



## The Relationship between Ownership and Dividend Policy: Evidence from Tehran Stock Exchange

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### ABSTRACT

In this study, the relationship of ownership and dividend policy has been investigated. For this purpose, data of 2080 firm-year were used in the period of 2002–2016. In this study, the effect of ownership on dividend policy was estimated as exogenous. For ownership, we used institutional and corporate type. The results were analyzed through software R by using geostationary lightning mapper and pseudo geostationary lightning mapper. The simple logistic regression and logistic panel model was fitted and Akaike's criterion was used for comparing the methods. It was observed that the P value of institutional and corporate investors is  $<0.05$ , so these two variables have a significant effect on the dividend policy. For the control variables, observations show that only net income and firm size don't have a significant effect on dividend policy but other control variables have a significant effect.

**Keywords:** Dividend Policy, Corporate Ownership, Institutional Ownership

**JEL Classifications:** G32, G34, G35

### 1. INTRODUCTION

One of the important issues in recent years in the wake of financial massive scandals in corporate-level is corporate governance for researchers and investors. It deals with the need to monitor the company's management and the separation of economic entity from its ownership and ultimately protecting the rights of investors and stakeholders. On the other hand, the dividend payout policy has brought many researches in finance and accounting. These studies aim to examine why firms distribute profits or why investors consider dividend. This issue is known as "dividend puzzle" in financial subjects. The infrastructure of both groups of researches is related to the information asymmetry between managers and stakeholders and the agency relation between managers and shareholders.

Jensen and Meckling (1976) by description of agency cost due to information asymmetry between management and shareholders reduce, explained that one of the mechanisms to reduce agency costs, is the reduction of free cash flow available to managers as they can be achieved through dividend payments. Dividend

payout reduces agency costs through the lack of allocation of free cash flow related to the management investment in the no returns projects. Therefore, based on agency theory, it is expected that most managers do activities that are costly to shareholders and even contracts between managers and companies also can't prevent engaging in opportunistic managers activities. Thus, shareholders need a structure for supervision. Corporate governance is a means to create a balance between shareholders and management and reduces the agency problems and lessens the possibility that manager take the dividend policy less than desirable extent. Therefore, we expect; corporate governance affects the dividend payout.

### 2. CONCENTRATED OWNERSHIP ROLE IN THEORIES OF CORPORATE GOVERNANCE AND DIVIDEND

The relationship between dividend and corporate governance measure can be discussed within the framework of agency theory and implementation of corporate governance is a mechanism that

can be used by managers to reduce agency cost. There are two views on the relationship between ownership concentration and dividend policy:

- The first view is on this basis that firms with the low number and percentage of external shareholders are reluctant to dividend payout. Because according to the agency cost theory, by increasing ownership dispersion and percentage of external shareholders, dividend payout to shareholders increased. In addition, in companies of high ownership concentration, for improving fiscal discipline and convergence of interest between managers and shareholders, there is no need for dividend payout. In fact, in the absence of agency contradictions, shareholders are confident enough that the company's cash flows used correctly. Therefore, it is expected that less profit distributed and consequently, the relationship between ownership concentration and dividend be reversed (Harada and Nguyen, 2006).
- In the second view argue that the dividend payout is a substitute for supervision. On the other hand, in order to reduce agency costs, large shareholders (concentrated owners), have enough power to force companies to distribute surplus cash flows. Accordingly, it is expected that the relationship between ownership concentration and dividends is in the same direction (ibid.).

### 2.1. The Role of Institutional Ownership in Dividend Policy

There are two contradictory opinions on the relationship between institutional ownership and dividend policy:

- Inverse relationship: By the existence of interest conflict, external monitoring activity is an important control element. Institutional shareholders are a group of foreign observers. If large institutional investors act as the supervisory representatives and as a result dividends paid in order to reduce agency costs, according to agency theory, there should be a replacement relationship between dividend policy and institutional ownership. In this regard, there is a negative correlation between the percentage of stock owned by institutional owners and dividend policy. In addition, based on the signaling theory, managers with more knowledge and information rather than market, signal their expectations about future profits of the company to the market through the dividend payments. It can be figured out that dividend and institutional investors may not be considered as an alternative means of signaling. The presence of large shareholders may reduce the need for the use of dividend as a signal of good performance, since these shareholders can act as a credible signal. The presence of institutional investors may signal to the market that agency costs have decreased due to the monitoring activities of this group of shareholders.
- Positive relationship: Free-riding incentive of institutional investors in the field of monitoring activities requires that this group of investors not willing to direct supervision by themselves. These investors rather than direct observation, force corporations to increase dividend. In other words, institutional investors prefer that free cash flows to be distributed in the form of dividends as a result agency costs of free cash flows reduce. Based on agency theory,

