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**A Study of Determinants of Dividend policy with special reference  
to Selected Automobiles Companies listed on BSE**

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**Abstract:**

The distribution of a portion of profit to shareholders is known as dividend. The dividend policy of a company is an important aspect as it affects many stakeholders of the company. The aim of the present study to examine the determinants of dividend policy of selected automobiles companies listed on Bombay Stock Exchange [BSE]. To achieve the purpose of the study, ten automobiles companies are selected and the data of last five years i.e. from 2014-15 to 2018-19 are analyzed by applying multiple regression analysis by using SPSS software. The study is based on secondary data. In this study Dividend per Share [DPS] and Dividend Payouts [DPO] are taken as dependent variables while financial factors like leverage, liquidity, ROE, EPS, PE and firm's size are taken as independent variables. The study reveals that ROE, EPS, liquidity, leverage and EPS have significant impact on dividend payouts of the selected companies. The variables PE and firm's size have no impact on dividend payouts of the selected companies.

**Key Words: Dividend Payouts, automobiles companies, BSE, Multiple Regression etc.**

**1. Introduction:**

Investment, financing and dividend decisions are the three major decisions are made by the firm's manager. Distribution of a portion of profit to shareholders of the company is known as dividend. Profits earned by companies can be retained for the future usage or can be distributed to shareholders as dividend. The process that how much and in which way the profit is distributed is known as dividend policy. Dividend policy is one of the important aspects of corporate finance because it has effects on many group of company's stakeholder. Dividend policy is affected by many factors such as firm's size, liquidity, leverage, taxation, repayment of loan, access to capital market and others. All these factors are general but not particular as priorities and natures of firms are different from industry to industry. Due to this, lot of research work has been done to see the determinants of dividend policy of firms. Bombay Stock Exchange, oldest and biggest



stock exchange in India representing all most all the sectors of Indian economy. BSE sensex is assumed to be the barometer of Indian economy; it is constituted by 30 top and financially sound companies. The dividend policy is being very crucial to these companies from the boom and development point of view as dividend consists of distribution of available earnings to shareholders in the form of cash resulting reduction in the available funds for financing the new projects and increase of business after the payment of dividend is needed to be handled without burdening the existing shareholders. For this reason it is crucial to study and understand the financial factors which are likely to affect dividend payouts of BSE Sensex Companies.

## **2. Literature Reviews:**

· **Manjunatha K and S. B. Aakash (2019)** in their research paper examined the determinants of dividend policy with special reference to selected BSE sensex companies. The aim of the study was to analyze the financial factors affecting the dividend policy of the selected companies under the study. They used pooled OLS model to analyse the data of 15 companies from the period of 2007-08 to 2016-17. The study revealed that the profitability ratio is the only ratio among the selected ratio is the determinant of dividend policy of selected companies.

· **Uwugbe Olubukunola Ranti (2013)** investigated the determinants of dividend policy in Nigeria stock exchange market. To achieve the objective of the study 50 companies listed on Nigerian stock exchange were selected. The data for the period 2006 to 2011 were analyzed through multiple regression analysis. The study observed that there is a significant positive relation between firm's financial performance, size of firms and board independence on the dividend payouts decisions of listed firms in Nigeria.

· **Farman Ali Khan and Nawaz Ahmed (2017)** analyzed the determinants of dividend payouts of pharmaceutical companies listed on Pakistan stock exchange. The purpose of the research was to examine the impact of profitability, growth opportunities, risk, liquidity, firm size, leverage, taxation and audit type on dividend payouts. Five years financial data from 2009 to 2014 of pharmaceutical companies were analyzed by using multiple linear

regression. The study revealed that audit type, liquidity, growth opportunity and profitability are key determinants of dividend payouts of pharmaceutical companies of Pakistan stock exchange.

