



## THE INFLUENCE OF EARNING SMOOTHING ON COMPANIES INFORMATION NONE RELIABILITY

Majid Naseri<sup>1</sup>, Dr. Asghar Asadi<sup>2</sup>, Dr. Seyyed Mehdi Hoseiny<sup>2</sup>, Dr. Mohammad Mahmoudi<sup>2</sup>

<sup>1</sup>Islamic Azad University Master Degree Student, Firouzkooch Unit, Management Group, Firouzekooch, Iran  
<sup>2</sup>Assistant Professor, Firouzekooch Branch Islamic Azad University, Tehran, Iran.

**Abstract:** This study has evaluated earning smoothing influence on information none reliability of companies in Iran investment market and has provided new observes in influencing earning smoothing on information none reliability. Topic eras of study includes all food industry companies and pharmacy except investment companies. place eras of study includes all accepted companies in Tehran stock exchange and its time eras is from the beginning of 2008 to the end of 2012 in Tehran stock exchange. After data application definition and determining samples, required data has been gathered from different resources. After data accounting, variables normality and statistical analysis by multi-regression method, we achieve to the amount and direction of influence and test its meaningfulness. In general case, we conclude there is meaningful and negative relation among earning smoothing and none reliability of information of business unit. therefore, we conclude earning smoothing, none reliability of information provided by business unit would decrease. models test indicates based on ball model, kotari, and robin as a whole, net earnings of companies is conservative and based on three models, conservative character is along with decreasing information content and meanwhile, net earnings report by high conservativeness does not have more yields for investors.

**Key words:** Earning smoothing, information none reliability, accepted companies in Tehran stock exchange

### Introduction

The object of accounting and financial reporting is to supply users' information requirements and wants. The basic instrument of transferring

information to peoples and used out of organization is basic financial statements. Earning and loss statements are the basic financial statement in which in evaluating does have management consulting role or auditing in face of existing resource. Earning and loss statement includes yields of controlled resources managed by business unit management and shows business unit performance in that era. Whereas responsibility of providing financial statement is on business unit management and

#### For Correspondence:

sekinehsadat@yahoo.com

Received on: March 2015

Accepted after revision: May 2015

Downloaded from: [www.johronline.com](http://www.johronline.com)

based on direct accessing of managers to information and having selection right in accounting optional methods, there is possibility to manage earning. Provided definition is different in earning smoothing, whereas any researcher has defined it based on method of smoothing. some researcher pretend earning smoothing as deliberate decrease in earning fluctuation in accounting frame work in which would be normal for companies and some know it as management try to decrease un normal changes in earning and accounting principle frame. DiGeorge and *et,al.* has defined earning management as artificial repairing of earning by management to reach expected level of earning to some special decisions. (Like some analyzer or evaluating before earning procedure for forecasting future earning)

#### **Study literature**

Earning smoothing, is defined by managers try to decrease abnormal changes in earning in accounting principle. Because investors pay special attention to earning number as important factor is decision making, managers' forecasting changes is economical from investors view. In this case, we have used of earning smoothing motivation, decrease in earnings forecasting error in future in compare to current eras. Managers are interested to achieve their forecasting in earning. If it was not achieved, they smooth it by using instruments. Therefore, financial market success in duty and their application is required by variables role and importance like earning smoothing and their influence on information asymmetry to provide feasible measure for financial analyst and investors in decision making.

Hejazi, gheitasi, karimi (2011) has considered the relation among earning smoothing and information asymmetry. The result showed there is negative and meaningful relation among earning smoothing and information asymmetry.

Rahimian and *et, al.* has examined the relation of some companies ruler ship affairs and information asymmetry. The result showed there is no meaningful relation among internal

accounting unit and uncharged managers' ratio in management boards and information asymmetry measures. But there is negative and meaningful relation among institutional investors and information asymmetry.

Gorden, Hrowitz and Meyers, has considered the relation among accounting procedure on investment tax exemption (earning smoothing instrument)to any share ratio earning and shareholders 'yields(earning smoothing targets)the result showed there is important relation among two elements in which support earning smoothing. In the other hand, Dopuch and Drake have considered earning and lose from investment matters sale on 1966 and do not find important earning smoothing. Archibald has studies amortization methods and earning smoothing among sample companies.

Copeland has defined good smoothing design and discovered increasing time series decrease non categorized smoothing.

Copeland and Licastrò in their studies by the topic of branches none-incorporating has concluded there is no earning smoothing on 1968. Cushing has studies changes in policy and accounting principle and concluded earning smoothing has been done in sample companies.

Dasher and Malcom has considered 22 companies in chemical and pharmacy industry and discovered earning smoothing has been done deliberately.

In a study by Ronnen and Sudden on 1981 has concluded companies in different industry would smooth their earning by different degree. Specially, the most earning smoothing has been discovered on oil and gas and pharmacy industry. Both of these industries are of industries in which has been considered more.

Eem haf has approved financing for earning smoothing does have important relation to recognize earning smoothing samples. Is a study on 62 industrial companies in 20 years eras, only 2companies has done earning smoothing?

Belkaoui and Picur on 1984 in examining 114 companies existed in side section of industry and 57 company existed in central section has

concluded existing companies in side section of industry would more smooth earning than central companies. Mouzez on 1987 discovered earning smoothing is dependent to company size, real earning difference of expected earning and related design of rewards. The result of this study is the same as Healy on 1985. Ma has concluded banks have used of loan lose saving and as cost for earning smoothing.

Brayshaw and Eldinhas concluded to use of foreign currency earning management to reach the same object (earning smoothing) on 1988.

