

## IDENTIFICATION OF FACTORS AFFECTING DIVIDEND: A STUDY OF FMCG COMPANIES IN INDIA

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### Abstract

Dividend payout decision is an important agenda of any concern. Dividend policy is one of the most important and controversial issue in corporate finance decisions. It is important because it is a repetitive decision that involves large amounts of cash outflow and closely related to most capital structure and budgeting decisions the firm makes. The objective of the study is to determine the relationship between the dividend payout ratio with profitability, liquidity, leverage, FSZ and FGR. For this study data has been collected only from secondary sources for the period from 2013-2017. Secondary data has collected from published annual reports and data base software. For this study choosing one dependent variable dividend payout ratio and eight independent variables return on assets, return on equity, earning per share, CR, QR, DER, FSZ and FGR to analyze. The analysis is made with the help of STATA-11. To examine the relationship between dividend payout ratio with other variables correlation, panel data regression analysis has been applied. The study reveals that the result of Random Effect Model, there have six factors viz. return on assets, earning per share, CR, DER, FSZ and FGR having a significant relationship with the dividend payout ratio of the selected FMCG companies in India.

**Keywords:** Dividend Payout Ratio, Fixed Effect Model, Random Effect Model, Hausman Test.

### 1. Introduction

Dividend payout decision, one of the important aspects of company's financial policy, is not an independent decision. Rather, it is a decision that is taken after several considerations. There are various factors that influence a firm's dividend policy. Dividend policy decides to distribute the profit and the managers have to make a choice between whether to use earning after tax to reinvest or pay out dividends to shareholders. In term of corporate, reserves considered as the lowest cost of funding source, are kept to sustain capital for company in reinvesting, expanding

scale, and approaching a larger project for development of business networks. However, this accumulation of a huge proportion of retained earnings also makes company's shares become less attractive as shareholders look forward to making incomes from dividend which is tax free income. Thus, dividend policy decisions play a vital role in the field of finance. This study aims to identify the factors that drive corporate dividends policy in India.

Dividend has two important aspects and is an effective element of a company's investment. On the one hand, higher are the dividends paid out, the lower are the business' internal resources for performing investment projects, while retaining has an impact on the stock price. Thus, managers should always equilibrate between different interests of shareholders so that they could utilize investment profitable opportunities and would pay required cash dividends for some shareholders. Therefore, a dividend decision by corporations' managers is very sensitive and important as well. There is no doubt that when deciding about income, managers should consider their outcomes. This is why many corporations have a certain purpose in mind while making decisions about dividends. However, it is without question that when managers make dividend decisions they inevitably face constraints such as liquidity problems, tax considerations and so on. Therefore, it is important to understand the factors that affect dividend policies so that managers can take decisions on the basis of these considerations. In the present study, the researcher uses econometric models to identify the factors that affect payout ratio of businesses during 2013-2017.

## **2. Literature Review**

Some important relevant studies are mentioned which have been reviewed before the following study are taken up. Ahmed (2015) explores the impact of liquidity and profitability on the dividend policy in the UAE banking sector and to examine variations between Islamic and conventional banks prior and subsequent to the financial crisis. The paper reveals that the dividend payout ratio has a significant and positive correlation with liquidity but negative and insignificant correlation with profitability. Ahmed and Murtaza (2015) emphasize the determinants of dividend payout and analyze the effect of change in dividends over the future company growth in Pakistan. The result reveals that that there is a significant effect of liquidity, earning per share, leverage, FSZ and dividend payout ratio in all the selected sectors, viz. oil, cement, energy, and sugar. Ajanthan (2013) reveals a strong and positive relationship between dividend payout and firm profitability among listed hotels and restaurant companies in the

