Copernican Journal of Finance & Accounting



e-ISSN 2300-3065 p-ISSN 2300-1240

2021, volume 10, issue 2

Kaur, N. (2021). Determinants of Dividend Payout Decisions of Original Equipment Manufacturers from Indian Automobile Industry. Copernican Journal of Finance & Accounting, 10(2), 9–26. http://dx.doi.org/10.12775/CJFA.2021.005

NAVLEEN KAUR* Shri Atmanand Jain (P.G.) College, Ambala City

DETERMINANTS OF DIVIDEND PAYOUT DECISIONS OF ORIGINAL EQUIPMENT MANUFACTURERS FROM INDIAN AUTOMOBILE INDUSTRY

Keywords: dividend, panel data, automobile, original equipment manufacturers, Bombay Stock Exchange.

J E L Classification: G35, C23.

Abstract: The purpose of this study is to identify and analyze the variables that significantly affect dividend payout decisions of Original Equipment Manufacturers (OEMs) from Indian automobile industry listed on the Bombay Stock Exchange (BSE). Analysis is based on balanced panel data with 180 observations of 12 companies over a period of 15 years i.e. from 2003-04 to 2017-18. Descriptive analysis, correlation analysis, and static panel data regression analysis including regression diagnostics have been used as statistical tools to achieve the purpose of the study. STATA software was used to analyze the data in the present study. The findings indicate that the significant determinants of dividend payout decisions of sample companies during the study period were profitability, size, book value per share, tangibility of assets, leverage and price earnings ratio. The findings of the study support various theories of dividend policy viz. Signalling, Pecking Order, and Transaction Cost. As per authors' knowledge, this is the first study focusing on the determinants of dividend payout decisions of average and price is the data from 2003-04 to 2017-18. The empirical findings of the present study

Date of submission: March 24, 2021; date of acceptance: May 5, 2021.

^{*} Contact information: kaur.navleen4@gmail.com, Shri Atmanand Jain (P.G.) College, Ambala City, Haryana, India, 134003, phone: +917206691999; ORCID ID: https://orcid.org/0000-0002-2643-0506.

will provide useful insight pertaining to dividend payout decisions to various stakeholders of different companies and will also be helpful to the future researchers.

INTRODUCTION

Dividend payout decisions are an integral part of financial management. Successful companies make profits and these profits can be retained in the business for investment in future growth opportunities or distributed as dividends among the shareholders. The decision with regard to what percentage of profits should be retained in the business and what percentage should be distributed as dividends is known as dividend policy of a company. Determinants of dividend payout decisions of the corporate sector have been researched extensively in the past but still it is one of the controversial topics in the literature of finance. Various theories like Signalling, Pecking Order, and Transaction Cost etc. guide the dividend decision of the corporate sector. Indian automobile industry plays a vital role in the overall growth and development of the country because growth of many other industries viz. Iron & Steel, Lead, Chemicals, Capital Goods, and Service Sector etc. is linked with the growth of automobile industry. After the liberalization of the Indian economy in 1991, the number of automobile manufacturing facilities increased rapidly in the country. As per the annual report (2018-19) of Department of Heavy Industries, Government of India, turnover of Indian automobile industry is equivalent to 7.1 per cent of overall GDP. After reviewing the literature, it was noticed that meager research has been conducted on the factors affecting dividend payout decisions of original equipment manufacturers (OEMs) from Indian automobile industry. So, the present study bridges the research gap by studying the same.

LITERATURE REVIEW AND HYPOTHESES FORMULATION

The review of the previous studies used for the formulation of hypotheses for this study is presented below.

