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QUALITY OF EARNINGS AND DIVIDENDS POLICY EVIDENCES FROM TEHRAN SECURITIES EXCHANGE (TSE)

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ABSTRACT

This study investigates relationship between earning quality and dividend policy in Tehran securities exchange (TSE). Main purpose of this research is to answer this question that is it possible to evaluate dividend policy bases on earning quality? For this purpose, 93 firms were studies during 2006-2012. Multivariate regression was used for analyzing first hypothesis and logit regression was used for second and third analysis. Earning quality was measured through two alternative variables (earning closeness to operational cash flows and changes in optional credit numbers). Results showed that in the case of measuring earning quality based on changes in optional credit numbers, there is a weak significant relationship between earning quality and more dividends. If earning quality is measured based on earning closeness to operational cash flows, there is a relatively significant relationship between quality of earning and increasing dividends. Results indicated that change in quality of earning contains information about change in dividends and managers of firms in Tehran securities exchange consider cash flows and market reaction ad believe in performance stability of investors.

Keywords: *Earning Quality, Operational Cash Flows, Discretionary Accruals Numbers, Dividend Policy and Performance Stability*

INTRODUCTION

After 50 years of early research of Lintner (1956) and Miller and Modiglianu (1961) dividends policy is still one of controversial financial issues and although there are various theories but there is no consensus between researchers on it (Farinha and Morierra, 2007).

Dividend has special place before some beneficiaries because of its objectivity and tangibility and this group believe that dividend not only presents a clear picture from current situation but also it provides possibility for estimating and evaluating future condition. Importance of this problem for managers is significant because of using information for running business and evaluating their performance by market. For this reason, companies use different policies in distributing dividends.

We know that net income of company is influenced by accounting methods and estimations and manipulation by management is possible. It is expected that firm's real earnings differ from reported earnings. In other words, earnings quality is influenced by manager discretion which will have influences on dividend policy. Regarding this, main question of this research is that does earning quality influences dividend policy?

Hypotheses and Scope of Research

In order to achieve main purpose of study some hypotheses were considered:

Hypothesis 1: there is a significant relationship between earnings quality and dividend.

Hypothesis 2: there is a significant relationship between earnings quality and higher dividends.

Hypothesis 3: there is a significant relationship between earnings quality and likelihood for increasing dividend.

Statistical sample was selected from Tehran securities exchange (TSE) based on below criteria:

1. They were accepted from beginning 2006 in TSE.
2. End of their fiscal year is March.
3. Banks and financial and investment institutes were eliminated because of homogenizing sample.
4. There was no transaction limitation or change of fiscal period for study time.
5. Data were available from various resources.

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Regarding these criteria, 93 companies were selected from 2003-2009. This is an applied and descriptive correlation research in which multivariate regression was used for testing first hypothesis and logit regression was used for testing second and third hypotheses. Data about selected companies were gathered from database Tadbirpardaz, Rahavard novin and TSE site and were analyzed by Excel and SPSS software.

Model and Variables

Used model for testing hypotheses in this study are:

$$DIVPS_t = \alpha_o + \alpha_1 EQ - X_t + \alpha_2 EARN - D_{t-1} + \alpha_3 STRUCT_t + \alpha_4 DIVPS_{t-1} + \alpha_5 DUM + e_t \tag{1}$$

$$DY_t = \alpha_o + \alpha_1 EQ - X_t + \alpha_2 EARN - D_{t-1} + \alpha_3 STRUCT_t + \alpha_4 DIVYL_{t-1} + \alpha_5 DUM + e_t \tag{2}$$

In following, definition of operational variables in this study is given:

Independent Variable Earnings Quality (EQ-X)

In this research earnings quality is calculated with two ways. Therefore, applied model was tested with both ways.

A. earning looseness to operational cash flows (EQ-CFO)

Operational earning is sum of operational cash flows and accruals. From this view, if operational cash flow is larger, earning has high quality. In this regard, earning quality is considered as a perceived variable and if operational cash flow is larger than accrual, it is considered equal with one; otherwise, it is zero. In order to calculate accruals, we subtract operational cash flows from operational earning:

$$Accrual = OI - CFO$$

b. Change in discretionary accruals (EQ-DAC)

In order to calculate discretionary accruals we use difference between predicted accruals and real accruals. In order to predict accruals of given year, we divide sum of three previous years accruals on sale of three previous years and times it to present year sale. Then we obtain accruals from real accruals and predicted accruals. Difference of discretionary accruals in recent year and previous year is considered as discretionary accrual.

