

## FACTORS AFFECTING DIVIDEND POLICY: EMPIRICAL EVIDENCE OF IRAN

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### **Summary**

*Dividend policy involves extremely important financial decisions which serve as a basis of numerous theories. However, these theories have been developed in different fields, and according to some evidence this policy remains a kind of dilemma in the financial cycles of corporations. Thus we deal with them as one of the ten most crucial problems of corporations. The aim of this study is to elaborate a model which would enable us to examine the effects of dividends in relation to profitability, size, beta rate, the rate of retained earning, P/E, and debt ratio. In other words, our aim is to find an answer to this question: Do these above mentioned factors affect the dividend policy in Iran or not? This research covers all listed companies in the Tehran Stock Exchange between 2000 and 2008. According to the results of the study there is a direct relationship between dividend and profitability. However, the results also reveal that there is a reverse relationship of these factors with P/E, beta rate and debt ratio. Furthermore, the results of the study show that there is no meaningful relationship between the dividend policy and a company's size and rate of retained earning.*

**Key words:** *dividend policy, size, beta rate, retained earning, P/E.*

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## 1. INTRODUCTION

Corporate dividend policy has long been an issue of interest in the financial literature and, despite the vast research on the topic, it remains an open subject. Ever since the work of John Lintner (1956), followed by the work of Miller and Modigliani (1961), dividend policy remains a controversial issue. In fact, this has been true since Miller and Modigliani's (1961) irrelevance proposition, according to which dividend policies are all equivalent and there is no particular policy that can increase shareholders' wealth in perfect capital markets.

Firms can use internal or external sources to finance their investments. Internal sources include retained earnings and depreciation, while external sources basically refer to new borrowings or the issue of stock. Thus the financing decision involves the appraisal of two choices. The first is the dividend choice – the fraction of retained earnings to be ploughed back and the fraction to be paid out as dividends. The second is the capital structure choice – the fraction of external finance to be borrowed and the fraction to be raised in the form of new equity. Firms are generally free to select the level of dividend they wish to pay to holders of ordinary shares, although factors such as legal requirements, debt covenants and the availability of cash resources impose limitations on this decision. It is thus not surprising that the empirical literature has recorded systematic variations in dividend behavior across firms, countries, time and type of dividend.

One of the most critical arguments of financial literature has been dividend policy. Dividend has two important aspects. First, it is an effective element of corporations' investment. On the one hand, the higher the dividend paid out, the lower will be corporations' internal resources for performing investment projects, while outsourcing requirement will increase which is an effective element of the stock price. On the other hand, many corporate shareholders demand cash dividends (Salehi and Biglar, 2009). Thus, managers should always equilibrate between different interests of shareholders so that they could utilize investment profitable opportunities and would pay required cash dividends for some shareholders (Salehi and Rostami, 2009). Therefore, a dividend decision by corporations' managers is very sensitive and important as well. There is no doubt that when deciding about income, managers should consider their outcomes. This is why many corporations have a certain purpose in mind while making decisions about dividends. However, it is without question that when managers make dividend decisions they inevitably face constraints such as liquidity problems, tax considerations and so on. Listed corporations in the stock exchange use different advertising instruments for internal and external investment. One of these financial instruments is the dividend. On the one hand, dividends will provide a stable income for shareholders who are able to regulate their life expenses with it, and on the other hand investors and stock buyers will pay attention to corporations' annual stock dividend news and reports. They will give due attention to the fact that dividend represents corporations' power, while profit payment will cause shareholders to have confidence in their yield of capital receipt. Therefore, it is important to understand the factors that affect dividend policies and the managers making decisions about dividend policies in terms of these factors.

The rest of this paper reviews prior studies on this subject, explains the research methodology in the next section, discusses the results of the research and makes conclusions on the basis of results.