**Bogna Kazmierska Jozwiak (2015)** examined the cash dividend payout of polish listed companies. The main goal of the paper was to investigate the determinants of dividend policy of Polish listed companies. The panel data analysis is applied to achieve the purpose of the study. The results showed that the profitability and leverage have negative significant relationship with dividend payouts of Polish listed companies.

**Hashim Zameer Shahid Rasool et al (2013)** in their research paper investigated the determinants of dividend policy of Pakistani banking sector. For this purpose they used data of 27 foreign and domestic banks operating in Islamic and conventional banking in Pakistan listed at different stock exchange. Step wise multiple regression was used to analyze the data. The study observed that the last year dividend, profitability and ownership structure have positive impact while liquidity has negative impact on the dividend payouts of Pakistani banks. Moreover, it was also found out that size, leverage, agency cost, growth and risk have no impact on dividend policy of Pakistani banking sector.

### 3. Research Methodology:

#### v Objectives of the Study:

- Ø To identify and test the associations of different financial variables with dividend payout ratio and dividend per share of the firms.
- Ø To determine the level of impact of selected financial variables on the dividend payout ratio and dividend per share of the firms.

#### v Research Design:

The present study is based on Descriptive research design.

#### v Sampling Design & Sample Size:

Simple random sampling method is used for the purpose of the study. Ten companies listed on BSE are selected which are as follow:



VIDHYAYANA

- Tata Motors
- Eicher Motors
- Force Motors
- Bajaj Auto
- TVS Motors
- Mahindra
- CEAT Tiers
- Ashok Layland
- Hero Motocorp
- MRF.

v **Source of Data:**

The present study is based on secondary data collection method. Data have been collected from the various research papers, journals, articles, annual reports of the companies etc.

v **Time Period of the Study:**

Five year data are used from the published annual reports of automobile sector companies listed on BSE. The time period of the study is 2014-15 to 2018-19.

v **Tools & Techniques:**

To achieve the objectives of the study the Multiple Regression Model is used.

v **Specification of Model:**

Ø **Model – 1:**

In the following model Dividend Per Share [DPS] is taken as Dependent Variable.

$$Y_1 = \alpha + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + u$$

Ø Model – 2:

In the following model Dividend Payout [DPO] is taken as Dependent Variable.

$$Y_2 = \alpha + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + u$$

Where,

Y1 =	Dividend per share [DPS]	X2 =	Liquidity
Y2 =	Dividend payout ratio[DPO]	X3 =	Leverage
$\alpha$ =	Constant	X4 =	Return on Equity [ROE]
B1, b2,b3,...b6 =	Coefficient of independent variables	X5 =	Earnings Per Share[EPS]
X1 =	Size	X6 =	Price Earnings Ratio [PE]
U =	Error		

Ø Description of Variables:

Variables	Definitions
DPS	Total Dividend Paid / No. of Equity Share outstanding
DPO	Dividend Per Share / Earnings Per Share
Firm Size	Natural Log of Total Assets
Liquidity	Current Assets / Current Liabilities
Leverage	Total Liabilities / Shareholder's Equity
ROE	Net Profit / Shareholder's Equity
EPS	Net Profit for Equity Shareholders/ No. of Equity Shares outstanding
PE	Market Price of Shares / Earnings Per Share

v Null Hypothesis of the Study:

- o **H<sub>1</sub>:** Size has no significant impact on DPS and DPO of the selected firms.

- o **H<sub>2</sub>**: Liquidity has no significant impact on DPS and DPO of the selected firms.
- o **H<sub>3</sub>**: Leverage has no significant impact on DPS and DPO of the selected firms.
- o **H<sub>4</sub>**: ROE has no significant impact on DPS and DPO of the selected firms.
- o **H<sub>5</sub>**: EPS has no significant impact on DPS and DPO of the selected firms.
- o **H<sub>6</sub>**: PE has no significant impact on DPS and DPO of the selected firms.

