



FACTORS INFLUENCING DIVIDEND PAYOUT POLICY: AN INVESTIGATION OF FOOD AND ALLIED COMPANIES LISTED ON THE DHAKA STOCK EXCHANGE LIMITED

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ABSTRACT: *The main objective of the study is to identify if there is a relationship between a number of company-selected factors such as Profitability, Liquidity, Size, Growth, Leverage and Taxation of Food and Allied Companies Listed in the Dhaka Stock Exchange and the companies' dividend payout ratio which is used as a proxy of dividend payout policy. A sample of seven companies has been taken from Food and Allied Companies listed in DSE following a purposive sampling technique. To meet the objective of this research, ten-year financial data from 2011-2020 of listed food and allied companies is used and examined to determine the impact of selected variables on dividend payout. The random effect regression model was used as suggested by the result of the Hausman test to test the relationship between dividend determinants and dividend payout. Results indicate that among the independent variables Size and Profitability significantly impact the dividend payout policy but in terms of robustness of the model, Liquidity, Size and profitability significantly impact the dividend payout policy of Food and Allied companies listed in DSE. Taking into consideration these findings, it can be said that firms having higher profitability are most likely to pay more dividends. Firms with higher liquidity, growth, size, leverage and taxation pay fewer dividends and vice versa.*

KEYWORDS: Dhaka Stock Exchange, dividend payout ratio, Food and Allied Companies, growth, leverage, liquidity, profitability, size and taxation.



INTRODUCTION

There are many studies investigating the dividend policies of various companies around the world have been conducted. However, very few studies on the dividend policy of corporate sectors like Food and Allied companies have been conducted in Bangladesh. Different researchers have used various combinations of variables to explain dividend behaviour. However, factors influencing the corporate dividend policy may noticeably vary from country to country because of variations in legal, tax and accounting policies among countries.

The dividend payout policy is one of the most debated topics within corporate finance and many academics have been trying to find the missing pieces in this dividend puzzle. However dividend is not a new occurrence, it has been a standard procedure for most companies for many years. However, it can also be noticed that many successful companies during the last few years have chosen not to pay dividends which indicates that it is quite possible to be prosperous without paying dividends. So, now the main question that arises -why do firms pay dividends to their shareholders? The above-mentioned question has been widely debated all over the world. Modigliani and Miller (1961) presented one of the most influential arguments towards the impact of dividends. They identified that in perfect capital markets where there are no taxes, transaction costs and other market imperfections, the dividend policy does not alter company value. On the other hand, the firm value is especially reliant on the earnings of the company's assets and its investment policies. But this must not be true because no company will pay dividends in this case as it does not create any added value for shareholders. In practical life, ignoring the assumptions given by Modigliani and Miller (1961) various researchers have argued that dividend policies have an impact on the company's worth. Lintner (1956) presented one of the first studies that claimed that dividends play a major role in creating company value.

So, it is obvious that more research work is required in this field, especially in the context of Bangladesh. Hence, this study looks into the determinants and pattern of dividend payments of Food and Allied companies listed in the Dhaka Stock Exchange. To determine the association between several company-selected factors and the dividend payout policy and to update the preceding findings concerning this puzzle of dividends, the following research question has been formulated.

“What is the relationship between the dividend payout ratio and the company's selected factors for the Food and Allied companies listed in DSE?”



LITERATURE REVIEW

Gill, Biger, & Tibrewala (2010) conducted a study that observed the influence on dividend payout ratio by some variables such as taxes, profitability, cash flow, risk, leverage and growth from the perspective of manufacturing firms and service firms in America. They identified that for firms that are associated with service, dividend policy is affected by leverage, growth and profitability. In the case of firms related to manufacturing, dividend policy is affected by taxes, profitability and risk.

Mehta (2012) tried to identify the influence on the dividend payout ratio of a firm by some variables such as leverage, risk, profitability, size and liquidity. They explored some industries that comprise of energy, telecommunication, construction, real estate and healthcare sectors of the Abu Dhabi Stock Exchange for a period of five years (2005 to 2009). They found out that for dividend payout decisions, size and profitability are the main elements for a significant change.