## 2. DIVIDEND POLICY

Lintner (1956) suggests that dividend depends in part on the firm's current earnings and in part on the dividend for the previous year. He finds that major changes in earnings with existing dividend rates are the most important determinants of the firm's dividend policy. He also finds that firms tend to make periodic partial adjustments toward a target payout ratio rather than dramatic changes in payout. Fama and Babiak (1968) support Lintner's argument that managers increase dividends only after they are reasonably sure that they can permanently maintain them at the new level. Miller and Modigliani (MM, 1961) suggest that, in a world without taxes, transaction costs, or other market imperfections, dividend policy is irrelevant to the value of the firm. They also suggest that dividend is determined residually; this means that dividends are paid from the money left after investing in positive NPV projects. However, the clientele-effect on dividends is an example of factors that speak in favor of the relevance of dividends to the value of the firm. There are several empirical studies (Kwan, 1981; Eades, 1982; Asquith & Mullins, 1983; and Baker et al, 1985) that suggest that dividend changes convey signals to the market about the future of the firm. Other research papers (e.g. Elton & Gruber, 1970; Pettit, 1977; and Baker et al, 1985) acknowledge the existence of clientele-effect on dividends.

An essential assumption of MM's dividend irrelevance theory is that investors and managers have identical information with regard to the company's future earnings and dividend. In reality, however, managers have better information about future prospects than investors. Empirical studies have observed that an increase in dividend leads to an increase in share price, while a decrease in dividend leads to a decrease in the price. MM also observed that companies are hesitant towards a decrease in dividends and do not increase dividends unless they expect better future earnings. Therefore, they argue that an increase in dividends is a signal to investors that the company's management predicts better earnings in the future and that a decrease in dividend is a signal of poor earnings in the future. Therefore, investors might be attracted by the signal conveyed about future profits rather than the high rates of dividend payout (Brealey and Myers, 2000). Empirical studies of signaling have had mixed results in proving whether share price changes following an increase or a decrease in dividends reflect only a signaling effect, dividend preference, or both. There is, however, a general agreement in the literature that signaling is a value-relevant determinant of dividend policy. Motives for signaling include actions to indicate future profits, actions to get external finance, actions to help prevent a takeover, and complying with and adopting a policy of a parent company that wants to signal certain information. The literature also recognizes the fact that groups of investors have an incentive to pursue low-payout stocks, while other groups have an incentive to pursue high payout stocks. These groups are called clienteles. The clientele-effect argument states that dividend policy

responds to the needs of stockholders. MM and several studies suggest that there is in fact a clientele-effect (Pettit 1977), which is also a value-relevant determinant of dividend policy.

### 3. REVIEW OF RELATED LITERATURE

The stock exchange is a market that makes capital and it is used for dispersed capital concentration and while it serves the aims of corporation development.

The stock exchange is one of important dimensions of capital distribution in a country's economy and indeed it is an organization that relates between people's deposits and investment opportunities in a society.

So far, a lot of research has been done on dividends. The aims of these studies were to determine the characteristics that corporations deal with to pay income. Rozeff (1982) investigated the dividend policies and their relation with variables such as beta rate, growth rate, and management ownership ratio in USA. He collected the data from 1000 firms in 64 different industries by using published articles in the field of investment evaluation by value line institution from June 1981. The results showed that dividend payment is a reverse function of future growth in sales, beta rate, and corporations' management ownership ratio. However, dividend payment has a direct relationship with the number of shareholders. Furthermore, the results of this study showed that corporations' investment policies affect the dividend policy. In 1992, Jensen et al studied U.S corporations. They concluded that debt ratio has a reverse relationship with the dividend payment ratio, so that the higher the debt ratio, the higher is the financial risk and lower the dividend distribution.

After 1978, the dividend percentage reduced dramatically in the US corporations. It reduced from 52.8% in 1973 to 20% in 1999. This motivated Fama and French (2001) to examine the reasons for dividend reduction of listed corporations in the New York Stock Exchange. Results revealed that profitability, firm size, and investment opportunities were the main factors influencing dividends. Furthermore, the results also showed that big size corporations paid higher dividends. However, corporations with lower investments opportunities paid low dividends. According to results of Stiglitz (1973), before firms reach their efficient size (maturity) they do not distribute dividends. This is why larger firms distribute dividends.

Pandy (2001) investigated the dividend payment behavior in Malaysia. The research sample included 248 listed corporations in the period from 1993 to 2000. This sample included building industries, consumer products, industrial products, agricultural products, real estate, and service enterprises. Results showed that dividend payment ratios among different industries are different in Malaysia. Agricultural and consumer product corporations had the highest level of dividend payment, because they had limited investment opportunities and more working capital. The results also indicated that profitability, firms' size and investment opportunities affect dividend payments. These results also suggested that larger and more profitable companies pay higher dividends. However, firms with profitable opportunities pay fewer dividends.

