the decision-making more efficient

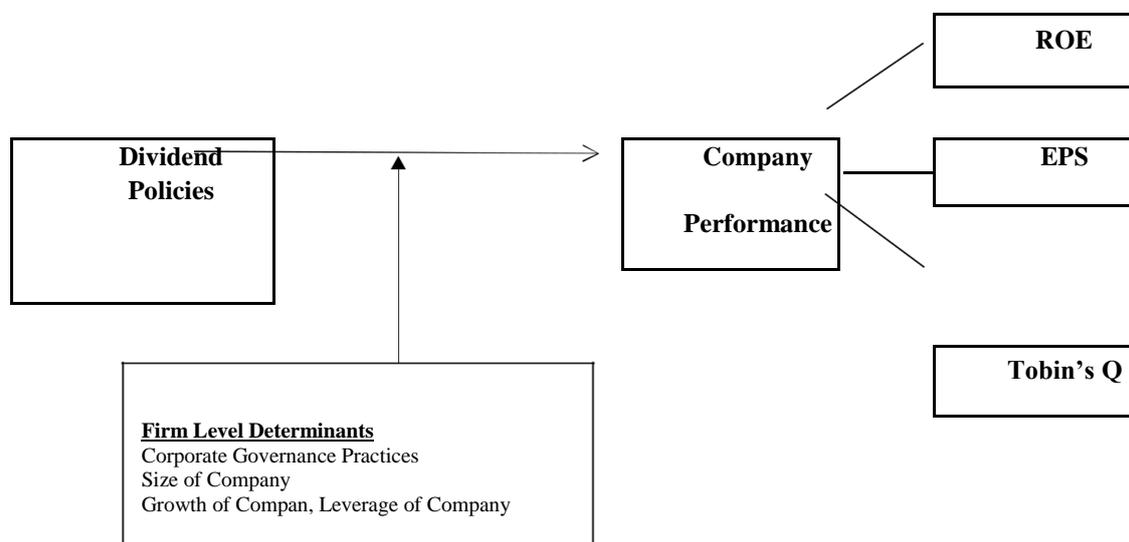
and beneficial to the shareholders (Byoun et al., 2016). The larger boards with more directors is preferred over the smaller boards with lesser directors because more directors will hold more experience, knowledge, skills and external links (Pahi & Yadav, 2018).

Small board size and dividend payout policy are directly related however some studies also claims an inverse relationship between two (Bolbol, 2012). If the company's board has sufficient number of members, then the operations can run smoothly, and business may not face challenges. Sufficient number of board members also makes sure that opportunistic behavior of the management is monitored. Larger boards can help to enhance the performance and they can help in mitigation of agency problems. Boards that are larger in size also help in smooth dividend payout ratios. However, there are some issues that a firm can face if board size is large. The lack of coordination and communication is the biggest issue that a large board can face. This problem leads to poor governance and poor dividend payout policy (Dissanayake & Bandara, 2018). Researchers have suggested a direct association between the size of the board and the dividend payout policy (Kiel & Nicholson, 2003)

Corporate Governance Practices of Firm and Business Performance

The new normal period of China is in which the returns on investment (ROI) are slack. Corporate governance is the key priority in this period. Corporate governance can result in better management and enhanced productivity of the firms. Chinese stock market's evaluation to study the relationship was done using data from 1999-2015. According to the study, board independence has no association with the performance of the firms. In 2002, specifically, the rule was passed that one out of three directors should be independent and profitability increased after implementation. Results also showed that if the gap between salaries of executives and staff is wide, productivity is damaged but ROA and ROE increases hence the performance gets better. Excessive concentration of ownership is also harmful but up to a certain limit, performance is increased (Molnar et al., 2017). To study the corporate governance essentials and financial performance of the firms, data was collected from securities and exchange board of India (SEBI). According to SEBI, the corporate governance practices must not be mentioned in books but should also be implemented and practiced. According to results, the Tobin Q ratio and the corporate governance scores were highly correlated. But the individual corporate governance parameters have no significant association with the profitability and performance (Goel & Ramesh, 2016). Indian tourism sector was also studied to check the effect of corporate governance on the firm performance. 39 hotels that were listed on (Bombay Stock Exchange) were the sample for the study. Time period of the study was 2013-2016 and ordinary least square and regression was used as data analysis technique. Results revealed that board's size and audit committee size are inversely related to hotel performance. Diligence and board's composition have a positive association with the performance of the hotels (Yameen et al., 2019).

Theoretical Model of Study



Theoretical Framework

Hypotheses of Study

H1a: Dividend payout policy influences return on equity of sugar sector of Pakistan

H1b: Dividend payout policy influences earnings per share of sugar sector of Pakistan

H1c: Dividend payout policy influences Tobin's Q ratio of sugar sector of Pakistan

Methodology

This section consists of the details about the research design, methodology and approach that have been taken to conduct the current research. The study has employed panel data considering the number of companies that are taken under study from each sector of research and the reading that is done for specific time period in each panel makes time line panel data. This part has been divided in segments in such a way that each segment is covering an aspect of methodology in detail such as population, data sources and variables of study and data analysis techniques. The sectors are already explained in detail in sampling framework, we have focused on the companies that are enlisted in stock exchange of the country and the ones that are being taken from each sector to conduct the research. Independent and dependent variables and the formulation of predictors that are functioning as controlling variables described in detail. Pooled OLS regression, fixed effect and random effect models are used as computation method to analyze the collected panel data. The details of data, data collection, population, variables and other measures are stated below.