Albrecht and Richardson have done a study on 128 companies in central industry section, and other 128 companies in side part of Albrecht and Richardson industry. The result of Belkooee and Pikor on 1984 is dependent to companies size. Ashari and *et.al.* has done a study of 153 accepted companies in sangapour stock exchange market for one 10 years duration, they concluded earning smoothing has been done among companies in which has been selected as sample.

### **Research hypothesis**

The basic question of study is:” does earning smoothing decrease none reliability ro provided information by business unit?”

Therefore, based on research question, study hypothesis are:

H1: there is relation among earning smoothingthrough accrual matters and none reliability of accepted companies in Tehran stock exchange (food and pharmacy industry)

H2: There is relation among earning smoothing through optional accrual matters and none reliability of accepted companies in Tehran stock exchange. (Food and pharmacy industry)

### **Research method:**

In this study,”earning smoothing”has been considered as “independent variable” and “none reliability of information”as dependent variable. In this case, for independent earning smoothing variable, we have used of two measures earning smoothing through accrual matters and optional one .in earning management literature consideration, it has been cleared so many

researchers have used of optional accrual matters as feasible substitute for dependent variable of earning management. in addition, more of them has used kones model as the most strong model for discovering optional accrual matters .optional accrual matters are those who management control them and could delay, eliminate and recognize and register them. Accrual division to optional and none optional show all options has been used for better informing of financial statements. Therefore, we have used of jones adjusted model for determining genral and optiona accrual matters. Dependent variable of Information none reliability of business unit has been measured by shre yields changes, dispersion and any share forecasting error. Shre yields changing measures none reliability to valuation of share directly. Dispersion and forecasting error of any share shows none exact ness of or the amount of dispersion in evaluating future performance of company. In order to control more of other factors determining information none reliability, we have used of fama-mack both regression by more control variables. These variables include size logarithm, book ratio to market value logarithm, accrual matters, transaction volume logarithm and transaction turn ratio. In continue, we have tested direction and amount of influence and its meaning by regression.

### **Study model:**

In this study, earning management literature shows so many of researchers of these eras have used of optional accrual matters and correct substitute for dependent earning management variable. in addition, more of them have used of Jones model as the most strong model for earning management .optional accrual matters are of which management control them and could delay them, eliminate or register and recognize them. Accrual division to optional and non optional shows all accruals have been used for more informing of financial statements. We have used of jones adjusted model for determining general accrual matters and optional. In above model, in the first step, sum

of accrual matters for special duration and by sale and asset and machinery and equipments are evaluated by:

$$\frac{TA_{it}}{A_{it-1}} = \alpha_1 \left( \frac{\Delta REV_{it}}{A_{it-1}} \right) + \alpha_2 \left( \frac{PPE_{it}}{A_{it-1}} \right) + \epsilon_{it}$$

In this relation, TA is indicator of general accrual matters, A sum of assets, REV sun of income (Of sale), PPE assets, machinery and gross equipments. Gemral accrual matters are equal to standard deviation of cash flow on 5 years duration divided on earning standard deviation before unexpected matters on 5 years duration. It has been said, this 5 years duration is variable for any company. Regression model residual are indicator of optional accrual matters.

Company year is variable. Regression model residual is indicator of accrual matters.

Yields changing, dispersion and any share earnings forecasting of business unit is dependent variable. In order to control more other factors determining information none reliability, we have used of fama-mackbeth regression by more control variable. These variables include size logarithm, book value to market, accrual matters, transaction volume logarithm, and transaction turn. In order to test first hypothesis, we have used of regression 1, 2, 3 for testing second hypothesis, we have used of regression equations of 4, 5, 6.

$$(1) \text{Return Volatility}_{t+1} = \beta_{it} + \beta_1 \text{ TA Smoothing}_t + \beta_2 \ln(\text{Size})_t + \beta_3 \ln(\text{BM})_t + \beta_4 \text{Leveraget} + \beta_5 \text{Accrualst} + \beta_6 \ln(\text{Volume})_t + \beta_7 \text{TurnOvert}$$

$$(2) \text{Forecast Dispersion}_{t+1} = \beta_{it} + \beta_1 \text{ TA Smoothing}_t + \beta_2 \ln(\text{Size})_t + \beta_3 \ln(\text{BM})_t + \beta_4 \text{Leveraget} + \beta_5 \text{Accrualst} + \beta_6 \ln(\text{Volume})_t + \beta_7 \text{TurnOvert}$$

$$(3) \text{Forecast Error}_{t+1} = \beta_{it} + \beta_1 \text{ TA Smoothing}_t + \beta_2 \ln(\text{Size})_t + \beta_3 \ln(\text{BM})_t + \beta_4 \text{Leveraget} + \beta_5 \text{Accrualst} + \beta_6 \ln(\text{Volume})_t + \beta_7 \text{TurnOvert}$$

$$(4) \text{Return Volatility}_{t+1} = \beta_{it} + \beta_1 \text{ DA Smoothing}_t + \beta_2 \ln(\text{Size})_t + \beta_3 \ln(\text{BM})_t +$$

$$\beta_4 \text{Leveraget} + \beta_5 \text{Accrualst} + \beta_6 \ln(\text{Volume})_t + \beta_7 \text{TurnOvert}$$

$$(5) \text{Forecast Dispersion}_{t+1} = \beta_{it} + \beta_1 \text{ DA Smoothing}_t + \beta_2 \ln(\text{Size})_t + \beta_3 \ln(\text{BM})_t + \beta_4 \text{Leveraget} + \beta_5 \text{Accrualst} + \beta_6 \ln(\text{Volume})_t + \beta_7 \text{TurnOvert}$$

$$(6) \text{Forecast Error}_{t+1} = \beta_{it} + \beta_1 \text{ DA Smoothing}_t + \beta_2 \ln(\text{Size})_t + \beta_3 \ln(\text{BM})_t + \beta_4 \text{Leveraget} + \beta_5 \text{Accrualst} + \beta_6 \ln(\text{Volume})_t + \beta_7 \text{TurnOvert}$$