The results also suggested that corporations that never pay dividends are more profitable than corporations that only distribute dividends in the first years of their activities. The results suggest that one of the basic characteristic of dividend payers is the firms' size – firms that pay dividends are ten times larger than firms that don't.

In many authorities' opinion, management fields have been accepted. The organizations also would have life cycles with lower growth opportunities and higher residual cash. Building industries had the lowest level of dividend payment, because they needed higher cash flows to finance growth opportunities.

On the other hand, commercial and service departments paid lower dividends, because their profitability was low. Also, it was determined that dividend payment ratios are not the same in different time periods. The results indicated that when Malaysian corporations' revenues increased, they also increased the dividend payment level. But when they faced loss, they stopped dividend payments very rapidly.

Arnort and Ashess (2002) investigated the relationship between the growth in dividends and revenues. They explored why the dividend payment ratio has reduced but price/earnings per share ratio continued to increase from 1995. Research results showed that lower dividend payment ratio and higher price earnings per share ratio suggest the future growth in revenues.

Adelegan (2003) concluded that dividend yield and dividend payment ratio is higher in corporations with more leverage.

In addition, higher levels of dividends increase the levels of leverage. It appears that managers in corporations with higher levels of leverage separate the dividend policies from funding policies. Therefore, they pay dividends without taking account of the level of leverage. This is probably because there is compressed competition among corporations which distribute dividends to attract investors despite their increased debt.

A study conducted by Faulkender and Wang. (2004) provided a model in which using a diversity of opinions between managers and investors, capital structure and dividend policy could be expected. The main belief was that firms will have a better performance because investors have more confidence in managers' abilities in investment decision making. Thus, dividend payment ratios and consequently leverage ratios will reduce. In this research, executive compensation was used as a criterion for agreement between managers and investors. The results indicated that more agreement between shareholders and managers leads to more compensation for executive managers. Finally, it leads to the reduction in leverage levels and dividend payments. Also, it was determined that executive compensation will not affect the size of the firm and the industry category.

Goergen et al, (2004) examined the dividend determination behavior in German firms. They found out whether Germany firms will target a long-term dividend payment ratio consistent with findings, and whether this targeted dividend payment is based on expected revenues or cash flows. They measured 221 Germany corporations form 1984 to 1993. Results indicated that German corporations paid fewer dividends

than English (UK) corporations. Also, dividend payment ratio changed dramatically during these years and in some years corporations did not pay dividends. Results also indicated that in German firms the speed of dividend adjustment and dividend payment ratios are based on cash flows. This is because cash flows have more importance than revenues. These results suggest that correlations between issued revenues are more pronounced than those of cash flows. Another result of this research was that US and UK firms adjusted their dividend policy slowly, while German firms tended to stop dividend payment when in conditions of reduced profitability.

Beabczuk (2004) investigated dividend policies in Argentina. His goal was to investigate deterministic elements in dividend policies of listed corporations in the Argentina Exchange during 1996-2002. Research results indicated that larger and more profitable firms without good investment opportunities paid more dividends. Meanwhile, corporations with higher risk and borrowing paid fewer dividends.

Shulian and Yanhong (2005) investigated difficulties in dividend payments in Chinese corporations. The sample included listed corporations in Shanghai Exchange by the end of 2000. In total 299 corporations were chosen randomly. Results of the study revealed that dividend payments in Chinese corporations had a direct relationship with current yield per share and total assets, and a reverse relationship with debt ratio. On the other hand, cash dividend payment had a direct relationship with operating cash flows. Results also indicated that firms with higher rate of return on investment and free cash flow paid higher dividends and belonged to traditional industries. Firms with higher rate of return on investment and lower free cash flow paid lower dividends and belonged to modern industries with developed technology.

The results of the studies of Eije and Megginson (2006); and Ferri, Sen, and Yui (2006) showed the differences that in terms of dividend payment between American firms and non-American firms. On the one hand, results of Eije and Megginson (2006) revealed that in the European countries accumulated dividends affect dividend payment.

