

# **Major Research Project**

**On**

## **A comprehensive study on relationship between dividend policy and firm's performance and its impact on stock prices**

**Submitted by:**

Ankuj Malik

2K22/DMBA/16

**Under the Guidance of**

Dr. Deep Shree

Assistant Professor



**DELHI SCHOOL OF MANAGEMENT**

**Delhi Technological University**

Bawana Road, Delhi 110042

## **CERTIFICATE**

This is to certify that Ankuj Malik 2K22/DMBA/16 has completed the project titled “A comprehensive study on relationship between dividend policy and firm’s performance and its impact on stock prices” under the guidance of Dr. Deep Shree in partial fulfillment of the requirements for the award of the degree of Master of Business Administration (MBA) from Delhi School of Management, Delhi Technological University, New Delhi during the academic year 2023-24.

**Dr. Deep Shree**

**Assistant Professor**

**Delhi School of Management**

**Delhi Technological University**

## **DECLARATION**

I, Ankuj Malik, student of Delhi School of Management, Delhi Technological University, hereby declare that the Major Project Report on

“A comprehensive study on relationship between dividend policy and firm’s performance and its impact on stock prices”, submitted in partial fulfillment of the requirements for the award of the degree of Master of Business Administration (MBA) is the original work done by me. I also confirm that neither I nor any other person has submitted this project report to any other institution or university for any other degree or diploma. I further declare that the information collected from various sources has been duly acknowledged in this project.

**Ankuj Malik**

**2K22/DMBA/16**

## **ACKNOWLEDGEMENT**

I would like to express my gratitude to all those who have been instrumental in the preparation of my project report. I wish to place on record, my deep sense of gratitude and sincere appreciation to my faculty guide Dr. Deep Shree (Assistant Professor), Delhi School of Management, Delhi Technological University for her able guidance, continuous support and cooperation throughout my project, without whom the present work would not have been possible. In every phase of the project her supervision and guidance shaped this report to be completed. She helped me throughout this project and gave the right direction towards completion of this project.

**Ankuj Malik**

**2K22/DMBA/16**

## **EXECUTIVE SUMMARY**

The objective of the research project is to find out the relationship (if there is any) between dividend policy and firm's performance. Secondary data is used for the preparation of this project. The key objectives were to:

- a) Analyze and investigate those factors which affect firm's performance such as dividend policy, firm size and market share price and growth of the firm.
- b) To provide the knowledge about firm performance, dividend policy, firm size, firm growth.
- c) To understand the extent of the relationship between dividend payout and firm performance.

The project has been divided into six parts, the first chapter deals with introduction of dividend policy and its impact, the second chapter is about review of literature, while the third chapter notifies about research methodology being used i.e., descriptive research design. The fourth chapter cites with the various sources which were used for finding data for this research as well as the analysis techniques i.e., correlation and regression analysis used on the collective data and other findings through descriptive research. The fifth chapter states conclusion which can be drawn after conducting this extensive research.

Several theories have been documented on the relevance and irrelevance of dividend policy such as clientele theory which advocates that different investor types have different preferences for dividend or capital gains and signalling theory, which suggests that high dividend payouts signal a company's confidence in its future prospects.

We have also discussed about various types of dividend policy that a firm can follow given its level of earnings and commitment towards shareholders. So, we can say that we have made an attempt to delve into the intricate relationship between a firm's dividend policy and its overall performance.

A critical factor behind any company's dividend policy is to optimize the company's financial gains from its earnings by striking a balance between retained earnings, which are essential for a company's expansion, and dividend payments to shareholders. Only Indian firms have been picked to gather data regarding dividend policy.

Various researchers have claimed that dividend policy can be one of the decisive factors of a company's success if used in a correct manner that aligns well with the objective of firm, level of earnings, future prospects and goals. Thus, we have also tried to analyze how dividend payouts influence a firm's stock price, access to capital, and investment opportunities.

Some real world examples and academic research have been used to draw valuable insights for financial managers seeking to navigate this complex relationship.

## INDEX

<b>S.No.</b>	<b>TITLE</b>	<b>PAGE NO.</b>
1.	Chapter 1 – Introduction	1
1.1	- Background	1
1.2	- Objectives	10
1.3	- Scope	10
2.	Chapter 2 – Literature Review	11
3.	Chapter 3 – Research Methodology	18
4.	Chapter 4 – Analysis	20
5.	Chapter 5 – Conclusion	31
5.1	- Limitations	33
5.2	- References	34

# CHAPTER 1

## INTRODUCTION

### **1.1 Background**

Dividend in simplest of the terms means the amount or percentage of a company's yearly profits that is given to its shareholders. However the total amount of the business's yearly profits is not distributed among shareholders rather some portion to be retained (kept) by the company for future to meet any unforeseen liability or for growth purposes. And the dividend policy is term given to the phenomenon of how a company specifies its profits to be distributed or to be reinvested in the company or a dividend policy may be defined as a collection of rules and standards that a business adheres to when deciding what percentage of its earnings will be distributed to its shareholders as dividends. It represents how the business distributes profits and is subject to a number of internal and external variables. Researchers, corporate experts and even some analysts believe that dividend policy is crucial since it not only pays out dividends to shareholders but also gives prospective investors confidence in the company's sound financial standing and long-term goals. They even emphasize that it affects the investor's income and investment strategy in addition to the company's growth and stability.

There are primarily two reasons why corporate managers finds dividend policy important to a large extent.

- a) It affects shareholder's income
- b) Heterogeneous preferences (degree to which an individuals' preferences and tastes for a commodity or service differ) regarding dividend payout.