Colombo Stock Exchange. Demirgunes (2015) stumbles on the determinants of target dividend payout ratio of BIST listed firms operating in cement manufacturing industry during the period of 2002-2012. The researcher finds profitability, growth and corporate taxation significantly affect dividend payout ratio negatively whereas risk and market expectations have a statistically significant and positive effect. Fitri et al. (2016) scrutinize the effect of return on assets, debt to equity ratio, assets growth and dividend payout ratio on listed companies at Jakarta Islamic Index during 2009-2014 which shows a positive and significant effect of return on asset and dividend payout ratio in a year before to Dividend Payout Ratio. Gill et al. (2010) look at the determinants of dividend payout ratios by examining the same for the American service and manufacturing firms. The research reveals that the dividend payout ratio is the function of profit margin, sales growth, debt-to-equity ratio, and tax. Hasan et al. (2015) explore the relationship between dividend payout ratio and profitability of a firm. The empirical result shows that there is a negative impact of dividend payout ratio on next year earnings of a firm. Kingwara (2015) examines the effect of factors that influence dividend policies in companies operating in Kenya. The researcher observes that dividend payout ratio is impacted negatively by the growth rate, debt ratios and FSZ but positively by earnings, market-to-book ratio and retained earnings to total assets ratio. Musiega et al. (2013) examine the determinants of dividend payout ratio for non-financial firms listed on Nairobi Securities Exchange. The investigation finds that return on equity, current earnings and firms' growth are significantly and positively correlated to dividend payout, business risk and size significantly. Njuguna and Jagongo (2015) scan the factors considered by management of quoted companies in Kenya in determining the dividend payout ratios. The results indicate that the current and future profitability of a company, cash flow position, financing requirements and the availability of profitable investments are the main considerations in the dividend payout decision of a firm. Rafique (2012) reveal the insight dynamics for determination of dividend payout with reference to non-financial firms listed in the KSE100 Index. The research points out that corporate tax and firm's size have a significant relationship with dividend payout ratio. Rehman and Takumi (2012) examine the determinants of dividend payout ratio in the largest stock exchange of Pakistan which reveals that profitability, debt to equity and market to book value ratios are found to be the significant determinants of dividend payout ratio. Sanjari and Zarei (2015) investigate the factors that influence corporate dividend policy of financial and non-financial firms on companies listed in Tehran stock

exchange. The consequences indicate that the variable size and liquidity of the company has a significant positive impact on the dividend is payable. Thafani and Abdullah (2014) examine the collision of dividend payout on corporate profitability in the manufacturing companies listed on Colombo Stock Exchange in Sri Lanka. The outcomes of the study expose that there is a significant association between dividend payout and corporate profitability in terms of return on assets, return on equity and earnings per share.

### **3. Research gap:**

On the basis of literature reviewed, it is observed that there is no specific study found as related to the relationship between dividend payout ratio with profitability, liquidity, leverage, firm size and firm growth during the post-crisis period of the FMCG companies in India.

### **4. Objective of the Study**

The objective of the study is to establish the relationship among dividend payout ratio and profitability, liquidity, leverage, firm size and firm growth of FMCG companies in India.

### **5. Hypotheses of the Study**

In conformity with the above stated objectives, the following testable null hypothesis has been formulated:

H<sub>0</sub>: There is no significant relationship among dividend payout ratio with profitability, liquidity, leverage, firm size and firm growth.

### **6. Research Design**

Research design means a way to systematically solve a research problem. It comprises a series of steps that are taken together to provide a roadmap for carrying out a research project.

**Sample size and selection:** The empirical work is based on a study of those FMCG companies which are listed in the National Stock Exchange (NSE). Hence, the sample size is fifteen and the study period is from 2013 to 2017.

**Data Type:** The entire study is based on secondary/quantitative data collected from the money control website ([www.moneycontrol.com](http://www.moneycontrol.com)).

**Research methods applied:** Based on the objectives of this study, the researcher uses descriptive statistics, correlation and panel data regression analysis.

The following table depicts the variables taken for the study.

**Table 1: Variables Defined**

| <b>Variables</b>             | <b>Variables Name</b> | <b>Abbreviations</b> | <b>Definition</b>  |
|------------------------------|-----------------------|----------------------|--|
| <b>Dependent Variable</b>    |                       |                      |  |
| Dividend Payout Ratio        | Dividend Payout Ratio | DPR                  | Dividend Payment / Net Profit                                    |
| <b>Independent Variables</b> |                       |                      |  |
| Profitability                | Return on Assets      | ROA                  | EBIT / Total Assets  |
|                              | Return on Equity      | ROE                  | Net Profits / Shareholders' Equity                               |
|                              | Earnings Per Shares   | EPS                  | Earnings Available to Equity Shareholders / No. of Equity Shares |
| Liquidity                    | Current Ratio         | CR                   | Current Assets / Current Liabilities                             |
|                              | Quick Ratio           | QR                   | Quick Assets / Quick Liabilities                                 |
| Leverage                     | Debt Equity Ratio     | DER                  | Long-term Debt / Shareholders Equity                             |
| Size                         | Firm Size             | FSZ                  | Natural log of Total Assets                                      |
| Growth                       | Firm Growth           | FGR                  | (Current Year Sales – Previous Year Sales) / Previous Year Sales |