In order to predict accrual we use following equation (Khajavi and Nazemi, 2005).

$$E_{(ACC_{it})} = \frac{\sum_{k=1}^{3} ACC_{it-k}}{\sum_{k=1}^{3} Sales_{it-k}} . Sales_{it}$$

In which:

$E(acc_{it})$: predicting accruals of company I in period t.

Sales: sale and k is 3 years before recent year.

Discretionary accrual is calculated as below:

$$DA_{i,t} = Acc_{i,t} - E_t(Acc_{i,t})$$

It is evident that the more discretionary accruals, the more probability for managing and smoothing earning by company and earning quality will be lower.

Dependent Variable

Based on presented model we used three dependent variables here.

A. dividend per share

It is Rial equivalent of each share in recent year.

B. dividend yield (DY)

It is calculated by dividing dividend per share to initial price of share. This variable is considered as perceived variable and it this ratio was larger than median, it equals 1; otherwise, it is zero.

C. change in dividend per share

This is a hypothetical variable such that if changes in dividend per share in recent period was positive (increases), it equals one; otherwise, it is zero.

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Control Variable
Dividend is influenced by different factors. Therefore, in order to distinguish effect of earning quality of dividend, effect of following variables is controlled:

$EARN-D_{t-1}$: it is a perceived variable that if obtained earning of continuous operation of last year is higher than median, it equals 1; otherwise, it is zero.

STRUT: is capital structure of company which is calculated by dividing debts to assets.

$DIVPS_{t-1}$: is dividend of previous year.

DUM_{t-1}: is a control variable which is considered for studying stock exchange conditions during 2005 and after it. This is a perceived variable which is 1 for years after 2005 and zero for other years.

$DIVYL_{t-1}$: is yield ratio of previous year which is calculated by dividing dividend per share to price in the beginning of period.

EPS_{t-1}: is earning of previous year.

ΔEPS: change of earning per share relative to previous year.

Research Hypothesis
First Hypothesis

There is a significant relationship between earnings quality and dividend.

Second Hypothesis

There is a significant relationship between earnings quality and higher dividends.

Third Hypothesis

There is a significant relationship between earnings quality and increasing dividend.

Research Findings
First Hypothesis

There is a significant relationship between earnings quality and dividend.

Results of testing this hypothesis is presented in table (1). As seen, none of alternative variables earning quality i.e. closeness of earning to operational cash flows and change in discretionary accruals (EQ-DAC) entered in model and first hypothesis was not confirmed. Result is opposite of other researches. For example, Farinha and Morriera (2007) and Kaski and Hanlon (2005) studies indicated positive and significant relationship between earnings quality and dividend.

On the other hand, about control variables, table (1) shows that coefficient is about 54.5% and this means that about 54.5% of changes in dividend is justifiable by three variables previous year dividend, operational cash of previous year and capital structure. F-statistics and its significance level indicate significance of changes in dividend and three variables in 95% confidence level.

Table 1: Results of testing this hypothesis

$DIVPS_t=301.786+0.621\ DIVPS_{t-1}+96.348EARN-D_{t-1}+7.678\ STRUCT_t$					
Accept or reject	**Sig**	**Durbin-Watson**	**F-statistics**	**Coefficient**	**Model**
Rejected	0.000	1.649	271.719	0.545	1

Second Hypothesis

There is a significant relationship between earnings quality and higher dividends.

Results of testing this hypothesis is presented in table (2). As table (2) shows, determination coefficient is 0.022 and this means that about 2 percent of variation in dependent variable is described by independent variable. On the other hand, Chi-square and significance level of model indicates significance of dependent variable variations relations and accruals relationship in 95% confidence level. Because second variable substituted for earning quality i.e. variation in accruals entered in model, second hypothesis is accepted.

