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STUDY OF THE EFFECT OF CONSIDERING EQUITY ON INFORMATION TRANSPARENCY IN COMPANIES LISTED IN TEHRAN STOCK EXCHANGE

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ABSTRACT

This research studies the effect of considering equity on information transparency. The research period was 2009-2013. This is an applied research by goal. Data was analyzed by EVIEWS6 software. Then the assumptions were analyzed by t test. The statistical society of this research is all companies in Tehran Stock Exchange. Among the determinant factors, there are significant relations between considering equity with information transparency and transaction with related persons, earning non-smoothing, between government stockholding or acquisition and earning non-smoothing, government acquisition and audit quality in listed companies in Tehran Stock Exchange, and there is no significant relation in the other cases.

Keywords: Equity, information transparency, audit quality, earning non-smoothing.

INTRODUCTION

The early years of the third millennium were elapsed while the world was evident of huge bankruptcies of companies such as End-run, WorldCom, Xerox, Parmalat, etc. These bankruptcies pointed accusation finger toward accounting and financial reporting, so that they called these events as “accounting scandal”. Among the aftershocks of this scandal was collapse of one of the large accounting companies in the world, “Arthur Anderson” (auditor of Enron Co.). But this was not end of the work, but financial reporting encountered crises due to tarnishing its validity. Study of events for bankruptcy of these companies shows that the main origin of these events was dummy earning reports, which provided ground of distrust against accounting and audit. Managers of these companies often depressed quality of financial reports by resorting to deceitful methods such as designing dummy transactions (Safarzadeh, 2013).

These financial scandals produced concerns for monitoring authorities of most developed countries where their economies were based on capital market, and preserving equity and public benefits was

important for them. Outcomes of these concerns were demonstrated as fundamental changes in their monitoring areas and capital market, from which we can point to the thought of empowering corporate governance structure and existing rules and regulations. Upon these changes, corporate governance principles were basically developed by relying on responding, truthfulness, and trust culture in managers and promotion of information transparency. Settlement of a strong governance system in companies requires noticing some factors interpreted as “corporate governance mechanisms”. These mechanisms are classified into two general categories: internal and external mechanisms. “Internal mechanisms” are based on actions of individual companies to implement control and responding. “External mechanisms” are based on monitoring external groups in order to preserve equity. One of the most important external mechanisms of corporate governance is considering equity of stockholders as main suppliers of resources. It seems that the success secret of a company is

promised on responding to its stockholders suitably. This research uses a combinational multi-dimensional index to put into operation equity.

HISTORY OF RESEARCH

Safarzadeh (2013): This research studies relation between equity and earning quality of Iranian companies by integrated data technique. He found that the introduced index for equity had a negative and significant relation with earning stability, earning smoothing, and earning conservatism, but it had positive and significant relation with earning timeliness, and had no significant relation with accruals quality, earning anticipation capability, and earning value relation.

Panahia et al. (2012): The goal of this research was study of the role of views of investors towards transparency dimensions of financial information to determine their behaviors in Tehran Stock Exchange. The results showed that improving transparency of financial information may increase public trust and investment activities.

Ghaemi and Alavi (2012): They studied the effect of information transparency calculated by earning transparency on cash inventory. The findings showed that there was a negative and significant relation between information transparency and cash inventory. In other words, companies with higher information transparency hold lower cash inventory.

Nasrollahi et al. (2010): This research studied acquisition structure and reported earning quality by listed companies in Tehran Stock Exchange. The results showed that earning quality was improved by increment of institutional investors' acquisition ratio, but institutional investors' acquisition concentration decreased earning quality.

Hesarzadeh (2010): He studied earning transparency dimensions and its relation with some of features of listed companies in Tehran Stock Exchange. The results showed that there was a negative and significant relation between accruals quality and earning conservatism, earning non-smoothing and earning anticipation capability, accruals quality and earning non-smoothing, and there was a positive and significant relation between accruals quality and earning anticipation capability, while there was no relation between earning conservatism with earning non-smoothing and earning anticipation capability.

Yu (2005) studies relation between accounting transparency and credit situation of companies. He showed that there was a reverse and significant relation between accounting information transparency and credit risk, and incomplete

disclosure of information increased credit risks of companies.

