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## **Disclosure Quality and Dividends Payment A case study of the companies listed on Tehran Stock Exchange**

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**K E Y W O R D S:** Disclosure Quality- Dividend Payouts- panel data

**ABSTRACT:** Owners, creditors, governments and other users of financial reports need that to make decisions about buying, selling, holding shares, loans, evaluation of the performance of managers and other key economic decisions of financial information reliable, relevant and quality. In general, investors when investing in an economic entity that first it sufficient information (including financial information) and secondly to ensure their information. Theoretical and empirical evidence suggest that the three are inverse relationship between the quality of information disclosed by companies and the cost of capital. This study aims to evaluate the investigate Disclosure Quality effect on Dividend Payouts in Tehran Stock Exchange listed firms. Using the systematic elimination of 87 companies during the period 2009 to 2013 has been selected. The research to test the hypothesis of Logistic regression and panel regression was used. The results indicate that the quality of disclosure the effect to pay dividends more likely to the company's dividend payment.

### **Introduction**

According to the agency theory, managers as representatives of the shareholders may take decisions that necessarily won't lead to shareholder wealth maximization. According to this theory, sufficient oversight mechanisms should be developed to protect shareholders against conflict of interests. Financial statements transparency and disclosure quality related to it are introduced as a practical way to this end (Karamanou, 2005). Weak financial disclosure misleads shareholders and has an adverse impact on their wealth. According to Wallace although achieving to an abnormal return will be almost impossible in efficient securities market and through existing information, but evidences show that the disclosure of information in the market can be valuable from the point of view of individual investors; because on the one hand it provides necessary adjustments to update investors perception towards the market, and on the other hand and to some extent, it satisfies the uncertainty prevailing in the market that in turn affects trading volume and liquidity of the securities. In fact, disclosure of information in the market increases the volume of traded securities, and consequently the investors can achieve optimal investment portfolio, that in turn leads to the increase of their economic prosperity. According to the basic assumptions of agency theory, there is a conflict of interest between the owner and the agent, potentially. Therefore, in order to address this problem, various control mechanisms are designed. Control mechanisms are the measures that push management's initiatives toward investors' interests. Information disclosure as a control mechanism helps investors to regulate managers of the investment companies and encourages them to consider the benefits of the shareholders and to improve the performance of the company. Transparency and information disclosure is considered a mechanism to protect the rights of foreign investors, and it inhibits information asymmetry and declines agency costs. Information asymmetry has different adverse consequences such as increased transaction costs and weakness of market economy, low liquidity and in general decline in the profits of capital market transactions, and the less the benefits of the transactions are the less the dividends payment will be (Chen et al., 2007). According to the theory of agency costs, agency derives from the potential conflict between the interests of managers and shareholders. Thus, when owner managers sell a part of their shares to investors who are not involved in the company's management, agency costs will rise (Rousseff, 1992). As cash flow in a company is important to evaluate the liquidity position of the company, naturally cash dividend per share as one sources of liquidity has particular importance for the holder of the stock. Aside from the fact, cash dividends per share carries specific message to the market (Aharon, 1980).

Given the above mentioned issues, now this question raises that whether disclosure quality affects dividend payment?

### ***Disclosure quality***

Sanghavi and Desai believe that quality refers to completeness, correctness or accuracy and reliability characteristics. Ball et al. and Kothari define transparency as a combination of timeliness and conservativeness. Timeliness implies to the extent that the economic events of the current period are included in the presented financial statement and conservativeness implies that bad economic news reflect faster than good news in the financial reports. Barth and Schipper believe that transparency of the financial reporting includes fundamental economic affairs of the entity such as resources (assets), claims to those resources (debt and equity), change in resources, claims and cash flows of financial position, corporate risks and management approach. Schipper and Panal also believe that financial statements have necessary quality if they meet three characteristics including transparency, full disclosure and comparability. A transparent financial statement is a statement that reflects events, transactions, judgments and fundamental estimates of the financial statements and their applications. Transparency enables users to perceive the results and applications of the decisions, judgments and estimates, provided in financial statement. Full disclosure implies providing all the information needed for decision-making and, therefore, to ensure that investors are won't mislead. Finally, comparability means that similar transactions and events are audited and reported consistently.