Source: Compiled by the researcher

## 7. Analysis and Findings

In descriptive analysis of table data, mean, median, maximum, minimum, standard deviation, skewness and kurtosis have been computed. From the minimum table column highest value is the ROA and lowest is DER whereas in maximum column higher value in EPS and the lower in DER. But the average value is maximum in case of ROA which is the main component of any concern though there is a higher standard deviation for majority of the variables considered in the study.

**Table – 2: Descriptive Statistics**

|            | <b>Min.</b> | <b>Max.</b> | <b>Mean</b> | <b>Std. Dev.</b> | <b>Skewness</b> | <b>Kurtosis</b> |
|------------|-------------|-------------|-------------|------------------|-----------------|-----------------|
| <b>DPR</b> | 1.00        | 64.00       | 13.940      | 15.881           | 1.856           | 2.654           |
| <b>ROA</b> | 9.15        | 119.07      | 125.981     | 178.670          | 4.041           | 19.458          |

|            |      |        |        |         |       |        |
|------------|------|--------|--------|---------|-------|--------|
| <b>ROE</b> | 0.00 | 142.01 | 31.956 | 25.358  | 2.499 | 7.460  |
| <b>EPS</b> | 2.97 | 164.10 | 32.202 | 35.070  | 2.230 | 4.835  |
| <b>CR</b>  | 0.46 | 2.26   | 1.233  | 0.463   | 0.399 | -0.688 |
| <b>QR</b>  | 0.22 | 3.06   | 0.843  | 0.577   | 2.104 | 4.764  |
| <b>DER</b> | 0.00 | 0.77   | 0.090  | 0.159   | 2.313 | 5.362  |
| <b>FSZ</b> | 3.00 | 4.74   | 3.820  | 0.463   | 0.569 | -0.578 |
| <b>FGR</b> | 0.00 | 35.84  | 15.519 | 7.65446 | 0.340 | 1.042  |

Source: Compiled by Author

### Correlation Analysis

Correlation analysis is used to check for the multicollinearity among the dependent and control variables employed in the study.

**Table – 3: Correlation Matrix**

|     |  | DPR            | ROA            | ROE             | EPS           | CR             | QR            | DER | FSZ | FGR |
|-----|--|----------------|----------------|-----------------|---------------|----------------|---------------|-----|-----|-----|
| DPR | Pearson Correlation<br>Sig. (2-tailed) | 1              |                |                 |               |                |               |     |     |     |
| ROA | Pearson Correlation<br>Sig. (2-tailed) | .522**<br>.000 | 1              |                 |               |                |               |     |     |     |
| ROE | Pearson Correlation<br>Sig. (2-tailed) | .135<br>.246   | -.218<br>.060  | 1               |               |                |               |     |     |     |
| EPS | Pearson Correlation<br>Sig. (2-tailed) | .543**<br>.000 | .627**<br>.000 | -.007<br>.955   | 1             |                |               |     |     |     |
| CR  | Pearson Correlation<br>Sig. (2-tailed) | -.261*<br>.024 | .053<br>.649   | -.320**<br>.005 | -.141<br>.229 | 1              |               |     |     |     |
| QR  | Pearson Correlation<br>Sig. (2-tailed) | -.196<br>.092  | -.050<br>.669  | -.199<br>.087   | -.123<br>.293 | .673**<br>.000 | 1             |     |     |     |
| DER | Pearson Correlation<br>Sig. (2-tailed) | -.021<br>.857  | .117<br>.316   | -.152<br>.192   | .132<br>.260  | -.157<br>.177  | -.006<br>.961 | 1   |     |     |

|     |                     |       |       |        |       |       |      |        |        |   |
|-----|---------------------|-------|-------|--------|-------|-------|------|--------|--------|---|
| FSZ | Pearson Correlation | .009  | -.128 | .421** | -.027 | -.038 | .190 | -.256* | 1      |   |
|     | Sig. (2-tailed)     | .937  | .274  | .000   | .818  | .749  | .103 | .027   |        |   |
| FGR | Pearson Correlation | -.095 | -.192 | .228*  | -.141 | .059  | .099 | -.268* | .609** | 1 |
|     | Sig. (2-tailed)     | .416  | .099  | .049   | .227  | .613  | .399 | .020   | .000   |   |

