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# UNRAVELING DIVIDEND PAYOUTS: A COMPREHENSIVE ANALYSIS OF CASH FLOW AND EARNINGS APPROACHES IN THE LISTED MANUFACTURING COMPANIES


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**KEYWORDS**

Dividend Payout Decisions, Profitability, Earning Per Share, Pakistan Stock & Free Cash Flow

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**ABSTRACT**

This study presents a comprehensive analysis of dividend payouts in the banking sector, with specific focus on cash flow and earnings approaches. Study examines and tests the determinant variables of dividend payouts using the Ordinary Least Squares (OLS) Regression method. Data for this analysis is collected from the audited financial reports of 50 manufacturing companies listed on Pakistan Stock Exchange during the five-year period from 2017 to 2021. Study's results reveal that firms tend to exhibit higher dividend payouts when they project high profitability growth, indicating a correlation between profitability and dividend payments. However, study did not find a significant effect of earnings per share on dividend per share, despite the positive impact of profitability on dividend payout. On the other hand, cash flow per share demonstrated positive and significant influence on dividend per share. These findings offer valuable insights for the investors and decision-makers, providing them with useful information for making investment choices. The analysis allows for an examination of the factors that affect dividend decisions. This research expands the understanding of how cash flow and earnings influence dividend payouts and enhances the theoretical foundation of dividend policy in context of listed manufacturing companies.





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## INTRODUCTION

The judgments about investments and financing are the two most essential financial decisions that a finance manager is tasked with making, and they have been featured prominently in the headlines of financial literature for a very long time (Jumran & Hendrawan, 2021). The choice to purchase real property is considered part of investment decision, while the decision of how best to finance purchase of real property is considered part of financing decision (Litvinenko & Alver, 2023). Nevertheless, at the point in time when a profit is really made, third option must

be made. This choice concerns whether the corporation will distribute or keep the earnings it has earned, with the intention of maximizing or, at the very least, keeping the share value of the company stable (Musembi & Sporta, 2023). The finance manager's ultimate goal is to ensure that with every corporate decision made, company gets one step closer to achieving its target of wealth maximization for shareholders. When making a decision about retention or distribution rates of profit, the finance manager must consider the possible impact of his or her decision on company's share value as well as future investment needs of the company (Baker & Weigand, 2015). In the most recent few decades, topic of dividend has been the subject of much research. Even after all this time, it continued to be one of the most contentious issues in the area of finance.

Due to the obvious contradictory character of dividends and the enormous role they play in the world of finance, it has become one of the most debatable subjects among scholars (Toumeh et al., 2020). Researchers in the past have covered a wide range of topics pertaining to dividends. Some of these topics include perspectives on dividends, the effects of dividend payments on the value of a company, the dynamics and determinants of dividend policy, and the movement of dividends across different markets (Truong, 2023). Several reasons exist in the literature why companies pay or fail to pay dividends. Still problem area is to figure out “dividend puzzle” i.e. why dividends capture focus of investors and why do companies pay dividend (Abor & Bokpin, 2009). One of important issues that affect firm’s investment and financial decisions is dividend payout policy. Dividend payout policy is critical to understand and influential factors of dividend payout policy are more complex for other areas like acquisition & mergers, asset pricing, capital budgeting and capital structure. Usually it is observed that firm’s size, profit level, agency costs, risk, corporate governance and taxation affect dividend decisions of firm (Baker & Wurgler, 2012). Although, one of the major decisions faced by management is dividend policy, and it is called as puzzle in corporate finance (Abor & G. Bokpin, 2010). Shareholders think it necessary to remain up-to-date about factors that affect dividend payment, by this they can make awaked decisions to invest.

A consensus has been developed among researchers that there dividends are not explained by only one factor. Rehman (2011) argued that dividend policy is not driven by any single goal. Various empirical works by Yarram (2015) have established the different factors influencing dividend payout in different organizations. In this research, the issue addressed in depth is the relationship between cash flow, earnings and dividend payout. And how is the dividend policy affected by the aforementioned two variables. The primary purpose of this investigation is to evaluate and contrast the relative significance of the operational cash flow and profits in the process of dividend prediction. The standard hypothesis, which states that earnings are a better forecast of the dividends, will be refuted by this investigation, which claims that cash flow per share is a superior predictor and analyses the topic by stating that this is the case. As a result, in addition to the fact that the majority of the existing body of research suggests that there is a significant connection between profits and dividends, the purpose of this study is to determine whether or not there is even greater connection between cash flow and dividends. In addition, the purpose of this research is to determine whether or not cash flow per share is the factor that is most significant in determining the dividends that are paid out by publicly listed companies in Pakistan.