in the existence of interest conflict between managers and shareholders, regularly dividend payments can reduce agency conflicts and thus, the range of possible management abusing of resources decreased. Based on these assumptions and the fact that retained earnings is a source of internal financing, dividend payments, require companies in need of financing to resort to capital markets outside. This imposes the capital market supervision on the corporation. The role of institutional owners arises from preferences of institutional owners based on the distribution of cash flows in order to reduce agency costs. According to the influence and impact positions of institutional investors, it is expected that this group of owners, affect the company's financial policies including dividend policy. Accordingly, institutional owners may disagree with management's incentives based on further accumulation of cash flows and according to their voting power enforce managers to pay dividend. These investors are usually willing to be provided accurate and timely information about the firm and continually examining companies to provide accurate future profits. They analyze information related to shares value that are not reflected in the current year profit and consider in their share prices (active monitoring hypothesis). According to the signaling theory, managers with more understanding and further information rather than the market, signal their expectations about future profits of the company through the dividends payment to the market. It can be argued that dividend payment and institutional investors may be considered as an alternative means of signaling. The presence of large shareholders may reduce the need to use dividend as a signal of good performance.

### 2.2. The Role of Corporate Ownership in Dividend Policy

Corporate shareholding is the percentage of shares held by other corporations of the capital stock of the company. The motivation of large shareholders for collecting data and monitoring the management, decreases agency costs (Kumar, 2003). Concentrated ownership is related to the existence of strategic investor. The more concentrated ownership, the more owners' ability to control costs due to increased management oversight. On the other hand, the more concentrated ownership neutralizes management ability in controlling costs due to reduced motivation in accessing information (Earnhart and Lital, 2006).

## 3. THE LITERATURE

Pan et al. (2015) examine the effect of corporate governance and stock liquidity on corporate payout policy in the context of the split-share structure reform initiated in 2005 in China. In this reform, non-tradable shares were converted into tradable shares compulsorily. The reform removed a liquidity constraint; meanwhile it facilitated a better alignment of the interests of the controlling shareholders with those of the outside investors. These lead to significant improvements in firms' liquidity and governance. They find that on average, cash dividends decrease significantly after the reform. The reduction in payouts is more pronounced for firms with higher growth rates and liquidity. In

terms of cash dividends, a larger decline in the post-reform periods is observed in firms that are controlled by state shareholders.

Benlemlih (2014) by using a sample of 22,839 US firm-year observations over the period 1991–2012, he finds that high CSR firms pay more dividends than low CSR firms. This is consistent with this expectation that socially responsible firms may use dividend policy to manage the agency problems related to overinvestment in CSR. By analyzing the stability of dividend payout, he finds that socially irresponsible firms adjust dividends quicker than socially responsible firms: Dividend payout is more stable in high CSR firms than in low CSR firms. Additional results show that firms involved in two controversial activities –the military and alcohol – are associated with low dividend payouts, which is likely to be due to the high cost of external funding for these firms.

Crane et al. (2014) examine the effect of institutional ownership on payout policy with a regression discontinuity design approach. They show that higher institutional ownership causes firms to pay more dividends and repurchase more shares. Their identification strategy relies on a discontinuity in ownership based on the annual composition of the Russell 1,000 and 2,000 indices. They also find evidence of a causal effect on proxy voting, corporate investment, R&D, and equity issuance. Overall, results support agency models where concentrated ownership lowers the marginal cost of delegated monitoring.

Thanatawee (2013) examines the relationship between ownership structure and dividend policy in Thailand in a sample of 1,927 observations over the period 2002–2010. The results show that Thai firms are more likely to pay dividends when they have higher ownership concentration or the largest shareholder is an institution and that firms pay higher dividends when the largest shareholder, especially an institution, holds more percentage of shares. It is also found that both the likelihood of paying dividends and the magnitude of dividend payouts increase (decrease) with higher institutional (individual) ownership, the findings mostly driven by the ownership of domestic investors.