Empirical research, do not differentiate quantity and quality of disclosure clearly. Generally, it is assumed that quantity of the disclosed information is a measure to detect its quality. As a result, disclosure quantity measurements will be used to measure quality of the disclosure. However, a dispute on how to achieve a more effective scale for measuring disclosure quality remains. In this regard, Zhang differentiates disclosure quality and quantity and believes that Quality refers to the accuracy of the disclosure, and will be measured through increase in consensus and accuracy of the investors' expectations regarding the disclosure.

He applies analysts' forecasts as a representative of investors' expectations. Betty et al. (2004) also suggest that disclosure quality not only depends on the quantity, but also depends on how its range is extended among different issues. In this regard, Jenkins' primary and secondary reports are used. They claim that high quality disclosure is characterized by broadness and balance among primary and secondary issues of related framework. Besides these two components, three additional features are also used to evaluate disclosure: time perspective (the past vs. the future), financial perspective (financial information vs. non-financial information) and measurement perspective (quantitative information vs. qualitative information). Nevertheless, most researchers assume that disclosure quality and quantity are directly correlated.

Given the importance of disclosure quality and responsibility of corporate executives for informing, Tehran Stock Exchange decided to rank all companies listed on the stock exchange in terms of disclosure quality and appropriate informing and provide it for the market, so that the companies be aware about their position and try to improve it. In recent years, ranking of the companies in term of informing and disclosure quality has always been conducted and a list of 20 top companies is presented to the market. It is worth noting that ranking of the publishers for their informing is based on the time of presenting information related to the forecast of earnings per share, midterm not-audited 3, 6 and 9-months. Financial statements, auditor forecast on initial and 6-month earnings per share, auditor opinion about midterm 6-month financial statements, and audited financial statements. Scores related to "disclosure quality and appropriate informing" are available for all companies listed on the stock exchange on Tehran Stock Exchange website.

### ***Dividend payment***

Forecast is a key factor in economic decision-making. Investors, creditors, managers and other individuals rely on forecasts and expectations for their economic decisions making. Since investors and financial analysts use profit as a key criteria to evaluate companies, they tend to measure future profitability in order to decide whether hold their shares or sell them. They use profit forecasts to judge position of the companies. Because in fact

Dividend payment is considered an effective measure which can be used by managers in order to reduce agency opposition in the company. Dividend payments for two reasons may reduce agency opposition in the company. First, dividend payment will reduce the volume of free cash in the company which may be used by some people who have confidential information about current projects of the company to spend it in their favor and with the cost of shareholders. Second, it makes the dividends paid by the companies subject to the frequent inspections of the capital markets, because dividend payment will increase the likelihood of releasing new stocks.

### ***Literature review and research hypothesis***

Brocovich et al. (2005) examined the relationship between board independence and to dividends payment for a sample including 192 US companies in the period between 1992 and 1999. The findings of their study are similar to the findings reported by Batala and Rao (1995).

Examining the relation between disclosure and cost of capital for the companies listed on London Stock Exchange, Gietzman & Ireland (2005) concluded that there is a negative relationship between disclosure and cost of capital. However, this relationship was significant only for firms that adopted aggressive accounting policies.

Amidu and Abor (2006) examined dividend payout ratio according to the data extracted from financial statements of the companies listed on Africa stock exchange over a 6 years period. The results suggest a positive relationship between dividend payout ratio and profitability, cash flow and taxes, as well as a negative relationship between dividend payout ratio and risk, institutional ownership, development and market value to book value. The study also showed that there is no significant relationship between risk and institutional ownership.

In a study titled "The impact of voluntary disclosure, ownership structure and capital costs on future earnings yield", Luo et al. (2006) investigated the impact of voluntary disclosure on the relation between annual current yield, annual earnings and future earnings, as well as the impact of ownership structure and capital costs on these items. The findings of their study indicated a positive relationship between voluntary disclosure and the level of the news regarding future earnings. Also, in the companies that enjoy a high level of management ownership, there is weaker relationship between the current stock returns and future earnings. They also found that there is a weak relation between current stock returns and future earnings, when the cost of capital is high.

Trying to find variables affecting dividend policy and dividend payout ratio in an efficient market, Twajri (2007) studied the data related to 300 randomly selected companies listed on the stock market Kuala Lumpur in the period from 2001 to 2005. The findings of the study showed that dividend payout ratio has no significant impact on the growth of future earnings of the companies, but it has a significant negative relationship with the Company's financial leverage. He also found out that there is a significant positive relation between earnings per share as well as book value of the shares and dividend payout ratio.