Population and Sample

The sample taken to conduct the research in this study is five non-financial corporate sectors of Pakistan including cement. 100 companies from sugar sector, focused to collect the data from. This study has focused on the companies whose data were complete, those who were going through to pay dividend at least 4 years out of 6 years data collected. In total, the sample population of the current study includes 100 companies from sugar sector undertaken to conduct the research. This cumulatively forms the panel data of 100 companies with 600 numbers of total observations.

Sugar Sector

Pakistan is known as the 6th largest sugarcane producer of the world which is the major source to make sugar. Pakistan has also crossed the milestone of being the 9th largest producer of sugar (Sarwar, 2013). As per the Pakistan's sugar industry overview by Lahore Chamber of Commerce and Industry (2013), Sugar sector is 2nd largest sector of Pakistan after Textile sector. The sugar sector gives 3.2% of total GDP in Pakistan's economy and constitutes 4.2% of Pakistan's manufacturing sector. The overall picture of the industry is good in terms of growth and so attractive for the investors and shareholders. But the industry needs more investment and resources to produce sugar according to the increasing demand of sugar mainly in local market because Pakistan is recently also observed as 8th largest consumer of sugar in world with around 25.7 kg consumption per capita. This makes the local demand of sugar up to around 5 to 6 million tons. The study has aimed to conduct the research in sugar sector of Pakistan because Sugar mill are the major driver of economic development in Pakistan mainly in rural areas (Pakistan industry report, 2019). Also that majority of the sugar mills are operating under the ownership of private influential players and it is indicated that sugar sector perform in different way than the other industries in paying dividends (Yasmin and Javid, 2014). The study finds it interesting to explore the current dividend payout policy that is being adopted by sugar players in Pakistan and how their policies are affecting their financial performance to meet the growing local need of increasing local sugar consumption

and how the private players are attracting the investors and shareholders to invest in their companies. For this reason, 11 sugar mills are selected as the sample to conduct the research.

Data Collection Sources

The research is relying on the study the secondary data which is retrieved from authentic reports and financial statements of the selected companies. On the other hand, share price of selected companies are publically available at Pakistan Stock Exchange from where market capitalization data was collected. The data is retrieved for the time period of 6 years to construct the time series for each cross section. On the other hand, to develop the body of knowledge data was collected from reputed publications and comprehensive review of literature is conducted.

Period of Analysis

Data from selected companies was collected for the period of 6 years (2012-2017). The research design involves a time series and cross sectional data therefore the study employs the method that is used to analyze a panel data. There are several advantages to use panel data for this kind of study including that panel data technique provides more freedom and variability which reduces the issues associated with collinear nature among independent variables; it also controls the individual heterogeneity (Antoniou et al., 2008). Moreover, panel data techniques have a better ability to determine the effects that are difficult in fact impossible to be detected in pure time series or cross sectional data (Baltagi, 2005).

Formulation of Variables

The study aims to evaluate the influence of dividend payout policy on the financial performance of the selected companies. However, the study has associated certain measures with independent and dependent variables along with inducing the controlling factors. These controlling variables are selected to determine that how these predictors influence the dividend payout policy of a company or how dividend payout policy behave in the presence of these predictors before influencing the financial performance of the respective firms. The measures for all the variables are stated below in detail.

Dependent Variable

The dependent variable of the study is financial performance of the firm as the influence of independent variable dividend payout policy is being checked on it in the research. The Financial performance of organizations is measured by the profit they make and this profitability is evaluated by calculating various profitability measures or profitability ratios such as return on equity, earning per share, and Tobin's Q. Financial and non-financial companies around the globe frequently utilize these measures to determine the financial performance of an organization (Khan and Ali, 2017). Following are the brief definitions of the ratios that are used as profitability measures to evaluate financial performance of the selected firms as these major profitability ratios are most suitable in context of the current subject.

- ROE or return on equity is calculated by dividing profit after tax with total equity. This ratio indicates that how much profit a company has generated against company's equity (Kabajeh et al., 2012).
- Tobin's Q: Tobin's Q ratio is equivalent to organization's market value divided by the cost of its assets' replace sugar cost (Damodaran, 2002). Or Tobin's Q = A ratio comparing the market value of stock with equity book value of firm i in year t [(Equity market value + liability book value) ÷ (equity book value + liability book value)]
- EPS: Earnings per share can be explained as "the portion of organizational profit that is allocated to each outstanding share of its common stock". It can be calculated by taking

difference of organization's net income and the dividends that the organization pays for preferred stock. The difference is then divided by average number of outstanding shares. Earnings per share are usually reported by organizations on quarterly or annual basis (Islam et al., 2014).

Independent Variable

The independent variable of the study is dividend payout policy that a firm adopts as its influence is being checked on the financial performance of the respective firm taken in the study.