De Jong et al. (2013) studied on dominant owners' use of leverage to finance their blocks and its relationship to dividend policy. They postulate that the leverage of blockholders leads to higher dividend payouts and lower investments because dividends are needed to service blockholder debt (debt service hypothesis). They use data for France where blockholders have tax incentives to structure their leverage in pyramidal holding companies. They find strong evidence for our hypothesis: Dividend payouts increase in proportion to pyramidal debt of dominant owners. They inspect pyramidal entities individually and find that dividends received are explained by debt obligation needs. Companies dominated by levered blockholders invest significantly less. Alternative explanations for payout policy in pyramids, based on investments or cash preferences, cannot explain the dividend pattern.

Bremberger et al. (2013) study the impact of incentive regulation on the dividend policy of regulated electricity companies. Using a panel of 106 publicly traded European electric utilities in the

period 1986–2011 they link dividend pay-out and smoothing ratios to the implementation of new regulatory mechanism (rate of return vs. incentive regulation). After controlling for the potential endogeneity of the regulatory mechanism, their results show that electric utilities subject to incentive regulation smooth their dividends less than firms subject to RoR regulation but also present higher target payout ratios; hence incentive regulation leads firms to a dividend policy more responsive to earnings variability and more consistent with efficiency-enhancing pressures. This suggests that when managers are more sensitive to competition-like efficiency pressures following the adoption of incentive regulation, they are more incline to cut dividends when necessary.

Clarke (2012) analyses size and dispersion in a firm's substantial holders and its impact on capital structure and dividend policy in the period 2001–2009. In an agency relationship, substantial holders have the potential to influence decision-making by management. In this study an Australian sample is chosen. A total of 490 firms listed on the ASX All Ordinaries Index. A dynamic system Gaussian mixture model model was used for dynamic endogeneity. The result was that these owners have economically significant effect on the level of dividends by management.

Elston et al. (2011) investigates the relationship between firm institutional ownership and dividend payout behavior in Germany. By applying propensity score matching methods to address endogeneity problems, they avoid many of the econometric pitfalls of previous studies in the literature. Evidence suggests that neither institutional ownership nor bank control is significant in determining dividend payouts. Findings are consistent with stylized facts regarding the nature of the German institutional environment, which, through the rights of management to retain a significant percentage of net profits and lack of tax incentives, reduce the agency costs associated with conflicts between management and shareholder interests regarding use of the firm's free cash flow.

Desai and Jin (2011) employ heterogeneity in institutional shareholder tax characteristics to identify the relation between firm payout policy and tax incentives. Analysis of a panel of firms matched with the tax characteristics of the clients of their institutional shareholders indicates that “dividend-averse” institutions are significantly less likely to hold shares in firms with larger dividend payouts. This relation between the tax preferences of institutional shareholders and firm payout policy may reflect dividend-averse institutions gravitating towards low dividend paying firms or managers adapting their payout policies to the interests of their institutional shareholders. Evidence is provided that both effects are operative. Plausibly exogenous changes in payout policy result in shifting institutional ownership patterns. Similarly, exogenous changes in the tax cost of institutional investors receiving dividends results in changes in firm dividend policy.

Jeon et al. (2011) in a paper examine the relationship between foreign ownership and the decisions on payout policy in the Korean stock market. The evidence indicates foreign investors show a preference for firms that pay high dividends. When they have

substantial shareholdings, foreign investors lead firms to pay more dividends. The results are driven by the fact that most of the foreign investors in the Korean market are institutional investors and thus have both dividend clienteles and monitoring incentives. However, foreign investors neither express preference for firms that buy back shares, nor are they associated with encouraging firms to increase repurchases. The results are robust after controlling for endogeneity. They find little evidence that domestic institutions have a significant effect on payout policy.

Harada and Nguyen (2011) examine the role of ownership concentration on the dividend policy of Japanese firms they control for the endogeneity of ownership using firm age and the industry's average ownership concentration as instruments in two-stage least squares and treatment effect regressions. They examine the propensity to increase dividends in relation to changes in variables correlated with free cash flows. Their results reject the monitoring hypothesis. They find that ownership concentration is associated with significantly lower dividends in proportion of earnings as well as in proportion of equity. In particular, the ratio of dividends to operating income is about 10% lower for firms characterized by a high index of ownership concentration. The results are statistically unchanged when ownership is endogenized. They also find that firms with concentrated ownership are less likely to increase dividends when profitability increases or when debt decreases.

Demsetz and Villalonga (2001) investigate the relation between the ownership structure and the performance of corporations if ownership is made multi-dimensional and also is treated as an endogenous variable. They find no statistically significant relation between ownership structure and firm performance. This finding is consistent with the view of diffuse ownership, while it may exacerbate some agency problems, also yields compensating advantages that generally offset such problems. Consequently, for data that reflect market-mediated ownership structures, no systematic relation between ownership structure and firm performance is to be expected.