Brown and Hillegeist (2007) examined the relationship between disclosure quality and information asymmetry. The results showed that disclosure quality is inversely associated with information asymmetry. They also showed that there is an inverse relationship between disclosure quality and transactions of the shareholders who have access to confidential information. Chang et al (2008) investigated the impact of disclosure quality on information asymmetry. They found out that disclosure quality, as an efficient program, can affect communication with investors. The results showed that information asymmetry, which will be determined from price gap between supply and demand, will decrease when disclosure quality increases.

Leuz and Schrand (2009) examined the relationship between disclosure and cost of capital. The findings of their study showed that in reduce to decline risk the companies increase their reporting transparency. In other words, they have increased their disclosure level that in turn affects the cost of capital imposed on the company.

Chi (2009) investigated the effect of disclosure quality on the performance of Taiwanese companies. The findings of the study suggest that there is a direct relationship between disclosure quality and performance (Disclosure quality on performance).

Investigating the impact of market competition on the quality of voluntary information disclosure, voluntary disclosure of information Lee (2010) found out that competition will increase quality. The results of his study also showed big companies that enjoy a higher level of competitiveness, in compare to small companies, have lower level of disclosure quality compared to small firms.

Liu and Sun (2010) examined the relationship between ownership structure and disclosure quality in Chinese companies. The findings of their study suggest that the quality of disclosure in companies that ultimately will be controlled by private controllers is lower compared to those that ultimately will be controlled by government. (Disclosure quality and stock returns).

Tung. Mao (2011) investigated signaling of paying stocks status about quality of dividends. They used discretionary accruals, standard deviation of accruals measurement error, and the relation between profit and efficiency as four indexes of earning quality. The study suggests that the companies paying dividends compared to the companies that do not pay dividends have higher earnings quality.

Iatridis (2011) examined the relationship between accounting disclosure quality and conditional and unconditional conservatism. The results of the study showed that the companies which enjoy higher levels of disclosure quality lesser embark on earnings management, and have higher conditional conservatism and lower unconditional conservatism.

According to the past research the following hypotheses will be tested:

**Hypothesis 1:** The companies with higher quality disclosure are more likely to pay dividends.

**Hypothesis 2:** The companies with higher disclosure quality pay more dividends.

### **Statistical sample and population of the study**

Statistical population of the study includes all companies listed on the stock exchange, and sampling was done through rejection method. The companies included in the sample should have following qualifications:

The company should be listed on stock market by 2008.

Fiscal year of the company should finish at the end of March every year.

The company had not changed its fiscal year during surveyed period.

The company shouldn't be Investment Company.

The date related to variables should be available for all surveyed years.

Table 1: sampling according to the restrictions of the study

The companies listed on Tehran Stock Exchange by the end of 2012	481
Financial intermediation and insurance companies	44
The Companies that their fiscal year doesn't end in March	88
The Companies that their data are not available or have been removed from the stock exchange	215
The Companies that have been listed on Tehran Stock Exchange after 2008 years	43
The companies remained in the sample	<b>87</b>

Statistical population of the study includes all companies listed in Tehran Stock Exchange from 2008 to 2012; where after applying our restrictions, 121 companies remained.

**Research variables and hypotheses test model**

The study examines the relation between disclosure quality and dividend payment policy. Two models are used for the purposes of the study that are as follows. Model (1) is Logit regression model which is used to examine the impact of disclosure quality on the possibility of dividend payments, and model (2) is panel regression model which is used to examine disclosure quality and dividends paid by the companies. Dependent variable for the first model is possibility of paying dividends by the companies. So that, if a company pay dividends its value will be 1 and otherwise its value will be 0. Dependent variable for second model is the ratio of Cash dividends to total assets. For both models disclosure quality is considered an independent variable.

$$P(DIVD)_{it} = f\{\alpha_i + \beta_1 DSCORE_{it} + \beta_2 LAG(DIV)_{it} + \beta_3 Ln(TA)_{it} + \beta_4 LEVERAGE_{it} + \beta_5 ROE_{it} + \beta_6 CAPEXP_{it} + \beta_7 MB_{it} + \beta_8 TAX_{it} + \beta_9 RETAIN_{it} + \beta_{10} CASH_{it} + \epsilon_{it}\}$$

$$DIV_{it} = \alpha_i + \beta_1 DSCORE_{it} + \beta_2 LAG(DIV)_{it-1} + \beta_3 Ln(TA)_{it} + \beta_4 LEVERAGE_{it} + \beta_5 ROE_{it} + \beta_6 CAPEXP_{it} + \beta_7 MB_{it} + \beta_8 TAX_{it} + \beta_9 RETAIN_{it} + \beta_{10} CASH_{it} + \epsilon_i$$

DIVD: fictitious dividends; if the company pays dividends its value will be 1, and otherwise it will be 0.