## LITERATURE REVIEW

**Theoretical Background**

Miller and Modigliani (1961) claimed that dividend policy is unimportant to shareholders, that stockholder wealth would remain constant in world with ideal market conditions, and that any expansion in the existing distribution would be funded by the actually priced stock sales. The fundamental assumption was that management would pay out the whole amount in each and every term. The following are some of the other assumptions: To begin, the market is a perfect capital market, which indicates that there were no taxes on the transaction costs, a single buyer and seller did not impact pricing, and everyone had unrestricted access to information. Second, investors are shrewd people, and the value of the securities was determined by discounting the amount of money that would be received by the investor in the future. Third, managers serve as agents for company's shareholders, and there was complete clarity on the investment strategy of the company. Gordon (1963) established Bird in Hand theory, which highlighted that owing to uncertainty in the business environment, investors prefer higher income above the potential for capital gain. This is due to fact that potential capital gain involves risk since it pertains to the future. Connelly et al. (2011) comes to further conclusion that shareholders would rather have a continuous stream of little profits than a single significant benefit such as a capital gain. As a consequence of this, investors are prepared to pay a greater price for a company that pays dividends.

Frankfurter (1999) indicates that shareholders appreciate dividend payment because it prevents them from eating their own money. This is one of the primary reasons why shareholders favour dividend payout. According to idea of signalling, distribution of dividends will send information to shareholders and investors about state of the company's finances. Therefore, large dividend payouts are an indication that a company will have substantial cash flows in the future. Over this, more dividend payments will ultimately result in a greater market value for the company (Bhattacharya, 1979). According to Baker et al. (2001), businesses have a tendency to raise their dividend payments when their management are under the impression that their company will continue to see rising profits. This suggests that a bigger dividend distribution is a sign that earnings can be maintained over a longer period of time and is thus indicative of sustainability. In the same vein, cutting dividend payments suggests bad future prospects and will likely result in a decline in the price of the company's shares. As a consequence of the hidden expenses that are involved, dividends are a valid signaling method that should be used. In this study, the link between a variety of different factors, such as the profit of business, and the dividend payout ratio of the corporation is investigated. Similarly, relevance of the link between the dividend payout ratio and the earnings of the company is analyzed and explored in this research. Thus, in the similar manner, the cash flow is another element that affects the dividend paid by the corporation.

**Empirical Studies**

The dividend payout ratio is a much-researched topic in field of finance, but the exact factors that contribute to it are still a mystery. The choice on the dividend payout ratio should take into account the legal and financial factors involved (Jakataofik et al., 2023). The dividend paid out of a company's profits is a representation of the company's current financial state, as well as its historical trend and its expectations for future. The capacity of management to effectively use the company's financial resources and its ability to generate profits is reflected in the dividend (Rahmiyanti & Pratama, 2023). Dividend payout ratio provides quick snapshot of a company's earning capabilities and may be used to make informed business decisions. Historical history of dividend payout ratio may serve as representation of investor interest and faith in company's

profitability (Zahid, 2023). Lintner (1956) endorses that companies establish goal payout ratios and lag adjustment of dividends to profitability. Miller and Modigliani's (1961) research reveals that in well-functioning capital market, dividend policy is irrelevant. Lintner (1956) established model that derives expression that ties dividends to profits and investments by using firm cash flow constraint and its optimum debt equity ratio as inputs. This model was published in the year 1972.

According to the model that Higgin developed, the optimal payout is a function of the residual dividend policy combined with minimization of the sum of costs of "excessive current assets" and costs of external equity financing. In other words, the optimal payout minimizes the total cost of both of these factors. Payment of dividends is affected by a variety of factors, including need for funds for investment objectives and obligations related to debt financing. According to the findings of the research conducted by Cai (2010), the impact of conservatism on dividend distribution is more detrimental in circumstances when there is a greater possibility for agency conflicts between managers and shareholders. Companies that have a high ratio of retained profits to total equity or total assets are more likely to pay dividends to their shareholders. The company's ability to generate free cash flows has beneficial implications. These corporations have a history of paying out significant dividends. The relationship between cash flows and dividend distribution has been shown to be favourable. A rise in free cash flows has a beneficial effect on dividend payouts (Thanatawee, 2011). Al-Fasfus (2020) stated that leverage, free cash flow and viability are significantly affects the dividend payout ratio for the Jordanian banks. There is an intensification of the stock liquidity, which is the principal component of a firm’s dividend.