#### 4. Data Analysis

##### v Analysis of Model – 1

**TABLE 4.1.1 Correlation Matrix**

	DPS	SIZE	LIQ	LEV	ROE	EPS	PE
DPS	1.00						
SIZE	-0.123 (0.198)	1.00					
LIQ	0.149 (0.151)	-1.62 (0.130)	1.00				
LEV	-0.477* (-0.00)	-0.301* (0.017)	1.000* (0.002)	1.00			
ROE	0.650* (0.00)	-0.289* (0.021)	0.007 (0.484)	-0.736* (0.000)	1.00		
EPS	-0.406* (0.002)	-0.53 (0.356)	0.280 (0.024)	-0.085 (0.278)	0.100 (0.244)	1.00	
PE	-0.156 (0.139)	-0.572* (0.000)	0.350* (0.006)	-0.155 (0.141)	-0.059 (0.341)	-0.146 (0.155)	1.00

\* Indicates significant at 5% level of significance

The above table shows correlation matrix. Here DPS is taken as dependent variable. DPS has positive significant relationship with ROE while negative significant correlation with LEV and EPS. Size has negative significant relationship with LEV and ROE. LEV and PE are significant positively related with LIQ. ROE is significant positively correlated with LEV.

**Table 4.1.2 Regression Analysis**

VARIABLES	$\beta$	SIG.
(Constant)	-28.412	–
SIZE	1.343	0.763
LIQ	12.042	0.370
LEV	10.404	0.684
ROE	1.745*	0.000
EPS	0.010*	0.012
PE	-0.095	0.579
R Square	0.754*	
Significant value	0.000	
Durbin-Watson“	0.592	

\* Indicates significant at 5% level of significance

**Estimated Model:**

$$DPS = -28.412 + 1.343size + 12.042LIQ + 10.404LEV + 1.745ROE + 0.010EPS - 0.095PE$$

The above table represents regression analysis from the above estimated model it is seen that SIZE, LIQ, LE, ROE and EPS have positive impact on DPS while PE has negative impact on it. It is also seen that ROE and EPS have significant impacts on our dependent variable DPS. LIQ and LEV are major contributor variable for determining DPS. The value of R Square is 0.754 which indicates around 75.40% variations in the DPS is explained by all these independent variables hence the model is considered to be a good model. The p value is 0.00 that means the value of R square is significant. According to regression analysis, the value of



Durbin Watson is 0.592 which is less than 2 that indicates there exists positive auto correlation.

**Table 4.1.3 Testing of Hypotheses**

No.	Hypotheses	P value	Results
1.	Size has no significant impact on DPS of the selected firms.	0.763 > 0.05	Accepted
2.	Liquidity has no significant impact on DPS of the selected firms.	0.370 > 0.05	Accepted
3.	Leverage has no significant impact on DPS of the selected firms.	0.684 > 0.05	Accepted
4.	ROE has no significant impact on DPS of the selected firms.	0.000 < 0.05	Rejected
5.	EPS has no significant impact on DPS of the selected firms.	0.012 < 0.05	Rejected
6.	PE has no significant impact on DPS of the selected firms.	0.579 > 0.05	Accepted

v Analysis of Model – 2

**Table 4.2.1 Correlation Matrix**

	DPO	SIZE	LIQ	LEV	ROE	EPS	PE
DPO	1.000						
SIZE	0.103 (0.238)	1.000					
LIQ	-0.079 (0.292)	-0.162 (0.130)	1.000				
LEV	-0.406* (0.002)	0.301* (0.017)	-0.400* (0.002)	1.000			
ROE	0.510* (0.000)	-0.289* (0.021)	0.007 (0.482)	-0.736* (0.000)	1.000		
EPS	-0.329* (0.010)	-0.053 (0.356)	0.280* (0.024)	-0.085 (0.278)	0.100 (0.244)	1.000	
PE	-0.184	-0.572* (0.000)	0.350* (0.000)	-0.155 (0.000)	-0.059 (0.000)	-0.146 (0.000)	1.000



VIDHYAYANA

	(0.101)	(0.000)	(0.006)	(0.141)	(0.341)	(0.155)	
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\*Indicates significant at 5% level of significance

The above table shows correlation matrix. Here DPO is taken as dependent variable. DPO has negative significant correlation with LEV and EPS. Moreover DPO has positive significant correlation with ROE. LEV and SIZE are significantly positively correlated while LEV has negative correlation with LIQ. SIZE and LEV has negative significant relationship with ROE. EPS has significant relationship with LIQ. PE and SIZE is significant negatively correlated with each other while PE is significantly positively correlated with LIQ.