DIV: the ratio of cash Dividend to total asset

DSCORE: Disclosure score that will be collected from Stock exchange companies.

LAG (DIV): Overdue dividends of one year

Ln(TA): Natural logarithm of total assets=

LEVERAGE: The ratio of total debt to total assets

ROE: The ratio of net profit to equity

CAPEXP: The ratio of Capital Cost to total debt

MB: The ratio of equity to market value plus the book value of the debt to book value of the assets

TAX: the ratio of income tax to total assets

RETAIN: Retained earnings to total equity ratio

CASH: the ratio of cash and marketable securities to net assets

**The measures used for data collection and analysis**

In the present study the data related to the literature and theoretical foundations of the study are collected using library research and through books, magazines and domestic and foreign papers, and statistical data needed to test research hypothesis are obtained from financial statements along with explanatory notes and through resources published by Tehran Stock Exchange<sup>1</sup>. The data are also collected from some sites including [www.tsetmc.com](http://www.tsetmc.com), [www.codal.ir](http://www.codal.ir), and [www.tse.ir](http://www.tse.ir).

First, we examine descriptive statistics for each of the study variables in the form of frequency tables and statistics charts. In this study, logistic regression is used to examine the relationship between variables as well as significance test of the models, related to hypothesis (1), and also panel regression is used to explain Hypothesis (2) . To this end, first we will examine reliability of the data; because if the data don't be reliable it leads to false regression. Before estimating the model to find appropriate combination model, Limer F test and Hausman test will be used. In order to analyze and test statistical assumptions of the study, Eviews software will be used.

<sup>1</sup> [www.lrbourse.com](http://www.lrbourse.com), [www.rdis.ir](http://www.rdis.ir), [www.tsetmc.ir](http://www.tsetmc.ir)

**The results of hypothesis testing**

**Descriptive Statistics**

Table 2 includes study variables and the symbols used for them, and table 3 shows descriptive statistics for these variables. Since research data are related to a 5-year period from 2008 to 2012 which are extracted for 87 companies. In total, we will have  $5 \times 87 = 435$  observations for each variable. Cash dividends to total assets ratio, for example, will have a mean and standard deviation equal to 0.133153 and 0.175655, respectively. Also, minimum and maximum for this variable will be -0.24788 and 2.241891, respectively. The statistics related to other variables of the study are shown in Table 3.

Table 2. The research variables

Variable type	Concept	symbol
Dependent variable	Fictitious dividends; if the company pays dividends this value will be 1 and otherwise it will be 0	DIVD
independent variable	cash Dividend to total assets ratio	DIV
	Disclosure score which is collected from companies listed on stock exchange	DSCORE
Control variable	Dividends lagged for one year	LAG(DIV)
	Natural logarithm of total assets	Ln(TA)
	The ratio of total debt to total assets	LEVERAGE
	The ratio of net profit to equity	ROE
	The ratio of capital cost to total debt	CAPEXP
	The ratio of equity to market value plus the book value of debt to book value of assets	MB
	The ratio of income tax to total assets	TAX
	Retained earnings to total equity ratio	RETAIN
	The ratio of cash and marketable securities to net assets	CASH

Table 3. Descriptive statistics of the study variables

Variable	Mean	Standard deviation	Minimum	Maximum	Median
DIV	0.133153	0.175655	-0.24788	2.241891	0.096
DSCORE	74.42563	89.96917	0	778	35.5
LAGDIV	0.119876	0.173164	-1.60145	1.115483	0.405
LNTA	27.40487	1.284579	23.88494	32.27007	27.28
LEVERAGE	0.633748	0.405604	0.026259	6.549933	0.619
ROE	0.316176	1.022985	-9.65925	11.78104	0.306
CAPEX	15.57666	20.68631	-29	124	12
MB	9.858004	86.5961	-636.704	1089.109	1.111
TAX	0.000000351	0.000000317	0	0.00000651	0
RETAIN	0.000000123	0.000000354	-0.000000742	0.00000526	0
CASH	0.294955	0.435401	0.000000861	5.710311	0.221