PROFITABILITY AND DIVIDEND PAYOUT

Signalling theory of dividend policy advocates that companies with higher profits pay higher dividends to their shareholders. Many previous research

studies found a positive and significant relationship between profitability and dividend payout ratio of a company (Rehman & Takumi, 2012; Kumar & Sujit, 2017; Thirumagal & Vasantha, 2017; Bostanci, Kadioglu & Sayilgan, 2018; Chakraborty, Shenoy & Kumar, 2018; Franc-Dabrowska, Madra-Sawicka & Ulrichs, 2019; Pinto & Rastogi, 2019). Another theory with regard to the relationship between profitability and dividend payout mentions that the companies with high profits pay less dividends because these companies retain their profits for investment in future growth opportunities. Kaźmierska-Jóźwiak (2015) found empirical evidences in support of a negative and significant relationship between these variables. After reviewing the literature, it was found that different proxies have been used to represent the profitability position of a company while studying its relationship with the dividend payout ratio of different companies viz. return on assets, return on equity, return on capital employed, and earnings per share etc. The present study uses return on capital employed as a proxy of profitability of selected companies because this ratio measures the overall profitability of a company (Tulsian, 2009).

H₁: There is a positive relationship between profitability (ROCE) and dividend payout ratio of Indian automobile companies.

LIQUIDITY AND DIVIDEND PAYOUT

Previous research studies found different results while testing the relationship between liquidity position and dividend payout ratio of the corporate sector. The studies which found a negative and insignificant relationship between these two variables include Kaźmierska-Jóźwiak (2015) and Franc-Dąbrowska et al. (2019). Kumar and Sujit (2017), Bostanci et al. (2018) and Sumathy and Rajasekaran (2019) found positive significant relationship while Rehman and Takumi (2012) discovered positive insignificant relationship between liquidity position of a company and its dividend payout ratio. Generally, either current ratio or quick ratio is used as a proxy to represent liquidity position of a company. The present study uses quick ratio as the proxy for liquidity because it is a better measure of liquidity as compared to current ratio because the former takes into consideration only liquid assets of a company and ignores inventory, prepaid expenses, etc. The study also assumes a negative relationship between liquidity and dividend payout ratio because high liquidity suggests lower dividend payments to the shareholders resulting in high availability of cash or other liquid assets in a company.

 H_2 : There is a negative relationship between liquidity (QR) and dividend payout ratio of Indian automobile companies.

Size and Dividend Payout

With regard to the relationship between size of a company and its dividend payout ratio, it is generally said that, bigger the company higher dividends it will pay to its shareholders. Ghosh (2010), Kumar and Sujit (2017), Franc-Dąbrowska et al. (2019) and Thapa (2021) identified positive and significant relationship between these two variables. In previous studies, size of a company is calculated either by taking natural logarithm of total sales or natural logarithm of total assets. The presents study calculates this variable by taking natural logarithm of total assets of the selected companies.

 $\rm H_3:$ There is a positive relationship between size and dividend payout ratio of Indian automobile companies.

BOOK VALUE PER SHARE AND DIVIDEND PAYOUT

The author did not find any previous study which empirically investigated relationship between these two variables. So, this study introduces empirical examination of the relationship between book value per share and dividend payout ratio. Book value per share shows the value which will be distributed among the shareholders, if the company goes bankrupt. This study assumes a negative relationship between book value per share and dividend payout ratio of a company because payment of dividends by a company reduces its reserves and surplus and thereby reducing the book value per share of the company.

H₄: There is a negative relationship between book value per share and dividend payout ratio of Indian automobile companies.

TANGIBILITY OF ASSETS AND DIVIDEND PAYOUT

The literature consists of mixed results regarding relationship between tangibility of assets and dividend payout by companies. Ghosh (2010) found empirical evidence in support of negative relationship between these two variables. Pinto and Rastogi (2019) found significant positive relationship between tangibility of assets and dividend policy of the companies from agro, mining engineering, textiles, construction and infrastructure, logistics and consumer good and appliances sectors while they found significant negative relationship between these variables in the case of banking sector. It is assumed that a negative relationship exists between tangibility of assets and dividend payout ratio of the automobile manufacturers in India because companies with more tangible assets pay less dividends as more tangible assets means less current assets or cash available to pay dividends to the shareholders.

H₅: There is a negative relationship between tangibility of assets and dividend payout ratio of Indian automobile companies.

