

Influence of Financial Leverage on Firm's Dividend Policy: The case of Pakistan's Manufacturing Sector

Abstract

Aim and Objectives: Dividends are a portion of the company's earnings given to the class of shareholders in the form of cash and property. Shareholders are paid to maintain the existing shareholders, and it helps the company portray a sound image. The study aims to identify the impact of financial leverage on the firm's dividend policy in Pakistan.

Methodology: In terms of data collection, this research collects time-series data for the period of 2017 to 2020 for selected financial variables of the firms. ADF Augmented Dickey-Fuller test is applied first to examine the type of variables. In the next step, the Granger causality test is applied to inspect the short-run association amid variables.

Findings: The study's findings indicate a significant association of the company's financial leverage on the firm's dividend policy, and it can cause the dividend policies to be affected. It has further been observed that there is a significant association between dividend yield and corporate governance structures, and it causes high dividends to be paid. There is a significant association between EPS and dividend payout. The factors associated have an impact on the dividend policies of the companies

Keywords: Dividends, Manufacturing, financial leverage, companies, stakeholders, investors

Introduction

According to Mounas, Iqbal and Basheer (2020), dividend policy is considered a widely discussed issue for the company's stakeholders. It has further been observed that dividend policies attract shareholders and helps to generate investments in companies. According to Padmini and Ratnadi (2020), dividends are a portion of the company's earnings given to the class of shareholders in the form of cash and property. Shareholders are paid to maintain the existing



shareholders, and it helps the company portray a sound image. However, it has been observed that during the financial instability of an organisation, the trend of paying dividends is not restricted, and many companies are forced to lower their dividend payouts.

Moreover, it has been observed that there is a lack of policies in companies that cause the dividends to decrease, and it further affects the productivity of manufacturing companies. Rahman (2018) states that dividends have a pivotal position in corporate finance, and it has a relationship with corporate culture and dividends are further funded by the retained earnings. Therefore, it can be said that debts and external financing affect the dividends of the company. The leverage of manufacturing firms is considered an essential determinant of the equity risk, and a higher debt level indicates that the risk of low returns is high and affects the company's overall capital structure.

The study aims to identify the impact of financial leverage on the firm's dividend policy of Pakistan, and the objectives of the research are as follows:

- To identify the impact of financial leverage on the dividend policies of companies
- To investigate the determinants that cause the financial leverage to be affected.
- To provide recommendations to improve the financial leverage of the company.

It has been observed that there is no significant academic literature in context to influence of financial leverage on firm's dividend policies of Pakistan. Therefore, this research has been developed to determine the influence of dividend policies and how leverage affects the returns of dividends. Moreover, this research will identify different issues related to the dividend policies and how it affects the productivity and investment in manufacturing firms in Pakistan. Moreover, empirical support will be provided through different studies on how the policies have changed over the years and will help identify the relationship between financial leverage and the firm's dividend policies of Pakistan.



Literature Review

According to Kanwal, Mehmood and Rana (2017) study, the relationship between financial leverage and dividend policy of 403 companies was examined, and its results were applied based on the company's debt ratio. Different tests were applied in the study that involved correlation and regression, and the study results indicated that leverage has a significant impact on the dividend policies of Pakistan. However, it was observed that financial leverage had a significant and negative relationship with dividend payouts. The results and findings of the study show that the impact of earnings has no affect on the policy of dividends in Pakistan. According to Ullah, Bagh and Arif (2019), much of the literature of different studies focuses on the recent Asian crisis and involve macroeconomic problems associated with the company's profitability. However, the microanalysis of firms is missing. Therefore, it is essential to identify the impact of financial leverage on the dividend policies of firms. It has been observed that small dividend payouts relate to the high earnings of the company. Ahmed, Rafay and Ahmed (2018) stated that most of the manufacturing companies in Pakistan have long-term dividend payouts targeted, and high payouts cause investors to be attracted. The study further states that in trade-off models, optimal leverage is obtained in companies, and it causes costs and benefits to be compared.