Dividend Policy

The policy that financial managers adopt in a firm to distribute their profit among shareholders as dividend or to hold their earning in the firm to use it in future investment for growth purposes is considered as dividend payout policy in the field of finance (Khan, et al., 2016).

- Dividend payout ratio refers to the ratio of total paid out amount of dividends that are divided among shareholders in relation to net income of an organization (Odum, et al., 2019). It can be also explained as percentage of net earnings paid to the shareholders in form of dividends. The amount of earning that distributed as dividend to the shareholders is reserved by the organization from which it pays off debts or reinvests in core business operations. The dividend payout ratio indicates the amount of money that the organization is returning to shareholders against the amount that it is retaining to reinvest for the growth of organization, to pay off debt, or to add in cash reserves (Hamil and Al-Shattarat, 2012). However, how the behavior of this variable changes with governance practices and current status of the organization to enhance or destabilize its financial performance is yet to be further explored which this study aims to achieve.

Control Variables

The influence of independent variables is investigated according to their behavior with governance practices, size, growth and leverage of the organization which are controlling variables of the study.

- Size of the company for the current study is measured by using the natural log of company's total assets.
- Growth of the company for the current study is measured by using the natural log of company's total sales.
- Leverage is the equilibrium of Debt and Equity.
- Corporate Governance Index or Corporate Governance Practices Index is taken as follow:
Sum of

BD = Number of directors on board, which used as natural log form

ID= Proportion of independent directors (# of independent director ÷ # of total directors on board)

BM= Total number of meeting held by the board, which used as natural log form

CEO Duality = value of "0" assignment if the CEO and chairman position is held by same person or otherwise "1".

Model Specification

The model selection is done when the researcher needs to mathematically define relationship between dependent and independent variables. For a most suitable model selection, it is required to take Goldilocks balance approach by taking correct and suitable number of independent variables in regression equation. Too few variables make a model under specified and results into biased approach. Too many variables results into over specified models which are less precise. This is why

appropriate number of variables should be taken to achieve a most precise model (Frost, 2019). The below model is specified for the current study for a more precise result.

Statistical Analysis

Statistical Models that are employed in the research are very instrumental to carry out the analysis. Descriptive analysis is required to check the behavior of the selected variables first which is done with Mean, Std. Deviation, Skewness and Kurtosis.

Pooled Ordinary Least Squares (OLS)

The current study employs Pooled Ordinary Least Squares (OLS) because it is a precise and accurate technique to estimate the dynamics of the model in panel assumptions (Hill et al., 2008). Pooled OLS tends to ignore panel structure of data and assumes that the companies taken for the analysis are homogenous, thus, the effect of cross sectional or time series is not significant (Shah, 2015). In nutshell, Pooled OLS assumes the coefficient and intercept as constant.

Fixed Effect Model

Fixed-effects (FE) method is used when the study is focusing on evaluating the influence of variables that are varying over time. In the current scenario the FE explores the relationship among predictors and outcome variables of financial variables within the selected companies with their individual characteristics that may have or not have an influence on the predicting variables. Using Fixed Effect will control the individual characteristics of the company that may influence the predictor and outcome. This possibility of influencing characteristic is also denoted as error term. With this rationale, fixed effect gives out the equation model (Stock and Watson, 2003).

$$Y_{it} = \beta_1 X_{it} + \alpha_i + u_{it}$$

Where

– Y_{it} is the dependent variable where i = company or any other entity and t = time.

– X_{it} is one independent variable, i =entity and t =time

– β_1 is the coefficient for that Independent Variable

- α_i ($i=1 \dots n$) is the unknown intercept for each entity and n entity-specific intercepts).

– u_{it} is the error term

Random Effect Model

In Random effect (RE), the variation throughout the entities is assumed as random and not correlated with independent variables and predictors that are included in the model. In short, Random effect assumes that error term of the entity is not correlated with predictors which enable the time invariant variables to function as explanatory variables (Green, 2008). The equation of random effect is made as:

$$Y_{it} = \beta X_{it} + \alpha + u_{it} + \epsilon_{it}$$

Where u_{it} = between entity error and ϵ_{it} = within entity error.

Statistical Computation

$$\text{Tobin's } Q(\text{Sugar } i) = \alpha + \beta_1 \text{DP} + \beta_2 \text{Size} + \beta_3 \text{Growth} + \beta_4 \text{Leverage} + \beta_5 \text{CG index} + e \text{ Eq 2.1}$$

$$\text{EPS}(\text{Sugar } i) = \alpha + \beta_1 \text{DP} + \beta_2 \text{Size} + \beta_3 \text{Growth} + \beta_4 \text{Leverage} + \beta_5 \text{CG index} + e \text{ Eq 2}$$

$$ROE(\text{Sugar } i) = \alpha + \beta_1 DP + \beta_2 \text{Size} + \beta_3 \text{Growth} + \beta_4 \text{Leverage} + \beta_5 \text{CG index} + e \quad \text{Eq 2.3}$$

Data Analysis and Findings

This part covers result of study along with interpretation. Firstly, descriptive statistics show the mean, std. deviation, skewness and kurtosis values for each sector separately. Secondly, unit root test is applied to find out whether data is stationary or not. Next, correlation statistics is applied to check whether there is multicollinearity issue in data or not then Lagrange multiplier is applied. After pre-estimation panel regression is used to predict the panel effect for each sector separately. Results of the study based on OLS regression, fixed effect and random effect and interpretation of for each sector is given separately.

