A survey on the relationship between ownership structure and dividend policy in Tehran stock exchange

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Abstract—The main purpose in this article is to study the relationship between Ownership Structure and Dividend Policy of Companies Listed at Tehran Stock Exchange. Also the effect of profit growth rate and dividend policy variables of the previous year was controlled and multiple linear regressions were used. The findings of studying 88 companies during the time period between 2004 and 2009 showed that Joint ownership affects the ratio of dividends of firms accepted in Tehran Stock Exchange positively and Institution ownership affects it negatively. However, there are some reasons which show there does not meaningful relationship between Management Ownership and the amount of Ownership Concentration with dividend policy.

Keywords—Dividend policy, Ownership Structure, Ownership Concentration, Stockholders' composition


I. INTRODUCTION

DIVIDEND policy is one of the topical issues in financial management because the dividend shows the main cash pays of companies and it is considered as one of the most important alternatives and decision which managers confront. The manager should decide how much of the profit of the company should be distributed and how much of it should be invested in the form of accumulated profit in the company. Although paying the dividend directly affects the stockholders, it affects the ability of the firm in accumulation profit in order to use the growth opportunities [2].

Additionally, this policy in stock Exchange includes data content and its change conveys some data to stockholders. Each investor purchases the stock of a company whose dividend distribution policy interests him/her. The amount of stock profit proposed by board of directors usually includes some information about the expectations of managers about future profitability of the company. Dividend policy is also one of items which are affected by agency conflicts [9]. On the whole, there are two different viewpoints about the relationship between dividend and agency conflicts. In first theory, dividend is the resolution to reduce agency conflicts between managers and stockholders and the second Theory considers the dividend as an alternative for agency problems [14].

On the other hand, theoretical bases and experimental researches' findings show that there exists a meaningful relationship between ownership structure and agency costs [18]. Regarding the relationship between dividend policy and agency costs, we expect ownership structure to be efficient on dividend policy too. Regarding the importance of dividend policy and recognizing effective factors on it in Tehran stock exchange (Iran), this research tries to study this relationship.

II. LITERATURE REVIEW

A. DIVIDEND POLICY

On the whole, the relationship between dividend and earning per share shows the Dividend policy of a company [4]-[16]. Dividend policy is one of the most important issues in financial supply of companies' literature. A lot of researchers have supplied theoretical basics and experimental proofs related with profit distribution policy criteria. However, profit distribution issue is still not solved and there is no particular guideline about optimal Dividend policy [17]. However, joints stock companies usually admit a certain policy about profit distribution. Several different factors such as policies used in other similar companies, previous dividend policy, legal limitations and profitability consistency are considered when this policy is forming. Besides the existence of several policies, often companies use some policies such as dividing fixed, dividing a fixed percentage of profit, dividing the fixed profit besides varied margin and surplus Dividend [2].

B. OWNERSHIP STRUCTURE

The stockholders' composition and the amount of Ownership Concentration are considered as the two main aspects of firms' ownership structure.

1) STOCKHOLDERS' COMPOSITION

Similar to the research carried out by [15], the stockholders' composition is assessed through the following four variables: foreign ownership, joint ownership, managerial ownership and structural ownership.

Foreign ownership: it is equal to the percentage of reserved stock by foreigners of the whole stocks of the company which consists of: foreign partners, foreign financial entities, foreign
nationalities and those who do not inhabit in Iran. This variable has been used in researches done by [15]-[6] in the same way. Since there was not a main foreigner ownership in companies studied and thus the lack of presenting a valid pattern, no test was done about this ownership and no views are presented.

Joint ownership: it is equal to the percentage of reserved stock by cooperative firm members out of the whole stocks of the company and consists of different types of cooperative companies, except those which were presented previously. This variable has been used in researches done by [15]-[6] in the same way.

Managerial ownership: it is equal to the percentage of reserved stock by family members of the board of directors. This variable has been used in researches done by [15]-[6] in the same way. On the whole there are two theories about managerial ownership effect on Dividend policy. First theory reasons that increasing the dividend reduces agency problems and the conflict resulted from free cash flows, because paying to stockholders decreases management control and it decreases the authority of the managers [11]. Internal investors (such as managers), tend not to divide the stock profit because they want to preserve their control over the cash flows which are being considered as distributional [13]. Thus, it is expected that there is a reverse relationship between managerial ownership amount and divided profit. On the other hand, in second theory they reason that managerial ownership may cause the convergence of the profits of manager and stockholders and reduce the problems of free cash flows and thus, managerial ownership causes more profit distribution [20].