Maladjian & Khoury (2014) conducted a study that observed the influence on the dividend payout ratio of Lebanese pharmaceutical companies listed on the Beirut Stock Exchange by some variables such as the size of the firm, growth, profitability, risk, liquidity, leverage, and lastly preceding year's amount of dividend. They concluded that out of seven variables studied, five variables are statistically significant whereas profitability and liquidity are statistically insignificant.

Musiega et.al. (2013) tried to detect the impact of company-selected factors on dividend payout decisions of thirty non-financial companies registered at the Nairobi Securities Exchange (NSE) for the period of 2001 to 2011. Some independent variables are used such as profitability, growth, current earnings, liquidity, business risk and size. Then multiple regression analysis has been conducted to find out the influence of those nominated variables on the dividend payout decision. The result showed that dividend policy has some important determinants such as business risk, profitability, firm size and growth opportunities.

Nuhu (2014) conducted a study that observed the influence on dividend payout ratio using some variables such as leverage, profitability, firm size, investment opportunity sets, audit type, board size, taxation and board independence. It was found that profitability, audit type, leverage, board independence and board size are the crucial elements that ominously impact the dividend payout decision in Ghana.

Rafique (2012) tried to identify the influence on the dividend payout ratio of Nonfinancial firms registered in the KSE100 index using some variables such as corporate tax, size of firm, leverage, earnings, growth and profitability. It was found that only two factors i.e. corporate tax and the firm size are significant out of the remaining six variables inspected. The remaining variables are found insignificant in the circumstances of the Pakistani stock market.

Jozwiak (2014) conducted a study that observed the influence on the dividend payout ratio of non-financial registered companies of the Warsaw Stock Exchange situated in Poland using some variables such as size, risk, liquidity, leverage and profitability. It has been found in this study that there is a negative impact on dividend payout of leverage and profitability. This study revealed that firms having much profitability distribute low dividends so that they can



retain capital to invest in future and firms having high debt usually distribute low dividends to safeguard their high amount of interest payments.

Alzomaia & AlKhadhiri (2013) tried to identify the influence on the dividend payout ratio of non-financial registered companies of the Saudi Arabia Stock Exchange (TASI) using some variables such as the past size of the firm, earnings per share, growth, dividend and leverage. It was identified that there existed a positive association between last year's dividend and profitability on the dividend payout ratio. According to findings, it was said that companies usually pay increased dividends at the time of increased profitability. The other variable i.e. Last year's dividend payment is found very important when deciding dividend payout as well.

Hauser (2013) conducted a study that observed the influence on the dividend payout ratio of a firm at the time of financial depression. In this study panel logistic approach of the regression model has been used to observe the industrial firms from 2006 to 2009 in USA. The result of the analysis displays that the likelihood of lowering dividends rises considerably at the time of financial depression owing to capital ratio, profitability and revenue growth rate of the companies.

Najjar & Belghiter (2011) examined the concurrent relationship between cash holding and dividend payout policy of four hundred non-financial companies situated in United Kingdom. The result of this study revealed that the most important factors of cash holding were dividends, size, leverage, growth, working capital, profitability and risk. While the factors of dividend payout ratio were size, leverage, risk, growth, cash and profit. Even though dividend policy and cash holding have similar kind of determinants, they are not affected by each other.

Gupta and Banga (2010) tried to identify the influence on dividend payout ratio of 150 companies comprising of 16 diverse industries listed in Bombay Stock Exchange (BSE) under 500 index for a period of 2001 to 2007 by using some key variables such as ownership structure, growth, leverage, profitability and liquidity. Regression analysis has been done in this study to identify the impact of these above mentioned variables on dividend payout policy. It has been found that liquidity and leverage are very much important predictors concerning the dividend payout policy among Indian companies. It is also found that leverage shows a negative relationship while liquidity shows a positive relationship with dividend payout decisions.

Aivazian et al. (2003) examined firms of USA and growing firms and revealed that profitability influences the dividend payout decision, high leverage also leads to decreased amount of dividend payment, this study also found out that market to book ratio shows a positive association with the dividend payout ratio.

Misir (2010) examined the effect of dividend announcements as well as contagion effects on the corporations registered in Dhaka stock exchange (DSE). The main purpose of this research project was to study the impact of dividend announcements of the firms within the industry related to Dhaka Stock Exchange (DSE). The study revealed that impact of dividend revisions are apparent within the industry.