Descriptive Statistics (Sugar Sector)

Raw Data	Mean	Max	Mini	Std. Deviation	Skewness	Kurtosis
Tobin's Q	1.19	3.86	0.28	0.82	1.35	4.26
EPS Rs.	10.82	49.20	-7.62	11.99	1.29	4.90
ROE (% Δ)	0.16	0.45	-0.11	0.13	0.21	2.46
Dividend Payout	0.35	2.10	-0.22	0.37	2.20	10.05
Size (Rs. 000)	7066884	49255307	884371	9410580	2.99	11.40
Growth (Rs. 000)	8584647	51769326	1041050	10387186	2.81	10.18
Leverage	1.76	5.49	0.13	1.36	0.79	2.87
Corporate Governance	5.25	6.25	4.48	0.53	-0.34	1.68

(Self-Contribution)

It has been evidenced from descriptive statistics that Tobin's Q has mean (1.19) and the same deviates to (0.82). Earnings per share on the other hand have mean Rs. 10.82 (EPS) and the same deviates to the 11.99. Here, skewness and kurtosis values are (skewness = 1.35 & kurtosis = 4.26). Return on equity of sugar companies reported mean value 0.16 % and the same deviates to the 0.13. Skewness and kurtosis values are quite normal (skewness = 0.21 & kurtosis = 2.46). To the dividend payout ratio sugar companies had 0.35 average payout which deviates to the value 0.37. Here, Skewness and kurtosis values are high (skewness > 1.0 & kurtosis > 3.0). Size of sugar companies is range in between Rs. 0.88 billion to Rs. 49.25 billion (quite dispersed) with average size value = Rs. 7 billion. Here, skewness and kurtosis values are high (skewness > 1.0 & kurtosis > 3.0). In response to the growth (natural log of sales) of sugar companies, it is evident that maximum sales were found Rs.51 billion and the minimum sales during the period were Rs. 1 billion with average sales figure = Rs. 8.5 billion. Here, skewness and kurtosis values are quite high (skewness = 1.82 & kurtosis = 5.584). To the leverage of sugar companies, it is found that average debt to equity ratio = 1.76 and it deviates to the value 1.36. Here, skewness and kurtosis values are quite normal (skewness = 0.79 & kurtosis = 2.87). Corporate governance index of automobile companies reported mean value 5.25 and the same deviates to the 0.53. Here, skewness and kurtosis values are quite normal (skewness = -0.34 & kurtosis = 1.68).

Unit Root (Sugar Sector)

Variables	Method	Static level	at	p -value
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Tobin's Q	Levin, Lin & Chu t	-4.10821	0.0000
Earnings per Share	Levin, Lin & Chu t	-3.10557	0.0009
Returns on Equity	Levin, Lin & Chu t	-4.83886	0.0000
Dividend Payout	Levin, Lin & Chu t	-35.1694	0.0000
Size	Levin, Lin & Chu t	-2.38060	0.0086
Growth	Levin, Lin & Chu t	-5.88169	0.0000
Leverage	Levin, Lin & Chu t	-5.26866	0.0000
Corporate Governance Index	Levin, Lin & Chu t	-10.4202	0.0000

(Self- Contribution)

Results from above table to the unit root based on Levin et al. (2002) show that all variables have t static values significant (p value < 0.05) at level. With assumption of common autoregressive coefficients (β) across the 10 cross-sections of sugar companies ($\pi_i = \pi$). It is found that ($H_0: \alpha = 0$) does not support owing to the t static values are significant (p value < 0.050). Consequently, all variables including Tobin's Q, earnings per share, equity returns, dividend payout ratio, size of sugar companies, debt to equity ratio/leverage, growth of sugar companies and corporate governance index do not contain unit root. It is therefore, data series are stationary at level ($H_1: \alpha < 0$).

Correlation (Sugar Sector)

	Tobin's Q	EPS	ROE	DP	Size	Growth	Leverage	CG
Tobin's Q	1.000	0.628	0.491	0.034	0.418	0.314	0.523	-0.097
EPS	0.628	1.000	0.788	0.042	0.323	0.192	0.445	-0.100
ROE	0.491	0.788	1.000	0.051	0.076	0.059	0.199	-0.105
DP	0.000	0.042	0.051	1.000	-0.063	-0.315	-0.092	-0.362
Size	0.418	0.323	0.076	-0.063	1.000	0.639	0.902	-0.278
Growth	0.314	0.192	0.059	-0.315	0.639	1.000	0.523	0.039
Leverage	0.523	0.445	0.199	-0.092	0.902	0.523	1.000	-0.180
CG	-0.097	0.100	0.105	-0.362	-0.278	0.039	-0.180	1.000

(Self -Contribution)

Pearson's Correlation matrix depicts level of multicollinearity of Tobin's Q, earnings per share, equity return of sugar companies (10 cross sections) with dividend payout policy and other controlling factors. The highest level of multicollinearity of Tobin's Q found with leverage (52.3 %). On the other side the lowest level of multicollinearity of Tobin's Q of sugar companies was found with corporate governance index (3.4 %). However, these multicollinearity static values are not causing serious problem, if correlation coefficients are = +/- 0.80. The highest level of multicollinearity of earnings per share is found with leverage (44.5 %). On the other side the lowest level of multicollinearity of earnings per share of sugar companies are found with dividend payout ratio (4.2 %). On the other hand the highest level of multicollinearity of equity returns of sugar companies are found with leverage (19.9 %) and the lowest level of multicollinearity of equity returns are found with dividend payout (5.1 %). However, these multicollinearity static values are

not causing serious problem of multi-collinearity.