In general, dividends are raised in response to profits, which almost always raise the company's stock price and vice versa. The study's main objectives are to look at and evaluate the elements that affect how growth, dividend policy, stock price, and business performance are related to one another.



The focus of this investigation is to discover the complex relationship that has to do with a company's dividend policy and overall success. Most hypotheses show that information about the profitability of the firm and projected adjustments to the dividend payment policy are influenced by earnings. Most of these illustrate the connection between the dividend distribution policies and the company's anticipated future profitability and earnings. We shall also be exploring various theories that attempt to explain this dynamic, such as signalling theory, which suggests that high dividend payouts signal a company's confidence in its future prospects.

#### Theories of dividend policy:

##### 1) Irrelevance theory

As per this rationale, the selection of payments does not impact the wealth of shareholders or the firm's worth. This idea is known as the theory of irrelevance for this reason. There are two distinct methods which are used to help illustrate this theory in more detail.

- a) Residual approach – As per residual approach, a dividend allocation has had no impact on shareholders' wealth because ultimate goal of investors is to obtain a high rate of return on their capital, not on dividends. This indicates that if the company is making a lot of money, the shareholders would prefer to keep their money with the company; on the contrary, if the company isn't able to find a profitable opportunity, the shareholders would prefer to get their money back as a dividend.
- b) Modigliani and Miller hypothesis or MM approach – This policy holds that the actual worth of the entity's shares is dictated by its investment scheme; the dividend structure of the corporation has no effect on share price. However, this theory has certain assumptions such as:

- i) There are no taxes i.e. tax rate on capital gains is similar to tax rate on dividends
- ii) Market where every player has full data readily available with no presence of transaction or hidden costs
- iii) Investors act rationally because of availability of information
- iv) Company follows a rigid investment policy and does not change its risk position
- v) No uncertainty about the future profits

With the passage of time this strategy has drawn criticism for the following reasons:

- i) There doesn't seem a flawless market for capital.
- ii) The business must pay transaction charges.
- iii) Company hardly follows any rigid investment policy.

#### 1) Theory of relevance

According to this idea, the choice of dividends affects the value of the company as well as the wealth of the owners. Given that, the dividend inform the investors about the company's profitability. This hypothesis is further clarified using two distinct methodologies.

- a) Walter's approach – Explained by prof. James E. Walter, this model states that dividends are significant and influence the firm's market value. Furthermore, because policy for the payout of dividends and investment policy are interrelated, they cannot be separated. This approach is based upon ROI ( $r$ ). This relationship gives us 3 types of firms:

- i) Growth firm: If  $r > k$ , it means ROI is greater than required rate of return. In such case it is optimal for firm to retain its earnings because it possesses efficient investment opportunities.
- ii) Declining firm: If  $r < k$ , it means ROI is less than required rate of return. Now, firm should pay the dividends to shareholders representing the whole amount of its earnings
- iii) Normal firm: If  $r = k$ , it indicates that dividend payouts does not impact its value. Also, firm has to decide how much portion of the total available profits is to be retained and the amount to be split among investors. It can vary from 0% to 100%.

However, this model has its own assumptions which are as under:

- i) EPS and DPS remains constant.
  - ii) Perpetual life of the firm
  - iii) Regardless of how the investments vary, (k) and (r) does not vary.
  - iv) The principal source of funding is by ploughing back the previous profits as no external sources are used to finance the project
- a) Gordon's approach/ Gordon's model – Advocated by Myron Gordon. This theory and Walter's approach are comparable. This theory is in the favour of the doctrine that, present value of future dividend is equivalent to the share's current market value.

Assumptions are:

- i) IRR and Cost of capital does not change
- ii) No usage of external sources for financing
- iii) Constant growth rate
- iv)  $k > g$

Criticism of Gordon's model

- i) Constant Cost of capital is not realistic in real situations
- ii) It assumes that rate of return is constant but it decreases with more and more investments.

## Some other theories/effects in dividend policy

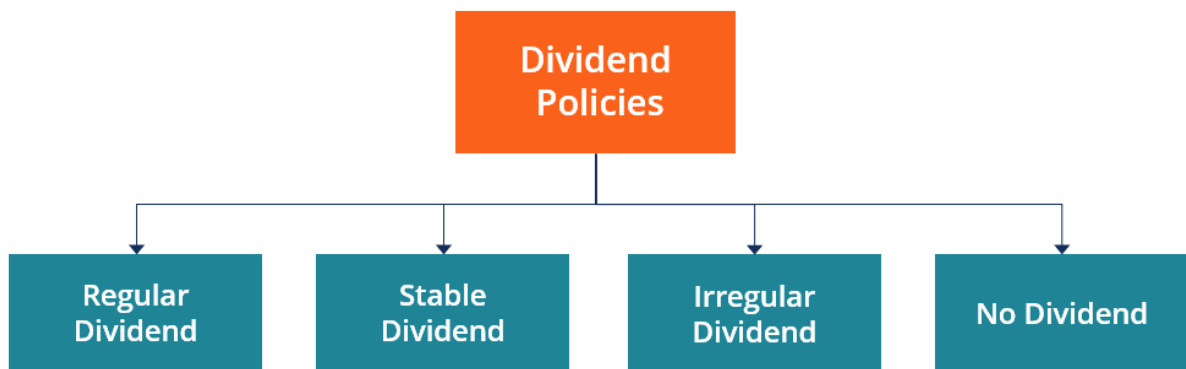
- Clientele effect

This effect describes desires and wants of individuals undermine the movement of share. Demands arise because of modifications in business policy, taxation, dividends, or other issues affecting a company's stock price.