LEVERAGE AND DIVIDEND PAYOUT

Both Pecking Order and Transaction Cost Theories suggest negative relationship between leverage and dividend payout ratio of a company. According to first theory, companies with high fixed interest obligations make less dividend payments and according to second theory highly leveraged companies pay lesser dividends to their shareholders in order to reduce their transaction costs. The studies which found negative and significant relationship between leverage and dividend payout ratio include Ghosh (2010), Kaźmierska-Jóźwiak (2015), Kumar and Sujit (2017) and Chakraborty et al. (2018). Rehman and Takumi (2012) identified positive and significant relationship between these variables. The studies which found empirical evidences in support of positive relationship between these variables concluded that high dividend payments indicate towards good financial position of the companies which enables them to raise debt funds easily. Majority of the previous studies used debt equity ratio as a proxy for leverage and the present study also uses the same variable to represent leverage of the selected companies.

H₆: There is a negative relationship between leverage (DER) and dividend payout ratio of Indian automobile companies.

PRICE EARNINGS RATIO AND DIVIDEND PAYOUT

Price earnings ratio measures risk in the future earnings of a company. High price earnings ratio means low risk and vice versa. There exists a negative

relationship between business risk and dividend payments because high risk in future earnings of a company will lead to low dividend payments by the company. So, it can be deduced that price earnings ratio and dividend payout ratio are positively related to each other. Kaźmierska-Jóźwiak (2015) and Franc-Dąbrowska et al. (2019) identified positive but insignificant relationship between these two variables. Thirumagal and Vasantha (2017) and Sumathy and Rajasekaran (2019) found positive and significant relationship between these variables concluding that high risk companies pay low dividends because these companies prefer internal financing, thereby reducing the dividend payments.

 H_7 : There is a positive relationship between price earnings ratio and dividend payout ratio of Indian automobile companies.

OBJECTIVES OF THE STUDY

- 1. To identify the variables that significantly affect dividend payout decisions of OEMs from Automobile Industry in India listed on the Bombay Stock Exchange (BSE).
- 2. To explain the magnitude of change in the dividend payout ratio of the selected companies due to these variables.

NEED OF THE STUDY

After the introduction of liberalization in Indian economy in 1991, a large number of global auto manufacturers entered India's automobile industry putting the industry into a higher growth trajectory. This industry has been defined as the next sunrise sector for the Indian economy but still there is enough scope for its growth and development. Government of India is actively focusing on formulating various plans and policies for the development of this industry. The literature is full of studies on determinants of dividend payout decisions of corporate sector all over the world but very limited research has been conducted on dividend payout decisions of OEMs from Indian automobile industry. So, the present study bridges the gap in the literature by studying the firm-specific determinants of dividend payout decisions of automobile manufacturers in India. The study will provide useful insight pertaining to dividend policy decisions to the managers and other stakeholders related to different companies all over the world. As per authors' knowledge, this is the first study focusing on the determinants of dividend payout decisions of Indian automobile manufacturers using the data for the period from 2003-04 to 2017-18.

Research Methodology and Research Process

Sample, Study Period, Data Collection and Variables

The study uses company-level data consisting of all OEMs from Indian automobile industry listed on the BSE. Thirteen OEMs from the industry were listed on BSE as on April, 2020 viz. Ashok Leyland Ltd., Atul Auto Ltd., Bajaj Auto Ltd., Eicher Motors Ltd., Force Motors Ltd., Hero Motocorp Ltd., Hindustan Motors Ltd., Mahindra & Mahindra Ltd., Maruti Suzuki India Ltd., Scooters India Ltd., SML Isuzu Ltd., Tata Motors Ltd., and TVS Motor Co Ltd. These companies cover four major segments of the industry viz. Commercial Vehicles, Passenger Vehicles, Two-wheelers, and Three-wheelers. These companies represent universe in the Indian context when it comes to the listed companies. The present study does not take into consideration non-Indian origin automobile manufacturing companies which have established their subsidiaries in India. There are few other OEMs from automobile industry in India which are also of Indian origin viz. Asian Motor Works, Chinkara Motors Pvt. Ltd., Deccan Auto Ltd., Hradyesh, and JS Auto Pvt. Ltd. but these companies are not listed on either Bombay Stock Exchange (BSE) or National Stock Exchange (NSE). As a result, their financial results are not available.