Return error is yields change, forecast dispersion is any share forecasting dispersion, forecast error is error in forecasting any share, TA smoothing is earning smoothing through general accrual matters, DA smoothing is earning smoothing through optional accrual matters, ln (size) is share market value logarithm, ln(bm) is logarithm to book value of share market value, leverage is the ratio of long term debt to all asstes, accruals matters is the difference among earning before non-expected matters and cash flow based on genral assets in the beginning of standard year. Ln (volume) mean logarithm of daily transaction, turnover is the mean of daily transaction ratio in which daily turn is equal to daily transaction volume divided on share in shareholders hand.

**Society and statistical sample:**

In this analysis, all companies accepted in Tehran stock exchange except investing companies and holding on the years of 2008-2012 are statistical society. mentioned conditions are due to removing some problems like gathering and processing data and correct interpretation of result and eliminating some involvement variables.

**Statistical method for study**

In order to examine existing hypothesis in study in which indicates some relation among two or more variables, we should use of regression models to indicate these relations.

**Study findings:**

In below table, central indicators including mean and median and discrepancy indicators like standard deviation, elongation and desolation has been computed.

Table1: descriptive static for study variables

maximum	minimum	elongation	desolation	Standard deviation	median	mean	number	variables
442/95	0/00	82/58	7/25	28/22	15/03	21/22	230	return volatility+1
5892/61	0/00	227/53	12/56	283/91	48/00	111/92	230	Forecast Dispersion+1
5338/00	0/00	57/78	6/39	397/89	49/00	171/01	230	forecast error+1
6/10	0/00	1/17	-0/20	0/86	2/77	2/72	230	LN(return volatility+1)
8/68	0/00	-0/89	-0/47	2/03	3/86	3/30	230	LN(Forecast Dispersion+1)
8/58	0/00	-1/09	-0/29	2/28	3/89	3/37	230	LN(forecast error+1)
18/13	0/10	10/50	2/81	2/29	1/38	2/19	230	TA Smoothing
6224545/38	-2249363/60	51/79	4/73	457218/89	19370/02	93573/30	230	DA Smoothing
31/02	22/88	-0/14	0/40	1/56	26/26	26/43	230	Ln Size
3/42	-10/44	106/77	-7/17	0/76	0/51	0/61	230	BM
1/23	-9/57	19/19	-2/95	1/09	-0/67	-0/80	230	Ln BM
0/85	0/00	14/61	3/29	0/10	0/06	0/09	230	Leverage
2679298/00	-19998451/00	206/79	-12/52	1026904/55	925/00	-84129/22	230	Accruals
16/83	4/09	0/09	0/03	1/91	10/80	10/87	230	Lnvolume
2/00	0/00	15/48	3/36	0/22	0/07	0/14	230	Turn Over

**Dependent variable distribution normality examination**

Meaningful level amount(meaningful probability)for variables of Forecast Dispersion+1, return volatility+1, forecast error+1 on the years of 2008-2012 is less than 0.05%.therefore, zero hypothesis has been rejected for this variable. It means variable distribution is not normal in different years. But

logarithmic distribution is normal. Because, probability amount in different years is more than 0.05. (Normal data compound is normal, too)

**Multi regression model:**

First hypothesis:  
First model evaluation  
Supposed model is:

$$\text{Return Volatility}_{t+1} = \beta_0 + \beta_1 \text{TA Smoothing}_t + \beta_2 \ln(\text{Size})_t + \beta_3 \ln(\text{BM})_t + \beta_4 \text{Leverage}_t + \beta_5 \text{Accruals}_t + \beta_6 \ln(\text{Volume})_t + \beta_7 \text{TurnOver}_t$$

Regression result has been provided in below table:

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.193	7	9.028	14.524	.000 <sup>a</sup>
	Residual	478.597	222	.622		
	Total	541.791	229			

a. Predictors: (Constant), Turn Over, Leverage, Accruals, TA Smoothing, Ln BM, Ln Size, Involume

b. Dependent Variable: LN(return volatility+1)

The amount of meaning level of f is 0.000. This amount is less than 0.05. Therefore zero hypotheses in 95% confidence level have been

rejected. It means 95% confidence level does have meaningful model.

Table2: feasibility model statistic summary

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.342 <sup>a</sup>	.117	.109	.78839	1.985

a. Predictors: (Constant), Turn Over, Leverage, Accruals, TA Smoothing, Ln BM, Ln Size, Involume

b. Dependent Variable: LN(return volatility+1)

The amount of determination coefficient is equal to 0.117. it means 125changes in dependent variable has been indicated by independent

variable and control one. The amount of near 2 indicates auto-correlation of residual in which is other hypothesis of regression.