Lagrange Multiplier (LM) & Huasman Test

	Chibar 2 (1)	P value	Proposed Test
LM Test	1.542	0.214	OLS/Random Effect

LM static value = 1.54 (p value > 0.05) therefore the variance across the 10 sugar companies is 0.00 and here the panel effect is not assumed.

Regression Analysis: Tobin’s Q (Sugar Sector)

Models	(OLS)			Random Effect			Fixed Effect		
	β	t	p	β	t	p	β	t	p
Dividend Payout	0.22	0.80	0.43	-0.09	-0.41	0.68	-0.18	-0.71	0.48
Size	-0.50	-1.96	0.05	0.17	0.59	0.56	0.76	2.13	0.04
Leverage	0.14	1.46	0.15	-0.10	-1.03	0.31	-0.27	-1.97	0.05
Growth	0.86	3.44	0.00	0.47	2.01	0.03	0.26	0.49	0.62
Corporate Governance	-0.09	-0.49	0.63	0.06	0.34	0.74	0.13	0.63	0.53
Constant	-4.43	-1.72	0.09	-8.91	-2.97	0.00	-14.63	-1.83	0.07
R Square	0.316			0.178			0.689		
Adjusted R Square	0.259			0.109			0.595		
F value	50	5.5	0.000	2.603	0.033	7.387	0.000	0.000	0.000

(Self-Contribution)

Based on OLS regression model adjusted R square predicts 25.9 percent variance in Tobin’s Q owing to the all predictors. F statistic = 5.550 & p value = 0.000 < 0.05 hence coefficients in the model are different than 0.00. Coefficient of dividend payout ratio (χ_1) of sugar companies causes no significant unit change in Tobin’s Q (y) owing to the p value > 0.05. On the other hand coefficient of size (control variable) cause significant negative 0.50 unit change in Tobin’s Q due to significant p value = 0.00 < 0.05). And, coefficient of growth (control variable) cause significant positive 0.81 unit change in Tobin’s Q due to significant p value = 0.00 < 0.05).

Lagrange Multiplier (LM) & Huasman Test

	Chibar 2 (1)	P value	Proposed Test
LM Test	1.611	0.204	OLS/Random Effect
Hausman Test	4.750	0.447	Random/ Fixed Effect

LM static value = 1.611 (p value > 0.05) therefore the variance across the 10 sugar companies is 0.00 and here the panel effect is not assumed.

Regression Analysis: EPS (Sugar Sector)

Models	(OLS)			Random Effect			Fixed Effect		
	β	t	p	β	t	p	β	t	p
Dividend Payout	0.33	0.82	0.42	0.14	0.36	0.72	0.04	0.09	0.93
Size	-0.77	-2.22	0.01	-0.61	-1.22	0.23	-0.38	-0.59	0.56
Leverage	0.11	0.81	0.42	0.01	0.08	0.94	0.07	0.28	0.78
Growth	1.24	3.35	0.00	1.24	2.74	0.01	1.92	2.02	0.05
Corporate Governance	-0.15	-0.52	0.60	0.11	0.34	0.74	0.46	1.20	0.24
Constant	-5.14	-1.35	0.18	-8.79	-1.84	0.07	-24.62	-1.69	0.10
R Square	0.3248			0.162			0.484		
Adjusted R Square	0.186			0.092			0.330		
F value	3.971		0.003	2.326		0.053	3.136		0.001

(Self -Contribution)

Based on OLS regression model adjusted R square predicts 18.6 percent variance in EPS owing to the all predictors. F statistic = 3.971 & p value = 0.003 < 0.05 hence coefficients in the model are different than 0.00. Coefficient of dividend payout ratio (χ_1) of sugar companies causes no significant unit change in earnings per share (y) owing to the p value > 0.05. On the other hand coefficient of size (control variable) cause significant negative 0.77 unit change in earnings per share due to significant p value = 0.00 < 0.05). And, coefficient of growth (control variable) cause significant positive 1.24 unit change in earnings per share due to significant p value = 0.00 < 0.05).

Lagrange Multiplier (LM) & Huasman Test

	Chibar 2 (1)	P value	Proposed Test
LM Test	1.143	0.284	OLS/Random Effect
Hausman Test	4.052	0.541	Random/ Fixed Effect

LM static value = 1.143 (p value > 0.05) therefore the variance across the 10 sugar companies is 0.00 and here the panel effect is not assumed.