Also, the lower cash flow volatility is associated with higher dividend level (Trong & Nguyen, 2020). Rochmah and Ardianto (2020) examined the relationship among cash flow, dividend premium, and dividend payout ratio in Indonesian manufacturing companies. They observed that free cash flow and dividend premium positively associated with the dividend payout ratio, but cash flow fluctuations adversely affect dividend payment. Still, they stated that companies with stable cash flow also have better dividend policy. Papadopoulos and Charalambidis (2007) explored the influence that a firm's particular qualities have on its dividend distribution using a sample of 72 businesses that were listed on the Athens Stock Exchange between the years 1995 and 2002. After dividing sample into industrial and retail companies, researchers discovered that there was no statistically significant difference in dividend payment between the two types of businesses. They concluded, on basis of the findings, that cash flow is single most significant factor in determining dividend payouts and has a positive correlation with the percentage of profits dispersed as dividends. Despite this, the connection between the scale, capital structure, leverage, profitability, and liquidity was not able to be established. More recently, Hussain and Usman (2013) conducted research in Pakistan to determine the factors that influence dividend payment.

According to the findings of an investigation on 320 businesses that were traded on the Karachi Stock Exchange between years 2001 and 2006, it was discovered that Pakistani corporations base their dividend payments mostly on both current earnings and their historical dividends. The projected findings demonstrated that profitability, along with consistent earnings, makes a contribution to cash flows. As a consequence, successful companies have the potential to pay higher dividends. Companies that have a high ratio of retained profits to total equity or total

assets are more likely to pay dividends to shareholders. The company's ability to generate free cash flows has beneficial implication. Fairchild (2010) shows that management communication to investors about reasons for dividend drop, reinforced by reputation impacts of managerial communication, and may be able to offset this difficulty. Within the scope of his research, he examined the dividend policy from perspective of both the free cash flow hypothesis and the signaling theory. He stated that payment of dividends sends a good signal to investors, but the reduction of dividends sends a negative signal to investors. In addition to this, he said that the payment of dividends is a signal of future profits and a method of reducing problems with free cash flow. Findings of his research indicate that there is inverse connection amid free cash and dividends.

## RESEARCH METHODOLOGY

The researcher used quantitative research methodology to conduct this research. This research aims to examine determinants of dividend payouts in the manufacturing sector. To achieve this objective, numeric data representing the characteristics of firms needed to be collected. The collected data encompasses two types of dimensions, namely cross sections and time series. The determinant variables of dividend payouts are subsequently tested and analyzed using the multiple ordinary least squares regression method. The sample consists of 50 manufacturing textile companies that were listed on Pakistan Stock Exchange during the five-year period from 2017 to 2021. Relevant data pertaining to these variables is obtained from their audit financial reports. The population under consideration encompasses all firms traded on Pakistan Stock Exchange. Out of the total 800 listed firms, 212 symbols represent securities rather than actual companies. Hence, remaining 588 publicly listed companies are considered as the population for research. This study includes 9-variables, includes one dependent variable, two independent variables, five control variables, and one dummy variable. The dependent variable of interest is the dividend per share, while the independent variables consist of earning per share and cash flow per share. Four control variables are Total Assets, Debt ratio, Market to book value ratio, and Current liquidity measure. Moreover, two equations are utilized for analysis, which are as follows:

Equation 1

$$Dividend\ payout\ Policy_{it} = \beta 1 EPS_{it} + \beta 2 CFS_{it} + \beta 3 TA_{it} + \beta 4 TL_{it} + \beta 5 DEBT_{it} + \beta 6 MB_{it} + \mu_{it}$$

Equation 2

$$DPS_{it} = \beta 1 EPS_{it} + \beta 2 CFS_{it} + \beta 3 TA_{it} + \beta 4 TL_{it} + \beta 5 DEBT_{it} + \beta 6 MB_{it} + \mu_{it}$$

Hypothesis

- There is significant positive relationship amid Earning per share & Dividend per share.
- There is a significant relationship between Cash flow per share and Dividend per share.
- Both Earning per share and Cash flow per share affect dividend payout.
- Cash flow per share is best predictor for dividend payout in case Pakistani companies.