Kania & Bacon (2005) tried to identify the influence on dividend payout by using some nominated variables of 543 companies by using conventional least square regression model. It was found that insider ownership, expansion, risk, growth and organizational were adversely



related to dividend payout policy. In this study a positive association was found between dividend payout ratio and debt to total asset ratio.

METHODOLOGY

Data

Ten year data are used from published annual reports of food and allied companies listed on Dhaka Stock Exchange. Data period will be from the financial year 2011 to 2020.

Variables and Expected result of the Study

The following dependent and independent variables have been used in this research. They are provided as follows:

Dependent Variable

Dividend Payout Ratio: Dividend is a very common issues among corporations. The dividend payout ratio means the fraction of profits given by the company among its shareholders from the net profits, or it can also be said that the remaining portion after deducting all costs such as taxes, depreciation interest etc. from a corporation's revenues. If the previous studies are taken into consideration it is found that most of those studies inspected the effect of agency theory and transaction cost theory used dividend payout ratios as a factor of dividend instead of dividend payout policy. Hence in this research, Dividend payout ratio has been used as a proxy for the dividend payout policy.

Explanatory Variables

Liquidity: Since companies pay dividend from their profit, they also need to ensure that they do not suffer from liquidity crisis. As a result liquidity is considered as one of the important factors in the aspect of dividend decisions, because the payment of dividend indicates the cash outflow for a company. If the company has higher liquidity or stable cash flow, there is a higher chance that it has ability to pay dividend. Some companies may stay on development and growth stage and can experience illiquidity because their money may be used as permanent working capital, to buy fixed assets or to reinvest them in newer projects. Usually companies wish to keep their liquidity at a certain level to deliver financial flexibility and safety against uncertainty. So, in order to avoid uncertainty, they may be unwilling to endanger the position by paying dividend to shareholders. In this research paper, current ratio i.e. Current Assets divided by Current Liabilities for firm has been used as proxies of liquidity. As per the signaling theory, firms having higher cash availability may pay higher dividends than that of firms having inadequate cash. Moreover, as stated by the agency theory of cash flow, Jensen (1986) debated that corporations having high cash availability pay higher dividends so that the agency conflict between their managers and shareholders can be reduced. The null hypothesis states that there is no relationship between Liquidity and the dividend payout ratio while the alternative hypothesis states that there is a relationship.

Profitability: Payment of dividend is directly related with profitability. So, it is a very vital explanatory variable of dividend policy. In this research paper, Return on assets (ROA) i.e. Net Income divided by Total Assets, has been used as a proxy of profitability of the firm. In



accordance with the Picking order theory it is seen that firms have a tendency to invest their funds on NPV projects using their retained earnings and as a result they pay lower and try to retain more earnings. On the other hand, quite a few researchers stated that firms with steady earnings give more dividend to shareholders. The null hypothesis states that there is no relationship between Profitability and the dividend payout ratio while the alternative hypothesis states that there is a relationship.

Growth: Growth rate is regarded as one of the most significant factors which influences the dividend payout ratio heavily. Usually it is seen that past growth has an adverse relationship with dividend payout ratio. When any firm finds out positive NPV projects for investment, the firm is likely to retain its income and pay less dividend in order to take on that project. In a study Chen & Dhiansiri (2009) found that firms in Newzeland having recent development in revenues have a trend to distribute lower dividends. On the other hand signaling theory presented that companies that have higher growth can pay dividend to their shareholder smoothly. This also indicates shareholders that the firms are experiencing high growth opportunities. In this research paper, Sales Growth has been used as the proxy for the growth of the firms. The null hypothesis states that there is no relationship between Growth and the dividend payout ratio while the alternative hypothesis states that there is a relationship.

Size: Large companies can pay more dividends because of having the advantage of easy entrance to capital market. It helps them to accumulate funds thus dependency on internal funds becomes lower. So it can be said that the size of a firm is a vital factor that can influence a firm's dividend payout policy. The agency problem may arise if the size of a firm increases as size and ownership of internal investor typically is inversely related. Big companies also tend to have a bigger and more diverse group of shareholders. As the ownership of individual shareholder turns out to be comparatively trivial, an individual shareholder may not have encouragements to oversee the managers of a company. So to minimize these types of agency costs bigger companies think about paying higher dividend compared to other smaller companies. Bigger companies can easily avail more capital at a lower cost because of their better credit rating, as a result they have greater capability to disburse dividends even at the time of its low current earnings. As stated by Joseph, (2001) the size of the firm can be determined by using natural logarithm of the firm's total assets. In this research paper, Log of Total Asset has been used as the proxy for the size of a company. The null hypothesis states that there is no relationship between Size and the dividend payout ratio while the alternative hypothesis states that there is a relationship.