- Dividend signalling

This theory advocates that any rise in dividend payments announced by a corporation is a sign of promising future developments. It also says that companies paying higher dividends earns more profit than companies paying lesser amount of dividends.

### Types of dividend policy:



*Figure 1.1: Type of dividend policy*

*Source: Corporate Finance Institute*

1. Regular dividend policy: Regardless of their annual earnings or losses, companies that adhere to this policy pay to those who own shares time to time. It's a reliable and steady strategy that guarantees shareholders receive a dividend at predetermined intervals. It means fixing a certain amount of dividend.

2. Irregular dividend policy: Companies are not obligated to adhere to a predetermined agenda for dividend distribution. The payments are unsteady and prone to fluctuation upon the company's financial standing at any particular moment.
3. Stable dividend policy: Businesses that adopt this strategy pledge to pay out a specific sum in dividends each year, regardless of their actual earnings. Knowing they would always receive a fixed dividend amount gives stockholders a sense of security. It means fixing a certain percentage of dividend from the company's profits.
4. No dividend policy: Businesses that implement this strategy keep all of their profits and don't pay out dividends to shareholders. Typically, they reinvest these profits to support corporate expansion, growth, and other endeavors

Each of these policies impact business performance in a certain way which is usually different from other way of paying dividends.

#### Process of dividend policy in financial management

- a. Assessment of profits: In order to decide whether there are enough profits available for dividend distribution, the company evaluates its financial position. This entails checking balance sheets and income statements among other financial statements to make sure net income is positive.
- b. Legal terms and compliances: The business has to make sure that it abides by all laws and guidelines pertaining to the distribution of dividends. They frequently relate specifically to the nation and sector of the business. Respecting maximum dividend payment ratios is part of this.
- c. Strategic considerations: This choice is based on the expectations of shareholders and takes into account the company's strategic goals and shareholder preferences. While some prioritize long-term wealth growth, others would rather have a steady income.

- d. Consistency: The business then makes an effort to continue paying dividends in a consistent manner. One way to maintain consistency could be to schedule payments at regular periods.
- e. Communication: In order to control shareholder expectations, the dividend policy must be communicated in an open and concise way.
- f. Reinvestment plans: Certain firms allow their shareholders to reinvest their dividends back into the company's shares. Schemes such as Dividend Reinvestment Plans (DRIPs) are used to accomplish this. Through these plans, shareholders can purchase more shares at a reduced cost. As a result, shareholders are encouraged to make long-term investments and can tailor their investing strategy.

Factors affecting dividend policy



Figure 1.2: An image depicting various factors that decide dividend policy

Source: *The Investor's book*

We frequently contemplate how an organization formulates its dividend policy. Above image depicts the various possible factors elements that could have an impact on a company's dividend policy. A firm must be careful while addressing these factors. It is highly unlikely that a firm may be impacted by all of these factors so, let's discuss about some of them:

- Legal restrictions: These are the laws imposed by the government that specify the highest dividend that a business may give.
- Liquidity of funds: Regular dividend payments depends on sufficient amount of liquid assets.
- Debt obligation: Businesses frequently have to take their debt repayment obligations into account. They might use some of the profits to settle debts before paying out dividends.
- Stability of earnings: The firm may declare dividends in accordance with its profitability and steady earnings.
- Taxation: The firm would have little profit left over to distribute as dividends if it had to pay significant corporate tax or dividend tax.
- Government intervention: The government's intervention in a certain industry and limitations on the issuance of shares or debentures can also impact payout strategy
- Accessible funds: Dividend decisions are influenced by the capital markets' potential to provide funds.

#### Objectives:

A dividend policy's primary goal is to optimize a company's financial gains from its earnings by striking a balance between retained earnings, which are essential for a company's expansion, and dividend payments to shareholders.

For dividend policy, there are other equally important goals in addition to the primary one, such as:

- a) A company's dividend policy reveals its level of market profitability both now and in the future. Recurring dividend payments might attract additional investors by giving a good impression of a company's financial stability.
- b) Future objectives for the business, including expansion and debt repayment, must also be taken into account by the policy. One way to help finance these demands without excessively depending on external borrowing is to retain a share of profits.
- c) Despite shifting profitability, corporations often follow a consistent dividend policy to preserve investor confidence and market reputation. When dividends are steady, investors may feel safer, particularly in a tumultuous market.
- d) Investors differ in what they want to invest in. While some people favor capital gains as a source of income, others favor dividend payouts. A varied investor base can be accommodated by a well-balanced dividend policy, which will make the company more appealing to potential investors.

Importance:

This paper will critically examine the dividend policy's effect on a number of business performance metrics. We will additionally look at the bearing of dividend payments on the value of a business's stock, funds availability, and investment opportunities. Additionally, the potential tax implications for both the company and shareholders will be explored. It delineates the distribution of profits between retained earnings and dividends, so enabling future growth efforts and smart financial management. A steady dividend payment enhances the company's reputation in the financial markets. It draws in a wider pool of possible investors by demonstrating the company's financial stability.

By investigating these multifaceted connections, the key objective of the following paper is to clarify the best dividend policy for firms. We will analyze real world examples and academic research to draw valuable insights for financial managers seeking to navigate this complex relationship.