Another study conducted by Gul et al. (2020) states that dividends act as a pathway to attract customers and investors and is considered an essential element for the economy's progress. Secondary data of 10 companies were obtained, and the study results indicate that financial leverage is insignificantly associated with the dividend payout ratio. However, it has a positive association with the dividend policy of the company. The results of the study further indicate that decisions that are related to dividend policies should be considered as an essential aspect. The study of Nadeem, Bashir and Usman (2018) states that the relationship between corporate tax and dividend policy is considered significant and affects the company's overall profitability. Another study conducted by Ahmed, Awais and Kashif (2018) indicates that profitable firms tend to give high returns than loss-making firms, and it causes dividend policies to be generated.



Furthermore, managers of manufacturing companies should provide incentives to shareholders according to their demands as it enables investors to be attracted and further promotes the policies of dividends. Hence, increasing the dividend payout in the long run for the shareholders. The study of Gohar and Alam (2018) indicates that dividends depend on the short and long term share prices, and it further affects the company's financial leverage and causes investment opportunities to be created.

According to Murtaza et al. (2020), many studies have stated that financial leverage has a negative impact on dividend policy, and it further states that manufacturing firms that have high debt financing have faced challenges in the form of financial charges. It has affected the payments of dividends as well as interest payments. It has further been examined that emerging markets of Pakistan have been found to have a significant and positive association between financial leverage and the company's debt burden. However, the transactions costs have increased and have affected the markets significantly. Several studies have stated that determinants such as sales growth affect companies' growth opportunities, and fewer sales in manufacturing companies cause profitability to be affected, and it further affects the dividend payouts of companies (Khan et al., 2019). Therefore, companies use external sources of finance to provide dividends to the shareholders and attract more investment. It has been observed that an increase in sales can cause the dividends to increase, and the company can reinvest profits back in the company.

According to Shabbi (2018), dividend policy is also considered vital as it enhances corporate governance and enables different policies and strategies to be implemented. It has further been observed that there is a significant association between dividend yield and corporate governance structures, and it causes high dividends to be paid, and it causes investors to be attracted. In addition, determinants such as firm size and leverage are considered essential to evaluate the business risk and its impact on dividend policy and it causes the company's debt level to be evaluated.



Methodology

In this research, the investigator investigates the influence of financial leverage on a dividend policy of the organisation dividend policy: The case of Pakistan's manufacturing sector. This depicts that this research study is explanatory, and it requires examining the causality among independent and dependent financial variables of the firms. In this scenario, when the study is explanatory and involves numeric and scaled variables, this requires statistical models and tools to determine relationships (Sapnken et al., 2020). This requires applying the inductive research approach and positivism research philosophy. These research approaches are valuable to collect time-series economic or financial data from reliable sources and evaluating it through quantitative models (Németh-Durkó, 2020).

Therefore, to analyse the data first, the Hausman test has been applied. The Hausman test is sometimes illustrated as the test of misspecification of the model. In panel data analysis, the Hausman test can assist the researcher in selecting between fixed or random effects (Rezapour et al., 2019). The alternate hypothesis is created as there is a fixed effect in the model. Notably, the test allows us to observe a correlation amid the exclusive errors and the repressors in the model. The null hypothesis is created as no correlation between the two (Husman, 2020).

Secondly, the research has used the GLS regression model. This test allows. Generalised least squares regression enables the OLS technique to be generalised to provide the maximum probability estimate β when the results demonstrate unequal variance that is heteroskedasticity and this scenario, GLS model is appropriate (Husman, 2020).