Out of the automobile companies listed on the BSE, Bajaj Auto Ltd. did not form part of sample of the present study because there was a demerger of this company into three companies in the year 2007-08. The business of existing Bajaj Auto Ltd. was divided into three divisions' viz. auto business, investment business, and finance business. So, due to the non availability of consistent data of the auto business of the company throughout the study period, it was not possible to include this company in the sample of this study.Also, till the year 2016 LML Ltd. completely shut down its operations in March, 2018. So, twelve companies formed a part of the final sample for the present study. List of companies listed on the BSE as on April 2020 is presented in table 1.

15

S. No.	Name of Company	Year of Incorporation	BSE Code
1	Ashok Leyland Ltd.	1948	500477
2	Tata Motors Ltd.	1945	500570
3	SML Isuzu Ltd.	1983	505192
4	Atul Auto Ltd.	1986	531795
5	Scooters India Ltd.	1972	505141
6	Bajaj Auto Ltd.	May, 2008 (not included in the present study, due to demerger)	532977
7	Eicher Motors Ltd.	1982	505200
8	Hero Motocorp Ltd.	1984	500182
9	TVS Motor Co. Ltd.	1911	532343
10	Force Motors Ltd.	1958	500033
11	Hindustan Motors Ltd.	1942	500500
12	Maruti Suzuki India Ltd.	1981	532500
13	Mahindra & Mahindra Ltd.	1945	500520

Table 1. Automobile Manufacturers listed on Bombay Stock Exchange
of India as on April, 2020

Source: website of the Bombay Stock Exchange, India, www.bseindia.com.

The study covers the time period from 2003-04 to 2017-18. The financial year 2003-04 is selected as the beginning year for the time period of this study because Government of India launched and implemented its first comprehensive policy framework named 'Auto Policy, 2002' for automobile industry of the country in the year 2002 which resulted into major changes in the industry. Annual reports of the sample companies, Prowess Database of Centre of Monitoring Indian Economy and Ace Equity Database of Accord Fintech Private Limited were utilized for the purpose of data collection for the present study. Selected variables and formulae used for their computation are shown in table 2.

Variable	Proxy	Symbol	Formula	Literature
Dividend Payout	Dividend Payout Ratio	DPR	(Total Dividend to equity shareholders/ Total net profit belonging to equity share- holders) * 100	Khan and Jain, 2011
Profitability	Return on Capital Employed	ROCE	(Profit before interest and tax/ Average Capital employed)*100	Tulsian, 2009
Liquidity	Quick Ratio	QR	Liquid Assets/ Current Liabilities	Bostanciet et al., 2018
Size	Log of Total Assets	SIZE	LN(Total Assets)	Thirumagal and Vasantha, 2017
Book Value per Share	Book Value per Share	BV	(Equity Capital + Reserves – Debit Balance of Profit & Loss) / Total Number of Equity Shares	Malhotra and Tandon, 2013
Tangibility of Assets	Tangibility of Assets	TOA	(Total Assets-Current Assets)/ Total Assets	Pinto and Rastogi, 2019
Leverage	Debt-equity Ratio	DER	Total Debt/Shareholder's Equity	Horne and Wachowicz (2001)
Price Ear- nings Ratio	Price Earnings Ratio	PER	Market price per share/Earnings per share	Sinha, 2012

Table 2. Variables and Formulae used for their computation

Source: based on the review of previous studies.

Tools used for Analysis

To identify and analyze the variables that significantly affect dividend payout decisions of the sample companies during the study period ordinary least square (OLS) regression and static panel data regression including fixed effects model (FEM) and random effects model (REM) were used. First of all, Breusch and Pagan Lagrangian multiplier test was applied to select between OLS regression, and random effects regression. The result of the test indicated the presence of significant random effects. As a next step, fixed effects regression was run which indicated that no significant fixed effects were present. Regression diagnostics with the help of Breusch-Pagan test, Wooldridge test and calculation of variance inflation factors was also carried out to check the assumptions of the heteroscedasticity, autocorrelation, and multicollinearity respectively. Descriptive analysis and correlation analysis was also carried out in this study. The STATA software was used to apply all these tests and empirically analyze the data used in the present study.