## DATA ANALYSIS

**Table 1**

*Descriptive Analysis*

| Variable | Mean | SD | Min | 25% | Median | 75% | Max |
|---|---|---|---|---|---|---|---|
| DPS | 4.19 | 2.78 | 1.11 | 2.03 | 3.41 | 5.67 | 11.22 |
| EPS | 0.90 | 0.38 | 0 | 0.18 | 0.49 | 1.52 | 2.64 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CFS | 9.86 | 10.11 | -7.89 | 3.36 | 7.08 | 15.88 | 35 |
| TA | 0.95 | 0.67 | 1.29 | 0.36 | 0.60 | 1.30 | 3.52 |
| DEBT | 2.14 | 2.48 | -1.16 | 0.48 | 1.85 | 3.36 | 7.38 |
| MB | 10.27 | 8.29 | 3.49 | 5.01 | 7.34 | 11.87 | 37.11 |
| CL | 0.36 | 0.26 | 0.11 | 0.18 | 0.27 | 0.47 | 0.89 |
| FIRM, AGE | 4.42 | 0.64 | 2.59 | 3.67 | 4.53 | 5.31 | 5.87 |

EPS has a mean of 0.90 and median of 0.49, both of which are higher than sample period, even though there is more inconsistency in upper half of the distribution, where required funds are less than stable funds that are available. Average value of DPS is 4.19, and standard deviation is 2.78. The average value of CFS is 9.86, and the standard deviation is 10.11. The average value of MB is 10.27, and standard deviation is 8.29. All values are standardized based on how they are spread out.

**Table 2**

*Correlation Analysis*

| Variable | DPS | EPS | CFS | TA | DEBT | MB | CL |
|---|---|---|---|---|---|---|---|
| DPS | 1 | | | | | | |
| EPS | 0.0061* | 1 | | | | | |
| CFS | 0.0134* | 0.8078* | 1 | | | | |
| TA | 0.0139* | 0.0203 | 0.0033 | 1 | | | |
| DEBT | 0.0202* | 0.3403* | 0.0037 | 0.0136 | 1 | | |
| MB | 0.0376* | 0.1714* | 0.1466* | 0.0054 | 0.1739* | 1 | |
| CL | 0.0176* | 0.0411 | 0.0428 | 0.0607 | 0.0103 | 0.005 | 1 |
| FIRM AGE | 0.0472* | 0.3779* | 0.2415* | 0.0129 | 0.5692* | 0.1305* | 0.0175 |

Relationship among variables is tested by pair-wise correlation. The overall purpose of the correlation coefficient is to explain the change that occurs in the dependent variable as a result of changes in the independent variable. If the correlation among variables is denoted by 1, it states that there is a perfect correlation among variables. On the other hand, if the correlation is denoted by a negative sing, it states that the correlation is significantly negative among the variables. The results revealed that there is positive relationship between CFS, EPS, and DPS, which is significant at 5%. Moreover, the value of the co-efficient in table 4.2 is 0.0139 which states that DPS is affected by 0.0139 with one unit change in TA. Secondly, the relationship among variables is positive which is showed by significance of relation between DPS and CFS. Further, a positive and highly significant relationship at 5% has been found between DPS and EPS.

**Regression Analysis**

This empirical study has also carried out regression analysis in order to examine the influence of independent factors on dependent variables in form of valuation models. This is done despite presence of significant values and a link between the variables. When doing our data analysis, we made use of one of panel regression methods, namely the Hausman test. In light of the fact that the P-value of the model is lower than 0.05, the Hausman test directs us to make use of the fixed effects model. The purpose of this study was for researcher to determine whether or not EPS has effect on DPS of listed firms by using supporting factors such as organization-specific determinants (Total assets, debt to equity ratio, market to book ratio, current liquidity). We

begin by doing a regression analysis on data of the population in order to determine whether or not the earnings per share (EPS) have an effect on profitability of company. In PSE-listed firms, it was determined that the findings were not statistically significant. According to the findings of the regression study, Earnings per Share (EPS) has an effect that is positive but insignificant on Dividends per Share (DPS). Second, the dividend per share is thus affected favourably and significantly by the cash flow per share (CFS). Additional, the findings indicated that there is a statistically significant relationship between all other supporting independent and dependent variables.