Table3: Regression coefficient meaning test

**Coefficients<sup>a</sup>**

Model: 1

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.751	.544		5.060	.000		
TA Smoothing	-.034	.013	-.095	-2.715	.007	.945	1.058
Ln Size	-.049	.026	-.092	-1.923	.055	.499	2.005
Ln BM	-.054	.030	-.070	-1.790	.074	.741	1.349
Leverage	.414	.320	.044	1.293	.196	.998	1.002
Accruals	2.39E-009	.000	.003	.085	.933	.936	1.069
Involume	.109	.024	.249	4.590	.000	.391	2.555
Turn Over	.542	.168	.141	3.223	.001	.600	1.666

a. Dependent Variable: LN(return volatility+1)

t-statistic amount for TA smoothing is equal to -2.71(meaningful and negative) for in size is equal to 1.92(meaningful and positive in 90%confidence level) for ln bm is equal to -1.79(meaningful and negative in 90%confidence level) for leverage is equal to 1.29(meaningless) for accruals is equal to 0.085(meaningful and negative) for in volume is equal to 4.59(meaningful and positive) at last for turnover is equal to 3.22(meaningful and positive. The amount of t-statistic for width from

origin is 5.06 in which is on 95% confidence level in zero hypothesis rejection eras. It means width amount from origin is meaningful.

VIF amount (variance increasing factor) is indicator for colinearity among independent variable in which its amount more than 10 shows the possibility of colinearity among independent variables. This amount in the most is equal to 2.55 (for in volume variable)

**Step by step regression**

Evaluated model is:

$$Ln(\text{returnVolatility} + 1) = 1/88 + 0/694\text{Turnover} + 0/07\text{Involume} - 0/036\text{TASmoothing}$$

Table4: Feasibility model statistic summary

**Model Summary<sup>d</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.276 <sup>a</sup>	.076	.075	.80308	
2	.315 <sup>b</sup>	.099	.097	.79349	
3	.330 <sup>c</sup>	.109	.106	.78975	1.982

- a. Predictors: (Constant), Turn Over
- b. Predictors: (Constant), Turn Over, Involume
- c. Predictors: (Constant), Turn Over, Involume, TA Smoothing
- d. Dependent Variable: LN(return volatility+1)

**Table5: Regression coefficient meaning test**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.565	.034		74.413	.000		
	Turn Over	1.063	.133	.276	8.005	.000	1.000	1.000
2	(Constant)	1.770	.182		9.747	.000		
	Turn Over	.710	.153	.184	4.629	.000	.733	1.365
	Involume	.078	.017	.178	4.458	.000	.733	1.365
3	(Constant)	1.882	.185		10.182	.000		
	Turn Over	.692	.153	.180	4.533	.000	.731	1.367
	Involume	.075	.017	.171	4.309	.000	.730	1.369
	TA Smoothing	-.036	.012	-.099	-2.890	.004	.990	1.010

a. Dependent Variable: LN(return volatility+1)

**Second model evaluation:**

Supposed model is:

$$\text{Forecast Dispersion}_{t+1} = \beta_{it} + \beta_1 \text{TA Smoothing}_t + \beta_2 \ln(\text{Size})_t + \beta_3 \ln(\text{BM})_t + \beta_4 \text{Leverage}_t + \beta_5 \text{Accruals}_t + \beta_6 \ln(\text{Volume})_t + \beta_7 \text{TurnOver}_t$$

In the table we have regression result analysis:

Table4-8: ANOVA

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	208.523	7	29.789	7.705	.000 <sup>a</sup>
	Residual	2984.640	222	3.866		
	Total	3193.163	229			

- a. Predictors: (Constant), Turn Over, Leverage, Accruals, TA Smoothing, Ln BM, Ln Size, Involume
- b. Dependent Variable: LN(Forecast Dispersion+1)

The amount of meaningful level of F is 0.000. This amount is less than 0.05. therefore zero hypothesis in 95% confidence level has been rejected. It means in 95% confidence level, there is meaningful model.

Table6: feasibility model statistic model

Model Summary <sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.256 <sup>a</sup>	.065	.057	1.96624	2.061

a. Predictors: (Constant), Turn Over, Leverage, Accruals, TA Smoothing, Ln BM, Ln Size, Involume

b. Dependent Variable: LN(Forecast Dispersion+1)

The amount of determination coefficient is equal to 0.065. it means 6.5% changes of dependent variable has been indicated by independent and control variables. The amount of Durbin-Watson is equal to 2.06

Table7: Meaningful test of regression coefficient

Coefficients <sup>a</sup>

Model: 1

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.073	1.352		.793	.428		
TA Smoothing	-.057	.031	-.065	-1.827	.068	.946	1.057
Ln Size	.074	.063	.058	1.178	.239	.505	1.978
Ln BM	-.361	.075	-.195	-4.825	.000	.745	1.342
Leverage	1.694	.784	.075	2.161	.031	.997	1.003
Accruals	8.35E-008	.000	.043	1.186	.236	.936	1.069
Involume	-.005	.059	-.004	-.081	.936	.396	2.525
Turn Over	.040	.419	.004	.096	.924	.602	1.662

a. Dependent Variable: LN(Forecast Dispersion+1)

The amount of t-statistic is -1.83 for TA smoothing (meaningful and negative in 90% confidence level) for Ln size is equal to 1.18 (meaningless) for Ln BM is equal to -4.82 (meaningful and negative) for leverage is equal to 2.16 (meaningful and positive) for accruals is equal to 1.19 (meaningless), for involume is equal to 0.08 (meaningless) and at

last for turn over is equal to 0.1 (meaningless) the amount of t-statistic from width of origin is equal to 0.79 in which in 95% confidence level has been existed in zero hypothesis rejection era. it means the amount of width from origin is not meaningful.