Demsetz and Lehn (1985) argue that the structure of corporate ownership varies systematically in ways that are consistent with value maximization. Among the variables that are empirically significant in explaining the variation in ownership structure for 511 U.S. corporations are firm size, instability of profit rate, whether or not the firm is in the mass media or sports industry.

Demsetz (1983) argues that the ownership structure of a company should be considered as a result of endogenous decisions that show the influence of shareholders on the stock market and with this selection, the various costs and benefits are balanced to achieve an optimal organization. In other words, when the owner of a private corporation decided to sell their stock and when shareholders of a public corporation agree to offer shares in the exchange, they actually decided to amend, change and are likely to have been more dispersed ownership structure. Subsequent purchase and sale of shares, shows the willingness of owners to change the ownership of the corporation. Thus, the dispersion of shareholders is not an indication of lack of pressure in the poor performance

conditions and it's not that there is a negative relationship between the dispersion of ownership and company performance.

### 3.1. Hypotheses and Questions

The main research question is: Does outside ownership structure affect dividend policy? For this purpose, the following hypotheses are designed:

- There is a relationship between concentrated institutional ownership and dividend policy.
- There is a relationship between concentrated corporate ownership and dividend policy.

According to the research hypotheses, the following model is formulated:

$$DPR_{i,t} = \alpha_1 + \alpha_2 INS_{i,t} + \alpha_3 CORP_{i,t} + \alpha_4 Control_{i,t} + \varepsilon_{i,t}$$

In which:

$DPR_{i,t}$ : Referred to the dividend ratio for the year as a dummy variable

$INS_{i,t}$ : Concentrated institutional investors (independent variable)

$CORP_{i,t}$ : Concentrated corporate investors (independent variable)

$Control_{i,t}$ : Referred to the control variables and these variables are as follows: Net income, retained earnings, firm size (natural logarithm of total assets), leverage (total debt divided by total assets), profitability (operating income divided by total assets), time (profit distribution year), types of industries, growth opportunities (annual percentage change in sales).

### 3.2. Operational Definition of the Main Variables

**Corporate ownership:** The percentage of shares held by other corporation from shares of the capital stock of the company. It includes all types of public companies except state-owned enterprises (SOEs) and foreign financial corporations (Kumar, 2003; Earnhart and Lizal, 2006).

**Institutional ownership:** Percent of shares held by SOEs, insurance companies, financial institutions, banks, and other components of government (ibid).

### 3.3. The Population, Sample and Data Analysis

The study population is all companies listed on the Tehran Stock Exchange. The study period is 2002–2016. The study, in terms of data collection methods, is descriptive research. Research methodology is ex post facto and because of using in the application process of information, it categorized as applied research. Sample is chosen on the basis of purposive sampling. So the following characteristics for determining the statistical sample are considered:

1. The company's financial year ended in December.
2. During the research years, company activities and fiscal year have not changed.
3. Investment companies, financial intermediaries, holding, banks and leasing are excluded.

### 3.4. Descriptive Statistics

Initially, descriptive statistics, including the number of observations, mean, median, minimum, maximum and standard deviations for quantitative variables is presented (Tables 1 and 2).

### 3.5. Statistical Analysis Results

To analyze the data, the results in this study are fitted using panel for typical data. Thus, it is fitted as the final model. To evaluate the significance of each of the independent and control variables on the dependent variable, the P value used. Here is the null hypothesis indicates the significant lack of the studied variable effect. If the P value is less than the error level (0.05), the null hypothesis can't be confirmed. In the following, the results obtained compared by using two methods of typical data and matched data, and glm and pglm.

### 4. USING THE ORDINARY DATA

Table 3 results have been achieved by using typical data. By using this method, the independent variables (INS) and (CORP) have significant effect on the dependent variable dividend policy.

Table 4 indicates that in the model fitness using pglm for not matched data also the independent variables including (INS) and (CORP) have a significant effect on the dependent variable dividend policy.

According to Table 5, it is observed that taking into account the typical data, Akaike's information criterion with pglm is less than glm. Therefore, pglm is more suitable model.