Regarding positive relation and manner of calculating changes in accruals variable, the lower earning quality the higher is probability of dividend. Result of testing hypothesis is similar to results of Farinha and Morierra (2007). Among control variables only dividend yield has significant and positive relationship with higher dividends.

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Table 2: Results of testing this hypothesis

Logit=Ln($\frac{p}{1-p}$)=0.007 EQ- DAC+1.829 DIVYL$_{t-1}$

Confirmed or reject	Sig	chi-squre	Coefficient	Model
Confirmed	0.008	11.280	0.022	2

Third Hypothesis
There is a significant relationship between earnings quality and increasing dividend.
Result of hypothesis testing is presented in table 3. As this table shows, coefficient is 0.357. This means that about 35.7% of variation in dependent variable is described by independent variable. On the other hand, chi-square statistics and significance indicated significant relationship between dependent variable variations and independent variable in 95% confidence level. Because first alternative variable EQ-CFO is entered in model, third hypothesis is accepted and relation of higher quality of earning and increasing divided is confirmed. Results are consistent with Farinha and Morriera (2007) study. About control variables, earning per share variable and earning variation has positive and significant relationship with increasing dividend but dividend yield of last year has negative and significant relationship with increasing dividend.

Table 3: Results of testing this hypothesis

Logit=Ln($\frac{p}{1-p}$)=-0.571+0.684 EFQ – CFO+ 0.001 EPS$_{t-1}$+0.002 D- EPS – 0.001 DIVYL$_{t-1}$

Confirm or reject	Sig	chi-squre	Coefficient	Model
Confirmed	0.000	211.622	0.357	3

RESULTS AND DISCUSSION
In this writing we studied relationship between earnings quality and dividend policy. Results of testing first hypothesis indicated lack of relationship between earning quality and dividend which shows that earning quality has no effect on dividend and TSE companies did not consider dividend with earnings quality. Therefore, it is inferred that dividend does not show earning quality. Result is not consistent with other researches (Farinha and Morierra 2007; Kaski and Hanlon 2005).
Assuming that selected variables as alternative for earning quality are suitable representatives for measuring this feature, lack of this conformity may be related to problems in TSE. For example, investors' unfamiliarity and lack of financial analysts who can scrutinize earning quality of companies, forces managers to pay dividend to stockholders to prevent negative reactions of investors and market.
On the other hand, regarding confirming dividend relation of recent year with previous year, it seems that dividend policy of TSE companies is based on market reaction and belief in functional stability and irrational behaviors between investors.
Capital structure is influential on dividend i.e. the more debts of company the more dividends will be which confirms theoretical discussions about conflict of interests between owners and creditors and transferring risk to creditors through giving more dividend by owners.
Confirming second hypothesis i.e. weak and inverse relationship between earning quality and higher dividends indicates that quality of earning has influence on dividend but this relationship is not consistent with investment rationale. It means that by increasing smoothing and managing earning in TSE companies, likelihood of dividend increases.
We can interpret this result as in TSE companies with lower earning quality and managed earning distributed higher dividend. This is an evidence for functional stability of investors and their irrational behavior in TSE. It can be said that companies' managers use earning management tools along with good dividend yield to intensify influence of company performance on market and those companies with higher earning management in TSE distribute more dividend. Result of testing this hypothesis is consistent with

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Farinha and Morierra (2007) study. On the other hand, time series relationship to dividend yield is seen which indicates importance of functional stability of capital market in Iran.

Confirming third hypothesis i.e. relationship between earning quality and increasing dividend shows that change in earning quality contains information about change in dividend. In other words, by increasing earning quality the likelihood for increasing dividend per share increases. Therefore, it is inferred that investors can predict dividend variation per share using earnings quality. Observing this relationship is rational because in companies with higher earnings, accruals are more close to cash and there is no liquidity problem. Result of hypothesis testing is consistent with Farinha and Morriera (2007) study. On the other hand, earning per share and its variation has positive and significant relationship with increasing or decreasing dividend per share. But relation of dividend yield of previous year with dividend variation in recent year is negative because of effect of price in the beginning of period on increase in dividend.

In all tested models investigating results of certain conditions after 2005 presidential elections on variables shows lack of political factor effect on research variables and its perceived variable is not entered in models.

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