**step by step regression:**

Evaluated model is:

$$Ln(\text{forecast Dispersion} + 1) = 2/98 - 0/393LnBM + 1/69Leverage - 0/066TASmoothing$$

Table8: Feasibility model statistic summary

Model Summary <sup>d</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.224 <sup>a</sup>	.050	.049	1.97446	
2	.237 <sup>b</sup>	.056	.054	1.96945	
3	.248 <sup>c</sup>	.062	.058	1.96504	2.061

a. Predictors: (Constant), Ln BM

b. Predictors: (Constant), Ln BM, Leverage

c. Predictors: (Constant), Ln BM, Leverage, TA Smoothing

d. Dependent Variable: LN(Forecast Dispersion+1)



Table9: regression coefficient meaning test

		Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.960	.088		33.785	.000		
	Ln BM	-.416	.065	-.224	-6.409	.000	1.000	1.000
2	(Constant)	2.813	.110		25.681	.000		
	Ln BM	-.417	.065	-.224	-6.436	.000	1.000	1.000
	Leverage	1.745	.784	.078	2.227	.026	1.000	1.000
3	(Constant)	2.982	.135		22.067	.000		
	Ln BM	-.393	.066	-.212	-5.994	.000	.971	1.030
	Leverage	1.691	.782	.075	2.162	.031	.999	1.001
	TA Smoothing	-.066	.031	-.075	-2.118	.034	.970	1.031

a. Dependent Variable: LN(Forecast Dispersion<sub>t+1</sub>)

**Third model evaluation**

Supposed model is:

$$\text{Forecast Error}_{t+1} = \beta_0 + \beta_1 \text{TA Smoothing}_t + \beta_2 \ln(\text{Size})_t + \beta_3 \ln(\text{BM})_t + \beta_4 \text{Leverage}_t + \beta_5 \text{Accruals}_t + \beta_6 \ln(\text{Volume})_t + \beta_7 \text{TurnOver}_t$$

Regression results have been provided in below table:

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	83.450	7	11.921	2.321	.024 <sup>a</sup>
	Residual	3960.111	222	5.136		
	Total	4043.561	229			

a. Predictors: (Constant), Turn Over, Leverage, Accruals, TA Smoothing, Ln BM, Ln Size, Involume

b. Dependent Variable: LN(forecast error<sub>t+1</sub>)

The amount of meaningful level –f is 0.024. This amount is less than 0.05. Therefore zero hypothesis in 95% confidence level has been rejected. It meanings 95% confidence by meaningful model.

Table10. Model feasibility statistic summary

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.144 <sup>a</sup>	.021	.012	2.26635	1.543

a. Predictors: (Constant), Turn Over, Leverage, Accruals, TA Smoothing BM, Ln Size, Involume

b. Dependent Variable: LN(forecast error<sub>t+1</sub>)

The amount of determination coefficient is equal to 0.021. it means 2.1% of changes in dependent variables is dependent to independent variable

and control. The amount of durbin-watson statistic is 1.54

**Table11. regression coefficient meaning test**

**Coefficients<sup>a</sup>**

Model: 1

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	7.067	1.562		4.525	.000		
TA Smoothing	-.002	.036	-.002	-.042	.966	.945	1.058
Ln Size	-.145	.073	-.100	-1.994	.046	.508	1.969
Ln BM	-.082	.086	-.039	-.945	.345	.745	1.342
Leverage	-.029	.903	-.001	-.032	.975	.997	1.003
Accruals	-3.1E-007	.000	-.102	-2.765	.006	.933	1.071
Involume	.015	.068	.013	.228	.820	.396	2.527
Turn Over	-.772	.483	-.073	-1.599	.110	.601	1.663

a. Dependent Variable: LN(forecast error+1)

The amount of t-statistic is -0.04 for TA smoothing (meaningless) for Ln size is equal to -1.99 (meaningful and negative) for Ln BM is equal to -0.94 (meaningless) for leverage is equal to -0.03 (meaningless) for accruals is equal to -2.76 (meaningful and negative), for involume is equal to 0.23 (meaningless) and at last for turn over is equal to -1.6 (meaningless) the amount of

t- statistic from width of origin is equal to 4.52 in which in 95% confidence level has been existed in zero hypothesis rejection eras. it means the amount of width from origin is meaningful.

**Step by step regression:**

Evaluated model has been written:

$$Ln(\text{forecast error} + 1) = 6/97 - 0/00000031 \text{Accruals} - 0/137 \text{LnSize}$$

**Table12: feasibility model statistic summary**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.085 <sup>a</sup>	.007	.006	2.27292	
2	.126 <sup>b</sup>	.016	.013	2.26451	1.549

a. Predictors: (Constant), Accruals

b. Predictors: (Constant), Accruals, Ln Size

c. Dependent Variable: LN(forecast error+1)

**Table13: regression coefficient meaning test**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.347	.082		40.966	.000		
	Accruals	-2.6E-007	.000	-.085	-2.387	.017	1.000	1.000
2	(Constant)	6.973	1.395		5.000	.000		
	Accruals	-3.1E-007	.000	-.102	-2.823	.005	.968	1.033
	Ln Size	-.137	.053	-.094	-2.605	.009	.968	1.033

a. Dependent Variable: LN(forecast error+1)

**Second hypothesis**

First model evaluation

Supposed model is:

$$\text{Return Volatility}_{t+1} = \beta_0 + \beta_1 \text{DA Smoothing}_t + \beta_2 \text{Ln Size}_t + \beta_3 \text{Ln BM}_t + \beta_4 \text{Leverage}_t + \beta_5 \text{Accruals}_t + \beta_6 \text{Ln(Volume)}_t + \beta_7 \text{Turn Over}_t$$

Regression result has been provided in below table:

The amount of f-meaningful level is equal to 0.000this amount is less than 0.05therefore; zero hypothesis is in 95% confidence level and has been rejected (BM) means in 95% confidence level, there is meaningful model.