### **Objectives of study:**

This study attempts to examine the vibrant connection between a company's dividend policy and overall success and also how dividend decision impact stock's price using statistical techniques such as regression and correlation. The research being conducted seeks to accomplish the following particular goals:

- I. Does financial performance of a company gets affected by the dividend payments?
- II. Figure out the effects of firm's performance on stock price using regression analysis
- III. To provide insights into investor's sentiments regarding dividend policy of various firms

### **Scope of the study:**

The project's investigation is limited to determining how the dividend policy and the firm's performance are related. The tools used for discovering the relationship is: regression analysis. The data of last 5 financial years has been used i.e. from 1 Apr 2018 to 31 Mar 2023 to arrive at the conclusion of this research. The research's focus is publicly traded corporations enlisted on any Indian trading floor. The sample comprises of 10 publicly listed companies from I.T and FMCG sector. The study will consider a range of variables related to dividend policy, firm performance, and stock price movements to offer a thorough examination of the variables affecting these dynamics.

## **CHAPTER 2**

### **LITERATURE REVIEW**

The literature study helps the researchers gain a better understanding of the methods used, the limitations of the many estimating techniques and databases that are currently in use, and the clear interpretation and resolution of the inconsistent results. Furthermore, the examination of empirical research explores possible avenues for current and future investigation into the subject. In case of contradicting and unexpected results, the researcher can utilize the advantage of expertise of other researchers simply through the medium of their published works. Researchers, economists, and academicians from various countries including India have conducted a significant number of studies on many facets of the operation of the public and private sectors.

*Deeptee and Roshan (2009)* determined that, “the dividend payment is a process of paying shares of profit to the shareholders of the firm. They stated that the firm issues the equity as common stock and preferred stock. In the preferred stock policy, a fixed amount of shares of the profit is issued while for the common stockholders the dividend payment policy varies, depending upon the profit earned. The firm shows the amount distributed among the shareholders. This dividend settlement is known as the dividend policy”.

“*Stacescu (2006)* found that the rise of average earnings of the firm leads to the increase of dividend rates of that firm and vice versa. Whenever the dividend rates increase due to the rise in earnings, the dividends paid for the year will be higher than those of the previous year and they will be lower due to the earnings decrease”

*Nissim and Ziv (2001)*, *Benartzi et al. (1997)* present their hypothesis, according to which “the dividend changes may give new information about the future performance or

profitability of the firm. Nissim and Ziv (2001) found a positive relationship between the dividend changes and the firm future profitability changes by investigating the hypothesis. They also found that the dividends cut positively relates to the future earnings for 4 subsequent years, but does not relate to future profits or earnings.”

“*Grullon et al. (2005)* presented an article where it was stated that “the changes in the dividends do not give signals about the changes in the future earnings”. Thus, the signaling hypothesis is not acceptable. According to them the work by Nissim and Ziv about linear mean reversion in profitability is not valid. Therefore, the authors employed a model, according to which there is no relationship between the dividend changes and future earnings.”

According to *Miller and Rock (1985)*, “the dividend policies of those firms where the asymmetric information exists and there is different information for the firm insiders and outsiders about the firm earnings, net dividend and investment at the time of the dividend announcement. The basic and main information for the outsiders is about the dividends, that is not enough for the evaluation of firm performance. The firm insiders have the information about the unannounced earnings and investments that is the main difference for the evaluation of firm performance”

*Modigliani and Miller (1961)* investigated, “the effects of dividend policy on share prices, arguing that the latter move independently of dividend policy, on the premise that shareholders may sell shares if they would like to extract higher cash payments, and they can re-invest dividends if they prefer lower cash positions.”

“The Modigliani-Miller framework also abstracts from tax effects - if different stockholders face different taxation rates on dividends, their preferences would vary accordingly (Allen et al., 2000; Coates et al., 1998).”

“*Jiraporn et al. (2016)* investigated dividend payment data for the period 1989-2011, and based on extensive observations of dividend payouts they concluded that more talented executives have a higher tendency to pay dividends, possibly because they are more confident in their ongoing abilities to generate profits.”

In the views of *Hussainey et al. (2011)* who found that, “the dividend yield of the firms listed on the London Stock Exchange were positively related to share price volatility while the payout ratio was negatively related to stock price changes.”

And, *Allen and Rachim (1996)*, “reported significant negative correlation between stock price volatility and the payout ratio when analyzing Australian listed companies. Despite this, they found no evidence that dividend yield is correlated with stock price volatility.”

*Mulanazar et al. (2016)* examined “the dividend policy have any influence on the firm performance he collected the data from the financial statement of listed firms during the period of (2010- 2015). He used the OLS technique. Results show that ROA, dividend, and growth are negatively associated with each other. Dividend payout ratio and leverage negatively influence the ROA.”

*T.Velnampy et al. (2014)* stated that, “there is any connection between dividend policy and firm's profitability by using data of manufacturing firms during the age of (2008-2012). He used ROA and ROE as an independent variable. EPS and dividend payout are determining the factor of dividend policy. He concludes that dividend payout and earning per share don't influence the firm performance.”

A study by *Zhou & Ruland (2006)* revealed that “high dividend payout firms tend to experience strong future earnings but relatively low past earnings growth despite market observers having a contradicting view.”

The findings of another study done by *Arnott & Asness (2003)* also revealed that “future earnings growth is associated with high rather than low dividend payout. They concluded that historical evidence strongly suggests that expected future earnings growth is fastest when current payout ratios are high and slowest when payout ratios are low. Their evidence contradicted the view that substantial reinvestment of retained earnings would fuel faster future earnings growth.” Their study was done to “investigate whether dividend policy of the U.S. equity market portfolio, forecasts future earnings growth.”