Results and Discussion

Table 1 Descriptive

Variable	Mean	Std. Dev.	Min	Max
Debt to Equity	0.965435	1.500543	0	10.23
LTD Asset	0.239649	1.074922	0	16.3
Firm Size	6.726998	2.218365	1.941615	10.98205

Total Assets	6948.443	14271	6.97	58809
ROA	0.102881	0.119711	-0.176	0.613
ROE	0.200753	0.51201	-4.553	2.683
Dividend Pay-out	0.401988	0.279078	-0.16667	2
Dividend yield	0.00033	0.000309	0	0.002427
Dividend price	0.139429	0.385149	0	4.06
Share Price	460.0563	1313.043	0.44	11499.99
EPS	0.18245	0.411138	-0.6	3.07

Table 1 of descriptive indicates that the mean value or average value of debt to equity is 0.9, whereas it has deviated and increased to 1.5. The mean or average value of long-term assets is 0.2 whereas, it can increase to 1.07. The average value of firm size is 6.7 years whereas, it has been observed that it can deviate to the value of 2.2 years. The total assets average value is Rs.6948, whereas it can deviate or increase to 14,271. The company's return on assets is 0.1, and it can deviate to the value of 0.119. The average ratio of Return on Equity is 0.2, and it can deviate or increase to the value of 0.5. The average dividend payout of the country is 0.4, and it has decreased in the past to 0.2. The average dividend yield of the country is 0.00033, and it has decreased to the value of 0.000309 in the past. The average price of shares in the country is 0.13, and it has increased in the past to 0.38. The average share price in the country is 460.05, and it has been observed previously that it has increased to 1313. The EPS of the country is 0.18, and it has deviated or increased to the value of 0.411. The table further indicates that the minimum value of dividend payouts has been negative with the value of -0.166, and the maximum value that has been recorded is 2.

Table 2 Correlation

				Firm	LTD	Debt to	Share	Dividend pay-		
	Dividend	ROA	ROE	Size	Asset	assets	Price	out	EPS	
Dividend	1									
ROA	0.4093*	1								
ROE	0.2880*	0.5967*	1							
Firm Size	0.0096	-0.083	0.0233	1	-					

LTD Asset	-0.0664	-0.051	-0.0088	0.097	1				
Debt to Equity	0.0674	- 0.2412*	0.1300*	-0.0365	0.0508		1		
Share Price	0.0074	0.3662*	0.5256*	-0.0303	-0.019	0.3221*	1		
Dividend pay-	0.4141	0.3002	0.3230	-0.0073	-0.013	0.3221	1		
, ,	0.4535*	0.2020*	0.4004*	0.0264	0.0205	0.4000*	0.0070*		4
out	0.4525*	0.3029*	0.4004*	-0.0261	-0.0205	0.1988*	0.8670*		1
EPS	0.3640*	0.3889*	0.4136*	0.0447	-0.0258	0.1079	0.7764*	0.8687*	

Table 2 of the correlation table indicates dividend pay-out has a significant association or relationship with dividends with the significance value of 0.45. The table further indicates a relationship and association between the pay-out of dividends and the ROA of the companies with the significance value of 0.3. It has been observed that the relationship pay-out and ROE of the companies is significant with the significance value of 0.4. It further indicates a significant association between dividend pay-out and debt to assets with a significance value of 0.19. There is a significant association between dividend pay-out and share price with a significance value of 0.867. The table further indicates a significant association between EPS and dividend pay-out with a significance value of 0.868. This indicates that the factors associated have an impact on the dividend policies of the companies and cause the policies to be amended. As identified in the literature, it can be said that financial leverage has a significant impact on the dividend policies of the manufacturing companies, and it causes the dividend pay-outs to be affected. Furthermore, the companies need to revise their dividend policies to assess the dividend pay-outs, and it causes the investors to be attracted.

Preliminary testing to select OLS or GLS test

In the first step, preliminary testing has been conducted to analyse if data has fixed effect or random effect, autocorrelation and heteroskedasticity.