Table 4. Reliability test for research variables

Variable	Levin, Lin & Chui test	
	value	Level of Significance
DIV	-24.249	0.000
DSCORE	-11.458	0.000
LAGDIV	-45.629	0.000
LNTA	-14.946	0.000
LEVERAGE	-41.411	0.000
ROE	-40.975	0.000
CAPEX	-21.470	0.000
MB	-3.645	0.000
RETAIN	-10.627	0.000
CASH	-6.717	0.000

**Inferential statistics**

Before assessing model in the studies that are related to time series data, reliability (consistency in variable distribution over time) should be investigated; because if variables are not reliable they lead to false regression. In this study, the Levin, Lin & Chui test is used to investigate reliability of the variables. Considering that the level of significant obtained for Levin, Lin & Chui test for all variables is less than 0.05, we can conclude that our variables are reliable. Therefore, considering reliability of the variables, the false regression problem won't happen about regression analysis (table 4).

Hypothesis 1: The companies with higher quality disclosure are more likely to pay dividends.

In order to test above mentioned hypothesis, model 1 will be used. Considering that in model 1, the dependent variable is a dichotomous variable and it only can be zero or one, then logistic regression will be used to estimate model 1. If in one of the models independent variable coefficient for disclosure score (DSCORE) be significant then we conclude that above mentioned hypothesis is confirmed. The hypothesis will be verified with respect to the variable sign of disclosure score (DSCORE), so that if variable sign of disclosure score (DSCORE) is positive, then we it suggests that the companies with higher disclosure quality will pay dividends with a high probability, and if disclosure score (DSCORE) is negative then it suggests that the companies with lower disclosure quality will pay dividends with high probability. The results related to Regression model 1 are shown in Table 5.

**Model 1**

$$P(DIVD)_{it} = f\{\alpha_i + \beta_1 DSCORE_{it} + \beta_2 LAG(DIV)_{it} + \beta_3 Ln(TA)_{it} + \beta_4 LEVERAGE_{it} + \beta_5 ROE_{it} + \beta_6 CAPEXP_{it} + \beta_7 MB_{it} + \beta_8 TAX_{it} + \beta_9 RETAIN_{it} + \beta_{10} CASH_{it} + \epsilon_i\}$$

First total significance of the regression model 1 will be examined. In order to investigate total significance of logistic regression model, likelihood ratio test (LR) is used. Since significance level obtained for the test is less than 0.05, then it suggests that the whole model is significant. Also, in order to investigate fitting for above mentioned model, Hosmer and Lemeshow test is used. Since significant level of Hosmer and Lemeshow test statistic is higher than 0.05, then it suggests that estimated model enjoys an appropriate fitting (Significance level greater than 0.05 in Hosmer and Lemeshow test indicates model fitness). According to McFadden statistic that measures the goodness of fit for the model (the more the ratio is close to one, the more the model will be in accordance with reality ; in other words goodness of fit will be more, and vice versa). Then, it can be concluded that Model 1 almost enjoys an appropriate fitting (table 5).

In the following we will examine significance for model 1 regression coefficients. According to the above-mentioned explains, variable coefficient for disclosure score (DSCORE) is significant for model 1 regression. Also, since variable coefficient for disclosure score (DSCORE) is positive in both models, we conclude that that the companies with higher disclosure quality are more likely to pay dividends. Therefore, hypothesis 1 which says "The companies with higher quality disclosure are more likely to pay dividends." is 99% approved.

Table 5. The results for model 1 regression (logistic regression)

Model 1	Z Statistic	Coefficient value	
The significance level			
0.0000	5.980226	0.009688	DSCORE
0.2652	-1.11424	-0.85885	LAG(DIV)
0.0764	-1.77212	-0.16078	Ln(TA)
0.0021	-3.07531	-1.38349	LEVERAGE
0.3595	-0.91638	-0.12297	ROE
0.0899	1.69584	0.009435	CAPEXP
0.1428	-1.46538	-0.00209	MB
0.3254	0.983391	2190935	TAX
0.0536	1.929834	958344.6	RETAIN
0.11	1.598128	0.607262	CASH
0.0333	2.128734	5.195392	Constant value
79.175			LR statistic
0.0000			The significance level
6.6174			Hosmer-Lemeshow statistic
0.5784			The significance level
0.1369			McFadden R <sup>2</sup>

According to Table 6, it can be said that model 1 predict ability is 83.15% for the companies that do not pay dividends (related to year-company) and 45.12% for the companies that pay dividends. Also, the percentage of total forecast of the model is 68.88.