Taxation: From the previous studies researchers have stated that whenever the tax liability of a firm increases, the payment of dividend tends to decrease and the amount of retained earnings increases. Shareholders also expect dividend when companies have to pay more taxes but companies sometime become reluctant to pay dividend due to further investment in positive NPV projects. Tax effect of companies can be measured by dividing corporate tax expense by Profit before tax. In this research paper Corporate Tax Rate has been considered as the proxy for taxation. The null hypothesis states that there is no relationship between Taxation and the dividend payout ratio while the alternative hypothesis states that there is a relationship.

Leverage: Companies that have high amount of debt are seen to pay low amount of dividend due to debt covenants and bond holders. As debt comprises of very high risk and it must be paid off, firms sometimes cannot pay dividends. Nevertheless, it helps companies to generate capital gain for shareholders. Since a great amount of financial leverage creates high risk, most



of the immensely leveraged companies tend to pay lower dividends in order to protect the creditors. This decision also helps to maintain the availability of the cash to accomplish their undertakings. This adverse correlation between leverage and dividend payout can also be linked to agency cost of debt. As everyone knows, a common objective of any company is to maximize the wealth of the shareholders for this reason the management team may start taking some measures that may benefit the shareholders at the expense of the bondholders. But most bondholders know about this fact and this kind of behavior. To prevent this kind of action the bond holders typically take some specific actions to stop the transfer of wealth from bondholders to shareholders. As leverage is an important factor for dividend payout decision, in this research paper, Debt Ratio i.e. total liability to total asset has been used as the proxy of leverage. The null hypothesis states that there is no relationship between Leverage and the dividend payout ratio while the alternative hypothesis states that there is a relationship.

Table 1: Summary of variables and their expected sign

Variables	Variable Type	Description	Expected Relationship
Dividend payout ratio	Dependent	Cash Dividend/ Net profit	
Liquidity	Explanatory	Current Assets/Current Liabilities	+
Profitability	Explanatory	Net Income /Total Assets	+
Size	Explanatory	Natural Logarithm of Total Assets	+
Growth	Explanatory	Growth in Revenue /Sales	-
Taxation	Explanatory	Corporate Tax Rate for firm	-
Leverage	Explanatory	Total liability/Total Asset	-

Statistical Model

Random Effects Model has been used in this research paper. In this model the deviation across elements is anticipated to be random and uncorrelated with independent or observed variables that are included in this model. If there are reasons to think that variation among entities have specific impact on the dependent variable, Random Effects Model should be used in this circumstances. The formalized random effects model is:

$$Y_{it} = \alpha + \beta_1 X_{1i,t} + \beta_2 X_{2i,t} + \dots + \beta_n X_{ni,t} + u_{it} + \epsilon_{it}$$

Thus, the equation will be:

$$DPR_{i,t} = \alpha + \beta_1(Liquidity_{i,t}) + \beta_2(Profitability_{i,t}) + \beta_3(Size_{i,t}) + \beta_4(Growth_{i,t}) + \beta_5(Taxation_{i,t}) + \beta_6(Leverage_{i,t}) + u_{it} + \epsilon_{it}$$

Where,

u_{it} = Between-entity error

ϵ_{it} = Within-entity error

DPR $_{i,t}$ = Dividend payout ratio for firm i at time t



Liquidity i,t = Current Assets/Current Liabilities for firm i at time t

Profitability i,t = Return on Asset (ROA) for firm i at time t

Size i,t = Log of Total Asset for firm i at time t

Growth i,t = Growth in Sales for firm i at time t

Taxation i,t = Corporate Tax Rate for firm i at time t

Leverage i,t = Debt ratio for firm i at time t

EMPIRICAL ANALYSIS AND FINDINGS

The aim of this chapter is to analyze and discuss the empirical results and test whether the literature and theoretical framework discussed earlier manage to explain the changes in the dividend payout ratio. The initial part of the chapter will discuss some statistical test used to verify whether the model is free from multicollinearity, auto correlation and heteroscedasticity or not. Afterwards the chapter will discuss the results of the model along with significance of the model parameters, variables and major findings of the research.