*Arnott & Asness (2003)* suggested that, “the positive relationship between current dividend payout and future earnings growth is based on the free cash flow theory. Low dividend resulting in low growth may be as a result of suboptimal investment and less than ideal projects by managers with excess free cash flows at their disposal. This is prominent for firms with limited growth opportunities or a tendency towards over-investment. Paying substantial dividends which in turn would require managers to raise funds from issuance of shares, may subject management to more scrutiny, reduce conflicts of interest and thus curtail suboptimal investment.” This is predicated on the idea that while discipline and a reduction in conflicts can boost future earnings growth through properly planned initiatives, subpar investments set the stage for poor earnings growth in the future. Therefore, “paying dividends to reduce the free cash flows enhances the performance of a company since managers will have less cash flows thus avoiding suboptimal investments.”

*Farsio et al. (2004)* “argue that no significant relationship between dividends and earnings hold in the long run and studies that support this relationship are based on short periods and therefore misleading to investors.” Three scenarios were presented by them to undermine the relevance of a long-term association between dividends and projected earnings.

Initially, they took note of that “an increase in dividends may lead to a decline in funds that are to be reinvested by the firm. Firms that pay high dividends without considering investment needs may therefore experience lower future earnings” (Farsio et al., 2004).

Additionally, “an increase in dividends in a quarter may be the result of the management’s policy to keep investors satisfied and prevent them from selling the stock at times when future earnings are expected to decline or current losses are expected to continue” (Farsio et al., 2004).

Lastly, “an increase in dividends may be the result of good performance in previous periods which may continue into the future” (Farsio et al., 2004).

This supports the hypothesis that there is a positive correlation between current dividends and future earnings. They claim that based on these scenarios, the long-term impact is negligible overall since there are times when dividends and future profits have a positive relationship and times when there is a negative association.

*Amidu, M. (2007)* found that “dividend policy affects firm performance especially the profitability measured by the return on assets. The results showed a positive and significant relationship between return on assets, return on equity, growth in sales and dividend policy. This showed that when a firm has a policy to pay dividends, its profitability is influenced. The results also showed a statistically significant relationship between profitability and dividend payout ratio.”

According to the dividend irrelevance hypothesis, “a firm’s dividend policy has no effect on the value of the firm in a perfect and complete market” (Stulz, 2000). Financial managers therefore, cannot alter the value of their firms by changing their dividend policy (Dhanani, 2005).

A key component of optimizing shareholder value is dividend policy. In fact, “a firm's dividend policy can influence one or more of imperfections in the real world such as information asymmetry between managers and shareholders; agency problems between managers and shareholders; taxes and transaction costs and in turn, enhance the firm's value to shareholders” (*Dhanani, 2005*).

*Priya, K et al. 2013* determine “how dividend policy influenced on firms performance through correlation and regression measure the impact of firms performance.” The finding shows that “the dividend policy based on return on investment, earning per share, and price earning. 51 firms paying a dividend from sequences 10 years to increase their wealth. Firms can reduce the agency cost through paying a dividend which creates attraction with employees.”

*Alii, Khan, and Ramirez, (1993)* examined that “the relationship between expected price-to-book ratio, dividend per share, dividend payout ratio, systematic and unsystematic risks. The sample includes the non-financial firms in the Dow Jones Industrial Average, the period 1997-2006. The result show, the variations in price-to-book ratios, systematic and unsystematic risks are not due to dividends per share.” Then, “the relationships between expected price-to-book ratio and dividend payout ratios are intrinsically nonlinear.” Finally, “the expected dividend payout ratios can be used efficiently for signaling purposes as well as a proxy for measuring the agency problem.”

*Oskar, Ivan, Oleksandr, Diw (2007)* inspected the two ideas. First, “explore the determinants of the dividend policy in Poland.” Further, “test whether corporate governance practices determine the dividend policy in the nonfinancial companies listed on Warsaw Stock Exchange.” The outcomes are based on the years 1998–2004. Quantitative evaluations of 110 non-financial listed firms' corporate governance quality.

These results suggest that “dividends may signal the severity of conflicts between controlling owners and minority shareholders.” In Poland, dividends serve a smaller signaling purpose than they do in mature financial markets.

*Uwalomwa, Jimoh and Anijesushola (2012)* investigated the “relationship between the financial performance and dividend payout among listed firms” in Nigeria. The ownership structure, company size, and dividend payments are examples of variables. The primary data source for the fifty selected companies was the years 2006–2010. Find out that “there is a significant positive association between the performances of firms and the dividend payout of the sampled firms in Nigeria. Additionally revealed that ownership structure and firm’s size has a significant impact of the dividend payout of firms too.”

*Chen et al. (2005)* “analyzed 412 publicly listed Hong Kong firms during 1995–1998, revealing mixed results regarding the relationship between dividend payouts and firm performance.” Notably, “a negative association was found between market-to-book and dividend yield, while a positive link existed between ROA and dividend yield, especially in large firms.”

Advances in research have demonstrated that developed and transitional equities markets exhibit quite different corporate dividend payout strategies.



## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### Problem Statement

How can we address the connection between a company's performance and its dividend policy using statistical techniques? And to find out the impact of performance of the firm on share price of the firm?

#### Research Methodology

The plan of investigation used is "conclusive research structure" as the objective of the project, "to find out the relationship between dividend policy of a firm and its performance" clearly prompts an end which can be used in the decision-making process by using quantitative information assortment and information investigation techniques. Under conclusive research design, "descriptive research design" is applicable in this project.

#### Data

Data used for the investigation is secondary in nature because to discover the the study's goal, it was essential to utilize data that was secondary i.e., been recently published in company's annual reports, journals, papers and websites.