Table 6: The forecasts for model 1

Predicted total percentage	forecast	Observations		
		DIVID Non-payment dividend	of	Dividend payment
68.88		46	74	Dividend payment
		227	90	Non-payment of dividend
		83.15	45.12	Forecast percentage

Hypothesis 2: The companies with higher disclosure quality pay more dividends.

To test above mentioned hypothesis Model 2 will be used, and in order to estimate model, regression analysis with data panel approach will be used. If independent variable coefficient for disclosure score (SCORE) be significant in one of the models, we can conclude that above mentioned hypothesis is verified. Also, verification of the hypothesis will be according to the variable sign of disclosure score (DSCORE). So that, if variable sign of disclosure score (DSCORE) is positive, then we can conclude that the companies with higher disclosure quality pay more dividends. But if disclosure score (DSCORE) is negative, we can conclude that the companies with lower disclosure quality pay more dividends.

**Model 2**

$$DIV_{it} = \alpha_i + \beta_1 DSCORE_{it} + \beta_2 LAG(DIV)_{it-1} + \beta_3 Ln(TA)_{it} + \beta_4 LEVERAGE_{it} + \beta_5 ROE_{it} + \beta_6 CAPEX_{it} + \beta_7 MB_{it} + \beta_8 TAX_{it} + \beta_9 RETAIN_{it} + \beta_{10} CASH_{it} + \epsilon_i$$

Before estimating model 2 and in order to find out which one of the models, i.e. pooled or panel, is more appropriate to estimate regression model of the study, Limer F test will be used. Statistical hypothesis of the test are as follows:

The null hypothesis: pooled model is appropriate.

Alternative hypothesis: panel model is appropriate.

If hypothesis one, which believes combined model fits our study, becomes verified, then all the data should combined into each other and estimated by a classic regression of parameters; otherwise, the data should be considered as a panel. The findings related to this test are presented in table 7. Since significance level of F-Limer test is less than 0.05 for all models, then null hypothesis of the study will be rejected. Therefore, the test indicates that panel model is appropriate to estimate model 2.

Table 7. F-Limer test

Model	F Statistic	Freedom Degree	Significance level	Test result
Model 2	1.8449	88.337	0.0001	Null hypothesis rejected

According to F-Limer test, that indicates panel estimating model as an appropriate for model 2, there are also 2 methods for panel estimating model, estimating with constant impacts and estimating with random impacts. Therefore, in order to estimate model 2 parameters, including constant or random impacts, Hausman test will be used. Hausman null hypothesis attempts to show that random impacts model is appropriate to estimate panel data regression models. There are two key points about constant or random impacts. First, all people or cross-sections in a panel are homogeneous, so it is not need to be worry about various y-intercepts for each person or cross-section. In fact, data panel approach appropriately indicates heterogeneity among individuals. This point is one of the advantages of panel models in compare to cross-sectional models or time series. Second, it supposes y-intercepts as a constant expression and specific for each person or cross-section in regression model. Random impacts model assumes that y- intercept is a random expression for each group, but in this random distribution and for each period of the time only one similar event enters into regression model. In other words, there is only one y-intercept for the whole period of the time. Hausman test results for select between model 2 fixed and random impacts are presented in Table 8. Given that significant level of the Hausman test for model 2 is less than 0.05, therefore the null hypothesis expressing fitness of the random impacts for these models will be rejected, and we will use constant impacts panel method to estimate regression model 2.

Table 8. Hausman test

Model	Chi-square statistic	Freedom degree	Significance level	test result
Model 2	122.211	11	0.000	Null hypothesis rejected

In order to be able to trust to the results of models estimations, we need to examine regression assumptions. The main assumption is significance analysis of multivariate regression analysis for whole regression. Table 9 represents F statistic and its significance level related to the certainty of a linear relationship test (significance test for whole regression) between independent and dependent variables. Since level of significance of the test is less than 0.05 for model 2, then we can say that there is a linear relation between independent and dependent variables in model 2. Another one of the assumptions which will be considered in regression is errors independence (the difference between the actual values and the values predicted by the regression equation). If the hypothesis of errors independence rejected, and errors be correlated with each other, then it won't be possible to use regression. In order to investigate errors independence, Durbin-Watson test will be used. If Durbin-Watson statistic be in a range of 1.5 to 2.5 of non-correlation between the errors will be accepted. According to Table 9-4 Durbin-Watson statistic for model 2 is an appropriate amount. In table 9-4 the values related to coefficient of determination have also appropriate values for the models. We will also calculate a median for dividends value. So, if dividend is more than obtained median, it means that the company pays more dividends and if it is less then it means that the company pays fewer dividends. The obtained median is 0.096284751. In next step, we examine significance of regression 2 model coefficients. According to what was said for each regression 2 models, variable coefficient of disclosure score (DSCORE) will be significant. Also, since disclosure variable coefficient (DSCORE) is positive for both models, we conclude that the companies with higher disclosure quality pay more dividends. Therefore, Hypothesis 2, which says "The companies with higher disclosure quality pay more dividends", is approved with a 95% level of confidence.