17

EMPIRICAL RESULTS

Descriptive Analysis

The study has 180 firm-year observations. All the variables depicted positive average value during the study period. The average quick ratio was much below the standard for this ratio indicating that the liquidity position of the selected automobile companies was not so satisfactory during the study period. Average debt equity ratio was also less than the standard for this ratio showing that the Indian automobile companies used lower percentage of debt in their capital structures.

Variables	Average	Maximum	Minimum	Standard Deviation	Observations
DPR	2.73	5.36	0.69	1.29	180
ROCE	4.83	5.74	0.65	0.40	180
QR	0.54	4.6	0.03	0.46	180
SIZE	9.95	13.4	5.63	2.06	180
BV	202.73	1970.74	311.78	-22.44	180
ТОА	0.64	5.81	0.09	0.59	180
DER	0.56	6.62	-0.34	0.88	180
PER	2.71	7.08	0.69	1.10	180

Table 3. Descriptive Statisti

Source: author's own calculations using STATA software.

CORRELATION ANALYSIS

The correlation matrix shown in table 4 revealed that out of the entire explanatory variables price earnings ratio depicted highest positive correlation with the dependent variable while liquidity position of the sample companies measured by quick ratio showed lowest positive correlation with the same. Dividend payout ratio depicted positive correlation with three other explanatory variables viz. return on capital employed, size, and book value per share of the selected companies. Both tangibility of assets and debt-equity ratio displayed negative correlation with the dividend payout ratio of the selected companies during the study period. No high correlations were noticed among the various explanatory variables indicating that the selected model was free from the problem of multicollinearity.

Variables	DPR	ROCE	QR	Size	BV	ТОА	DER	PER
DPR	1.0000							
ROCE	0.2500	1.0000						
QR	0.0095	0.0921	1.0000					
SIZE	0.4119	0.1595	-0.0931	1.0000				
BV	0.0477	0.1534	0.0846	0.3498	1.0000			
ТОА	-0.3405	-0.0479	-0.1789	-0.2793	-0.1459	1.0000		
DER	-0.2204	-0.1262	-0.1501	-0.0872	-0.2655	0.0620	1.0000	
PER	0.4867	0.1103	0.0948	0.3452	0.2443	-0.3490	-0.3386	1.0000

Table 4. Correlation Matrix

Source: author's own calculations using STATA software.

Regression Diagnostics

Heteroscedasticity

Initially, natural log of certain variables viz. dividend payout ratio, return on capital employed, and price earnings ratio was taken to standardize the data under consideration. After that, ordinary least square regression (OLS) was run on the above variables, and then, Breusch-Pagan test was performed to check the assumption of homoscedasticity in the present regression model.

Null Hypothesis for the Test: Constant Variance (Homoscedasticity).

The results of the test revealed that the p-value was 0.2169. Since, the p-value was more than 0.05; it resulted in the acceptance of the null hypothesis. This shows that the present model is free from the problem of heteroscedasticity.

19

Autocorrelation

For checking the presence of autocorrelation, Wooldridge test for serial correlation was conducted.

Null Hypothesis for the test: No first-order autocorrelation.

It was found that the p-value was 0.7754 which is more than 0.05. So, the present model is free from the problem of autocorrelation.

Multicollinearity

Multicollinearity refers to a situation where very high inter-correlations exist among the various explanatory variables included in a regression model. The presence of multicollinearity in the data can be identified with the help of correlation matrix or by calculating the variance inflation factors (VIFs) for the variables included in the regression. According to Gujarati and Sangeetha (2011) high values of VIFs depict the presence of high multicollinearity. They further stated that if the value of VIF for a variable is more than 10, then that variable is considered as a highly collinear variable, resulting into the presence of severe multicollinearity in the data.