Andrade et al. (2009) studied relation between financial statements transparency and debt cost. They provided evidences that showed debt cost decreased by increment of financial reporting transparency. They found that improved quality of financial reporting saved a considerable amount in costs. They found that financial statements transparency affected debt contracts pricing.

Lail (2010): His results showed that Sarbanes-Oxley Rule had a definite effect on earning quality of listed companies in bourse. Sarbanes-Oxley Rule affected earning quality. Earning quality didn't changes around Sarbanes-Oxley Rule. Costs of Sarbanes-Oxley Rule were more than it benefits in decision making about acceptance in bourse.

Dey (2005): He found that equity of companies with most representation costs had a positive and significant relation with earning quality. But equity of companies with least representation costs had no relation with earning quality.

ASSUMPTIONS OR RESEARCH

Regarding to the questions, the assumptions are:

Assumption 1: There is a significant relation between considering equity and information transparency.

Sub-assumption 1.1: There is a significant relation between acquisition concentration and audit quality.

Sub-assumption 1.2: There is a significant relation between existence of a stockholder with control right and audit quality.

Sub-assumption 1.3: There is a significant relation between government stockholding or acquisition and audit quality.

Sub-assumption 1.4: There is a significant relation between transaction with related persons and audit quality.

Sub-assumption 1.5: There is a significant relation between existence of legal claims upon company and audit quality.

Assumption 2: There is a significant relation between considering equity and earning non-smoothing.

Sub-assumption 2.1: There is a significant relation between acquisition concentration and earning non-smoothing.

Sub-assumption 2.2: There is a significant relation between existence of a stockholder with control right and earning non-smoothing.

Sub-assumption 2.3: There is a significant relation between government stockholding or acquisition and earning non-smoothing.

Sub-assumption 2.4: There is a significant relation between transaction with related persons and earning non-smoothing.

Sub-assumption 2.5: There is a significant relation between existence of legal claims upon company and earning non-smoothing.

METHODOLOGY

This is an applied research by goal and is a correlational by method and nature. The statistical society of this research is all listed companies in Tehran Stock Exchange (2009-2013). Method of research is inductive, in which theoretical fundamentals and research history were gathered from library resources and inductive reasoning was used to accept or reject the assumptions and applying proper statistical methods. Data was analyzed by EVIEWS6 software. Then the assumptions were analyzed by t test.

Model of main and sub-main assumptions

Model for assumption 1:

$$\begin{aligned} KH_{i,t} &= \beta_0 + \beta_1 RHSVABASTE_{i,t} + \beta_2 RHSTAMARKOZ_{i,t} \\ &+ \beta_3 RHSMLEKITEDOLAT_{i,t} + \beta_4 RSHAGHEKONTOROL_{i,t} \\ &+ \beta_6 LEV_{i,t} + \beta_7 prof_{i,t} + \beta_8 GROWOP_{i,t} + \varepsilon_{i,t} \end{aligned}$$

Model for sub-assumption 1.1:

$$KH_{i,t} = \beta_0 + \beta_1 RHSTAMARKOZ_{i,t} + \beta_2 LEV_{i,t} + \beta_3 prof_{i,t} + \beta_4 GROWOP_{i,t} + \varepsilon_{i,t}$$

Model for sub-assumption 1.2:

$$KH_{i,t} = \beta_0 + \beta_1 RSHAGHEKONTOROL_{i,t} + \beta_2 LEV_{i,t} + \beta_3 prof_{i,t} + \beta_4 GROWOP_{i,t} + \varepsilon_{i,t}$$

Model for sub-assumption 1.3:

$$KH_{i,t} = \beta_0 + \beta_1 RHSMLEKITEDOLAT_{i,t} + \beta_2 LEV_{i,t} + \beta_3 prof_{i,t} + \beta_4 GROWOP_{i,t} + \varepsilon_{i,t}$$

Model for sub-assumption 1.4:

$$KH_{i,t} = \beta_0 + \beta_1 RHSVABASTE_{i,t} + \beta_2 LEV_{i,t} + \beta_3 prof_{i,t} + \beta_4 GROWOP_{i,t} + \varepsilon_{i,t}$$

Model for sub-assumption 1.5:

$$KH_{i,t} = \beta_0 + \beta_1 RHSGHANONI_{i,t} + \beta_2 LEV_{i,t} + \beta_3 prof_{i,t} + \beta_4 GROWOP_{i,t} + \varepsilon_{i,t}$$