Regression Analysis: ROE (Sugar Sector)

Models	(OLS)			Random Effect			Fixed Effect		
	β	t	p	β	t	p	β	t	p

Dividend Payout	0.03	0.53	0.60	-0.01	-0.18	0.85	0.03	-0.60	0.55
Size	-0.12	-2.46	0.02	-0.13	-2.15	0.04	-0.14	-1.97	0.05
Leverage	0.02	1.08	0.28	0.01	0.59	0.55	0.02	0.64	0.53
Growth	0.13	2.87	0.01	0.14	2.63	0.01	0.20	1.76	0.08
Corporate Governance	-0.04	-1.20	0.24	-0.02	-0.64	0.52	0.01	0.12	0.91
Constant	0.22	0.47	0.64	0.00	0.00	1.00	-0.76	-0.44	0.66
R Square	0.134			0.110			0.428		
Adjusted R Square	0.112			0.109			0.257		
F value	2.01		0.010	2.478		0.009	2.504		0.007

(Self -Contribution)

Based on OLS regression model adjusted R square predicts 13.4 percent variance in return on equity owing to the all predictors. F statistic = 2.01 & p value = 0.010 < 0.05 hence coefficients in the model are different than 0.00. Coefficient of dividend payout ratio (χ_1) of sugar companies causes no significant unit change in return on equity (y) owing to the p value > 0.05. On the other hand coefficient of size (control variable) cause significant negative 0.12 unit change in return on equity due to significant p value = 0.02 < 0.05). And, coefficient of growth (control variable) cause significant positive 0.13 unit change in return on equity due to significant p value = 0.01 < 0.05).

Discussion

Relationship of Dividend Payout Policy and Business Performance Sugar Sector

Ordinary Least Square test during the analysis is considered appropriate on the basis of result of Lagrange Multiplier & Hausman tests related to the significance of dividend payout policy and controlling variable Tobin's Q, earnings per share, and return on equity as profitability variables in the sugar sector of Pakistan. Results of the OLS manifested that both dividend payout ratio and Tobin's Q are positively interrelated with each other, however it has no significant effect which postulates that dividend is irrelevant to Tobin's Q. Both, company's size and growth are discovered to have significant influence on Tobin's Q as a controlling variable however the relationship is inverse and direct respectively. Entailing that increase in company size will deteriorate Tobin's Q, on the contrary increase in company's growth will result in high Tobin's Q.

Lastly, both leverage and corporate governance are found insignificant. Result of the OLS concerning the relationship and effect of dividend payout ratio on earnings per share indicated that company's dividend payout policy has positive association with company's earnings per share although the influence is found to be insignificant which entails that if the dividend payout is either high or low, it will not affect firm's profitability. Leverage and corporate as controlling variables are found to have insignificant, positive and negative influence respectively on earnings per share. Whereas, company's size and company's growth are significantly negatively and positively correlated to earnings per share in respective manner. This implies that increase in company size will decrease earnings per share, whereas increase in company's growth will result in higher earnings per share. Findings for the effect of dividend payout ratio on return on equity through the OLS indicates the existence of dividends insignificance to return on equity because the relationship is positive but there is no significance in the association between dividend payout policy and return on equity. Company's size as a controlling variable is found to have significant but negative influence on return on equity, meaning that company's is relevant to return on equity in a negative fashion. On the other hand, company's growth is significantly positively correlated with return on

equity, implying that company's growth will enhance return on equity. Whereas, both leverage and corporate governance, as similar to above results, are found to have no influence on return on equity.

Overall, result of the OLS regarding the dividend payout policy and profitability support the theory of dividend irrelevance presented by Miller's and Modigliani's (1961). Neither the capital's cost and nor the company's stock price has any effect on the shareholders wealth in the conditions of perfect market, investors are uninterested amid both dividends and capital gains as a result the wealth of shareholders is not affected by the decision regarding dividend between. The reason behind this irrelevance is that the wealth of shareholder is affected by the income decisions that firm takes to generate income, and not by how it distributes its income. Result of the study also support the clientele effects of dividend hypothesis which proclaims that the selections of portfolio available to investors are affected by specific imperfections in the market for instance different tax rates and transaction costs to choose different mixes of dividends and capital gains. As Miller and Modigliani (1961) contended that such market imperfections might cause investors to prefer securities that reduce these costs (Al-Malkawi, Rafferty, & Pillai, 2010). Although, it is expressed by Miller and Modigliani (1961) that the clientele effect may alter the dividend payout policy of a firm to attract confident positive clienteles, however each clientele is "as good as another" in a perfect market, therefore it does not affect the shareholders' value i.e. the dividend payout policy remains irrelevant (Al-Malkawi, Rafferty, & Pillai, 2010). Different dividend policies are preferred by different group of investors and the current group of investors is determined by the firm's past dividend policy. For instance, investors prefer to receive higher dividends if a firm's adopt higher dividend payout policy and the investors will purchase more of the company's stock which increases the company's stock. Thus, the clientele theory assumes that investors are partial to the company's dividend payout policy and changes in the policies will leads to either sale or purchase of the fundamental company's stock base on the preferences of investor. The clientele regarding the dividend payout usually makes decision based on what is beneficial to them. Both age and income level are often used to categorize clientele groups, as mostly retired and old age investors prefers higher dividend income whereas the younger blood prefers that firm should use free cash flow to finance the company's growth rather than distributing dividends among shareholders (Genga, 2011). Findings of Kapoor, Anil, & Misra (2010) are in line with the findings of current study that dividends and profitability are not significantly correlated. Furthermore, the study conducted by Komrattanapanya & Suntrauk (2013) also revealed that dividend payout policy and firm's profitability are insignificantly related. On the other hand, Rehman (2016) presented results that contradicts with present study findings that dividend payout policy and profitability are significantly related. Results of the study related to the controlling variables i.e. company's growth and size are found consistent with the results revealed by Kouser, Bano, Azeem, & Masood-ul-Hassan (2012) that company's growth is significantly positively correlated with firm's profitability. Whereas, company's size is found to have significant but negative association with firm's profitability. Coad (2007) also revealed that both growth and profitability are positively correlated. It is asserted that the behavior of the management positively influences the nexus amid growth and profitability of the company i.e. employees perform well when managers motivate them which results in company's growth and higher profitability. However, the positive association can become a negative when firms do not diversify and reduce the profit margins from the existing market (Kouser, Bano, Azeem, & Masood-ul-Hassan, 2012).