Table 5 shows that VIFs of all the variables included in the regression model used in the present study were less than 2. Thus, the data used in the present study is free from the problem of multicollinearity.

Variables	VIF	1/VIF
ROCE	1.05	0.947877
QR	1.10	0.909137
SIZE	1.35	0.740564
BV	1.24	0.808603
ТОА	1.23	0.813954
DER	1.22	0.822991
PER	1.39	0.719191
Mean VIF	1.23	

Table 5. Variance Inflation Factors

Source: author's own calculations using STATA software.

Selection of the Final Model from OLS, REM and FEM

At first, random effects model was run and then Breusch and Pagan Lagrangian multiplier test for random effects was conducted to find out whether there are significant random effects or pooled OLS regression needs to be preferred. Results of Breusch and Pagan Lagrangian multiplier test for random effects showed a p-value of 0.00 which indicated that the significant random effects were present. After that, F test was conducted and results of the F test showed a p-value of 0.1979 which indicated that significant fixed effects were not present. As a result, REM was selected to study the factors affecting dividend payout decisions of the selected companies during the study period.

Panel Data Analysis

The regression model framed to study the influence of various firm-specific explanatory variables on the dividend payout decisions of the selected companies is presented below:

 $DPR_{it} = \beta_0 + \beta_1 ROCE_{it} + \beta_2 QR_{it} + \beta_3 SIZE_{it} + \beta_4 BV_{it} + \beta_5 TOA_{it} + \beta_6 DER_{it} + \beta_7 PER_{it} + u_{it}$

Where, $DPR_{it} = Dividend payout ratio for company i in period t, <math>ROCE_{it} = Return$ on capital employed ratio for company i in period t, $QR_{it} = Quick ratio for com$ $pany i in period t, <math>SIZE_{it} = Size$ for company i in period t, $BV_{it} = Book$ value per share for company i in period t, $TOA_{it} = Tangibility$ of assets for company i in period t, $DER_{it} = Debt$ -equity ratio for company i in period t, and $PER_{it} = Price$ earnings ratio for company i in period t. β_0 is the intercept; β_1 is the slope (coefficient or parameter estimate) of profitability of a company measured by return on capital employed ratio; β_2 is the slope of liquidity measured by quick ratio; β_3 is the slope of size of the company; β_4 is the slope of book value per share; β_5 is the slope of tangibility of assets; β_6 is the slope of leverage measured by debt-equity ratio; β_7 is the slope of price earnings ratio; and uit is the error term. i= 1, 2, 3 ... 12 companies, t= Time 1, 2, 3 ...15 years.

Random Effects G	Number of Observations = 180				
Group variable: d	Number of Companies = 12				
R²: Within =	Observations per Company : Minimum = 15 Average = 15 Maximum = 15				
Between = 0.6556					
Overall = 0.3854					
Prob. > chi2 = 0.0000					
Variables	Regression Coefficient		Standard Error	Z	P> z
С	8552511		1.004725	-0.85	0.395
ROCE	.3071646		.1825755***	1.68	0.092
QR	1110894		.1572276	-0.71	0.480
SIZE	.1729584		.0517767*	3.34	0.001
BV	0005941		.0002722**	-2.18	0.029
ТОА	2744477		.1399673**	-1.96	0.050
DER	1555669		.0888975***	-1.75	0.080
PER	.3034171		.0757587*	4.01	0.000

Table 6. Panel Data Analysis Using Random Effects Model

*Significant at 1 per cent level of significance, ** Significant at 5 per cent level of significance, ***Significant at 10 per cent level of significance.

Source: author's own calculations using STATA software.