Model for assumption 2:

$$\begin{aligned} AHS_{i,t} &= \beta_0 + \beta_1 RHSVABASTE_{i,t} + \beta_2 RHSTAMARKOZ_{i,t} \\ &+ \beta_3 RHSMLEKITEDOLAT_{i,t} + \beta_4 RSHAGHEKONTOROL_{i,t} \\ &+ \beta_5 RHSGHANONI_{i,t} + \beta_6 LEV_{i,t} \\ &+ \beta_7 prof_{i,t} + \beta_8 GROWOP_{i,t} + \varepsilon_{i,t} \end{aligned}$$

Model for sub-assumption 2.1:

$$AHS_{i,t} = \beta_0 + \beta_1 RHSTAMARKOZ_{i,t} + \beta_2 LEV_{i,t} + \beta_3 prof_{i,t} + \beta_4 GROWOP_{i,t} + \varepsilon_{i,t}$$

Model for sub-assumption 2.2:

$$AHS_{i,t} = \beta_0 + \beta_1 RSHAGHEKONTOROL_{i,t} + \beta_2 LEV_{i,t} + \beta_3 prof_{i,t} + \beta_4 GROWOP_{i,t} + \varepsilon_{i,t}$$

Model for sub-assumption 2.3:

$$AHS_{i,t} = \beta_0 + \beta_1 RHSMLEKITEDOLAT_{i,t} + \beta_2 LEV_{i,t} + \beta_3 prof_{i,t} + \beta_4 GROWOP_{i,t} + \varepsilon_{i,t}$$

Model for sub-assumption 2.4:

$$AHS_{i,t} = \beta_0 + \beta_1 RHSVABASTE_{i,t} + \beta_2 LEV_{i,t} + \beta_3 prof_{i,t} + \beta_4 GROWOP_{i,t} + \varepsilon_{i,t}$$

Model for sub-assumption 2.5:

$$AHS_{i,t} = \beta_0 + \beta_1 RHSGHANONI_{i,t} + \beta_2 LEV_{i,t} + \beta_3 prof_{i,t} + \beta_4 GROWOP_{i,t} + \varepsilon_{i,t}$$

In which,

$KH_{i,t}$: Audit quality index of company i at year t

$AHS_{i,t}$: Earning non-smoothing index of company i at year t

$RHSVABASTE_{i,t}$: Transaction with related persons index of company i at year t

$RHSTAMARKOZ_{i,t}$: Acquisition concentration index of company i at year t

$RHSMLEKITEDOLAT_{i,t}$: Government acquisition index of company i at year t

$RHSMLEKITEDOLAT_{i,t}$: Existence of stockholder with control right index of company i at year t

$RHSGHANONI_{i,t}$: Existence of legal claims index of company i at year t

$LEV_{i,t}$: Leverage of company i at year t

$Profit$: Special profit of company i at year t

$GROWOP$: Growth opportunity of company i at year t

Dependent variable: The dependent variable is “information transparency”, which audit quality and earning non-smoothing are used to evaluate it.

1. **Audit quality:** Following Lang and Maffett (2011), “size of audit institute” was used to

evaluate audit quality. Thus, those companies that are audited by MofidRahbar Audit Institute and Audit Organization are assigned 1; otherwise 0.

2. **Earning non-smoothing:** Barth et al.'s (2008) model was used to measure earning non-smoothing, indicating the ratio of 'operational income change variance' to 'operational cash flow change variance'. The more the ratio, the less the earning non-smoothing. The ratio of residuals of regression patterns 1 and 2 are used to measure this criterion instead of variance ratio, because some affecting factors on operational income and operational cash flow have non-optional natures. In other words, they depend on the economic environment of company, not to accounting methods and financial reporting system. Therefore, firstly their effect must be neutralized, then residuals are considered as changes due to accruals.

The regression model (1) is as follows:

$$\Delta NI_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 GROUWTH_{it} + \alpha_3 LEV_{it} + \alpha_4 DISSUE_{it} + \alpha_5 TURN_{it} + \alpha_6 CF_{it} + \alpha_7 EISSUE_{it} + \varepsilon_{it}$$

In which,

DNI : Operational profit changes

SIZE: Company size

GROWTH : Sale change (%)

LEV : Total debt to book value of equity

DISSUE : Debt change (%)

TURN : Sale to total assets ratio

CF : Net operational cash flow to total assets ratio

ESSUE : Changes of ordinary stocks (%)

The regression model (2) is as follows:

$$\Delta CF_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 GROUWTH_{it} + \alpha_3 LEV_{it} + \alpha_4 DISSUE_{it} + \alpha_5 TURN_{it} + \alpha_6 CF_{it} + \alpha_7 EISSUE_{it} + \varepsilon_{it}$$

In which, DCF is changes of operational cash flow; thus, earning non-smoothing criterion is ratio of regression residual variance of model (1) to regression residual variance of model (2).