Findings

The current study explores the relationship of dividend payout policy on the profitability of firms that exist in the non-financial corporate sector of Pakistan. 100 companies are selected from sugar sector. Relationship of dividend payout policy and business performance was controlled with four variables based on relevant theories. These variables include size of company, growth of company, leverage (debt to equity ratio) and corporate governance index. Panel data is collected from 2012-2017 (six years) and then analyzed. Following key findings for each research objective

were obtained by applying the adopted research method on the data through the adopted method of analyses: The results generated regarding the dividend payout policy and profitability in the sugar sector is as same as that of sugar sector. Only there is one more controlling factor that is affecting the correlation of both the dependent and independent variables. In case of Pakistan's sugar sector, besides size and leverage, firms' growth is also coming out as effective variable on the relationship which aligns with the signaling theory. Dividend signaling theory indicates that through dividend policy, firms send out the signals informing the prospective investors regarding the future prospect of the company. In this light it is observed that the growth of the firms that is measured by the total sales portfolio of the company effects the correlation of dividend and profitability if the sales portfolio of the company increases then investors catch the perception that the company has better chance of growth in the future and thus they realize that the less dividend pay-out of present can benefit them in future due to more profitability of the company. The result of the current study shows that a insignificant association exists between dividend payout policy and profitability of firms in automobile sector of Pakistan. The result aligns with the agency cost theory which means that the payment that firms make in form of dividends can be useful tool for financial managers of firms to control agency behavior. It can be said specifically that through induction of external funding, dividends can reduce agency costs and increase profitability of the firm. The insignificant association of dividend payout policy and firm's profitability can be seen in light if signaling theory as well because the dividend payout policy which makes handsome pay-out ratio to firms investors send out the impression that firm is making profit and therefore can engage more funds from the investors which will subsequently can be invested for firms growth and development which will eventually leads to the profitability of the firm.

The insignificant outcome of the correlation of dependent and independent variables mitigates with bird in hand theory which states that shareholders who are averse to risks prefer dividend payments over prospect of future benefits by the firms' growth in capital. This is because dividends are returns at a regular specified time while future growth of firm in terms of capital is not certain for such investors. That is why the theory is phrased as "bird-in-hand" theory. As per the developer of this theory Gordon and Miller, (1963) dividends reduce the uncertainty that makes the investors discount the future earnings of the company and thus increased the value and subsequently profitability of the firm (Gordon and Linter, 1963). The controlling variables of the study size, growth and leverage of the company effects the relationship of the dividend payout policy and profitability of automobile firms in same way as they function in sugar sector of Pakistan. The controlling factor size, leverage and growth affect the observed relationship between dividend payout policy and profitability of according to the same theories of pecking order, agency cost and signaling respectively as in the pre house sectors. The results if the study regarding the dividend payout policy and profitability in the sugar sectors are that dividend pay-outs are significant for the informational content as capital gained by external equity is more costly than the retained equity. The relationship of dividend payout policy and profitability of sugar firms came out to be insignificant and mitigates the theory of irrelevance and client effect theory as in the chemical sector while size, leverage and growth also affect the outcome of relationship as controlling predictors as they do in chemical sector that is aligned with pecking order theory, agency cost theory and signaling theory of dividend policy.