Sharma and Singh (2006) examined deterministic factors of stock price in Indian corporations. They studied 160 firm samples during 2001-2005. Results indicated that revenue and book value per share and dividends are important and effective factors in determining stock price and that they signaled the financial health of corporations. Therefore, corporations need to adopt an expansible policy in dividend distribution, because high dividend ratio is effective in increasing market value per share.

Kowalewski and Oleksandr (2007) investigated dividend policy and corporate governance in Poland. They examined 110 non-financial corporations between 1998 and 2004. The result of the study revealed that corporate governance is an important determinant of dividend policy. Also, larger corporations with higher profitability that don't have good investment opportunities paid more dividends. Also, corporations with higher debt ratio paid fewer dividends.

Al-Malkawi (2007) examined the determinants of corporate dividend policy in Jordan. He used a firm-level panel that consisted of all publicly traded firms on the

Amman Stock Exchange between 1989 and 2000. The results suggest that the proportion of stocks held by insiders and the state significantly affected the amount of dividends paid. Size, age, and profitability of the firm seem to be determinant factors of corporate dividend policy in Jordan. The findings provide strong support for the agency costs hypothesis and are broadly consistent with the pecking order hypothesis. The results provide no support for the signaling hypothesis.

Raable and Hedensted (2008) concluded that Danish corporations that pay dividend have the following characteristics: high return on owner's equity and accumulated dividend, low market, book value ratio, large firm size and dividend distribution in the previous year.

Al-Kuwari (2009) investigates the determinants of dividend policies for firms listed on Gulf Cooperation Council (GCC) country stock exchanges. This is a case study of emerging stock exchanges, where the determinants of dividend policy have received little attention. This study used a panel data consisting of non-financial firms listed on the GCC country stock exchanges between the years of 1999 and 2003. Seven hypotheses pertaining to agency cost theory were investigated using a series of random effect Tobit models. The models considered the impact of government ownership, free cash flow, firm size, growth rate, growth opportunity, business risk, and firm profitability on dividend payout ratios. The results suggested that the main characteristics of firm dividend payout policy were that dividend payments related strongly and directly to government ownership, firm size and firm profitability, but negatively to the leverage ratio. These results, taken as a whole, indicate that firms pay dividends with the intention of reducing the agency problem and maintaining firm reputation, since the legal protection for outside shareholders was limited. In addition, and as a result of the significant agency conflicts interacting with the need to built firm reputation, a firm's dividend policy was found to depend heavily on firm profitability. This may indicate that listed firms in GCC countries alter their dividend policies frequently and do not adopt a long-run target dividend policy.

A study was conducted by Fadaeinejhad (2005) in Iran by investigating the effect of B/M ratio and firm size on profitability of corporations. The result of the study suggested that there is a reverse linear relationship between B/M ratio and profitability. Also, results indicated that the return on owner's equity had no significant relationship with the firm size and that it could not be expected its profitability regarding to future firm size.

#### 4. RESEARCH METHODOLOGY

Black (1976) epitomizes the lack of consensus by stating that "*The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that don't fit together*". Because the academic community has been unable to provide clear guidance about dividend policies due to the focus on financial data and statements of companies, many papers shifted their emphasis (e.g Baker et al 1985, and Partington 1985). The lack of consensus with regard to dividend policy in general, and dividend determinants in particular, is real. When the analysis of numbers and data does not add much to our

understanding of this area, analyzing the decision-maker's perceptions becomes important.

The statistical sample of the study includes listed corporations in the Tehran Stock Exchange (TSE) during the period between 2000 and 2008. Totally 73 corporations were randomly chosen as samples from different industries.

This research has used historical information and special statistical methods (multiple regressions) to examine the relationship between variables and to test the hypotheses. Required information was collected through different journals and reports. Regression analysis methods were used to analyze the statistical tests. In addition, SPSS software was used to process information.

### Research variables

Used variables and their calculation method are as follows:

- 1 - Firm size: logarithm of issued stock market value is considered as the firm size;
- 2 - Beta: Beta is obtained from the following formula:  $B = \text{COV}(\text{return on per share and return on market}) / \text{market variance}$ ;
- 3 - Per share price / earning ratio by dividing per share price / earning in each year;
- 4 - Debt/ equity ratio: total debt of corporation divided by total corporation stock market value at the end of each financial year;
- 5 - Profitability coefficient: Total firm revenue before return divided by the total value of a firm's assets;
- 6 - Growth of accumulated earning: Difference amounts of accumulated earning during two subsequent financial periods divided by beginning accumulated earning amounts;
- 7 - Percentage of dividend distribution: distributed dividend percent in each firm have been extracted by different software.