Independent variable: Considering equity: This includes many factors, so a combinational and multi-dimensional criterion is used to measure this variable.

Control variables:

1. **Growth opportunity:** It is the ratio of market value to book value of capital:

$$GROWOP = P_{ij} / BV_{ij}$$

In which,

GROWOP : Growth opportunity

P_{ij} : Market value of capital of company

BV_{ij} : Book value of capital of company

2. **Profitability:** It is return of total assets, which is equal to net profit of assets (Shahalizadeh, 2013).

3. **Leverage:** It is ratio of debts to assets of company. We divided companies into two groups by Median Property and studied the assumptions in two levels of companies with high leverage and companies with low leverage.

FINDINGS AND ANALYSIS

To obtain transparency variable, we use two regression models. Thus, earning non-smoothing criterion is ratio of regression residual variance of model (1) to regression residual variance of model (2) (Tables 1 and 2).

Table: 1. Results of Limer&Hossman's F Test for regression models 1 and 2

Assumption	Model	Statistic	p-value	Result
Regression model (1)	ΔNI	Limer's F	1.141576	0.1803
Regression model (2)	ΔCF	Limer's F	0.614855	0.9991
				Integrated method

Table: 2. Results of estimation of regression model (1)

$\Delta NI = 1904142 - 70608.92SIZE_{it} + 28.25919GROWT_{it} + 93.08064LEV_{it} - 5.604441DISSUE_{it} - 67272.70TURN_{it} + 1081.562CF_{it} + 29.12132EISSUE_{it}$				
Variable	Estimated factor	SD	t	t probability
β_0	19044142	486754.7	3.911912	0.0001
$SIZE_{it}$	-70608.92	18170.48	-3.885915	0.0001
$GROWTH_{it}$	28.25919	1.107045	25.52669	0.0000
LEV_{it}	93.08064	46.55840	1.999223	0.0410
$DISSUE_{it}$	-5.604441	2.170943	-2.581569	0.0101
$TURN_{it}$	-67272.70	34451.01	-1.952706	0.0409
CF_{it}	1081.562	567.3720	1.906266	0.0450
$EISSUE_{it}$	29.12132	2.371031	12.28214	0.000
Determination factor	0.83925	F	19.48910	Durbin-Watson
Adjusted det. Factor	0.796194	F probability	0.0000	1.729832

In Table 2, t probabilities for fixed factors and factors with operational profit changes are less than 5%; thus factors of the above variables are significant.

Table: 3. Results of estimation of regression model (2)

$$\Delta CF = 600050.2 - 28231.72SIZE_{i,t} + 1.860953GROWT_{i,t} \\ + 311.2020LEV_{i,t} + 27.00917DISSUE_{i,t} \\ - 51467.43TURN_{i,t} + 1440436.CF_{i,t} \\ + 11.63849EISSUE_{i,t}$$

Variable	Estimated factor	SD	t	t probability
β_0	600050.2	901345.8	0.665727	0.5059
SIZE _{i,t}	-28231.72	9944.058	-2.839054	0.0018
GROWTH _{i,t}	1.860953	0.975446	1.907797	0.0444
LEV _{i,t}	311.2020	142.8088	2.179150	0.0279
DISSUE _{i,t}	27.00917	4.020034	6.718641	0.000
TURN _{i,t}	-51467.43	20443.36	-2.517561	0.0050
CF _{i,t}	0.1440436	319606.5	4.504904	0.0000
EISSUE _{i,t}	11.63849	4.390545	2.650807	0.0083
Determination factor	0.358276	F	2.084006	Durbin-Watson
Adjusted det. Factor	0.186359	F probability	0.0000	2.486118

In Table 3, t probabilities for fixed factors and factors with operational cash flow changes are less than 5%; thus factors of the above variables are significant.