**Table 4.2.2 Regression Analysis**

Variable	$\beta$	Sig
(Constant)	-15.511	–
SIZE	3.027	0.206
LIQ	3.430	0.632
LEV	-7.805*	0.001
ROE	0.652*	0.011
EPS	-0.007	0.562
PE	-0.088	0.337
R square	0.615*	
Significant value	0.000	
Durbin Watson	1.422	

\* Indicates significant at 5% level of significance

**Estimated Model:**

$$\text{DPO} = -15.511 + 3.027\text{SIZE} + 3.430\text{LIQ} - 7.805\text{LEV} + 0.652\text{ROE} - 0.007\text{EPS} - 0.088\text{PE}$$

The above table represents regression analysis. From the above estimated model it is seen that SIZE, LIQ, ROE have positive impacts on DPO, while rest of the variables have negative impacts on DPO. The variable LEV, followed by the ROE is the highest contributors in the determination of DPO. It is also seen that LEV has negative significant impacts on DPO while ROE has positive significant impacts on it. The value of R Square is 0.615 which indicates that around 61.50% variation in the DPO is explained by all these independent variables. The p value is 0.00 which shows that the value of R square is significant. The value of Durbin Watson in the above table is 1.422 which is less than 2 which represent there exist positive autocorrelation.

**Table 4.2.3 Testing of Hypotheses**

No.	Hypotheses	P value	Results
1.	Size has no significant impact on DPO of the selected firms.	0.206 > 0.05	<b>Accepted</b>
2.	Liquidity has no significant impact on DPO of the selected firms.	0.632 > 0.05	<b>Accepted</b>
3.	Leverage has no significant impact on DPO of the selected firms.	0.001 < 0.05	<b>Rejected</b>
4.	ROE has no significant impact on DPO of the selected firms.	0.011 < 0.05	<b>Rejected</b>
5.	EPS has no significant impact on DPO of the selected firms.	0.562 > 0.05	<b>Accepted</b>
6.	PE has no significant impact on DPO of the selected firms.	0.337 > 0.05	<b>Accepted</b>

**5. Findings:**

From the above study following things can be found out:

- From the analysis of model 1 it is seen that ROE has significant positive correlation with DPS. While EPS and Leverage have negative significant relationship with DPS.

- Liquidity, followed by the leverage is the major contributor in the determination of DPS.
- ROE and EPS have positive significant impact on DPS.
- From the multiple regression model 2 it can be found out that there is positive significant correlation between ROE and DPO. While Leverage and EPS have negative significant relationship with DPO.
- Leverage, followed by liquidity is the major contributor in determining DPO.
- Leverage has negative significant impact on DPO of the selected firms. While ROE has positive significant impact on the DPO.

## **6. Conclusion:**

The present study basically examines the determinants of dividend policy of selected automobiles companies listed on BSE. To achieve the objectives of the study data of ten companies for the last five years (2014-15 to 2018-19) are analyzed through multiple regression analysis. For that, DPO and DPS are taken as dependent variables and size, liquidity, leverage, ROE, EPS and PE are taken as independent variables. The study reveals that variables ROE and EPS have significant impact on Dividend per Share [DPS] while, leverage and ROE have significant influence on Dividend Pay-out ratio [DPO]. The variables such as ROE, EPS, leverage and liquidity are the key determinants of dividend policy of the selected companies under the study.

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