Descriptive Statistics

This research paper has included as many observations as possible excluding extreme outliers in order to investigate the relationship between the company selected factors and the dividend payout ratio.

Table 2: Summary of Descriptive Statistics (Appendix 04)

Variables	Mean	Standard Deviation
DPR	3.289188	13.38918
Liquidity	6.793562	29.20342
Profitability	0.101332	0.1242006
log Size	9.113948	0.6922433
Growth	0.1328974	0.3381599
Taxation	0.298671	1.242835
Leverage	0.7511985	1.038522

From the above summary Table 3 of descriptive statistics, the mean and the standard deviation of the dependent Variable-Dividend payout ratio and independent variables- Liquidity, Profitability, Size, Growth, Taxation and Leverage are given. Mean shows the average of these variable and standard deviation shows the volatility over the period of time.

Multicollinearity Test

As some of the company selected factors used in the study are related to each other, there is a chance of having the issue of multicollinearity. Multicollinearity is a statistical condition in which the independent variables are found to be highly correlated to each other. As a result of the correlation between the variables it is difficult to understand the effects of a change in one



variable even though the other variables remain constant. Even small changes in the data may create much deviations in the coefficients and that is why it is very important to eliminate potential multicollinearity from the research project.

The presence of multicollinearity in the data can be tested by computing the Variance Inflation Factor (VIF). As per the rule of thumb, VIF coefficient having a score of greater than 10 shows the occurrence of multicollienarity. The VIF values in the table 4 below are found to be less than 10 so there is no multicollinearity problem that means the independent variables included in the model are not substantially correlated with each other. There is another measurement linked to VIF that is tolerance (1/VIF) which designates how much of the change in an independent variable does not depend on other dependent variables. If the result of tolerance level is below 25 percent multicollinearity may create a problem.

Table 3: Summary of the result of VIF Test (Appendix 01)

Independent Variables	VIF	1/VIF
Liquidity	2.31	0.433361
Taxation	2.23	0.447488
Profitability	2.21	0.453286
Log Size	2.19	0.456523
Growth	1.03	0.968373
Leverage	1.02	0.977734

From the Table 4 it can be found that the value of VIF of all the independent variables is less than 10 which indicates that independent variables are free from multicollinearity and the tolerance level of the independent variables are also higher than the benchmark 25 percent level.

Auto correlation Test

Durbin-Watson test is particularly used for the measurement of autocorrelation in the residuals found from regression analysis. It assesses whether adjacent residuals are correlated or not. In a nutshell, it can be said that this option is very much significant because it helps to know about the assumption of independent errors and understand whether they are acceptable or not. The benchmark score for this test statistic usually varies between 0 and 4 and a score of 2 means that the residuals are uncorrelated.

When the score is greater than 2, it indicates a negative correlation between adjacent residuals whereas a score less than 2 indicates a positive correlation. As a very conventional rule of thumb, Field (2009) stated that the values less than 1 or greater than 3 are certainly a reason for concern. The value of Durbin-Watson test (Appendix 02) of this model is **1.004813** which is more than 1 and less than 3. So, it shows that the model is free from autocorrelation problem.

Heteroscedasticity Test

Homoscedasticity shows the assumptions that all the dependent variable(s) generates equal levels of change across the independent variable. In GLS regression the error term is expected to be homoscedastic constant across all the observations. If the assumption is violated, the study may not be effective enough. The Breusch- Pagan/ Cook-Weisberg test is used to test



heteroscedasticity in this study using STATA. A large chi-square usually means that the heteroscedasticity is present.

From (Appendix 03), it is found that the chi-square value is relatively small, representing heteroscedasticity is not a problem here in this study. The **chi-square** value is **8.18** and the **p value** is **0.0042** which indicate the insignificance that concludes that the errors have a persistent variance so it is certain that the data does not suffer from the issue of heteroscedasticity.