Analysis summary

Limer's F Test and Hossman Test for main model (2) and sub-main models 1-5:

Table: 4. Hossman and Limer's F Test for main model (2) and sub-main models 1-5

Assumption	Model	Statistic	p-value	Result
Assumption 1	SH _{it}	Limer's F	2.031178	0.0000
		Hossman	43.964385	0.0000
Sub-assumption 1.1	SH _{it}	Limer's F	1.994480	0.0000
		Hossman	35.532969	0.0000
Sub-assumption 1.2	SH _{it}	Limer's F	1.982067	0.0000
		Hossman	34.844527	0.0000
Sub-assumption 1.3	SH _{it}	Limer's F	2.034220	0.0000
		Hossman	37.840022	0.0000
Sub-assumption 1.4	SH _{it}	Limer's F	1.948503	0.0000
		Hossman	29.698311	0.0000
Sub-assumption 1.5	SH _{it}	Limer's F	1.960848	0.0000
		Hossman	32.789065	0.0000

In Table 4, Limer's F probabilities for all assumption, except models (1) and (2), are less than 5%; then H0 (integrated model) is not confirmed and tablet methods should be used to estimate the model.

Regarding to the results of Chaw and Hossman Test for estimation of parameters and test of assumptions, fixed effects model was used.

Since Limer's F probability for models (1) and (2) is greater than 5%, integrated method is used to estimate models (1) and (2).

Analysis of assumption 1

By this assumption, it is expected that there is a significant relation between considering equity and audit quality.

Table: 5. Results for assumption 1

$$SHit = -3.025616 + 0.536932RHSMALKITEDOLAT_{i,t} \\ + 2.603152LEV_{i,t}$$

Variable	Estimated factor	SD	t	t probability
β_0	-3.025616	0.485921	-6.226565	0.0000
RHS				
VABASTE	0.057315	0.320595	0.178573	0.8583
RHS				
TAMARKOZ	-0.08088	0.225468	-0.395124	0.6928
RHS				
MALEKITE	0.536932	0.244424	2.196722	0.0280
DOLAT				
RHS HAGHE	0.089500	0.225296	0.397253	0.6912
KONTOROL				
RHS				
GHANONI	-0.398899	0.511748	-0.776483	0.4357
LEV	2.603152	0.683667	3.807631	0.0001
PROFIT	4.65E-9	4.66E-8	0.099775	0.9205
GROWOP	-406.0992	302.7241	-1.341483	0.1798
McFaden factor	0.440326	LR statistic		21.93615
		LR probability		0.005036

In Table 5, t probabilities for fixed factors and factors of government acquisition and leverage to audit quality are less than 5%; thus factors of the above variables are significant.

However, since t statistic for variables of acquisition concentration, existence of stockholders with control right, transaction with related persons, existence of legal claims, profitability, and growth opportunity to audit quality are greater than 5%, the above relation is not significant.

Therefore, assumption 1 is rejected by 95%. McFaden factor shows description power of independent variables, which can describe changes of dependent variable by 44%. LR probability indicates significance of model, and there is a significant relation between equity and audit quality.

Analysis of sub-assumption 1.1

By this assumption, we expect there is a significant relation between acquisition concentration and audit quality.

Table: 6. Results for sub-assumption 1.1

$SHit = -2.805046 + 2.567246LEV_{i,t}$				
Variable	Estimated factor	SD	t	t probability
β_0	-2.805046	0.459678	-6.102199	0.0000
RHS				
TAMARKOZ	-0.103055	0.222929	-0.462279	0.6439
LEV	2.567246	0.670139	3.829888	0.0001
PROFIT	3.06E-8	4.35E-8	0.703064	0.4820
GROWOP	-442.3273	299.2972	-4.477887	0.1394
McFaden factor	0.430670	LR statistic	16.71064	
		LR	0.002200	
		probability		

In Table 6, t probabilities for fixed factors and factors of leverage to audit quality are less than 5%; thus factors of the above variables are significant. However, since t statistic for variables of acquisition concentration, profitability, and growth opportunity to audit quality are greater than 5%, the above relation is not significant. Therefore, sub-assumption 1.1 is rejected.

Analysis of sub-assumption 1.2

By this assumption, we expect there is a significant relation between existence of stockholder with control right and audit quality.