## 5. RESEARCH HYPOTHESES

By reviewing literature and research variables, the following hypotheses were postulated in the study.

- 1 - There is a reverse and significant relationship between Beta rate and dividend payment ratio.
- 2 - There is a direct and significant relationship between firm size and dividend payment ratio.
- 3 - There is a direct and significant relationship between per share price, earning ratio and dividend payment ratio.

- 4 - There is a reverse and significant relationship between debt, equity ratio and dividend payment ratio.
- 5 - There is a reverse and significant relationship between accumulated dividend growth rate and dividend payment ratio.
- 6 - There is a direct and significant relationship between profitability ratio and dividend payment ratio.

## 6. TESTING OF HYPOTHESES

This part of the study includes testing of hypotheses. As mentioned earlier, this research used historical information and special statistical methods (multiple-regression) to examine the relationship between variables and to test the hypotheses.

Testing of first hypothesis

H1: There is a reverse and significant relationship between beta rate and dividend payment ratio.

In terms of the first hypothesis, the following regression equivalent is written:

$$d = B_0 + B_1 (\text{beta}) + \varepsilon$$

Where: d = dividend payment ratio

B<sub>0</sub> = fixed amount variable coefficient

B<sub>1</sub> = independent variable coefficient

Beta = beta coefficient

This model was tested and it was determined that it is significant. Also, it was cleared that the fixed rate is not zero.

$$D = 77.94 - 1.36 (\text{beta}).$$

**Table 1:** The results of testing the first hypothesis

Results	Fixed amount	Coefficient	Probability sample	Variable
Accepted	77.94	-1.36	0.04	Beta

According to the results, a reverse and significant relationship between beta and dividend distribution percentage was proved with a 90% confidence level.

Testing of second hypothesis

H2: There is a direct and significant relationship between firm size and dividend payment ratio.

Regression formula is as follow:

$$d = B_0 + B_1 (\text{size})$$

Where: d: dividend payment ratio

$B_0$ : Fixed amount

$B_1$ : independent variable coefficient

Size: Firm size

By testing it, it was concluded that this model is not significant. Also, it was determined that the fixed amount is zero. Statistical results of this hypothesis can be seen in Table 2.

**Table 2:** The results of testing the second hypothesis

Result	Fixed amount	Coefficient	Probability sample	Variable
Rejected	92.29	-1.37	0.31	Firm size

The results indicated that the firms' size doesn't have a significant relationship with the amount of dividend distribution percentage. The idea that a firm's size and dividend payment are directly related to each other was proved false. Research results are similar to the research results of Fadaeinejhad (2005) by indicating that there is no significant relationship between a firm's size and the dividend distribution percentage.

A probable reason why a firm's size does not affect the distributed dividend percentage is that in Iran stock market as opposed to foreign stock market firms' efficiency for dividend distribution is not mandatory.

Testing of third hypothesis

H3: There is a direct and significant relationship between per share price, earning ratio, and dividend payment ratio.

Following regression is written:  $d = B_0 + B_1 (P/E)$

Where: d: dividend payment ratio

$B_0$ : fixed amount

$B_1$ : independent variable coefficient

P/E: per share price/ earning ratio

This model was tested and it was determined that this model was significant and that the fixed amount is zero.  $d = 82.01 - 0.87(P/E) + \epsilon$

Statistical results of the hypothesis are shown in Table 3.

**Table 3:** The results of testing the third hypothesis

Result	Fixed amount	Coefficient	Probability sample	Variable
Rejected	82.01	-0.87	0.000	P/E

The results revealed that there is a reverse and significant relationship between per share price earning ratio and dividend distribution percentage.

As a result, the research hypothesis is rejected and null hypothesis is accepted. This perhaps suggests corporations' future revenue growth because managers will invest in profitable projects rather than to pay dividends.

#### Testing of fourth hypothesis

H4: There is a reverse and significant relationship between debt and equity ratio with dividend payment ratio.

