Vol 3 Issue 5 June 2013

Impact Factor : 0.2105

ISSN No : 2230-7850

Monthly Multidisciplinary
Research Journal

Indian Streams Research Journal

IMPACT FACTOR : 0.2105

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RNI MAHMUL/2011/38595 **ISSN No.2230-7850**

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Indian Streams Research Journal
Volume 3, Issue. 5, June. 2013
ISSN:-2230-7850
Available online at www.isrj.net

ORIGINAL ARTICLE

INCOME SMOOTHING PRACTICES: AN EMPIRICAL INVESTIGATION OF LISTED FIRMS IN TEHRAN STOCK EXCHANGE (TSE)

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Abstract:

The research mainly aims to identify factors influencing income smoothing among companies listed in Tehran stock exchange from 2008 to 2012 and factors influencing income smoothing.

From one perspective, related elements of income smoothing; can be categorized as goals and motives, tools, and influencing factors. If income smoothing behaviour be observed in an economic environment, one of the questions raised is what factors can be effective in this phenomenon. This research addresses factors influencing income smoothing among Iranian listed companies in TSE. Although many factors can potentially be effective in this phenomenon, in this study the factors chosen are including: Debt to Equity ratio, Company Profitability ratio, Company Size, Financial leverage ratio.

It based on the results of univariate analysis using the Mann-Whitney Test there are differences of Company Size, Profitability, and net profit margin of companies that engage in the practice of income smoothing with no income smoothing practice. On multivariate analysis simultaneously on five independent variables, only company size variables significantly influence income smoothing..

KEYWORDS:

Income Smoothing, Profitability ratio, leverage ratio, Debt to Equity ratio.

INTRODUCTION:

Investors are more interested in buying the shares of firms whose incomes are more stable. Moreover, investors believe that firms reporting high levels of fluctuation take more risks in canalogy to those reporting smooth earnings. Considering this issue, managers are inclined to level the earnings of their firms in order to visualize them alongside high levels of stability in earnings, leading to promotion within a flexible framework of the Generally Accepted Accounting Principles. Smoothing, they believe, results in a company's better performance (Hejazi, et al.).

Generally accepted accounting principles provide a variety of alternatives to account for a given set of financial occurences.for example , there are many “acceptable” methods of depreciating an asset.Also management has the capability of timing financial transactions(such as delaying a sale)and making discretionary expenditures. Because of this flexibility, management has a limited capability to manage reported income from year to year.

FACTORS INFLUENCING INCOME SMOOTHING

There are several factors influecing income smoothing such as: market share, degree of unionization, ownership control, Firm size, bonus compensation and preliminary earnings diverge from expectations and etc.This study evaluate some factors affecting income smoothing behavior which are:

a)Company size
a)Company profitability ratio
c)Net profit margin
d)Financial leverage ratio
e)Debt to equity ratio

RESEARCH METHODOLOGY

Ex post facto research design will be followed in the present research to describe and analyze income smoothing practices in companies listed in TSE.

POPULATION AND SAMPLE

Population in this study is all the companies (from 2008-2012) on the Tehran Stock Exchange are practicing income smoothing. 33 Companies listed in TSE will be selected on the basis of random sampling method for the purpose of this study.

STATISTICAL METHODS

In this study several statistical methods will be used to test hypotheses and a significant level of %5 has been selected in order to accept or reject the hypothesis. These are including:

Descriptive Statistics
Univariate Tests
Multivariate logit model

DESCRIPTIVE STATISTICS ANALYSIS

Expected results of statistical tests generally can legitimize the validity and reliability of the variables used in each statistical test research hypotheses. Sample of 33 firms conducted during the 5-year observation phase to determine the status of income smoothing. So there are 165 samples can be processed to analyze income smoothing.

Descriptive statistical analysis with the aid of a computer program SPSS Statistics is presented in Table 1 below:

Table 1
Descriptive Statistics of sample companies

Variable	N	Minimum	Maximum	Mean	Standard Deviation
company size	165	27.720.995.361	17.243.721.000.000	2.045.142.035.443	3.318.829.984.619
Profitability (ROI)	165	-0,4400	70,1500	0,4916	5,4594
Net Profit Margin	165	-1,4600	132,1700	0,8412	10,2878
Financial Leverage	165	0,0500	2,8600	0,5892	0,4626
Debt to Equity	165	-6,6600	17,6600	1,3992	2,4445

Based on the descriptive statistical analysis of the above table, the number of samples used in this study was 165 samples. For the variable firm size (size) minimum value of Rs. 27,720,995,361, the maximum value of Rs. 17,243,721,000,000, the average of Rs. 2,045,142,035,443, and has a standard deviation of Rs. 3,318,829,984,619,. For Profitability variable (ROI) minimum value of -0,4400 , the maximum value of 70,1500, the average is 0,4916, and has a standard deviation of 5,4594. For variable Net Profit Margin minimum value of -1, 4600, maximum value of 132,1700 , the average is 0,8412 , and has a standard deviation of 10,2878. Financial Leverage for variable minimum value of 0, 0500 , the maximum value of 2,8600 , the average is 0,5892, and has a standard deviation of 0,4626. Debt to Equity for the variable average is 1, 3992 , and has a standard deviation of 2,4445 , the minimum value of -6,6600, and a maximum value of 17,6600.