Summary of Results

Sector	Relationship of Dividend Payout and Business Performance	Theory Support	Hypothesis
Sugar	Negative	Pecking Order Theory	Supported
Sugar	No Relationship	Irrelevancy Theory/ Clientele Effect Theory	Not Supported
Sugar	Size, Leverage, Corporate Governance index & Growth	Pecking Order Theory, Signaling Theory & Agency Cost Theory	Not Supported

Conclusion

The current study investigates the influence of dividend payout policy on the profitability of companies by taking leading manufacturing industries of Pakistan under study. Companies from sugar sector, chosen for the purpose. The ratios of ROA (asset returns) and EPS (earning per share) are used to measure the profitability of the chosen companies. The study also includes controlling variables that might have controlling effect on the relationship of dividend payout policy and profitability of the firm. These variables are leverage of the company measured by the ratio of equity and debt, size of the company is measured by the total assets, growth of the company is measured by total revenue/sales and corporate governance index. After the analysis, the results of the study show that in 100 sugar companies, a negative relationship occurs between dividend payout policy and their profitability. Furthermore, size of the firm according to the pecking order theory (Myer, 1984) and leverage as per the agency cost theory (Meckling and Jensen, 1976) came out to have a significant controlling effect on this negative relationship. In the case of sugar industry, another controlling factor that is growth of the company was found to have an effect on the relationship between dividend payout policy and profitability in light of Signaling theory (Miller and Modigliani, 1961). The sugar companies showed no sign of a relationship between their dividend payout policy and profitability and so there is no controlling factor effective due to the absence of any relationship. Thus, the hypotheses were rejected in case of these two industries.

Recommendations

The results of current investigation make several implications and contribution to streamline the business practice regarding dividend payout policy in the non-financial companies from leading manufacturing industries of Pakistan. The positive influence of pay out based dividend payout policy on profitability of firms recommends the financial managers to build commitment with such policy and put consideration to stabilize their policy for dividend payments. The discussion and the results implicate that dividend payout policy in corporate sectors brings out information regarding the profit related prospects of the organization along with the estimation of growth that the firm may gain in future. This kind of information may engage the interest of potential investors which will in turn influence firm's value.

The study further indicates that both existing and potential investors when invest in a firm particularly that are committed in dividends consider proper information relevant to the profitability, size, growth and investment opportunities because these elements determine that whether the firm profitability and value will elevate in the future. It is recommended that an appropriate dividend payout policy should be designed and implemented so the financial managers are not left to make decision that how the dividends should be paid but they are guided by a properly designed policy. The results also recommend a constant percentage of profit in a dividend payout policy as it brings certainty for the shareholders. As the share market positively response to dividend, firms should make effort to consistently pay dividend so their shares can well perform in market. As for the shareholders and investors, it is reasonable for them to government good earning on the investment they make but they should also realize that the reason behind unfavorable dividend pay-out ratio cannot always be bad profit but it can also be the firm's investment in growth which eventually be beneficial for the shareholders in form of a better dividend pay-out in future. As dividend payout policy affect firms' performance, therefore, companies must pay the dividend so that they gain a positive outlook in future. This scenario coincides with is bird-in-hand theory (Gordon and Linter, 1963), tax differential theory Litzenberger and Ramaswamy (1979), information signaling effect theory (MM, 1961) and agency theory (Meckling and Jensen, 1976). These popular theories states that dividend payout policy is significantly related to firm's performance when other factor of dividend payout policy is constant.

Future Directions

The study makes a path that can lead future research and studies towards more conclusive and contributing results. It would most probably interest the academic scholars and other

stakeholders if research in future will investigate that how profitability and dividend payout policy may be affected by tax policy, legal rules, opportunities and pattern of past payout of dividends. Other controlling predictors including ownership structure, expectations and tax position of shareholders, access to share market and industry practice should be considered as well in the future studies to determine if they can be of importance in designing a dividend policy. Moreover, results that showed insignificant values can be reconsidered in future by academicians as inconsistent results are noticed among the researches in past as well. The study moreover suggests that studies should be conducted to cover all types of financial and nonfinancial cooperative societies where researcher can make a comparison among the regression outcomes obtained to evaluate the variances in different types of financial and nonfinancial cooperative societies. Some more relationship that can shed more light on the proper dividend policies for different firms are relationship of dividend payout policy and managements' perception with financial performance of the firms and influence of external sources of funds on the dividend payout policy and profitability of companies. Furthermore, companies with various kinds of ownership and different structure such as private and public might use different means to communicate the future prospects of their earning to the shareholders. A study might come out to be useful if carried out on firms with highly dispersed and concentrated ownership to explore their dividend payout policy and its influence on their profitability.

Limitations

However, the study contributes immensely in the field of dividend payout policy and field of finance as a useful literature but like all other studies, it too has some limitations that can be covered in future. The study is entirely based on manufacturing companies or nonfinancial corporate sector of Pakistan which is a developing country. Therefore, the results reveal various financial aspects of manufacturing sector and that also in a developing country. The study cannot be deemed as conclusive for financial sectors as their dividend payout policy has totally different perspective and thus entirely a different influence on profitability. Moreover, there are very different predictors that may have a controlling effect on the relationship of dividend payout policy and their profitability (Yiadom and Agyei, 2011). Same is the case with the dividend payout policy and its influence on the profitability of firms that are located in developed countries (Aivazian, Booth & Cleary, 2003). This is the reason that while the current study is conclusive and all-encompassing in nature in context of manufacturing sector in developing country but it doesn't cover the financial sectors or the prospect of developed countries.

Furthermore, in current study, the data represents the time period of 6 years (2012 till 2017) which is taken understudy for the current research but it can be considered as the limitation of the study because the time period is short when compared to others taken in the popular literatures. Academicians can increase the time horizon in order to overcome this particular limitation in future. Research should also be conducted other sectors rather than sugar sector.

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