Moreover, null hypothesis is that there is a presence of heteroskedasticity, and the decisions rule is based on P-value. P-value in the above result is 0.000, which is lower than 0.05, which signifies heteroskedasticity in the data (Husman, 2020). On the other hand, the autocorrelation test shows that the p-value is 0.0969, which signifies no autocorrelation. This leads to omitting the OLS method for further analysis.

$$F(1, 49) = 2.865$$

 $Prob > F = 0.0969$

Furthermore, Hausman of fixed effect or random effect also signifies that here OLS method is not applicable. Therefore GLS method has been applied to inspect the relationship amid factors of financial leverage as well as dividend policy of the firms (Rezapour et al., 2019).

Dividend Pay-out	Coef.	Std.Err	Z	P> z
ROA	0.766028	0.102816	7.45	0
ROE	-0.0528	0.028174	-1.87	0.061
Firm Size	0.008599	0.003037	2.83	0.005
LTD Asset	-0.01107	0.00536	-2.07	0.039
Debt to Equity	0.014528	0.007138	2.04	0.042
Ġ.	-8.71E-			
Share Price	06	0.000016	-0.55	0.585
Dividend per				
Share	0.39589	0.050196	7.89	0
EPS	-0.13568	0.033998	-3.99	0
_cons	0.242028	0.024089	10.05	0
P-	0.0	000		

The results of the GLS regression test are specified above in the above table that depicts the impacting relationship amongst financial leverage factors and dividend policy of firm



represented by dividend payout in the case of the manufacturing sector of Pakistan. The analysis rule is similar in this test also that P-value has to be lower than the threshold value CI that is 0.05 to declare the significance of the relationship (Rezapour et al., 2019). Based on this decision rule, it can be seen that the significance value of the model is (p-0.00< 0.05), which depicts a significant association with financial leverage on dividend payout of the manufacturing sector in Pakistan. In terms of an individual effect, it is also found that ROA, (P-0.00<0.05), Firm Size, (P-0.005<0.05), LTD Asset (P-0.03<0.05), Debt to equity ratio, (P-0.042<0.05), Dividend per share and earnings per share (P-0.00<0.05) are significantly related with a dividend payout ratio of the firm. However, the results also indicate that ROA, Firm size, debt to equity and dividend per share effects positively the dividend policy of the firm as depicted by their coefficient value.

In contrast, LTD asset, share price and earnings per share puts significant adverse impact on the policy of dividend of Pakistan's manufacturing firms. These findings are in line with the results provided by Gohar and Alam (2018), where the researcher also proposed that financial leverage distresses the share price of the organisations because financial leverage decides debt and the equity portion of the firm, and if financial leverage is higher debt portion is higher which risk firms' insolvency and liquidity position. This leads to a debt burden and low dividend return to investors.

Conclusion

Above research aimed to examine the connection amid financial leverage of the business enterprises and their policy of dividend in the context of Pakistan's manufacturing sector. The investigation has been performed by applying cause and effect models such as GLS regression on financial leverage and ratio of dividend-pay-out. The results signify a significant impact of financial leverage on the country's production sector's dividend policy. In most situations or cases, greatly levered industries had a robust negative association amid return and volatility change compared to the less levered companies. Similar is the findings of this research that long-term debt to total assets, when increased, means that leverage is also increased. Thus, dividend policy is negatively impacted in such cases. Moreover, the findings also suggest that Pakistani



manufacturing organisations are suggested to inoculate the particular amount of funds to enhance the capital structure with ratios of leverage to further to emphasise on matching liabilities with the kinds of assets owned by the firms, which is borrowing for the short-term to be gained exclusively for working capital objectives.