Table 9: The results of estimating model 2

Model 2	t statistic	Coefficients value	
Significance level			
0.0234	2.277325	0.000232	DSCORE
0.0105	2.574796	0.128403	LAG(DIV)
0.7284	0.347603	0.00756	Ln(TA)
0.6587	0.442064	0.009052	LEVERAGE
0.000	6.742155	0.045704	ROE
0.939	0.076543	0.0000297	CAPEXP
0.2131	-1.24744	-0.00014	MB
0.5147	-0.65225	-16888.3	TAX
0.1703	1.374314	27256.26	RETAIN
0.651	0.452799	0.012213	CASH
0.8242	0.222264	0.855779	Constant value
4.25226			F statistic value
0.0000			Significance level
0.5705			Coefficient of
			determination
1.9607			Durbin-Watson

**Discussion and conclusion**

The crises that happened across the world caused that transparency of financial statements turn to a necessity in the market. Lack of coordination between financial accounting and tax rules also provided an opportunity for managers to manipulate book income or tax profit. Weak financial disclosure misleads shareholders and has adverse impact on their wealth. The findings of the study show that the companies with higher quality disclosure are more likely to pay dividends.

Weak financial disclosure misleads shareholders and adversely affects their wealth. Wallace believes that although it is to a large extent impossible to achieve abnormal returns in an efficient market, by using available information, but current evidences show that information disclosure is valuable from the perspective of most investors; because on the one hand it provides necessary adjustments to update investors' attitudes in the market, and on the other hand it resolves the uncertainty prevailing in the market, which in turn is effective on trading volume and liquidity of the securities. In fact, the volume of traded securities will increase when information becomes released in the market, and consequently investors can achieve optimal investment portfolio, which in turn leads to their economic wealth and prosperity. Transparency of financial reporting is a measure that reveals financial statements and other economical activities of a business, so that the users can perceive it easily. In this regard, dividend is one of the key issues for investors. The findings of the study show that disclosure quality is a determining factor for taking decisions such as dividend policy in large companies. This means that managers should improve disclosure quality of the company in favor of shareholders, so that the companies pay more dividends. Empirical evidences show that companies with higher quality pay more dividends, and these results are consistent with the findings by Donnelly et al. (2014), where they conducted similar study about companies listed on Canada stock exchange for fiscal year 2009-2012. The findings of



their study also show that the companies with higher disclosure quality are more capable to pay dividend and they also pay more dividends. Dividend is one of the motivations that encourage shareholders to invest in a company. With separation of ownership from management and following agency problem, managers are trying to mitigate this problem through improving the disclosure quality of financial statements and consequently increase company value.

Table 10. Conclusions summary

<p>Hypothesis 1: The companies with higher quality disclosure are more likely to pay dividends.</p>	<p>According to what was said, in regression model 1 variable coefficient of disclosure score (DSCORE) is significant. Also, considering that disclosure variable coefficient (DSCORE) of the model is positive, we can conclude that the companies with higher disclosure quality with high probability pay dividends. Therefore, hypothesis 1 which says “The companies with higher quality disclosure are more likely to pay dividends” can be approved with a probability of 99%. The findings of the study also show that the companies with higher disclosure quality pay dividends with high probability. In other words, the companies enjoy higher disclosure quality are more probable to pay dividends in compare to companies that have lower disclosure quality.</p>
<p>Hypothesis 2: The companies with higher disclosure quality pay more dividends.</p>	<p>Since disclosure variable coefficient (DSCORE) for model 2 is positive, we conclude that the companies with higher disclosure quality pay more dividends. Therefore, hypothesis 2 which says “The companies with higher disclosure quality pay more dividends” can be approved with a probability of 99%. Empirical evidences show that companies with higher quality pay more dividends, and these results are consistent with the findings by Donnelly et al. (2014), where they conducted similar study about companies listed on Canada stock exchange for fiscal year 2009-2012. The findings of their study also show that the companies with higher disclosure quality are more capable to pay dividend and they also pay more dividends.</p>

**Research limitations**

Although present study is beneficial both theoretically and practically; but it has some limitations.