Table14.feasibility model statistic summary

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.341 <sup>a</sup>	.116	.109	.78809	1.993

a. Predictors: (Constant), Turn Over, Leverage, Accruals, DA Smoothing, Ln BM, Involume

b. Dependent Variable: LN(return volatilityt+1)

The amount of determination coefficient is equal to 0.116. it means 11.6%of changes in dependent variable has been indicated by

independent variable and control one. The amount of dorbin-watson statistic is 1.99

Table15.regression coefficient meaningful test

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.066	.559		3.697	.000		
	DA Smoothing	-1.9E-007	.000	-.103	-2.850	.004	.872	1.147
	Ln Size	-.028	.026	-.053	-1.074	.283	.478	2.094
	Ln BM	-.056	.030	-.074	-1.881	.060	.747	1.339
	Leverage	.496	.321	.053	1.549	.122	.995	1.005
	Accruals	2.71E-008	.000	.034	.948	.343	.911	1.098
	Involume	.115	.024	.263	4.848	.000	.390	2.562
	Turn Over	.519	.168	.135	3.085	.002	.599	1.670

a. Dependent Variable: LN(return volatilityt+1)

The amount of t-statistic is-3.16 for DA smoothing (meaningful and negative)for ln size is equal to -1.07(meaningless)for ln bm is equal to 1.88(meaningful and negative in 90%confidence)for leverage is equal to 1.55(meaningless)for accruals is equal to 0.95(meaningful and negative, for in volume is equal to 4.85(meaningful and positive and at last

for turn over is equal to 3.08(meaningful and positive)the amount of t- statistic from width of origin is equal to 3.70 in which in 95% confidence level has been existed in zero hypothesis rejection eras.it means the amount of width from origin is meaningful.

**Step by step regression**

Evaluated model is:

$$\text{Ln}(\text{returnVolatility} + 1) = 1/67 + 0/664\text{Turnover} + 0/09\text{Involume} - 0/00000018\text{DASmoothing}$$

Table16: feasibility model statisttic summary

**Model Summary<sup>d</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.276 <sup>a</sup>	.076	.075	.80308	
2	.315 <sup>b</sup>	.099	.097	.79349	
3	.330 <sup>c</sup>	.109	.106	.78972	1.986

- a. Predictors: (Constant), Turn Over
- b. Predictors: (Constant), Turn Over, Involume
- c. Predictors: (Constant), Turn Over, Involume, DA Smoothing
- d. Dependent Variable: LN(return volatility+1)

Table17. regression coefficient meaningful test

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.565	.034		74.413	.000		
	Turn Over	1.063	.133	.276	8.005	.000	1.000	1.000
2	(Constant)	1.770	.182		9.747	.000		
	Turn Over	.710	.153	.184	4.629	.000	.733	1.365
	Involume	.078	.017	.178	4.458	.000	.733	1.365
3	(Constant)	1.666	.184		9.048	.000		
	Turn Over	.664	.153	.173	4.331	.000	.725	1.379
	Involume	.090	.018	.204	5.021	.000	.695	1.439
	DA Smoothing	.8E-007	.000	-.101	-2.900	.004	.948	1.055

a. Dependent Variable: LN(return volatility+1)

**Second model evaluation**

Supposed model is:

In this table, regression analysis result has been provided.

$$\text{Forecast Dispersion}_{t+1} = \beta_0 + \beta_1 \text{DA Smoothing}_t + \beta_2 \ln(\text{Size})_t + \beta_3 \ln(\text{BM})_t + \beta_4 \text{Leverage}_t + \beta_5 \text{Accruals}_t + \beta_6 \ln(\text{Volume})_t + \beta_7 \text{TurnOver}_t$$

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	212.450	6	35.408	9.183	.000 <sup>a</sup>
	Residual	2980.712	222	3.856		
	Total	3193.163	228			

- a. Predictors: (Constant), Turn Over, Leverage, Accruals, DA Smoothing, Ln BM, Involume
- b. Dependent Variable: LN(Forecast Dispersion<sub>t+1</sub>)

The amount of meaningful level of f is equal to 0.000. This amounted less than 0.05. therefore, zero hypotheses in 95% confidence level is rejected. It means 95% confidence level is meaningful model.

Table18: feasibility model statistic summary

**Model Summary <sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.266 <sup>a</sup>	.071	.062	1.96034	2.067

a. Predictors: (Constant), Turn Over, Leverage, Accruals, DA Smoothing, Ln BM, Ln Size, Involume

b. Dependent Variable: LN(Forecast Dispersion+1)

The amount of determination coefficient is equal to 0.071. it means 7.1% changes of dependent variable changes has been provided by independent and control variable. the amount of dorbini-watson statistic is equal to 2.07

Table19: regression coefficient meanings

**Coefficients<sup>a</sup>**

Model: 1

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.433	1.387		-.312	.755		
DA Smoothing	-4.6E-007	.000	-.105	-2.832	.005	.873	1.146
Ln Size	.123	.064	.095	1.907	.057	.483	2.070
Ln BM	-.358	.074	-.193	-4.815	.000	.750	1.334
Leverage	1.881	.783	.084	2.403	.016	.994	1.006
Accruals	1.38E-007	.000	.070	1.934	.054	.911	1.098
Involume	.008	.058	.008	.144	.886	.395	2.531
Turn Over	-.012	.418	-.001	-.028	.978	.600	1.666

a. Dependent Variable: LN(Forecast Dispersion+1)

The amount of t-statistic is -2.83 for DA smoothing (meaningful and negative) for ln size is equal to 1.91 (meaningful and positive in 90% confidence level) for ln bm is equal to -4.81 (meaningful and negative) for leverage is 2.40 (meaningful and positive) for accruals is 1.93 (meaningful and positive in 90% confidence

level) for in volume is 0.14 (meaningless) and at last for turnover is -0.03 (meaningless). The amount of t-statistic from width of origin is -0.31 in 95% confidence level in none rejecting eras of zero hypothesis. It means width from origin is not meaningful.