The panel data regression results in table 6 clearly show that all the explanatory variables except liquidity, were statistically significant during the study period from 2003-04 to 2017-18. Return on capital employed depicted a positive relationship with the dividend payout ratio, which was statistically significant at 10 percent level of significance. Profitability position is the strongest factor affecting dividend payout decision of the sample companies during the study period because 1 percent increase in the profitability of an Indian automobile company resulted in 0.31 percent increase in the dividend payments of the selected companies. Price earnings ratio which measures the risk level depicted positive relationship with the dependent variable which was statistically significant at 1 percent level of significance Price earnings ratio comes out to be the second most important factor affecting the dependent variable. With 1 percent increase in price earnings ratio, a 0.30 percent increase was noticed in the dividend payout ratio of the selected companies. Size also depicted statistically significant positive relationship with the dividend payout ratio, at 1 percent level of significance. A percentage increase in size of an Indian automobile company showed an increase of 0.17 percent in its dividend payments. Book value per share and tangibility of assets depicted negative relationship with the dividend payout ratio which was statistically significant at 5 percent level of significance. An increase of 1 percent in the tangibility of assets depicted 0.27 percent decrease in the dividend payments by the selected companies. Further, if the book value per share of the selected companies increases by 1 percent a fall of 0.0006 percent was witnessed in their dividend payments. A statistically significant negative relationship was found between leverage and dividend payout ratio of the selected automobile companies at 10 percent level of significance. A percentage increase in debt-equity ratio showed a decrease of 0.16 percent in the dividend payments.

CONCLUSION

The study estimated random effects panel data regression model which confirms the significant influence of profitability, size, book value per share, tangibility of assets, leverage and price earnings ratio on the dividend payout decisions of the OEMs from Indian automobile industry. Liquidity did not influence the dividend payout ratio of the sample companies significantly during the study period. This result is in line with the findings of Kaźmierska-Jóźwiak (2015) and Franc-Dabrowska et al. (2019). Profitability, size, and price earnings ratio showed a positive relationship, while book value per share, tangibility of assets, and leverage depicted a negative relationship with the dependent variable. The results indicate that more profitable automobile companies have steady and stable earnings, which result into payments of lager dividends to their shareholders akin to the findings of Rehman and Takumi (2012), Kumar and Sujit (2017), Thirumagal and Vasantha (2017), and Bostanci et al. (2018), Chakraborty et al. (2018), Franc-Dąbrowska et al. (2019) and Pinto and Rastogi (2019). It is found that the companies with big size pay higher dividends as compared to the companies with small size like in previous studies by Ghosh (2010), Kumar and Sujit (2017) and Franc-Dabrowska et al. (2019). The study identifies that companies with low risk in their future earnings are more likely to make large dividend payments. A similar conclusion was reached by Thirumagal and Vasantha (2017). It is also found that higher percentage of tangible assets in the asset structure of Indian automobile companies' results in lower dividends payments to the shareholders, similar to the findings of Ghosh (2010). The results also suggest that high degree of leverage in the capital structure of automobile companies in India results in less dividend payments to their shareholders as purported by various previous empirical studies viz. Ghosh (2010), Kaźmierska-Jóźwiak (2015), Kumar and Sujit (2017) and Chakraborty et al. (2018). Furthermore, fall in the book value per share of the automobile companies makes more reserves and surplus available to make higher dividend payments to their shareholders. The results of this study are also in accordance with Signalling theory, pecking order theory and transaction cost theory.

LIMITATIONS AND SCOPE FOR FURTHER RESEARCH

The present study focused only on the OEMs from Indian automobile industry which are listed on the BSE but there are many other automobile manufacturers of non-Indian origin which established their subsidiaries in India and these manufacturers are not listed on the Indian stock exchanges. These automobile manufacturers were not included in the present study due to non availability of the data. So, these non-Indian origin manufacturers can also be included in the sample for future studies if the data relating to these manufacturers is available. The sample of this study can also be extended by taking into consideration Indian auto-component manufacturers to have understanding of the dividend payout decisions of the Indian automotive industry. This study included only the firm-specific explanatory variables. Thus, macro-economic variables can also become part of the future research. The present study did not include Bajaj Auto Ltd. due to non availability of data on the account of demerger of the company. This renowned company can also become part of the sample for future research studies.

Funding: This research received no external funding.

Conflicts of Interests, Ghostwriting and Guest Authorship: The authors declare no conflict of interests, ghostwriting and guest authorship.