Table: 7. Results for sub-assumption 1.2

$SHit = -2.85415 + 2.554785LEV_{i,t}$				
Variable	Estimated factor	SD	t	t probability
β_0	-2.854155	0.459395	-6.212854	0.0000
RHS				
HAGHE	0.052041	0.221286	0.235175	0.8141
KONTROL				
LEV	2.554785	0.673669	3.792347	0.0001
PROFIT	3.01E-8	4.36E-8	0.690621	0.4898
GROWOP	-456.9205	299.7711	-1.524231	0.1275
McFaden factor	0.430424	LR statistic	16.54997	
		LR	0.002363	
		probability		

In Table 7, t probabilities for fixed factors and factors of leverage to audit quality are less than 5%; thus factors of the above variables are significant. However, since t statistic for variables of existence of stockholder with control right, profitability, and growth opportunity to audit quality are greater than 5%, the above relation is not significant. Therefore, sub-assumption 1.2 is rejected. McFaden factor shows description power of independent variables, which can describe changes of dependent variable by 43%, and there is no significant relation between existence of stockholder with control right and audit quality.

Analysis of sub-assumption 1.3

By this assumption, we expect there is a significant relation between government stockholding or acquisition and audit quality.

Table: 8. Results for sub-assumption 1.3

$SHit = -3.034102 + 0.506140RHSMaleKITEDOLAT_{i,t} + 2.622081LEV_{i,t}$				
Variable	Estimated factor	SD	t	t probability
β_0	-3.034102	0.463992	-6.539130	0.0000
RHS				
MALEKITE	0.506140	0.242089	2.090715	0.0366
DOLAT				
LEV	2.622081	0.675410	3.882203	0.0001
PROFIT	4.76E-9	4.61E-8	0.103239	0.9178
GROWOP	-419.7978	300.9816	-1.394762	0.1631
McFaden factor	0.438085	LR statistic	20.75075	
		LR		
		probability	0.000355	

In Table 8, t probabilities for fixed factors and factors of government stockholding or acquisition to audit quality are less than 5%; thus factors of the above variables are significant. However, since t statistic for variables of profitability and growth opportunity to audit quality are greater than 5%, the above relation is not significant. Therefore, sub-assumption 1.3 is rejected. McFaden factor shows description power of independent variables, which can describe changes of dependent variable by 44%, and there is no significant relation between government stockholding or acquisition and audit quality.

Analysis of sub-assumption 1.4

By this assumption, we expect there is a significant relation between transaction with related persons and audit quality.

Table: 9. Results for sub-assumption 1.4

$SHit = -2.848786 + 2.568531LEV_{i,t}$				
Variable	Estimated factor	SD	t	t probability
β_0	-2.848786	0.451549	-6.308924	0.0000
RHS				
VABASTE	0.038719	0.318361	0.121619	0.9032
LEV	2.568531	0.670804	3.829032	0.0001
PROFIT	2.96E-8	4.33E-8	0.682846	0.4947
GROWOP	-452.4162	299.1581	-1.512298	0.1305
McFaden factor	0.430303	LR statistic	16.51086	
		LR		
		probability	0.002405	

In Table 9, t probabilities for fixed factors and factors of leverage to audit quality are less than 5%; thus factors of the above variables are significant. However, since t statistic for variables of transaction with related persons, profitability, and growth opportunity to audit quality are greater than 5%, the above relation is not significant. Therefore, sub-assumption 1.4 is rejected.

Analysis of sub-assumption 1.5

By this assumption, we expect there is a significant relation between existence of legal claims and audit quality.

Table: 10. Results for sub-assumption 1.5

$SHit = -2.836303 + 2.581360LEV_{i,t}$				
Variable	Estimated factor	SD	t	t probability
β_0	-2.836303	0.452298	-6.270872	0.0000
RHS				
GHANONI	-0.322611	0.507067	-0.636230	0.5246
LEV	2.581360	0.672200	3.840167	0.0001
PROFIT	2.88E-8	4.33E-8	0.664774	0.5062
GROWOP	-447.0913	299.4461	-1.493061	0.1354
McFaden factor	0.431066	LR statistic	16.92653	
		LR probability	0.001998	

In Table 10, t probabilities for fixed factors and factors of leverage to audit quality are less than 5%; thus factors of the above variables are significant. However, since t statistic for variables of legal claims, profitability, and growth opportunity to audit quality are greater than 5%, the above relation is not significant. Therefore, sub-assumption 1.5 is rejected.