**Step by step regression**

Supposed model is:

$$\text{Ln}(\text{forecastDispersion} + 1) = 2/81 - 0/417 \text{LnBM} + 1/745 \text{Leverage}$$

**Table20: model feasibility statistic summary**

**Model Summary <sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.224 <sup>a</sup>	.050	.049	1.97446	
2	.237 <sup>b</sup>	.056	.054	1.96945	2.050

a. Predictors: (Constant), Ln BM

b. Predictors: (Constant), Ln BM, Leverage

c. Dependent Variable: LN(Forecast Dispersion<sub>t+1</sub>)

**Table21: regression coefficient meaningful test**

**Coefficients<sup>§</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.960	.088		33.785	.000		
	Ln BM	-.416	.065	-.224	-6.409	.000	1.000	1.000
2	(Constant)	2.813	.110		25.681	.000		
	Ln BM	-.417	.065	-.224	-6.436	.000	1.000	1.000
	Leverage	1.745	.784	.078	2.227	.026	1.000	1.000

a. Dependent Variable: LN(Forecast Dispersion<sub>t+1</sub>)

**Third model evaluation:**

**Supposed model is:**

$$\text{Forecast Error}_{t+1} = \beta_{it} + \beta_1 \text{ DA Smoothing}_t + \beta_2 \ln(\text{Size})_t + \beta_3 \ln(\text{BM})_t + \beta_4 \text{ Leverage}_t + \beta_5 \text{ Accruals}_t + \beta_6 \ln(\text{Volume})_t + \beta_7 \text{ TurnOver}_t$$

In below table, the result of regression analysis has been provided:

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82.439	6	13.740	2.678	.014 <sup>a</sup>
	Residual	3961.121	222	5.131		
	Total	4043.561	228			

a. Predictors: (Constant), Turn Over, Leverage, Accruals, DA Smoothing, Ln BM, Involume

b. Dependent Variable: LN(forecast error<sub>t+1</sub>)

The amount of f meaning level is equal to 0.014.this amount id less than 0.05. Therefore, zero hypotheses in 95% confidence level have

been rejected. It means in 95% confidence level, there is meaningful model.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.154 <sup>a</sup>	.024	.015	2.26292	1.543

a. Predictors: (Constant), Turn Over, Leverage, Accruals, DA Smoothing BM, Ln Size, Involume

b. Dependent Variable: LN(forecast error+1)

The amount of determination coefficient is equal to 0.024. it means 2.4% of changes in dependent variable has been indicated by independent and

control variable . the amount of dorbin-watson statisttic is equal to 1.54.

Table 23: regression coefficient meaning test

**Coefficients**

Model: 1

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	6.320	1.612		3.920	.000		
DA Smoothing	-3.0E-007	.000	-.060	-1.529	.127	.833	1.201
Ln Size	-.119	.075	-.081	-1.591	.112	.483	2.070
Ln BM	-.069	.086	-.033	-.798	.425	.749	1.336
Leverage	.065	.904	.003	.072	.942	.994	1.006
Accruals	-2.6E-007	.000	-.085	-2.222	.027	.867	1.154
Involume	.023	.068	.019	.337	.736	.394	2.536
Turn Over	-.812	.483	-.077	-1.681	.093	.600	1.668

a. Dependent Variable: LN(forecast error+1)

The amount of t-static for DA smoothing is equal to -1.53(meaningless)for ln size is euql to -1.59(meaningless)for ln bm is equal to -0.8(meaningless)for leverage is equal to 0.07(meaningless)for accruals id equal to (-2.22(meaningful and negative)for in volume is equal to0.34(meaningless)and at last for

turnover is equal to -1.68(meaningful and negative in 90%level confidence)the amount of t-statistic from width from origin is equal to 3.92 in which is in 95% confidence level in the eras of rejecting zero hypothesis. It meanings the amount of width from origin is meaningful.

**Step to step regression:**

Evaluated model has been written:

$$\text{Ln}(\text{forecast error} + 1) = 3 / 52 - 0 / 00000048 \text{DA smoothing} - 0 / 784 \text{Turnover}$$

**Table24.model feasibility staitic summary**

**Coefficients<sup>a</sup>**

Model: 1

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	6.320	1.612		3.920	.000		
DA Smoothing	-3.0E-007	.000	-.060	-1.529	.127	.833	1.201
Ln Size	-.119	.075	-.081	-1.591	.112	.483	2.070
Ln BM	-.069	.086	-.033	-.798	.425	.749	1.336
Leverage	.065	.904	.003	.072	.942	.994	1.006
Accruals	-2.6E-007	.000	-.085	-2.222	.027	.867	1.154
Involume	.023	.068	.019	.337	.736	.394	2.536
Turn Over	-.812	.483	-.077	-1.681	.093	.600	1.668

a. Dependent Variable: LN(forecast error+1)