Regression equivalent for fourth hypothesis is as follow:

$$d = B_0 + B_1 (\text{debt}) + \epsilon$$

Where: d: Dividend payment ratio

B<sub>0</sub>: fixed amount

B<sub>1</sub>: independent variable coefficient

Beta: debt /equity ratio

It appeared that with regard to dispersion (relationship between debt ratio and dividend distribution percentage), a double relationship of various debt amounts could be thought. This relationship is positive for large debt and negative for small debt. To consider this subject, a dummy variable was used. This variable is defined as follows:

If debt is less than 5.5 then dummy = 0

If debt is more than 5.5 then dummy multiple debt = 1

$$d = B_0 + B_1 (\text{debt}) + \gamma_1 (\text{dummy}) + \gamma_2 (\text{dummy} \times \text{debt})$$

This model was tested and it was determined this model is significant and fixed amount is not zero.

$$d = 77.53 - 7.68 (\text{dummy}) + 0.32 (\text{dummy} \times \text{debt})$$

Table 4 illustrates the results of testing the fourth hypothesis.

**Table 4:** The results of testing the fourth hypothesis

Result	Fixed amount	Coefficient	Probability sample	Variable
Accepted	77.53	-7.68	0.032	dummy
Rejected	77.53	0.32	0.032	Dummy × debt

The results had a double behavior in the relationship between debt ratio and dividend distribution percentage. In the firms with very high debt ratio there is a direct and significant relationship between this ratio and dividend distribution percentage, but in the firms with low debt ratio, this relationship is reverse. Therefore, there was no reason to reject the fourth hypothesis. However, in the firms with high debt ratio, this hypothesis was rejected.

#### Testing of fifth hypothesis

H5: There is a reverse and significant relationship between accumulated dividend growth rate and dividend payment ratio.

Regression formula is as follows:

Where:  $d = B_0 + B_1 (g) + \varepsilon$

d: Dividend payment ratio

B<sub>0</sub>: fixed amount

B<sub>1</sub>: independent variable coefficient

g: Accumulated dividend growth rate.

This model was tested and it was determined that this model is not significant. Consequently this hypothesis is rejected. The statistical results of this hypothesis are shown in Table 5.

**Table 5:** The results of testing the fifth hypothesis

Result	Fixed amount	Coefficient	Probability sample	Variable
Rejected	77.87	-0.15	0.26	Accumulated dividend growth rate

#### Testing of sixth hypothesis

H6: There is a direct and significant relationship between profitability ratio and dividend payment ratio.

Regression formula is written as follows:

Where:  $d = B_0 + B_1 (pr) + \varepsilon$

d: Dividend payment ratio

Bo: fixed amount

B1: independent variable coefficient

Pr: profitability ratio.

This model was tested and it was determined that it is significant.

$d=72.38+21.88$  (profitability)

Statistical results of this hypothesis are shown in Table 6.

**Table 6:** The results of testing the sixth hypothesis

Result	Fixed amount	Coefficient	Probability sample	Variable
Accepted	72.38	21.88	0.01	Profitability

The results indicated that there is a direct and significant relationship between profitability and dividend distribution percentage. Therefore, the sixth hypothesis is confirmed. Alternatively the null hypothesis is rejected.

## 6. MULTIPLE REGRESSION

In these section pure effects of each variable is evaluated by multiple regressions keeping the effect of other variables fixed. This model predicts the dividend distribution ratio more exactly.

It is difficult to suit time series models and evaluate parameters with a high confidence, due to short research time periods (8 years). Thus, better evaluation could be obtained by data combination. These evaluations called on combined evaluation in the economic issues.

Multiple regression models above are suited in different times to obtain a significant model. After elimination of independent variables that have no significant relationship with dependent variable, the model is written as follows:

$$d= B_0 + B_1 (\beta) +B_2+B_3 (Pr) +B_4 (DB) +\varepsilon$$

d: Dividend payment ratio

Bo: fixed amount

B1: variable beta coefficient

$\beta$  = Beta rate

B2= per share pricey earning ratio

B3= profitability ratio coefficient

Pr = profitability ratio

B4= debt ratio coefficient

DB= debt ratio

Statistical results are shown in Table7.