Institution Ownership: it is equal to the percentage of reserved stock by governmental and public companies of the whole stocks of the company. These companies include: insurance companies, financial entities, banks, governmental companies and other parts of government. This variable has been used in researches done by [15]-[6] in the same way. On the whole, there are two conflicting viewpoints about the relationship between structural ownership, and dividend policy:

Reverse relationship (negative): when there is a conflict in revenue, the controlling activity of foreign or external activity is considered as an important controlling element. Institution investors are considered to be a group of foreign supervising. If great institutions investor act as supervising agencies and dividend is paid to reduce agency expenditures, there should exist an alternative relationship between dividend policy and Institution Ownership. This relationship creates a negative relationship between the percentage of stock owned by Institution Ownership and dividend policy [5]-[20]. Additionally, based on message delivery hypothesis, those managers who are more aware of market convey their expectations of the future profits of the company by paying the profit to the market. The reasoning states that Dividend and Institution Investors may be considered as alternative message delivering tools. The presence of great stockholders reduces the need to use Dividend as a message of suitable performance, because the stockholders can themselves act as more valid messages. The presence of structural owners may communicate to market that agency costs are reduced regarding the supervision activities of these groups of stockholders [3].

Direct relationship (positive): the stimulus of Institution Investors of getting benefits from supervising activities forces this group of investors to ignore direct supervision by themselves. These investors force companies to increase the distributed profit instead of direct supervision. In other words, structural investors prefer to distribute free cash flows in the form of distributed profit in order to reduce agency costs related to free cash flows [20]. According to agency theory, when there is a conflict between the benefits of manager and stockholder, regular profit distribution can reduce agency conflicts and through this the range of future probable misuse of resources by management decreases. According to these assumptions and regarding the fact that accumulated profit is an internal financial supply resource, paying distribution profit forces the companies to get help from external or foreign markets when they need financial support. The role of Institution Ownership in this hypothesis is derived from the preferences of Institution Investors based on the distribution of cash flows in order to reduce agency expenditures. Regarding the effective position of Institution Investors, it is expected that this group of owners affect financial policies of the company including profit Dividend policy. Therefore, Institution Ownership may disagree with the tendency of managers to accumulate more free cashes and regarding their voting authority they may force managers to distribute the profit [3].

2) OWNERSHIP CONCENTRATION

Regarding the relationship between Ownership Concentration and Dividend policy, there are two hypotheses: the first theory is based on the fact that those companies with less foreign numbers and percentage of stockholders do not tend to distribute profit. Because regarding the agency cost hypothesis when ownership and the percentage of foreign stockholders are more dispersed, the expected cash profit of stocks by stockholders is increased [10]. Furthermore, there is no necessity to distribute more profit in firms with a lot of Ownership Concentration to improve financial order or balancing the profits between managers and stockholders. Because when there is no agency conflicts, stockholders have sufficient assurance that company's cash flows are used properly. Thus, it is expected that less profit is distributed and as a result of it ownership centralization and profit distribution are reversed [9]. The findings of researches carried out by [12]-[9] approve this hypothesis.

In second hypothesis it is argued that paying the distributive profit is considered to be an alternation for supervision [19]. On the other hand, great stockholders (centralized companies) have enough strength to force the companies to distribute surplus cash flows in order to reduce agency costs. Accordingly, it is expected that the relationship between
Ownership Concentration and profit distribution should be harmonious [9].

III. PREVIOUS EMPIRICAL STUDIES

[19] studied the effect of growth factors, beta and agency costs on Dividend policy. The findings of his research, using regression shows that Dividend policy (the ratio of dividend pay) has a negative and meaningful relationship with past and future sales growth rate, beta coefficient and the percentage of stocks owned by interior members of the organization (managerial ownership) and it has a positive and meaningful relationship with the number of stockholders.

[20] studied the effect of ownership structure on Dividend policy of Japanese companies. The findings resulted from regression for the data related to the years between 1992 and 2000 show that the effect of managerial ownership and bank ownership on the yield of Dividend especially for firms with low growth rate has been positive.

[17] studied Dividend policy and effective factors on it in Tunisian Stock Exchange. The findings of that research showed that its profitability and consistency directly affect paid distributive profit and cash transformation of stock market affects paid distributive profit conversely. However, ownership concentration and financial leverage do not affect the amount of distributive profit.