Results of Random Effect GLS Regression

Table 4: Summary of Random Effect GLS Regression result (Appendix 06)

Dividend Payout Ratio(DPR)	Coefficient	Standard error	z	P> z
Liquidity	-.0987643	.076354	-1.29	0.196
Profitability	41.18224	17.55423	2.359	0.019
Log Size	-12.92279	3.138348	-4.12	0.000
Growth	-5.447686	4.411111	-1.23	0.217
Taxation	-1.422476	1.76558	-0.81	0.420
Leverage	-.6988222	1.429438	-0.49	0.625

Significance of the Model Parameters

Coefficient of Multiple Determination (R²): The R² (Appendix 06) shows the amount of variance of Dividend Payout Ratio (DPR) that can be explained by Liquidity, Profitability, SIZE, Growth, Taxation and Leverage. The value of R² of the model is 0.2428 (overall) which indicates that the independent variables explain 24.28% of the dependent variable (DPR).

Significance of the Model: Chi²-Test (GLS): The Chi²- test of Random Effect GLS Regression represents the significance of the model. It tests whether R² is different from zero or not. The Chi² value (Appendix 06) of the model is 20.20 (p value=0.0026) which is statistically significant. Thus the model significantly improves the ability to predict the outcome variable Dividend payout ratio. The Chi²-statistics of the model is significant at 5 percent level of significance indicating that the model provides significant explanation of variation in the Dividend Payout Ratio (DPR).

Significance of the Determinants

The result of the significance of the independent variables elucidating the dependent variable is shown in (Appendix 06). The coefficient indicates contribution of each individual predictor to the model. The values of coefficient express about the relationship between DPR and each of the predictor. The beta values in the model have connected standard errors which indicate to what level these values would vary through different samples. These standard errors are typically used to define whether the beta values vary considerably from zero or not. If the z test of Random Effect GLS regression related to coefficient values is significant then that predictor is constructing a significant contribution to the model (when the p value is less than 0.05). If the significance of p value is smaller or the z values are higher, the contribution of that predictor (independent variable) would be greater. The significance of the independent variables determining DPR is elucidated below:



Liquidity: The coefficient of Liquidity is -0.0987643(Appendix 06) which indicates a negative relationship that if the Liquidity increases by 1 percent the DPR will decrease by 0.0987643 % and vice versa. The z value is -1.29 (p=0.196) which is statistically not significant. The result found here is consistent with the result of Veit and Powell (2001) study that examined on NASDAQ firms in which they identified that if the firms desired to keep high liquidity then they tended to give less dividend to shareholders and on the contrary raise corporate retained earnings. The negative relationship between company's liquidity and DPR supports the literature and found to be significant in this research on Food and Allied companies listed in DSE.

Profitability: The coefficient of Profitability is 41.18(Appendix 06) which indicates a positive relationship that if the Profitability increases by 1 percent the DPR will increase by 41.18% and vice versa. The z value is 2.35 (p=0.019) which is statistically significant since the p value is less than .05.

The positive relationship between company's profitability and DPR supports the literature and found to be significant in this research on Food and Allied companies listed in DSE. Thus the relationship between Profitability and DPR is found to be positive and significant that influences dividend payout decision of a firm.

Size: The coefficient of Size is -12.92 (Appendix 06) which indicates a negative relationship that if the Size of the company increases by 1 percent the DPR will decrease by 12.92% and vice versa. This relationship found in this result can be clarified by the agency theory and the shareholder-management conflict (Lloyd et.al 1985). The z value is -4.12 (p=0.00) which is statistically significant because p value is lower than .05. The negative relationship between company's Size and DPR supports the literature and found to be significant in this research on Food and Allied companies listed in DSE. Thus the relationship between company Size and DPR is negatively significant.

Growth: The coefficient of Growth is -5.448 (Appendix 06) which indicates a negative relationship that if the Growth of the company increases by 1 percent the DPR will decrease by 5.448 % and vice versa. The z value is -1.23 (p=0.217) which is statistically not significant because p value is higher than .05.

The negative relationship between company's Growth and DPR supports the literature and found to be insignificant in this research on Food and Allied companies listed in DSE. Thus the relationship between company's Growth and DPR is negatively insignificant.