First, if the results do not match with actual events, it may be because disclosure scores are extracted from Stock Exchange and in prepared format.

Second, the study examines the relation between financial restrictions and dividend policy for a limited number of the companies and in a limited time, from 2008 to 2012, and the data are valid just for this period of the time, while in case of change in economical, political and legal conditions the results can be very different.

Third, inflation reduces the usefulness of accounting information. Since preparation of adjusted financial statements according to general level of prices is not required, therefore the role of inflation has not been involved in the data and this may be misleading.

Fourth, although if a longer period of the time was considered as the scope of the study, the findings could be generalized more, but at the same time the number of the companies qualified for the statistical population had been decreased and consequently our sample was smaller, and this eventually had led to decrease in validity of the study and had limited the possibility for examining desired relation.

**Recommendations**

**Suggestions derived from the study**

Dividend payment is one of the important issues for investors. The company's dividend policy affects both on company financing and shareholders' wealth in long run. Since dividend policy is influenced by numerous factors, then decision making about dividend payment may turn to a controversial subject for management. Therefore, in order to achieve better results the investors can pay more attention to corporate disclosures quality, because disclosure quality of the company affects its dividend

payment. Weak financial disclosure misleads shareholders and has an adverse impact on their wealth. Wallace believes that although it is to a large extent impossible to achieve abnormal returns in an efficient market, by using available information, but current evidences show that information disclosure is valuable from the perspective of most investors; because on the one hand it provides necessary adjustments to update investors' attitudes in the market, and on the other hand it resolves the uncertainty prevailing in the market, which is in turn effective on trading volume and liquidity of the securities; because on the one hand it provides necessary adjustments to update investors perception towards the market, and on the other hand and to some extent, it satisfies the uncertainty prevailing in the market that in turn affects trading volume and liquidity of the securities. In fact, disclosure of information in the market increases the volume of traded securities, and consequently the investors can achieve optimal investment portfolio, that in turn leads to the increase of their economic prosperity. Also, since investors increasingly pay more attention to dividend payment, then it is suggested that the companies be more careful regarding dividend payment. According to the need for increasing the awareness among retail investors, it is suggested to the Stock Exchange and other authorities that embark on increasing awareness among current and potential investors through media and training programs. Considering that Iran's economy is a government or quasi-government economy, and the institute responsible for rating disclosure quality in Stock Exchange Organization is a public entity, then it is recommended that private and independent entities scoring disclosure be used.

Also, considering that in capital markets of industrialized countries, there are institutions ranking disclosure items in terms of importance for investors, therefore Iran Stock Exchange can also improve validity of its published information through ranking disclosure items from point of view of investors.

Given the importance of disclosure, it is suggested that managers of commercial entities pay more attention to optional disclosure. It is also necessary that the people responsible for drafting accounting and financial reporting standards and regulations, involve small companies too, and develop optimal regulation for these companies, so that investors can judge their financial reporting and disclosure quality accordingly.

According to the results, it can be seen that the companies with higher disclosure quality are more likely to pay dividends, and this is favored by investors and consequently leads to investment growth in the shares of the companies listed on stock exchange. Therefore, the companies listed on stock exchange should bear in mind that disclosure quality is a vital and important component for investors, and they should pay more attention to the information disclosure.

### ***Suggestions for future research***

Each study, even though it is deemed to be comprehensive, yet due to some substantive and procedural limitations such as subject and time, is not able to cover all aspects of the issue and address various perspectives of it. Present research is not an exception too. Therefore, in order to conduct some studies in line with present study and extending it, some suggestions will be presented for the future studies:

- Examining the relation between disclosure quality and financing in the companies listed on Tehran Stock Exchange
- Examining the relation between disclosure quality and stock issuance in the companies listed on Tehran Stock Exchange
- Examining the relation between disclosure quality and stock returns in the companies listed on Tehran Stock Exchange
- Examining the relation between disclosure quality and discretionary accruals in the companies listed on Tehran Stock Exchange
- Examining the relation between disclosure quality and cost of debt and Weighted Average Cost of Capital.

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