REFERENCES

- Bostanci, F., Kadioglu, E., & Sayilgan, G. (2018). Determinants of Dividend Payout Decisions: A Dynamic Panel Data Analysis of Turkish Stock Market. *International Journal of Financial Studies*, 6(93), 1-16.http://dx.doi.org/10.3390/ijfs6040093.
- Chakraborty, S., Shenoy, S.S., & Kumar, S.N. (2018). Empirical Evidence on the Determinants of Dividend Pay-outs in the Auto Components Sector in India. *Investment Management and Financial Innovations*, 15(4), 356-366. http://dx.doi.org/10.21511/ imfi.15(4).2018.29.
- Department of Heavy Industry, Ministry of Heavy Industries and Public Enterprises, Government of India (2018-19). *Annual Report*, 39. https://dhi.nic.in/ViewData/ index?mid=1117.
- Franc-Dąbrowska, J., Madra-Sawicka, M., & Ulrichs, M. (2019). Determinants of Dividend Payout Decisions The Case of Publicly Quoted Food Industry Enterprises Operating in Emerging Markets. *Economic Research- Ekonomska Istrazivanja*, 33(1), 1108-1129. http://dx.doi.org/10.1080/1331677X.2019.1631201.
- Ghosh, S. (2010). The Dividend Strategy of Indian Companies: An Empirical Assessment. *Artha Vijnana, Munich Personal Repec Archive*, 29567, 52(2), 1-10.
- Gujarati, D., & Sangeetha, N. (2011). *Basic Econometrics* (4th ed.). New Delhi, Tata McGraw-Hill Education Private Limited, 370 & 651.
- Horne, J.C.V., & Wachowicz, J.M., Jr. (2001). Fundamentals of Financial Management (11th ed.). New Delhi: Pearson Education Inc.
- Kaźmierska-Jóźwiak, B. (2015). Determinants of Dividend Policy: Evidence from Polish Listed Companies. *Procedia Economics and Finance*, 23, 473-477. http://dx.doi. org/10.1016/S2212-5671(15)00490-6.
- Khan, M.Y., & Jain, P.K. (2011). *Financial Management: Text, Problems and Cases* (6th ed.). New Delhi, Tata McGraw-Hill Education Private Limited, 6.28.
- Kumar, B.R., & Sujit, K.S. (2017). Determinants of Dividends among Indian Firms An Empirical Study. *Cogent Economics & Finance*, 6(1), 1-18. http://dx.doi.org/10.1080/ 23322039.2018.1423895.
- Malhotra, N., & Tandon, K. (2013). Determinants of Stock Prices: Evidence from NSE 100 Companies. *IRACST-International Journal of Research in Management and Technology*, 3(3), 89. https://www.iracst.org/ijrmt/papers/vol3no32013/3vol3no3.pdf.
- Pinto, G., & Rastogi, S. (2019). Sectoral Analysis of Factors Influencing Dividend Policy: Case of an Emerging Financial Market. *Journal of Risk and Financial Management*, 12(3), 1-18.
- Rehman, A., & Takumi, H. (2012). Determinants of Dividend Payout Ratio: Evidence from Karachi Stock Exchange (KSE). *Journal of Contemporary Issues in Business Research*, 1(1), 20-27.
- Sinha, P.K. (2012). *Financial Management: Tools and Techniques* (1st ed.). New Delhi: Excel Books.
- Sumathy, N., & Rajasekaran, D. (2019). Determinants of Dividend Policy in Indian Automobile Industry. *History Research Journal*, 5(6), 2089-2094.

- Thapa, M. (2021). Effects of Financial Determinants on Dividend Payout: Evidence from Nepalese Retail Banks. *The Batuk*, 7(1), 24-37. http://dx.doi.org/10.3126/batuk. v7i1.35344.
- Thirumagal, P.G., & Vasantha, S. (2017). Dividend Payout Determinants: Evidence from Indian Industries. *International Journal of Pure and Applied Mathematics*, 117(21), 811-829.
- Tulsian, P.C. (2009). *Financial Management* (1st ed.). New Delhi: S. Chand & Company Limited.