Taxation: The coefficient of Taxation is -1.422 (Appendix 06) which indicates a negative relationship that if the Tax rate of the company increases by 1 percent the DPR will decrease by 1.422 % and vice versa. The z value is -0.81 (p=0.420) which is statistically insignificant because p value is higher than .05. The negative relationship between company's Tax rate and DPR supports the literature and found to be insignificant in this research on Food and Allied companies listed in DSE. Thus the relationship between company's Taxation and DPR is negatively insignificant.

Leverage: The coefficient of Leverage is -0.6988 (Appendix 06) which indicates a negative relationship that if the Leverage of the company increases by 1 percent the DPR will decrease by 0.6988% and vice versa. The z value is -0.49 (p=0.625) which is statistically not significant



because p value is higher than .05. The negative relationship between company's Leverage and DPR supports the literature but found to be insignificant in this research on Food and Allied companies listed in DSE. Thus the relationship between company's Leverage and DPR is negatively insignificant.

In Random Effect GLS Regression (Robust) in shows almost similar results described above except firm's liquidity which is found to be negatively significant which was insignificant earlier the new z value is -1.99 ($p= 0.047$) which is statistically significant because p value is lower than .05.

POLICY IMPLICATION AND CONCLUSION

Policy Implication

After conducting this research it has been found which factors exert impact on the dividend payout ratio on Food and Allied companies listed in DSE. This study has exposed that the dividend payout ratio has a significant relationship to Liquidity, Size and Profitability. But no relationship could be established among growth, taxation and leverage. This study can contribute to both practical and theoretical knowledge regarding the determinants of dividend payout ratios on Food and Allied companies listed in DSE.

This research will help both current and potential investors as they are provided with information regarding which factors they may address when predicting future dividends. As previously dividend policies have been described as a puzzle, it was necessary to conduct a research concerning the determinants of the company's dividend payout ratio in a corporate sector in Bangladesh such as Food and Allied. Investors who may try to predict future dividends can get some useful information regarding which company selected factors to look for when predicting future dividends. Managers of corporations may also use the study when determining the dividend payout decision. From this study managers will find useful information regarding which factors they should consider when determining the dividend payout decision. The study has also contributed with theoretical knowledge since few studies had previously been conducted on this particular industry in the Bangladesh market. This study has contributed to fill the research gap that previously existed and other academics may use the study as a benchmark case.

Conclusion

The dividend policy is considered as an essential policy which influences other financial policies as well. An appropriate dividend distribution policy not only creates a good corporate image, but also achieves the faith of investors in the company's future prospects. There is no widespread study in this area so far in the corporate sector in Bangladesh. Considering this fact, the present study has been carried out to assess dividend policy practices of Food and Allied companies listed in DSE. The aim of this study is to analyze the determinants of dividend payout policy of Food and Allied companies listed in DSE. The research question was therefore: What is the relationship between the dividend payout ratio and company's selected factors of Food and Allied companies listed in DSE?



In order to answer the research question, seven samples of Food and Allied companies listed in DSE were taken through purposive sampling technique. Then Random Effect GLS Regression Model was conducted which is found to be the appropriate model for this research recommended by the result of Hausman Test. The relationship between company's Liquidity and DPR is found to be negatively insignificant but found significant in Robust Random Effect GLS Regression. Company's Profitability and DPR is found to be positively significant. Company's Size and DPR is found to be negatively significant. The relationship between company's Growth and DPR is found to be negatively insignificant. Company's Taxation and DPR is found to be negatively insignificant. Company's Leverage and DPR is also found to be negatively insignificant. So it can be said that among the independent variables Size and Profitability significantly impact the Dividend payout policy but in terms of robustness of the model Liquidity, Size and Profitability significantly impact the Dividend payout policy of Food and Allied companies listed in DSE.

Taking into consideration these findings, it can be concluded that firms having higher profitability are most likely to pay more dividends. Firms with higher liquidity, growth, size, leverage and taxation pay fewer dividends and vice versa. It is very necessary for the investors in Food and Allied companies of DSE to take into account these six determinants.