References

- Ahmed, F., Awais, I. and Kashif, M., 2018. Financial leverage and firms' performance: Empirical evidence from KSE-100 Index. *Etikonomi*, *17*(1), pp.45-56.
- Ahmed, F., Rafay, A. and Ahmed, A., 2018. Dividend payout policy of conventional banking and Islamic banking in Pakistan. *Al-Iqtishad Journal of Islamic Economics*, 10(1), pp.135-152.
- Gohar, R. and Alam, M.S., 2018. Determinants and Behavior of Dividend Policy in Pakistani Listed Companies. *Journal of Finance and Investment Analysis*, 7(3), pp.1-9.
- Gul, S., Ullah, I., Gul, H. and Rasheed, S., 2020. The Factors Affecting Dividend Policy: Empirical Study from Pharmaceutical's Companies in Pakistan (PSX). *European Journal of Business and management research*, 5(5).
- Husman, A.I., 2020. Taxation And Economic Development In The Former Communist Bloc. A Panel Data Approach. Oradea Journal of Business and Economics, 5(2), pp.83-91.
- Kanwal, S., Mehmood, A. and Rana, M.L.T., 2017. IMPACT OF INDUSTRY SPECIFIC VARIABLES ON THE DIVIDEND POLICY OF OIL AND GAS SECTOR IN PAKISTAN. *Pakistan Business Review*, 19(1), pp.71-88.
- Khan, S.N., Yaseen, M.N., Mustafa, F. and Abbasi, S., 2019. The Interaction Effect of Financial Leverage on the Relationship Between Board Attributes and Firm Performance; Evidence of Non-financial Listed Companies of Pakistan. *Journal of Accounting and Finance in Emerging Economies*, 5(1), pp.115-122.
- Muhammad Mounas Samim, Shakeel Iqbal Awan, and Basheer Ahmad 2020. *Lahoreschoolofeconomics.edu.pk.* Available at: https://lahoreschoolofeconomics.edu.pk/businessjournals/V4issue2/01%20Samim%20et %20al.%20FINAL.pdf (Accessed: 14 September 2021).



- Murtaza, S., Noor-Ud-Din, A., Aguir, A. and Batool, S., 2020. The Role of Ownership Concentration and Dividend Policy on Firm Performance: Evidence from an Emerging Market of Pakistan. *SEISENSE Journal of Management*, 3(2), pp.1-13.
- Nadeem, N., Bashir, A. and Usman, M., 2018. Determinants of dividend policy of Banks: Evidence from Pakistan. *The Pakistan Journal of Social Issues*, pp.19-27.
- Németh-Durkó, E., 2020. Determinants of carbon emissions in a European emerging country: Evidence from ARDL cointegration and Granger causality analysis. International Journal of Sustainable Development & World Ecology, pp.1-12.
- Padmini, L.S. and Ratnadi, N.M.D., 2020. The Effect of Free Cash Flow, Dividend Policy, and Financial Leverage on Earnings Management. *American Journal of Humanities and Social Sciences Research (AJHSSR)*, *4*(1), pp.195-201.
- Rahman, A., 2018. Effect of Dividend Policy on Firm's Performance: A Case Study of Cement Sector of Pakistan. *SEISENSE Journal of Management*, *1*(5), pp.6-15.
- Rahman, M.M. and Kashem, M.A., 2017. Carbon emissions, energy consumption and industrial growth in Bangladesh: Empirical evidence from ARDL cointegration and Granger causality analysis. Energy Policy, 110, pp.600-608.
- Rezapour, A., Mousavi, A., Lotfi, F., Soleimani Movahed, M. and Alipour, S., 2019. The Effects of Health Expenditure on Health Outcomes Based on the Classification of Public Health Expenditure: A Panel Data Approach. Shiraz E-Medical Journal, 20(12).
- Sapnken, F.E., Tamba, J.G., Ndjakomo, S.E. and Koffi, F.D., 2020. Oil products consumption and economic growth in Cameroon households: An assessment using ARDL cointegration and granger causality analysis. International Journal of Energy Economics and Policy, 10(6), p.510.



Shabbi, M.K., 2018. Impact of financial leverage on firm performance: the case of listed oil refineries in Pakistan. *International Journal of Research in Social Sciences*, 8(10), pp.470-484.

Ullah, K., Bagh, T. and Arif, M., 2019. Factors Affecting Dividend Policy: An Empirical Investigation of Food Sector of Pakistan. *Research Journal of Finance and Accounting*, 10(5), pp.2222-1697.