Source: Compiled by Author

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Based on the above correlation matrix table, it is observed that there is no multi-collinearity problem among the variables taken in the study since all the coefficient values are less than 0.80. Therefore, the study finds that the independent variables have no strong correlation between them and thus the researcher tests the model in the next section.

### Panel regression analysis

After running the fixed effect model on STATA software, the result in table-4 gives the results of panel data analysis.

**Table – 4: Results of Fixed Effect Model**

| Fixed-effects (within) regression |             |            |       | Number of observation      | =                      | 75       |
|-----------------------------------|-------------|------------|-------|----------------------------|------------------------|----------|
| Group variable: company code      |             |            |       | Number of groups           | =                      | 15       |
| R-sq: within = 0.7133             |             |            |       | Observation per group: min | =                      | 5        |
| between = 0.3564                  |             |            |       | avg                        | =                      | 5.0      |
| overall = 0.4348                  |             |            |       | max                        | =                      | 5        |
| corr(u_i, Xb) = -0.3549           |             |            |       | F(6,54)                    | =                      | 22.39    |
|                                   |             |            |       | Prob > F                   | =                      | 0.0000   |
| Dividend Per Share                | Coefficient | Std. Error | T     | p >  t                     | [ 95% Conf. Interval ] |          |
| ROA                               | 0.04154     | 0.01009    | 4.12  | 0.000                      | 0.06178                | 0.02129  |
| ROE                               | -0.02463    | 0.05647    | -0.44 | 0.664                      | -0.13784               | 0.08857  |
| EPS                               | 0.30852     | 0.02803    | 11.01 | 0.000                      | 0.25233                | 0.36471  |
| C. Ratio                          | -7.62813    | 5.75785    | -1.32 | 0.191                      | -19.17192              | 3.91565  |
| Q. Ratio                          | 2.25631     | 6.38869    | 0.35  | 0.725                      | 10.55225               | 15.04686 |
| D/E Ratio                         | 18.25795    | 6.67182    | 2.74  | 0.008                      | 31.63413               | 4.88177  |

|                        |  |                  |      |                   |          |          |
|------------------------|--|------------------|------|-------------------|----------|----------|
| FSZ                    | 21.52604                                     | 11.1943          | 1.92 | 0.350             | 43.96926 | 0.91718  |
| FGR                    | 0.50038                                      | 0.22001          | 2.27 | 0.942             | 0.05891  | 0.94186  |
| _cons                  | 96.18541                                     | 43.15607         | 2.23 | 0.030             | 9..66271 | 182.7081 |
| sigma_u                | 12.164098                                    |                  |      |                   |          |          |
| sigma_e                | 5.2611311                                    |                  |      |                   |          |          |
| Rho                    | 0.84241205 (fraction of variance due to u_i) |                  |      |                   |          |          |
| F test that all u_i=0: |  | F(14, 54) = 7.31 |      | Prob > F = 0.0000 |          |          |

Source: Compiled by Author

After running the random effect model on STATA software, the result in table-5 gives the results of panel data analysis.