### 5. THE FINAL RESULTS OF THE MODEL FITTING AND CHECKING THE EFFECT OF VARIABLES

This section examines the significance and coefficients of each of the independent and control variables on the dependent variable. It is observed that the P value of the independent variables (INS) and (CORP) is less than 5%. So these two variables have a significant effect on the dependent variable dividend policy. Also according to the positive sign of the estimated coefficient of institutional investors, it can be said being concentrated institutional investors (INS = 1) caused dependent variable moving towards 1. In other words, this shows that concentrated institutional investment caused increasing in the dividend ratio. But for the concentrated corporate investors (CORP = 1) since the estimated coefficient is negative, it can be inferred that concentration on corporate

**Table 1: Frequency of quantitative variables (descriptive statistics)**

Statistical indicators	Net income	Retained earnings	Firm size	Leverage	Profitability	Growth opportunities
Total number of observations	2078	2079	2080	2079	2078	2073
Mean	220364.661	0.121	13.539	0.629	0.159	0.277
Median	0.354	0.105	13.381	0.642	0.140	0.162
Minimum	-764793.000	-1.404	0.000	0.013	-0.645	-1.000
Maximum	30887476.000	0.771	19.106	2.078	1.067	113.390
Standard deviations	1530449.313	0.180	1.488	0.203	0.133	2.546

**Table 2: Frequency of qualitative variables tables (descriptive statistics)**

Industry	Frequency	Frequency percent	Time	Frequency	Frequency percent
0	1021	49.1	0	640	30.8
1	1059	50.9	1	1440	69.2
Total	2080	100	Total	2080	100
Institutional ownership	Frequency	Frequency percent	Corporate ownership	Frequency	Frequency percent
0	452	21.7	0	913	43.9
1	1628	78.3	1	1167	56.1
Total	2080	100	Total	2080	100
<b>Dividend ratio</b>		<b>Frequency</b>			<b>Frequency percent</b>
0		526			25.3
1		1554			74.7
Total		2080			100

**Table 3: results of the model using simple GLM**

Variables	$\beta$	Standard errors	Test statistic	P value	Significance
$\alpha$	0.2969	0.589	0.504	0.6142	
Institutional ownership	0.374	0.131	2.855	0.0043	**
Corporate ownership	-0.2591	0.1199	-2.16	0.0307	*
Net income	-1.9E-08	3.85E-08	-0.482	0.6296	
Retained earnings	4.495	0.608	7.392	0.001>	***
Size	-0.01411	0.04193	-0.336	0.7365	
Leverage	0.8298	0.416	1.995	0.0461	*
Profitability	1.554	0.6181	2.514	0.0119	*
Growth opportunities	-0.5012	0.1208	-4.149	0.001>	***
Industry	-0.4673	0.1109	-4.214	0.001>	***
Time	0.06318	0.1179	0.536	0.592	

GLM: Geostationary lightning mapper

**Table 4: Results of the model using simple PGLM**

Variables	$\beta$	Standard errors	Test statistic	P value	Significance
$\alpha$	-0.9192	0.6672	-1.378	0.16827	
Institutional ownership	0.3379	0.1327	2.546	0.0109	*
Corporate ownership	-0.2686	0.1207	-2.224	0.02613	*
Net income	-2.1E-08	3.85E-08	-0.545	0.58605	
Retained earnings	4.489	0.6351	7.068	1.57E-12	***
Size	0.02767	0.04507	0.614	0.53925	
Leverage	0.7774	0.4226	1.839	0.06585	
Profitability	1.359	0.6531	2.081	0.0374	*
Growth opportunities	-0.5196	0.1223	-4.25	2.14E-05	***
Industry	-0.4692	0.1136	-4.129	3.64E-05	***
Time	0.8956	0.2791	3.208	0.00134	**

PGLM: Pseudo geostationary lightning mapper

**Table 5: glm and pglm comparison**

Model name	Akaike's criterion
glm	2078.5
pglm	2069.2

**Table 6: Final results of the model and checking the effect of variables**

Variables	$\beta$	Standard errors	Test statistic	P value
$\alpha$	-9.966	1.595	-6.247	0.001>
Institutional ownership	2.275	0.3962	5.741	0.001>
Corporate ownership	-0.9192	0.2172	-4.233	0.001>
Net income	-1.5E-07	8.75E-08	-1.707	0.087751
Retained earnings	16.14	1.692	9.543	0.001>
Size	0.1537	0.089	1.727	0.084246
Leverage	2.79	0.9124	3.058	0.002228
Profitability	5.491	1.066	5.149	0.001>
Growth opportunities	-2.93	0.445	-6.585	0.001>
Industry	-1.691	0.2357	-7.172	0.001>
Time	2.744	0.5733	4.787	0.001>

investment makes the dependent variable tends towards zero. In other words, it lessens dividend ratio. Regarding the control variables, observations show that only firm size and net income doesn't have a significant impact on and dividend policy and other control variables have a significant effect on the dependent variable (Table 6).