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APPENDICES

1. Multicollinearity (VIF Test)

. vif		
Variable	VIF	1/VIF
liquidity	2.31	0.433361
taxation	2.23	0.447488
profitability	2.21	0.453286
logSize	2.19	0.456523
growth	1.03	0.968373
leverage	1.02	0.977734
Mean VIF	1.83	



2. Auto Correlation (Durbin-Watson Test)

```
. gen time=_n
. tset time
    time variable: time, 1 to 80
      delta: 1 unit
. regress DPR liquidity profitability logSize growth taxation Leverage
```

Source	SS	df	MS	Number of obs =	70
Model	3003.23778	6	500.53963	F(6, 63) =	3.37
Residual	9366.39446	63	148.672928	Prob > F =	0.0061
				R-squared =	0.2428
				Adj R-squared =	0.1707
				Root MSE =	12.193

DPR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
liquidity	-.0987643	.0763541	-1.29	0.201	-.2513458 .0538173
profitability	41.18224	17.55423	2.35	0.022	6.102922 76.26157
logSize	-12.92279	3.138348	-4.12	0.000	-19.19427 -6.651298
growth	-5.447686	4.411111	-1.23	0.221	-14.26259 3.367215
taxation	-1.422476	1.76558	-0.81	0.423	-4.950706 2.105755
leverage	-.6988222	1.429438	-0.49	0.627	-3.555326 2.157682
_cons	119.2385	27.56581	4.33	0.000	64.15258 174.3243

```
. dwstat
Durbin-Watson d-statistic( 7, 70) = 1.004813
```

03. Heteroscedasticity (Breusch- Pagan/ Cook-Weisberg Test)

```
. estat hettest
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of logDPR
chi2(1) = 8.18
Prob > chi2 = 0.0042
```

04. Descriptive Statistics

```
. xtsum DPR liquidity profitability logSize growth taxation Leverage
```

Variable	Mean	Std. Dev.	Min	Max	Observations
DPR overall	3.289188	13.38918	-.862069	80	N = 70
between		7.202924	.2503331	19.59771	n = 7
within		11.58254	-16.30852	63.69148	T = 10
liquid~y overall	6.793562	29.20342	-1.519688	223.786	N = 70
between		15.02592	.7617832	40.85911	n = 7
within		25.62246	-33.24425	189.7205	T = 10
profit~y overall	.101332	.1242006	-.0573769	.4930553	N = 70
between		.1242962	.0092603	.3618885	n = 7
within		.044625	-.0354584	.2324988	T = 10
logSize overall	9.113948	.6922433	7.773046	10.66665	N = 70
between		.7095129	8.056855	10.28866	n = 7
within		.2036029	8.540738	9.616832	T = 10
growth overall	.1328974	.3381599	-.6280078	1.818993	N = 70
between		.1114998	-.0099384	.2796203	n = 7
within		.3217786	-.7698801	1.677121	T = 10
taxation overall	.298671	1.242835	-8.035523	5.704575	N = 70
between		.5305837	-.5061164	1.300547	n = 7
within		1.140105	-7.230735	4.702699	T = 10
Leverage overall	.7511985	1.038522	.2239443	9.181103	N = 70
between		.4345907	.5045736	1.728196	n = 7
within		.9561871	-.375887	8.204106	T = 10



07. Random Effect GLS Regression (Robust)

. xtreg DPR liquidity profitability logSize growth taxation leverage, re vce(robust)

```

Random-effects GLS regression           Number of obs   =       70
Group variable: code                   Number of groups =        7

R-sq:  within = 0.0510                  Obs per group:  min =       10
      between = 0.8295                    avg =          10.0
      overall  = 0.2428                    max =          10

corr(u_i, X) = 0 (assumed)              wald chi2(6)    =    213.93
                                           Prob > chi2     =     0.0000
    
```

(Std. Err. adjusted for 7 clusters in code)

DPR	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
liquidity	-.0987643	.0497529	-1.99	0.047	-.1962782	-.0012503
profitability	41.18224	17.8724	2.30	0.021	6.152975	76.21151
logSize	-12.92279	4.956219	-2.61	0.009	-22.6368	-3.208775
growth	-5.447686	3.875133	-1.41	0.160	-13.04281	2.147435
taxation	-1.422476	1.097005	-1.30	0.195	-3.572566	.7276144
leverage	-.6988222	.4388741	-1.59	0.111	-1.559	.1613551
_cons	119.2385	44.87567	2.66	0.008	31.28376	207.1932
sigma_u	0					
sigma_e	12.211817					

--more--