**Table 3**
*Regression Analysis*

| Variables | Standardize Beta | T- Value | Significance |
|---|---|---|---|
| EPS | 0.280 | 0.071 | 0.239 |
| CFS | 0.090 | 0.175** | 0.048 |
| TA | 0.059 | 0.135** | 0.030 |
| DEBT | 0.641 | 1.184** | 0.031 |
| MB | 0.072 | 1.141** | 0.028 |
| CL | 0.125 | 0.519*** | 0.000 |
| FIRM AGE | 0.252 | 0.719*** | 0.000 |
| R-squared | 0.648 | | |
| Constant | 16.12* | | |
| Observations | 1,244 | | |

*** p<0.01, ** p<0.05

The dependent variable is dividend per share (DPS), whereas independent variables include the earnings per share (EPS) and organization-specific factors such as the market to book ratio, debt ratio, current liquidity, and total assets. Based on the findings of above table it is inferred that free cash flow, earnings per share have significant effects over dividend level. In addition, the value of R square is used to evaluate how well the model fits the data. The numbers that are included in parentheses represent the robust standard error. The value of the r squared is 0.648 which indicated that all the independent variables has explained the outcome variables. The symbols **, and *** indicate that the coefficient is significant at the levels of 5%, and 1%, respectively.

## DISCUSSION

From the results of analysis of present study, it is concluded that free cash flow and earnings per share have significant effects over dividend level, specifically in those Pakistani companies which are listed on Pakistan Stock Exchange. The results of present study are in line with the study of Attiya and Hafeez (2009), they conducted a study in Pakistani context and revealed a conclusion that the firms having stable earnings and larger free cash flows would more likely to pay and can afford to pay high dividends. More specifically, study has found that earning per share has positive but insignificant impact on dividend per share. In other words, it is observed that when the profitability of under survey firms suffers then it directly affect the dividends payable. Similarly, the results of study show that when high profitability growth is projected by the firms, they show that to their investors through paying high dividends. Results established no significant effect of earning per share on dividend per share. This is fact that profitability had positive effect on dividend payout. Findings are contrary to findings by Abor and Bokpin (2010)

who noted that current and past years' profits are significant factors in influencing the dividend payments.

Similarly, the findings contrast findings by Baker et al. (2015) who established that the major determinant of dividend payment was the current and the anticipated level of earnings. The study findings however agreed with results by Bulan and Hull (2013) that noted that current earnings do not significantly reflect the firm's ability to pay dividends. It is also seen that when earning increases then dividend also increases and vice versa would be the case. In addition, two determinants of dividend policy were measured by Afza and Mirza (2011) i.e. cash flow and ownership structure. It was concluded in their study that those firms pay high dividends whose mostly shares are kept by individuals and managers. In contrast, those firms pay less dividends whose shares are less kept by the individuals and managers. Moreover, it was also argued in their research that those firms are likely to pay high dividends whose operating cash flows are higher. In Pakistan cash flow sensitivity is less taken into account. Although, there are some companies who tried to pay dividends in order to keep safe their market goodwill in market like Microsoft in such firm's irrelevance of the earning management is seen (Michaely & Roberts, 2006).

Additionally, cash flow per share was found to be important factor which affect the dividend per share in Karachi stock exchange listed companies. Cash flow per share positively regress the dividend per share. Moreover, the impact of cash flow per share was found to be significant on the dividend per share. These results have been observed which confirms the estimated results from dividend payout model. This proves that cash flow of the organization plays an important role in determining the dividend payouts. Intuitively, cash flow is one of the most important factors to determine the dividend. Similarly, the results of the study show that when high profitability growth is projected by the firms, they show that to their investors through paying high dividends. In addition, two determinants of dividend policy were measured by Afza and Mirza (2011) i.e. cash flow and ownership structure. It was concluded in their study that those firms pay high dividends whose mostly shares are kept by individuals and managers. In contrast, those firms pay less dividends whose shares are less kept by individuals, managers. Moreover, it was also argued in their research that those firms are likely to pay high dividends whose operating cash flows are higher. But in Pakistan cash flow sensitivity is less taken into account.

## CONCLUSION

The study contributes in literature by understanding the factors which determine the dividend of Pakistan Stock Exchange listed firms in the Pakistani context. The findings are helpful for the investors and decision makers in investing decisions as they can analyze the factors which determine dividend. Moreover, problems of management and investors and other researchers who are conducting different studies to assess the firm behavior about payout decisions are presented in present study. The present study is quite helpful for the students who are working on dividend payout. In addition, this study is helpful for all financial and non-financial sectors of Pakistan because a healthy sector of Pakistan is described and taken into account in this study; also the major impacts of profitability and FCF on dividend payout are discussed in the present study. The study considered one dimensions of the profitability i.e. earnings per share. The future studies should find the impact of other indicators of profitability on the dividend per share. Study considered cash flow in general. Future studies should differentiate among various

types of cash flow i.e., operating cash flow, investing cash flow and financing cash flow. In same way, study only focused on Karachi stock exchange listed companies. Also, findings are limited to Pakistani context only; further sites are required in other countries in order to generalize the findings.

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