UNIVARIATE ANALYSIS TESTING

Normality Test Data Analysis
This study using the One Sample Kolmogorov Smirnov test was performed to test things normality of the data of each variable. Terms of normality decision testing with One Sample Kolmogorov Smirnov are as follows:

If the value of ρ-value (Sig Asymp.)> 0.05 then Ho is accepted; normally distributed data.
If the value of ρ-value (Asymp. Sig) <0.05 then Ho is rejected; normally distributed data.

Data normality test results of each variable were performed using SPSS Statistics and the results are as follows:

Table 2
Normality Test Results of Each Variable

NO	Variable	Asym. Sig. (2-tailed)	information	distribution
1	company size	***0,000***	***P<0,05***	not Normal
2	***Profitability (ROI)***	***0,000***	***P<0,05***	not Normal
3	***Net Profit Margin***	***0,000***	***P<0,05***	not Normal
4	***Financial Leverage***	***0,000***	***P<0,05***	not Normal
5	***Debt to Equity***	***0,000***	***P<0,05***	not Normal

Based on test results one sample kolmogorov Smirnov can be seen that the variable firm size (Size), profitability (ROI), net profit margin, financial leverage, and debt to equity was not normally distributed, it can be seen from the probability (ρ-value) or Asymp. sig (2-tailed) is smaller than $\alpha = 0.05$.

Mann-Whitney Test

Based on one sample kolmigorov smirnov test variables company size, profitability (ROI), net profit margin, financial leverage, and debt to equity was not normally distributed. Therefore , proper testing performed for these variables is the Mann-Whitney test. Results of univariate test at a significance level of 5 % (0.05) by using SPSS Statistics , the results are presented in table 3 below:

Table 3
Testing results of Mann-Whitney Test

Variable	**ρ-value**	**information**	**Ho**
Company size (Size)	0,004	P < 0,05	denied
***Profitability*(ROI)**	0,000	P < 0,05	denied
Net Profit Margin	0,000	P < 0,05	denied
Financial Leverage	0,478	P > 0,05	accepted
Debt to Equity	0,954	P > 0,05	accepted

The above test shows that the variable company size, profitability, and Net profit Margin has a probability value (p-value) or Asymp.sig (2-tailed) smaller than α=0.05 which means rejection of H0 . There are differences in company size, profitability, and net profit margin between companies that perform income smoothing practices by companies that do not do practice income smoothing. And there is no difference in financial leverage variables and debt to equity ratio among companies that perform income smoothing practices by companies that do not do practice income smoothing.

ANALYSIS OF MULTIVARIATE TESTING

Multivariate analysis was used to test the significance of the effect of variable company size, profitability (ROI), Net profit margin, financial leverage and debt to equity simultaneously or individually to income smoothing practices. Multivariate analysis was done by using logistic regression analysis with the help of the computer program SPSS Statistics.

Multivariate testing was conducted simultaneously for five independent variables using binary logistic regression. Basis for decision-making in the logistic regression analysis is to use the value of Hosmer and Lemeshow Goodness-of-fit test

Hosmer and Lemeshow Test (Goodness of-fit Test)

This test aims to test the accuracy or adequacy of the data in the logistic regression model

Table 4

Hasil Pengujian *Hosmer and Lemeshow (Goodness of-fit Test)*

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	7.287	8	.506

Based on the table it can be seen chi-square of 7.287 and a degree of Freedom of 8. The significance level is greater than α = 0.05 is equal to 0.506. It can be concluded that the logistic model showed the adequacy of data (fit).

Model Summary (Coefficient of Determination)

Summary in the logistic regression models with R2 testing in linear regression equation. R2 shows the estimated variation of the independent variables to explain the dependent variable.

Table 5

Hasil Pengujian *Koefisien Determinasi*

Model summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	198.489a	.161	.215

a. Estimation terminated at iteration number 9 because parameter estimates changed by less than,001.

From the test results above is known that the model test summary (coefficient of determination) produce a -2 log likehood of 198.489 and the views of the coefficient of determination Nagelkerke R2 is 0.215. That is, the combination of independent variables that measure company size, profitability, Net Profit Margin, Financial Leverage and Debt to Equity is able to explain the variation of the dependent variable income smoothing by 21.5% while the remaining 78.5% is explained by the variable that are not included in this model.

CONCLUSION

From the results of the testing that has been conducted on the company's publicly traded companies listed on the Tehran Stock Exchange years 2008-2012 proved that there has been a practice of income smoothing that can be taken conclusions as follows:

1.Based on the results of univariate tests can be concluded that there are differences in the variables firm size, profitability, and net profit margins between companies that perform income smoothing practices by companies that do not do practice income smoothing. And there is no difference in financial leverage variables and debt to equity ratio among companies that perform income smoothing practices by companies that do not do practice income smoothing.
2.Based on the results of multivariate tests simultaneously obtained results that firm size variables affect income smoothing practices. Multivariate testing simultaneously also showed that the profitability variable has no effect on income smoothing practices. In addition to the variable profitability, net profit margin variable also had no effect on income smoothing practices. In these testing financial leverage variables also have no effect on income smoothing practices. Similarly, the debt to equity ratio variable that does not have an influence on the practice of income smoothing.

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