**Table – 5: Results of Random Effect Model**

| Random-effects GLS regression |                    |                   | Number of observation = 75     |                  |                               |          |
|-------------------------------|--------------------|-------------------|--------------------------------|------------------|-------------------------------|----------|
| Group variable: company code  |                    |                   | Number of groups = 15          |                  |                               |          |
| R-sq: within = 0.6982         |                    |                   | Observation per group: min = 5 |                  |                               |          |
| between = 0.8030              |                    |                   | avg = 5.0                      |                  |                               |          |
| overall = 0.7555              |                    |                   | max = 5                        |                  |                               |          |
| corr(u_i, X) = 0 (assumed)    |                    |                   | wald chi2(6) = 165.26          |                  |                               |          |
|                               |                    |                   | Prob > chi2 = 0.0000           |                  |                               |          |
| <b>Dividend Per Share</b>     | <b>Coefficient</b> | <b>Std. Error</b> | <b>z</b>                       | <b>p&gt;  z </b> | <b>[ 95% Conf. Interval ]</b> |          |
| ROA                           | 0.03891            | 0.00957           | 4.07                           | 0.000            | 0.05766                       | 0.02016  |
| ROE                           | 0.00470            | 0.04907           | 0.10                           | 0.924            | -0.09147                      | 0.10087  |
| EPS                           | 0.32103            | 0.02615           | 12.28                          | 0.000            | 0.26978                       | 0.37229  |
| C. Ratio                      | 8.92565            | 4.39259           | 2.03                           | 0.042            | 17.53497                      | 0.31633  |
| Q. Ratio                      | 3.68530            | 4.34862           | 0.85                           | 0.397            | -4.83784                      | 12.20844 |
| D/E Ratio                     | 16.37632           | 6.06167           | 2.70                           | 0.007            | 28.25696                      | 4.49568  |
| FSZ                           | 4.06339            | 4.34457           | 0.94                           | 0.050            | 12.57858                      | 4.45180  |
| FGR                           | 0.01185            | 0.16178           | 0.07                           | 0.027            | -0.30523                      | 0.32894  |
| _cons                         | 28.35984           | 17.24803          | 1.64                           | 0.100            | -5.44567                      | 62.16535 |
| sigma_u                       | 6.9849131          |                   |                                |                  |                               |          |

|         |  |
|---------|--|
| sigma_e | 5.2611311                                    |
| Rho     | 0.63802748 (fraction of variance due to u_i) |

Source: Compiled by Author

**Table – 6: Results of Hausman Test**

|  |
|--|
| <p><b>Hausman Fixed Random</b><br/>                 Chi2 (6) = 8.15<br/>                 Prob&gt;chi2 = 0.2274</p> |
|--|

Source: Compiled by Author

Based on the above table (no. 6), it is observed that the Hausman test prefers the random effect model to the fixed effect model as the p value (0.2274) of the chi-square (8.15) lies above the significance level of 0.05. The value chi-square of the random effect model is 165.26 with p value of 0.000. The model is good fit as the respective p value falls under the significance level of 0.05. In this model, independent variables explain around 75.55% of the movement in the dependent variable. Comparing the p-value of each independent variable, the author sees that six variables including return on assets, earning per share, CR, DER, FSZ and FGR are statistically significant with dividend per share. The coefficients of the random effect model reveal that for 1% change in return on assets, earning per share and DER, dividend payout ratio directly changes by 3.89%, 32.10% and 1637.63% respectively. The effect of return on assets, earning per share and DER is also statistically positively significant even at 1% level of significance. Similarly, with 1% change in CR, FSZ and FGR, dividend payout ratio directly changes by 892.57%, 406.34% and 1.19% respectively. The effect of CR, FSZ and FGR is also statistically positively significant at 5% level of significance. Therefore, the random effects model shows that dividend payout ratio is directly positively influenced by profitability, liquidity, leverage, FSZ and FGR.

**8. Conclusion**

The study examines the determinants of dividend payout ratio for quoted FMCG companies in India. This empirical research makes an investigation into the effect of factors that theoretically impact dividend policy of companies. The study is made on fifteen listed FMCG companies in India during 2013 to 2017. The random effect model which is used to regress the panel data shows that there are six factors which are namely, ROA, EPS, CR, DER, FSZ and FGR which have a significant relationship with the dividend per share. Thus, dividend payout ratio is directly

influenced by profitability, liquidity, leverage, FSZ and FGR of the selected companies study in India. This finding is pertinent for finance managers as this can guide them to take such dividend decisions.

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**Annexure:****List of Companies-**

1. Hindustan Unilever Ltd.
2. ITC
3. Nestlé India
4. Dabur India Ltd
5. Asian Paints (India)
6. Britannia Industries Ltd.
7. Marico Industries Ltd.
8. Colgate-Palmolive (India) Ltd.
9. Gillette India Ltd.
10. Godfrey Phillips
11. Johnson & Johnson
12. Wipro
13. Godrej Consumer Products Ltd
14. Emami
15. Pidilite Industries