Software which were used by during my research which helped to collect organize and analyze the data are:

- Microsoft's excel
- SPSS
- Microsoft's word

Microsoft's excel was to manage the data related to the share prices of companies and other financial ratios as its interface is easy to use and the data can be easily exported to other software for further analysis. SPSS was helpful in analyzing the data collected in excel, the data was imported from Microsoft's excel and then regression analysis was done on the data for the research. Microsoft's word was used to finally compile all the information, analysis and make a research report.

### Variables

Dependent variable: ROE is an indicator of firm's performance that has been used as dependent variable. In another equation, Net profit (after tax) has been taken as metric for business' performance.

Independent variable: DP ratio, EPS

The model so formed will be:

1.  $ROE = \beta_0 + \beta_1 DP + \beta_2 EPS + \epsilon$  (eq. 1)
2.  $NPAT = \beta_0 + \beta_1 DP + \beta_2 EPS + \epsilon$  (eq. 2)

Where,  $\beta_0$  is constant, DP is dividend payout ratio, EPS is earnings per share,  $\beta_1$ ,  $\beta_2$  are coefficient of variables and  $\epsilon$  is error term

## CHAPTER 4

### ANALYSIS

#### Data Collection

The data is gathered from secondary sources for research which were taken from many journals, reports, online portals, annual reports and other sources.

Reports and online data were taken from below mentioned sources:

- Research gate
- Investing.com
- Moneycontrol.com
- Yahoofinance.com
- Stockpricearchive.com

#### Data Analysis and Interpretation

##### Hypothesis Formulation:

- a) H<sub>0</sub>: There is no relationship between dividend policy of the firm and its performance (ROE)  
H<sub>a</sub>: There is relationship between dividend policy of the firm and its performance (ROE)
- b) H<sub>0</sub>: There is no relationship between dividend policy of the firm and its performance (NPAT)  
H<sub>a</sub>: There is relationship between dividend policy of the firm and its performance (NPAT)
- c) H<sub>0</sub>: Firm's performance does not impact share price  
H<sub>a</sub>: Firm's performance does impact share price

## Regression Analysis

A statistical measure that seeks to ascertain the extent of relationship among several independent variables (X) and a dependent variable, (Y).

For 1<sup>st</sup> hypothesis:

Dependent variable = ROE

Independent Variable = EPS, DP ratio

Variables Entered/Removed <sup>a</sup>			
Model	Variables Entered	Variables Removed	Method
1	eps, dp_ratio <sup>b</sup>	.	Enter

a. Dependent Variable: roe  
b. All requested variables entered.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.761 <sup>a</sup>	.579	.561	10.09663

a. Predictors: (Constant), eps, dp\_ratio

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6590.816	2	3295.408	32.326	.000 <sup>b</sup>
	Residual	4791.271	47	101.942		
	Total	11382.087	49			

a. Dependent Variable: roe  
b. Predictors: (Constant), eps, dp\_ratio

*Figure 4.1: Regression output for hypothesis 1*

*Source: SPSS*

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	9.297	2.649		3.509	.001	3.968	14.626
	dp_ratio	.140	.036	.375	3.900	.000	.068	.212
	eps	.308	.049	.601	6.260	.000	.209	.407

a. Dependent Variable: roe

Figure 4.2: Regression output

Source: SPSS

The regression equation thus becomes:

$$\text{ROE} = 9.297 + 0.140\text{dp\_ratio} + 0.308\text{eps}$$

### Interpretation

R value = .761 and  $R^2 = 0.579$ . The value of R indicates correlation and 0.761 is the strong association also  $R^2$  defines the percentage of the dependent variable's variance that is accounted for by the variables that are thought to be independent. Therefore dp\_ratio, eps can explain 76.1% of the variance in the ROE and 23.99% variance in ROE is due to other factors. We also got the significant value ( $p$ ) = 0.000 since,  $p$  value is  $< 0.05$ , thus the relation is significant.

For 2<sup>nd</sup> hypothesis:

Dependent variable = NPAT

Independent Variable = EPS, DP ratio

Variables Entered/Removed <sup>a</sup>			
Model	Variables Entered	Variables Removed	Method
1	eps, dp_ratio <sup>b</sup>	.	Enter

a. Dependent Variable: npat  
b. All requested variables entered.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.694 <sup>a</sup>	.482	.460	7722.29176

a. Predictors: (Constant), eps, dp\_ratio

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2608030176	2	1304015088	21.867	.000 <sup>b</sup>
	Residual	2802788133	47	59633790.06		
	Total	5410818309	49			

a. Dependent Variable: npat  
b. Predictors: (Constant), eps, dp\_ratio

Figure 4.3: Regression output for hypothesis 2

Source: SPSS

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4508.257	2026.132		2.225	.031	432.205	8584.310
	dp_ratio	-64.770	27.440	-.252	-2.360	.022	-119.973	-9.568
	eps	244.550	37.677	.692	6.491	.000	168.753	320.347

a. Dependent Variable: npat

Figure 4.4: Regression output

Source: SPSS

The regression equation thus becomes:

$$NPAT = 4508.257 - 64.770dp\_ratio + 244.550eps$$

### Interpretation

R value = 0.694 and  $R^2 = 0.482$ . R value indicates correlation of 0.694 which is again a strong relationship also  $R^2$  indicates the percentage of the dependent variable's variance that is accounted for by the variables that are thought to be independent. Therefore dp\_ratio, eps can explain 69.4% of the variance in the ROE and 30.6% variance in ROE is due to other factors. We also got the significant value (p) = 0.000, and (p) = 0.022 since, p value < 0.05, so given relation is significant.