## 6. CONCLUSION

In this study, the ownership variable was viewed as an exogenous variable. Based on the statistical results, Akaike's information criterion for PGLM data is much less than GLM. So it can be concluded that the use of PGLM data can have a great role in improving the fitted regression and its results are more significant than GLM.

### 6.1. Suggestions

1. It is recommended that researchers consider ownership as an endogenous variable and compare the results to this research.
2. According to some studies, ownership of over 25% is used for the ownership concentration. In addition, it is recommended to use the Herfindahl index. Also, the free float share is used to explain the ownership concentration.

## REFERENCES

- Benlemlih, M. (2014), Why do Socially Responsible Firms Pay more Dividends? Available at: <http://www.ssrn.com/abstract=2566876>. [Last accessed on 2014 Oct 01].
- Bremberger, F., Cambini, C., Gugler, K.P., Rondi, L. (2013), Dividend Policy in Regulated Firms. Available from: <http://www.ssrn.com/abstract=2277595>.
- Bulan, L.T. (2010), "To Cut or Not to Cut a Dividend. Available from: <http://www.ssrn.com/abstract=1712019>.
- Clarke, R.M. (2012), "The Effect of Substantial Holdings on Capital Structure and Dividend Policy. The University of Western Australia.
- Crane, A.D., Michenaud, S., Weston, J.P. (2014), The Effect of Institutional Ownership on Payout Policy: A Regression Discontinuity Design Approach. Available from: <http://www.ssrn.com/abstract=2102822>.
- De Jong, A., De Jong, D.V., Hege, U., Mertens, G. B. (2013), Leverage: When debt leads to higher dividends. ECGI - Finance Working Paper No. 261/2009. Available from: <http://www.ssrn.com/abstract=1461492>. [Last accessed on 2013 Apr 04].
- Demsetz, H. (1983), The structure of ownership and the theory of the firm. *Journal of Law and Economics*, 26, 375-390.
- Demsetz, H., Lehn, K. (1985), The structure of corporate ownership: Causes and consequences. *Journal of Political Economy*, 93, 1155-1177.
- Demsetz, H., Villalonga, B. (2001), Ownership structure and corporate performance. *Journal of Corporate Finance*, 7, 209-233.
- Desai, M.A., Jin, L. (2011), Institutional tax clienteles and payout policy. *Journal of Financial Economics* 100, 68-84. Available from: <http://www.sciencedirect.com/science/article/pii/S0304405X10002497>.

- Earnhart, D., Lizal, L. (2006), Effects of ownership and financial performance on corporate environmental performance. *Journal of Comparative Economics*, 34, 111-129.
- Elston, J.A., Hofler, R., Lee, J. (2011), Dividend policy and institutional ownership: Empirical Evidence Using a Propensity Score Matching Estimator. *Journal of Accounting and Finance*, 11, 89-102.
- Harada, K., Nguyen, P. (2006), Ownership Concentration, Agency Conflicts, and Dividend Policy in Japan. Working Paper. Available from: <http://www.ssrn.com>.
- Harada, K., Nguyen, P. (2011), Ownership concentration and dividend policy in Japan. *Managerial Finance*, 37(4), 362-379.
- Jeon, J.Q., Lee, C., Moffett, C.M. (2011), Effects of foreign ownership on payout policy: Evidence from the Korean market. *Journal of Financial Markets*, 14(2), 344-375.
- Jensen, M., Meckling, W., (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 48, 831-80.
- Kumar, J. (2003), Ownership Structure and Dividend Payout Policy in India. Available from: [https://www.researchgate.net/publication/228226136\\_Ownership\\_Structure\\_and\\_Dividend\\_Payout\\_Policy\\_in\\_India](https://www.researchgate.net/publication/228226136_Ownership_Structure_and_Dividend_Payout_Policy_in_India).
- Pan, R., Shi, J., Zhu, Q. (2015), Dividend Policy, Corporate Governance and Stock Liquidity". Asian Finance Association (Asian FA) 2015 Conference Paper. Available from: <http://www.ssrn.com/abstract=2570868>.
- Thanatawee, Y. (2013), Ownership structure and dividend policy: Evidence from Thailand. *International Journal of Economics and Finance*, 5(1), 121-132.