[8] studied the relationship between Institution Ownership and Dividend policy. The findings of studying American industrial companies during the time period between 1980 and 2002 show that the amount of profit paid has a direct relationship with Institution ownership. Also [14] studied the effect of ownership structure on Dividend policy of Tunisian companies. Research findings show that companies with more centralized ownership distribute more profit. There is a negative and meaningful relationship between Institution ownership and Dividend level and the relationship between Dividend policy and governmental ownership is positive.

IV. METHODOLOGY

This research is applied and the design for it is quasi-experimental and is carried out by using a post-event approach. We use this approach when the data are extracted from an environment naturally or from an event which has occurred without the direct interference of the researcher.

A. HYPOTHESES

H1: There is a meaningful relationship between Institution Ownership and Dividend policy in listed Firms of Tehran Stock Exchange.

H2: There is a meaningful relationship between Joint Ownership and Dividend policy in listed Firms of Tehran Stock Exchange.

H3: There is a meaningful relationship between Managerial Ownership and Dividend policy in listed Firms of Tehran Stock Exchange.

H4: There is a meaningful relationship between ownership concentration and Dividend policy in listed Firms of Tehran Stock Exchange.

B. VARIABLES

In this research, Ownership Structure is independent variable and Dividend policy is the dependent variable. Also profit growth and the previous year's Dividend policy are considered as controlling variables.

1) INDEPENDENT VARIABLE

The independent variable in this research is the ownership structure of companies. Ownership structure is assessed through the two methods of stockholders' composition and the amount of ownership concentration. Stockholders' composition, like [15] research is assessed through four variables of Institution ownership, joint ownership, managerial ownership and foreign ownership. Also the" percentage of first controlling stock "is considered as a base for measuring the amount of ownership concentration. By "percentage of first controlling stock", we mean ownership percentage of a set of stockholders who possess the highest percentage of controlling stock as an economical group. The less amount of this percentage shows disperse of ownership [10].

2) DEPENDENT VARIABLE

The dependent variable in this research is the company's Dividend policy. The relationship between Dividend and earnings per share shows the company's Dividend policy [4]-[16]. Furthermore, the most common criterion is selected from among all present policies of profit distribution, the Dividend per share ratio on the earning per share they are used in researches done by [19] and [7]. [12]-[9] believe that the presence of unprecedented items may reduce the usefulness this relationship to measure Dividend policy. Thus, in this research we have used the Dividend pay-out ratio on profit resulted from common activities for measuring the company's Dividend policy.

3) CONTROLLING VARIABLES

In order to control other probable factors affecting the company's Dividend policy which are not considered along with independent variables, profit growth and previous year's Dividend policy are considered as controlling variables. Based on message delivery theory, the companies increase the Dividend pay-out when they expect profitability increase. Also according to random step theory, the best estimation of company's future Dividend policy is the present status of the company. Thus, we expect that the companies' Dividend policy should have a meaningful relationship with profit growth (profitability increase) [10].

C. SAMPLE

Location range for the research is firms accepted in Tehran Stock Exchange and time range is the years between 2004 and 2009. In this research systematic deletion method has been used to choose our statistical samples. In order to choose our statistical samples, those firms having the following characteristics have been chosen as our statistical samples and other were omitted:

a) Since the nature of activity is different for the investment
firms, insurance, leasing, and banks, the activity of firms selected should be production.

b) To choose a convergent sample, firms should have been chosen before the year 2004 in Tehran Stock Exchange and its stocks should have been purchased from the start of the year 2004.

c) In order to select active firms, the exchanges of these firms should have been active during the years between 2004 and 2009 and there should not be any stops more than three months in their activities.

d) In order to be compared properly and avoid divergences, the fiscal year should end on 29th of Esfand (March 21st.) and during the years between 2004 and 2009 they shouldn't have changed their fiscal year.

e) Financial statements and descriptive notes about them should be accessible.

Regarding the things mentioned above, 88 companies were selected as our statistical sample for time period between 2004 and 2009.

D. PATTERNS USED IN THIS RESEARCH

The statistical method used in this research is multiple liner regression. In order to identify the meaningfulness of the regression pattern Fisher's F has been utilized. To study the meaningfulness of independent variables' coefficient in each pattern, student t with 95% assurance level has been used. To test the data to be normal, we have used Kolmogorov-Smirnov (K-S) test. The statistical results gained by Durbin-Watson resulted from software in all tests show that there is not any problem of co-efficiency. To do this, EXCELL and SPSS software have been used.