Analysis of assumption 2

By this assumption, we expect there is a significant relation between considering equity and earning non-smoothing.

Table: 11. Results for assumption 2

$SHit = 1.965075 - 0.159359RHSVABASTE_{i,t} - 0.098409RHSMALEKITEDOLAT_{i,t} - 0.0000000665prof_{i,t} - 221.5520GROWOP_{i,t}$				
Variable	Estimated factor	SD	t	t probability
β_0	1.965075	0.078663	2498105	0.0000
RHS				
VABASTE	-0.159359	0.059755	-2.666892	0.0079
RHS				
TAMARKOZ	0.008390	0.040779	0.205734	0.8371
RHS				
MALEKITE	-0.098409	0.047276	-2.081457	0.0379
DOLAT				
RHS HAGHE	-0.003237	0.041510	-0.077984	0.9379
KONTROL				
RHS				
GHANONI	0.064527	0.084528	0.763378	0.4456
LEV	-0.019348	0.117438	-0.164752	0.8692
PROFIT	-0.6.62E-9	8.61E-10	-7.726890	0.0000
GROWOP	-221.5520	5233498	-4.233345	0.0000
Determination factor	0.456809	F	12.52977	Durbin-Watson
Adjusted det. Factor	0.447895	F probability	0.0000	1.815510

In Table 11, t probabilities for fixed factors and factors of transaction with related persons, government stockholding or acquisition, profitability, and growth opportunity to earning non-smoothing are less than 5%; thus factors of the above variables are significant. However, since t statistic for variables of acquisition concentration, existence of stockholders with control right, existence of legal claims, and leverage to earning non-smoothing are greater than 5%, the above relation is not significant. Therefore,

there is significant relation between considering equity and earning non-smoothing.

Analysis of sub-assumption 2.1

By this assumption, we expect there is a significant relation between acquisition concentration and earning non-smoothing.

Table: 12. Results for sub-assumption 2.1

$SHit = 1.923986 - 7.23E - 08prof_{i,t} - 204.6299GROWOP_{i,t}$				
Variable	Estimated factor	SD	t	t probability
β_0	1.923986	0.075840	25.36912	0.0000
RHS				
TAMARKOZ	0.040249	0.040657	0.252081	0.8011
LEV	-0.036240	0.116428	-0.311264	0.7557
PROFIT	-7.23E-8	8.21E-9	-8.798042	0.0000
GROWOP	-204.6299	52.16202	-3.922966	0.000
Determination factor	0.438515	F	21.90715	Durbin-Watson
Adjusted det. Factor	0.434378	F probability	0.0000	1.840063

In Table 12, t probabilities for fixed factors and factors of profitability and growth opportunity to earning non-smoothing are less than 5%; thus factors of the above variables are significant. However, since t statistic for variables of acquisition concentration and leverage to earning non-smoothing are greater than 5%, the above relation is not significant. Therefore, assumption 2.1 is rejected by 95%. The determinant factor shows description power of independent variables, which can describe changes of dependent variable by 43%.

Analysis of sub-assumption 2.2

By this assumption, we expect there is a significant relation between existence of stockholder with control right and earning non-smoothing.

Table: 13. Results for sub-assumption 2.2

$SHit = 1.928323 - 7.23E - 08prof_{i,t} - 205.4821GROWOP_{i,t}$				
Variable	Estimated factor	SD	t	t probability
β_0	1.928323	0.074859	25.75931	0.0000
RHS HAGHE	-0.002995	0.041209	-0.072688	0.9421
KONTROL				
LEV	-0.032563	0.118086	-0.27652	0.7823
PROFIT	-7.23E-8	8.27E-9	-8.736840	0.0000
GROWOP	-205.4821	52.30200	-3.928762	0.0001
Determination factor	0.438714	F	21.86319	Durbin-Watson
Adjusted det. Factor	0.434565	F probability	0.0000	1.827919

In Table 13, t probabilities for fixed factors and factors of profitability and growth opportunity to earning non-smoothing are less than 5%; thus factors of the above variables are significant. However, since t statistic for variables of existence of stockholder with control right and leverage to earning non-smoothing are greater than 5%, the above relation is

not significant. Therefore, assumption 2.2 is rejected by 95%. The determinant factor shows description power of independent variables, which can describe changes of dependent variable by 43%.