**Table25:regression coefficient meaningful test**

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.408	.083		41.030	.000	
	DA Smoothing	-4.9E-007	.000	-.098	-2.741	.006	1.000
2	(Constant)	3.520	.098		35.745	.000	
	DA Smoothing	-4.8E-007	.000	-.096	-2.698	.007	.999
	Turn Over	-.784	.374	-.075	-2.093	.037	.999

a. Dependent Variable: LN(forecast error+1)

**Findings analysis:**

Earning leveling, is defined by manaemgemnets'try in decreasing unnormal changes in earning in the form of accounting principle.becasue investors pay speciall attention to earning number as an important factor in decision making, managers' forecasting changes is valuable in economy from investors view. In this case, earning smoothing motivation is to decrease the amount of earning forecasting error in future in comparing to current eras.mangers are interested to achieve their forecasting in relation to earning. If it was not achieved, they smooth earning by some instrument. In this study, we have determined the relation among smoothing earning and business units' information none reliability. The result of study showed there is meaningful and negative relation among earning smoothing and business units 'information none reliability in

95%confidence level. Therefore, we conclude earning smoothing decreases none reliability to information provided by business unit in which is the same as Chen (2009) Goush and olsone (2009) result. Determined adjusted coefficient shows optional accrual matters as a smoothing measure to general accrual matters does have more ability in explaining business unit none reliability of information.

**Research limitation**

In real world, a phenomom is influenced by different factors. Some of these factors and variables are recognized for researcher and he could determine the influence of these factors on phenomom to some extent. But there are some other factors in which researcher is unaware of them and if could not quantify their influence on dependent variable, therefore, researcher study some of independent in any study .there is limitation and problems in any study and should



be considered in interpretation of research findings in which include:

1. According to differences of sample companies from size, industry, ownership structure and products kind view, we would be conservative in generalizing findings.
2. In order to provide research data in study models, we have relied on existing data on *tadbir pardaz* software.

### **Research suggestion**

This study has evaluated the influence of earning smoothing in information none reliability of companies in Iran investment market and has provided new observes about the influence of earning smoothing on information none reliability. In general case, we conclude there is meaningful and negative relation among earning smoothing and information none reliability of business unit. Therefore, we conclude earning smoothing decreases none reliability to information provided by business unit.

### **Persian and English references:**

1. Azar, adel and momeni, mansour, "static and its application in management", study organization and humsn science books compilation of universities(samt), 8<sup>th</sup> edition, 2002
2. Ebrahimi kordlar ali,zakeri hamed, earning management determination by using income sales, accounting researches 2009, 3:122-135
3. Ahmad riahi belkooy, accounting theories, translation:Dr. ali parsayian
4. Etemadi, hosein,akram yarmohammadi(2003)determining influential factors onmiddle duration reporting in time in accepted companies in tehran stock exchange, sociological and human science of shiraz university, no.19, consecutive 38, pages 87-99
5. Etemadi,hosein,hasan aghae, kamran and shaban elahi, (2006)examiningthe influence of information technology on quality character of accounting information, accouting and auditing determination seakon magazine, duration 13, ni.1, pages 3-24
6. Aghae, mohammad ali, nazemi ardakani, mehdi(2012)"audit expert in industry and

- optional accrual matter management", auditing knowledge, 12<sup>th</sup> year, no.46,pages7-14
7. Babajani, jafar and majid azimi yancheshme,(2012)the effect of accrual matter dependency to share yields,financial accountingresearch,duration4, no.2, pages 83-100
8. Badri, Ahmad, abdolbaghi abdoImajid. Introduction to financial economimetry.first edition, Tehran, nas publication, 2010
9. Bozorg ASL, mousa (2006) middle accounting (first edition) fourth volume. Tehran:audit organization publication-standard collection managemnet
10. Tari Verdi, yadollah,(2004)financial account ,first edition(middle account), abedan publication , page 18
11. Talane, abdolreza, mehrani, sasan."dividend division in companies"master degree thesis of Islamic azad university,account magazine, no.125
12. Tehrani, reza, financial management, negah danesh publication, fourth edition, pages 452-456, 1999
13. Khajavi, shokrollah and ebrahim ebrahimi.(2008)middle accounting1,first edition, pages 452-456.1999
14. delavar, ali, "psychology and traning science research method"virayesh nashr institute,tehran
15. Rajabi, rohollah, (2006)"audit change challenges"official audit magazine,no.8,9pages53-62
16. Rahimian, nezamoddin, saleh nezhad hasan, salaki ali, the relation among some companies ruler ship affairs and information asymmetry, accounting and audit examination,2009,86-71:58
17. Reimond. P. nevo,"financial management (2rd edition), Dr. Ali jahankhani and DR. Ali parsaeian translation, samt publication, 12ed volume, 2008.
18. Ayra A., Glover J., Sunder S. Earnings Management and the Revelation Principle. Review of Accounting Studies 1998; 3: 7-34.

19. Beidleman C. Income Smoothing: The Role of Management. *The Accounting Review* 1973; 48(4): 653-667.
20. Chaney L. Earnings Management and Firm Valuation under Asymmetric Information. *Journal of Corporate Finance: Contracting, Governance and Organization* 1995; 1: 319-
21. Chen L. H. Income Smoothing, Information Uncertainty, Stock Returns, and Cost of Equity. Working Paper, ARIZONA; 2009.
22. Dechow P.M., Sloan R., Sweeny, A. Detecting Earnings Management. *The Accounting Review*, 1995; 70(2): 193-225.