Regarding the above mentioned issues about variables described, research patterns include pattern related to the first hypothesis to the pattern related to hypothesis four. There are four multiple regression patterns which are commonly shown as follows:

\[ Y_i = \beta_0 + \beta_1 INSO + \beta_2 G + \beta_3 D_{i-1} + \epsilon \]

\[ Y_i = \beta_0 + \beta_1 JO + \beta_2 G + \beta_3 D_{i-1} + \epsilon \]

\[ Y_i = \beta_0 + \beta_1 MO + \beta_2 G + \beta_3 D_{i-1} + \epsilon \]

\[ Y_i = \beta_0 + \beta_1 OC + \beta_2 G + \beta_3 D_{i-1} + \epsilon \]

\[ H_0 : \beta_1 = \beta_2 = 0 \]

\[ H_1 : \beta_1 \neq \beta_2 = 0 \]

In this formula; dependent variable include; Dividend Policy (Yi). Also independent variables include; INSO: institution ownership, JO: joint ownership, MO: managerial ownership and CR: ownership concentration. Controlled Variables include; G: profit growth, Di-1: previous year's Dividend policy. The constant co-efficient of \( \beta \) and \( \epsilon \) error co-efficient which is calculated for each period separately, has a normal distribution and is independent of regression factors. If the presupposition Ho disapproved, H1 will be accepted. This means that, there is a meaningful relationship between dependent and independent variables being tested.

V. FINDINGS AND RESULTS

To test the normality of the data, (K-S) test has been used. Regarding the results in table (1), by comparing the meaningfulness level of variables studied for our sample firms, and since the amount of meaningfulness level is more than 0/05 and there exists the assurance level of %95 (with %5 error level), the presupposition Ho is accepted and variables studied, benefit from a normal distribution.

<table>
<thead>
<tr>
<th>Variables</th>
<th>INSO</th>
<th>JO</th>
<th>MO</th>
<th>OC</th>
<th>Di</th>
<th>Di-1</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kolmogorov-Smirnov z</td>
<td>0.588</td>
<td>0.917</td>
<td>1.471</td>
<td>1.235</td>
<td>0.777</td>
<td>0.741</td>
<td>1.031</td>
</tr>
<tr>
<td>Sig</td>
<td>0.280</td>
<td>0.370</td>
<td>0.582</td>
<td>0.094</td>
<td>0.582</td>
<td>0.642</td>
<td>0.238</td>
</tr>
</tbody>
</table>

First Hypothesis: As it is shown in the following figure (Table 2), the variables of Institution Ownership, profit growth and previous year's Dividend policy (p-value<0.05) have a meaningful relationship with the company's Dividend per Share ratio. Institution ownership has a converse relationship with the Dividend per Share ratio and controlling variables of profit growth and the previous year's Dividend policy have a direct relationship with the Dividend per Share ratio. The amount of beta shows that the effect of the previous year's Dividend per Share policy over the current year's Dividend per Share policy is more than other variables under our investigation. Regarding the amount of F, the balanced regression pattern is meaningful and Institution ownership and controlling variables have a meaningful effect on the current year's Dividend policy together and regarding the determination coefficient, these variables explain %48 of changes in Dividend policy.

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>T</th>
<th>p-value</th>
<th>F</th>
<th>p-value</th>
<th>R2</th>
<th>Result</th>
<th>D.W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution Ownership</td>
<td>-0.233</td>
<td>-2.290</td>
<td>0.026</td>
<td>17.245</td>
<td>0.000</td>
<td>0.48</td>
<td>Confirm</td>
<td>1.903</td>
</tr>
<tr>
<td>Profit growth</td>
<td>0.261</td>
<td>2.303</td>
<td>0.025</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>previous year's Dividend policy</td>
<td>0.415</td>
<td>3.762</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Second Hypothesis: As it is shown in the following figure (Table 3), the variables of Joint Ownership, profit growth and
The previous year's Dividend policy (p-value<0.05) have a Positive and meaningful relationship with the company's Dividend per Share ratio. The amount of beta shows that the effect of the previous year's Dividend per Share policy over the current year's Dividend per Share policy is more than other variables under our investigation. Regarding the amount of F, the balanced regression pattern is meaningful and Institution ownership and controlling variables have a meaningful effect on the current year's Dividend policy together and regarding the determination coefficient, these variables explain %48 of changes in Dividend policy.