## Correlation Analysis

A statistical tool that is used to determine how much two stocks or two variables move in tandem with one another. It always has a value between -1.0 and +1.0.

For 3<sup>rd</sup> hypothesis:

Descriptive Statistics			
	Mean	Std. Deviation	N
roe	28.2728	9.95605	25
share_price	1164.4460	1142.99071	25

Correlations			
		roe	share_price
roe	Pearson Correlation	1	.898**
	Sig. (2-tailed)		.000
	N	25	25
share_price	Pearson Correlation	.898**	1
	Sig. (2-tailed)	.000	
	N	25	25

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

*Figure 4.5: correlation between roe and share price of firms*

*Source: SPSS*

## Interpretation

As shown above + 0.898 indicates how well ROE and share prices are correlated, this means that in this instance, a strong linear relationship exists between the two variables. A positive relationship means that both move in the same direction i.e., when one variable rises, the other also rises, or, vice versa. Also the correlation flag has been raised in this case which means that the two variables are highly co related with each other.



Descriptive Statistics			
	Mean	Std. Deviation	N
dp_ratio	44.6720	27.62725	25
share_price	1164.4460	1142.99071	25

Correlations			
		npat	share_price
npat	Pearson Correlation	1	.862**
	Sig. (2-tailed)		.000
	N	25	25
share_price	Pearson Correlation	.862**	1
	Sig. (2-tailed)	.000	
	N	25	25

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

Figure 4.6: correlation between NPAT and share price of firms

Source: SPSS

### Interpretation

As shown above + 0.862 indicates how well ROE and share prices are correlated, this means that in this instance, a strong linear relationship exists between the two variables. A positive relationship means that both move in the same direction i.e., when one variable rises, the other also rises, or vice versa. The flag has been raised this time that indicate that correlation is significant in this case.

The relationship can further be studied through regression analysis.

Dependent variable = share price

Independent Variable = npat

Variables Entered/Removed <sup>a</sup>			
Model	Variables Entered	Variables Removed	Method
1	npat <sup>b</sup>	.	Enter

a. Dependent Variable: share\_price  
b. All requested variables entered.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.343 <sup>a</sup>	.117	.099	1202.65166

a. Predictors: (Constant), npat

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9240230.243	1	9240230.243	6.389	.015 <sup>b</sup>
	Residual	69425808.61	48	1446371.013		
	Total	78666038.85	49			

a. Dependent Variable: share\_price  
b. Predictors: (Constant), npat

Figure 4.7: Regression output for hypothesis

Source: SPSS

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	902.626	231.002		3.907	.000	438.166	1367.087
	npat	.041	.016	.343	2.528	.015	.008	.074

a. Dependent Variable: share\_price

Figure 4.8: Regression output

Source: SPSS

The regression equation thus becomes:

$$\text{Share price} = 902.626 + 0.41\text{npat}$$

## Interpretation

R value = 0.343 and  $R^2 = 0.117$ . R value indicates correlation of 0.343 which is the medium degree of correlation also  $R^2$  indicates the percentage of the dependent variable's variance that can be accounted for by the variables that are thought to be independent. So, in following case dp\_ratio, eps can explain 34.3% of the variance in the share price and 65.7% variance in share price is due to other factors. We also got the significant value (p) = 0.000 since, p value < 0.05, so there is significant association.

## Other factors impacting stock price

1. Overconfidence and optimism – After investing in the stock market for a while, investors typically experience an overabundance of confidence. They believe that their prior experience has improved their ability to forecast the stock market. Their perspective on the fluctuations of the stock market is too positive, and they are more inclined to buy in equities during periods of rising rather than falling share prices. In the long run, investors may not benefit much from this risk-taking behavior.
2. Recency effect – Investors feel comfortable trading equities that have made headlines lately because of their strong financial results or any other favorable press coverage. It guarantees that they are selecting their investments wisely. This also includes the analyst advice that investors may utilize to guide their trading selections.
3. Loss aversion - It shares several similarities with Kahneman and Tversky's prospect theory (1979). It indicates that the pain of losses is greater than the same amount of profits. In an effort to minimize losses, investors would rather sell winners before losers. They also take action because they think the stock market has a pattern and is predictable. To protect their capital from loss, investors would rather only invest in reputable businesses.

4. High return expectations - Investing in the share market is often thought to yield great profits. It appears that investors are unaware of the danger associated with high-return assets. They believe that of all asset classes, shares offer the highest return. To profit from the strong profits in the share market, they invest in shares.
5. Herd behaviour - Generally speaking, investors' use the same approach to investing as their prosperous peers do. When people talk about their losses with their peers and learn that others also experienced losses, this also lessens the hurt of their losses. Herd mentality is bad for investors since it might lead someone to select assets that, if they're merely following the lead of others, may not be right for them.

### Effects of news and events on the Stock Market

- Stocks typically sell off in response to bad media announcements. A poor earnings report, a breach in corporate governance, and general political and economic unrest, and disastrous events are the primary reasons for selling pressure and a drop in stock values.
- Favourable economic trends, the introduction of a new item, a business acquisition, and strong earnings reports all cause purchasing pressure with a rise in value of shares.
- Unfavourable events for certain companies can be positive for others. Such as, “news that a hurricane has made landfall may cause a decline in utility stocks, in anticipation of costly emergency responses and repairs.”
- Unexpected news - Some things just cannot be predicted, such as a widespread recall of car safety features, an oil price increase due to a conflict in the Middle East, or a protracted drought that destroys crops.