**Table 7:** The results of multiple regressions

Probability	Fixed amount	Coefficient	Variable
0.000	77.27	-1.22	Beta
0.000	77.27	-0.97	P/E
0.000	77.27	22.91	Profitability
0.000	77.27	0.21	Dummy multiple Debt

Finally the model is written as follows:

$$d = 77.27 - 1.22 (\beta) - 0.97 (P/E) + 22.91 (Pr) + 0.21 (DB) + \epsilon$$

It appears that by assuming lack of effect of P/E and profitability and debt ratio variable, adding a unit in beta coefficient will reduce dividend distribution percentage by 122%. By assuming lack of effect of P/E debt ratio and beta coefficient variables, adding a unit in profitability will increase dividend distribution percentage by 299%.

Finally, by assuming that beta coefficient, P/E and profitability variables are fixed, adding a unit in debt ratio will increase dividend distribution percentage by 21%.

## 7. CONCLUSION

The conclusions of each hypothesis are as follows:

First hypothesis: With 90% confidence level, there is a reverse and significant relationship between beta coefficient and dividend distribution percentage.

According to Rozefs research's (1992), firms with higher beta coefficient will pay fewer dividends.

Second hypothesis: Research results indicate that size does not affect dividend distribution. This result is opposed to research results of Fama and French (2000) but it is similar to the research results of Fadaeinejhad (2005) in Iran. Perhaps this is because in the Iranian stock market, efficiency of firms in distributing dividends was not mandatory in the mentioned research period.

Third hypothesis: one of the key indicators and market principle variables to predict future market changes by investors and organizations is per share price/ earn-

ing ratio. It is likely that a reverse relationship between P/E ratios and paid dividends suggests future growth in revenues.

Last, but not the least, managers' awareness of adopted dividend policies is very important for investors, because they will suffer substantial costs to obtain information in this regard. Dividend payment to common shareholders is one of the ways that a firm directly affects shareholders' wealth.

As investors are interested in the information about dividend policies, managers will tend to predict annual receipt dividend and its distributable percentage so that they can collect a cash budget and its investment policies.

1) By assuming lock of effect beta, profitability and debt ratio, adding a unit in P/E ratio will reduce dividend distribution percentage by 97%.

Therefore, it is important to determine deterministic elements in dividends. On the one hand it will cause the reduction of investor risk in the expected receipt yield and on the other hand managers will adopt dividend policies with more awareness.

Since the dividend policy affects numerous elements, and since these elements could be found by performing empirical researches in the stock markets with regard to the existing condition on these stock markets, these research results have many applications.

If exchange requirements would be similar to 2000-2008 time periods, it could be concluded that beta and price/earning ratio have a reverse and significant and debt ratio (its high amounts) and profitability ratio have a direct and significant relationship with dividend payment listed corporations in TSE.

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## ČINITELJI KOJI UTJEČU NA POLITIKU DIVIDENDI: EMPIRIJSKO ISKUSTVO IRANA

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### **Sažetak**

*Politika dividendi je jedna od najkontroverznijih odluka na kojima se temelje brojne teorije. Međutim, te teorije su nastale u brojnim područjima, te dokazi pokazuju kako je ova politika i dalje ostaje dilema u financijskim ciklusima korporacija. Stoga se ovim pitanjem bavimo kao jednim od deset ključnih problema korporacija. Cilj ove studije je predstaviti model koji bi nam omogućio da istražimo učinke dividendi u odnosu na profitabilnost, veličinu, stopu Bete, stopu zadržane zarade, stopu PE omjera i omjera duga. Drugim riječima, naš je cilj pronaći odgovor na ovo pitanje: Da li gore navedeni faktori utječu na politiku dividendi u Iranu ili ne? Ovo istraživanje uključuje sve kompanije uvrštene na Teheranskoj burzi u razdoblju 2008. – 2009. Prema rezultatima studije, postoji izravna veza između dividendi i profitabilnosti. Međutim, rezultati također otkrivaju da postoji obratna veza ovih faktora s PE omjerom, stopom Bete i omjerom duga. Nadalje, rezultati ove studije pokazuju kako ne postoji značajna veza između politike dividendi kompanije i njezine veličine i stope zadržane zarade.*

**Ključne riječi:** politike dividendi, veličina, beta stopa, zadržana dobit, P/E.

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