Table III: Result of Second Hypothesis Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>T</th>
<th>p-value</th>
<th>F</th>
<th>p-value</th>
<th>R²</th>
<th>Result</th>
<th>D.W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Ownership</td>
<td>0.224</td>
<td>2.190</td>
<td>0.033</td>
<td>16.981</td>
<td>0.000</td>
<td>0.476</td>
<td>Confirm</td>
<td>1.894</td>
</tr>
<tr>
<td>Profit growth</td>
<td>0.267</td>
<td>2.354</td>
<td>0.022</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>previous year's Dividend policy</td>
<td>0.411</td>
<td>3.705</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Third Hypothesis: As it is shown in the following figure (Table 4), the variables of profit growth and previous year's Dividend policy (p-value<0.05) have a Positive and meaningful relationship with the company's Dividend per Share ratio. But Managerial ownership and Dividend policy don't have meaningful relationship with the company's Dividend per Share ratio. The amount of beta shows that the effect of the previous year's Dividend per Share policy over the current year's Dividend per Share policy is more than other variables under our investigation. Regarding the amount of F, the balanced regression pattern is meaningful and Institution ownership and controlling variables have a meaningful effect on the current year's Dividend policy together and regarding the determination coefficient, these variables explain %44 of changes in Dividend policy.

Table IV: Result of Third Hypothesis Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>T</th>
<th>p-value</th>
<th>F</th>
<th>p-value</th>
<th>R²</th>
<th>Result</th>
<th>D.W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managerial Ownership</td>
<td>-0.082</td>
<td>-0.814</td>
<td>0.419</td>
<td>14.557</td>
<td>0.000</td>
<td>0.438</td>
<td>Reject</td>
<td>1.735</td>
</tr>
<tr>
<td>Profit growth</td>
<td>0.320</td>
<td>2.798</td>
<td>0.007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>previous year's Dividend policy</td>
<td>0.439</td>
<td>3.836</td>
<td>0.000</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Fourth Hypothesis: As it is shown in the following figure (Table 5), the variables of Ownership Concentration, profit growth and previous year's Dividend policy (p-value<0.05) have a Positive and meaningful relationship with the company's Dividend per Share ratio. The amount of beta shows that the effect of the previous year's Dividend per Share policy over the current year's Dividend per Share policy is more than other variables under our investigation. Regarding the amount of F, the balanced regression pattern is meaningful and Institution ownership and controlling variables have a meaningful effect on the current year's Dividend policy together and regarding the determination coefficient, these variables explain %47.5 of changes in Dividend policy.

Table V: Result of Fourth Hypothesis Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>T</th>
<th>p-value</th>
<th>F</th>
<th>p-value</th>
<th>R²</th>
<th>Result</th>
<th>D.W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership Concentration</td>
<td>0.242</td>
<td>2.16</td>
<td>0.035</td>
<td>16.904</td>
<td>0.000</td>
<td>0.475</td>
<td>Confirm</td>
<td>1.812</td>
</tr>
<tr>
<td>Profit growth</td>
<td>0.238</td>
<td>2.029</td>
<td>0.047</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>previous year's Dividend policy</td>
<td>0.381</td>
<td>3.354</td>
<td>0.001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VI. CONCLUSION

The main purpose in this article is to study the relationship between Dividend Policy and Ownership Structure in Companies Listed at Tehran Stock Exchange.

The results of testing the first hypothesis showed that there is a negative and meaningful relationship between Institution Ownership and the Dividend per Share ratio in listed Firms of Tehran Stock Exchange. This result agrees with the researches of [15].

The results of testing the third hypothesis showed that there isn't a meaningful relationship between Managerial Ownership and the Dividend per Share ratio in listed Firms of Tehran Stock Exchange. This result agrees with the researches of [1] and does not accord with researches of [15]-[20].

The results of testing the fourth hypothesis showed there is a positive and meaningful relationship between joint Ownership and the Dividend per Share ratio in listed Firms of Tehran Stock Exchange. Since

The distributive profit is considered to be an alternation for supervision [19] and the other hand; great stockholders
(centralized companies) have enough strength to force the companies to distribute surplus cash flows in order to reduce agency costs. Accordingly, it is expected that the relationship between Ownership Concentration and profit distribution should be harmonious [9]. This result agrees with the researches of [14] and does not accord with researches of [9].

Regarding the positive and meaningful relationship between controlling variables of profit growth and previous year’s Dividend policy with the Dividend per Share ratio in all hypotheses under our investigation, message delivery hypothesis which is based on the fact that companies increase their cash stock profit when they expect profitability, is also approved. This result agrees with the researches of [10].

REFERENCES