## Hypothesis testing

*Table 4.1: Hypothesis testing table*

S.no	Hypothesis	Tools	Accepted/Rejected
1	“There is significant relationship between dividend policy of the firm and its performance (ROE)”	Regression	H <sub>0</sub> – rejected H <sub>a</sub> – accepted
2	“There is significant relationship between dividend policy of the firm and its performance (NPAT)”	Regression	H <sub>0</sub> – rejected H <sub>a</sub> – accepted
3	“Firm’s performance does impact share price of the firm”	Correlation	H <sub>0</sub> – rejected H <sub>a</sub> – accepted

*Source: Analysis through regression and correlation*

## CHAPTER 5

### CONCLUSION

In essence, this study examined Indian corporate performance and dividend policy ratios. The study's conclusions, which looked into dividend issues in a sample of Indian I.T and FMCG companies, are particularly significant.

In the 1<sup>st</sup> hypothesis, we have used ROE as the performance metric of a firm which is our response variable. And on other hand we have used DP ratio and EPS ratio as the proxies of dividend policies which served as our independent variables. We have used regression tool to discover the possible association between dependent and predictor variables. The results shows that there is a significant relationship between dependent and independent variables. As  $p < 0.05$  it becomes evident that there is a relationship among ROE and DP ratio & Eps ratio and change in one unit of independent variable captures the reasonable accuracy in change in dependent variable. Thus, it becomes crystal clear that there is a moderate relationship between ROE and dividend policy. We reject null hypothesis in this case that means there is significant relationship between ROE and performance of a firm.

In 2<sup>nd</sup> hypothesis we have used NPAT as firm's performance metric which is our response variable. And on the other hand we have used DP ratio and EPS ratio as the proxies of dividend policies which served as our predictor variables. We have used regression tool to find out the possible relationship between variables that are explanatory and dependent. The findings reveal that there is a significant relationship between dependent and predictor variables. As  $p < 0.05$  it becomes evident that there is a relationship among NPAT and DP ratio & Eps ratio and change in one unit of independent variable captures the reasonable accuracy in change in dependent variable.

The regression analysis done to test first two hypothesis depicts that dividend policies being the independent variable can change the firm's performance to a significant level. However, it must be noted that there are some other factors also that derive the change in dependent variables other than dividend policies of the firm. While conducting this study we have also found out that larger companies also have a tendency to pay higher dividends in order to lower agency costs because they often have higher agency costs due to ownership dispersion, increasing complexity, and shareholders' incapacity to carefully monitor firm activity.

For the 3<sup>rd</sup> hypothesis we have used correlation analysis between performance of firm and share price to determine the effect of firm's performance on firm's share price. We have again used NPAT as firm's performance. And in the other case we have taken ROE as firm's performance metric. The results were in the favour of strong positive relationship with the values of 0.898 and 0.862 and flags have been raised that depicts there is a significant correlation between two variables. These findings lead to a conclusion that there is a positive relationship, both go in the identical manner i.e., the other variable grows when the first one does or, vice versa, between the share price and NPAT and in the other case between share price and ROE.

### Suggestion

It is clear that dividend policies does have a relationship with firm's performance and also impact share prices. As the firm decides to change their dividend policies investors shows some dissatisfaction which gets reflected in market price of shares, because there is a sudden shift in the investor attitude. Investors need to evaluate their goals and financial plan before following follow other investors' or analyst recommendations. In the last section, we suggest that companies should stick to a consistent dividend policy in order to improve the company's performance, which raises share prices.

## Limitations of study

- a) There was possibility of biasness in companies' selection as companies have been selected as per researcher's convenience that may or may not adhere to large pool of firms.
- b) Also the collected data is for the last 5 years only which might fail to highlight some decisions related to dividend policies that might have happened before these 5 years.
- c) The purpose of this research is to determine the relationship between the firm's performance and its dividend policy, not the causes of relationship.
- d) The market conditions may alter over time, and the study is limited to a specific time frame. Regulation changes and outside economic influences are not fully taken into account.
- e) Although the study offers a number of alternatives/proxies to dividend policies, these might not fully reflect dividend policy's facets and might therefore miss certain anomalies in managerial decision-making.



## References

1. Fisher, G.R. (1961), "Some factors influencing share prices", *The Economic Journal*, Vol. 71 No. 281, pp. 121-141.
2. Amidu, M. (2007). How does dividend policy affect performance of the firm on Ghana stock exchange, *Investment Management and Financial Innovations*, 4(2), 103-112
3. Miller, M. H., & Rock, K. (1985). Dividend policy under asymmetric information. *The Journal of finance*, 40(4), 1031-1051.
4. Nissim, D., & Ziv, A. (2001). Dividend changes and future profitability. *The Journal of Finance*, 56(6), 2111- 2133.
5. Lintner, J. (1956) "Distribution of income of corporations among dividends, retained earnings and taxes", *American Economic Review*, 60, 1-40.
6. [Businessjargons.com](http://Businessjargons.com)

PAPER NAME

**16\_Ankuj\_Mrp\_file.pdf**

---

WORD COUNT

**6776 Words**

CHARACTER COUNT

**36588 Characters**

PAGE COUNT

**34 Pages**

FILE SIZE

**793.0KB**

SUBMISSION DATE

**May 6, 2024 1:21 PM GMT+5:30**

REPORT DATE

**May 6, 2024 1:22 PM GMT+5:30**

---

**● 7% Overall Similarity**

The combined total of all matches, including overlapping sources, for each database.

- 4% Internet database
- 2% Publications database
- Crossref database
- Crossref Posted Content database
- 6% Submitted Works database

**● Excluded from Similarity Report**

- Bibliographic material
- Quoted material
- Cited material
- Small Matches (Less than 8 words)