Analysis of sub-assumption 2.3

By this assumption, we expect there is a significant relation between government stockholding or acquisition and earning non-smoothing.

Table: 14. Results for sub-assumption 2.3

$$SHit = 1.958052 - 0.092997RHSMALEKITEDOLAT_{it} - 6.71E - 08prof_{it} - 213.0436GROWOP_{it}$$

Variable	Estimated factor	SD	t	t probability
β_0	1.958052	0.075136	26.06025	0.0000
RHS				
MALEKITE	-0.092997	0.046958	-1.980446	0.0482
DOLAT				
LEV	-0.040690	0.116013	-0.350738	0.7259
PROFIT	-6.71E-8	8.58E-9	-7.820749	0.0000
GROWOP	-213.0436	52.10181	-4.088987	0.0000
Determination factor	0.444571	F	23.02678	Durbin-Watson
Adjusted det. Factor	0.440493	F probability	0.0000	1.872587

In Table 14, t probabilities for fixed factors and factors of government stockholding or acquisition, profitability, and growth opportunity to earning non-smoothing are less than 5%; thus factors of the above variables are significant. However, since t statistic for variables of leverage to earning non-smoothing are greater than 5%, the above relation is not significant. Therefore, there is a significant relation between government stockholding or acquisition and earning non-smoothing.

Analysis of sub-assumption 2.4

By this assumption, we expect there is a significant relation between transaction with related persons and earning non-smoothing.

Table: 15. Results for sub-assumption 2.4

$$SHit = 1.940651 - 0.153795RHS_{it} - 7.21E - 08prof_{it} - 207.5416GROWOP_{it}$$

Variable	Estimated factor	SD	t	t probability
β_0	1.940651	0.073590	26.37114	0.0000
RHS				
VABASTE	-0.153795	0.059509	-2.584415	0.0100
LEV	-0.021919	0.115850	-0.189198	0.8500
PROFIT	-7.21E-8	8.16E-9	-8.830135	0.0000
GROWOP	-207.5416	51.78591	-4.007685	0.0001
Determination factor	0.448846	F	23.82677	Durbin-Watson
Adjusted det. Factor	0.444754	F probability	0.0000	1.797791

In Table 15, t probabilities for fixed factors and factors of transaction with related persons, profitability, and growth opportunity to earning non-

smoothing are less than 5%; thus factors of the above variables are significant. However, since t statistic for variables of leverage to earning non-smoothing are greater than 5%, the above relation is not significant. The determinant factor shows description power of independent variables, which can describe changes of dependent variable by 44%. Therefore, there is a significant relation between transaction with related persons and earning non-smoothing.

Analysis of sub-assumption 2.5

By this assumption, we expect there is a significant relation between existence of legal claims and earning non-smoothing.

Table: 16. Results for sub-assumption 2.5

$$SHit = 1.924434 - 7.20E - 08prof_{it} - 205.8452GROWOP_{it}$$

Variable	Estimated factor	SD	t	t probability
β_0	1.924434	0.074080	25.97776	0.0000
RHS				
GHANONI	0.056519	0.084604	0.668042	0.5044
LEV	-0.034851	0.116402	-0.299402	0.7647
PROFIT	-7.20E-8	8.21E-9	-8.763686	0.0000
GROWOP	-205.8452	52.14361	-3.947659	0.0001
Determination factor	0.439120	F	22.01821	Durbin-Watson
Adjusted det. Factor	0.434983	F probability	0.0000	1.842564

In Table 16, t probabilities for fixed factors and factors of profitability and growth opportunity to earning non-smoothing are less than 5%; thus factors of the above variables are significant. However, since t statistic for variables of existence of legal claims and leverage to earning non-smoothing are greater than 5%, the above relation is not significant and this assumption is rejected by 95%. The determinant factor shows description power of independent variables, which can describe changes of dependent variable by 43%. Therefore, there is not a significant relation between existence of legal claims and earning non-smoothing.

CONCLUSION AND PROPOSALS

The goal of this research was studying the effect of considering equity on information transparency in companies listed in Tehran Stock Exchange from 2009 to 2013. After designing the assumptions, among the determinant factors, there were significant relations between considering equity with information transparency and transaction with related persons, earning non-smoothing, between government stockholding or acquisition and earning non-smoothing, government acquisition and audit quality in listed companies in Tehran Stock Exchange, and there is no significant relation in the other cases.

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