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The Study of the accounting earning transparency and Capital Structure in Accepted Firms of Tehran Stock Exchange

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Abstract Full, on-time, and with Quality disclosure of financial information can lead to the transparency of such information and decreases information asymmetry. Among the published information of firms, earnings are of priority importance attended by many users; therefore, the issue of the transparency of accounting earnings is of high importance. The aim of this study is investigating the accounting earning transparency and capital structure where the relationship between accounting earnings and short-time liabilities, long-term liabilities, and the total of liabilities as representing the capital structure have been investigated. Testing the hypotheses of the study has been performed by applying financial data from 121 accepted firms of Tehran stock exchange during the years 2010 to 2014. The results of the study indicated that there is not any statistically significant relationship between accounting earnings transparency and capital structure in the accepted firms of Tehran stock exchange.

Keywords: Accounting Earning Transparency, Capital Structure, Short-Time Liabilities, Long-Term Liabilities, Quality of Financial Statements.

1 Introduction

The quality of disclosed financial statements by firms is of high importance for the users of such information. Such information helps shareholders to evaluate cash flows influencing the determination of instinct values of shares. It is no doubt that no one knows about the financial status of firms more than the owners of firms, and there is always a kind of information asymmetry between managers and the owners of the firms. This inharmony in the information of two groups and the possibility of misusing this information for personal abuses causes inappropriate selection and adverse ethics [1]. On the other hand, optimal allocation of capital happens when market practitioners have access to reliable, unbiased information regarding economic transactions. Information users seek risk reduction or trust enhancement practices. However, the plenty of information does not lead to trust regarding the transparency of information; this causes a decrease in distrust [2].

What is above all and has mindful and observable consequences on capital market is the corruption related to financial reporting. Wrong and deceitful reporting caused the bankruptcy of Enron and WorldCom firms and caused a serious shock to American capital markets. The activists in today's capital markets agree on this point that transparency is one of the most

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important ways to prevent such failures [3]. Bushman et al., mention that financial statements can affect markets in there ways as follows. First, financial statements help to distinguish good and bad investments which cause a decrease in risk estimation and capital expenses. Second, better financial statements help investors to distinguish good and bad managers; this reduces the expenses imposed on agents and decreases capital expenses. Third, ambiguous accounting reports weaken accounting computations and economic facts and cause an increase in information asymmetry [4].

Transparent disclosure of financial information influences not only a firm but also the whole of capital market. Transparency has a very important role on the improvement and increase of the efficiency of the market information. Fluctuations in risks related to decision-making and trust of activists in information flow of the firms can be improved with an increase in the transparency of disclosed information. A firm chooses its capital structure based on information symmetry and agents' expenses which are controllable by appropriate contracts. Assuming the non-failure of the capital market, information is accessible to everyone without any expense. In fact, the leakage of information can cause expenses to investors and firms directly or indirectly [5]. So the question that arises here which is the main question of this current research is whether there is any statistically significant relationship between earnings transparency and capital structure.

2 Transparency of financial information

Transparency of accounting earnings is among the most important issues in accounting and financial reporting. Bushman et al., (2004) defined transparency of financial information as wide access to related and reliable information pertinent to financial performance, financial status, investment opportunities, values and risk-taking practices of firms [4]. Transparency has a very important role in the improvement and increase of efficiency of market information. Fluctuations in risks related to decision-making and the trust of activists in markets can be improved with adding transparency of disclosed information to market [6]. Even if all activists are not aware of the transparency of the disclosed information, creating a trustful atmosphere indicating the transparency of disclosed information and their passing through official checkpoints giving trust about their transparency will cause an increase in the efficiency of capital market [7]. If the managers of firms have access to private information, this will cause asymmetry of information and consequently to inappropriate selection and bad ethics [8]. Healy and Palepe (2001) believe that firms can reduce the asymmetry of information and the rivalries between agents and foreign investments by financial reporting and information disclosure [9]. So it is concluded that the quality of disclosure will influence the quality of investment decisions. The possible advantages of disclosure and transparency include less capital expenses [10, 11], a decrease in the expenses of agents [12], and enhancement of the worth of shares [13, 14]. Appropriate and enough disclosure of information helps investors and creditors to seek investment opportunities, so this way capital enters into the most efficient firms.

3 Transparency regimes and capital structure

Modigliani and Miller [1958] noted that capital structure is under the influence of defects in markets including bankruptcy costs and asymmetry in information. This can be realized in

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either manager- owner or owner-leader agency costs [5]. It's a common belief that transparency enhancing the assessment or reducing the pertinent risks of bankruptcy will favor the increased use of liabilities.

4 Review of the related literature

Yu (2005) investigated the relationship between accounting transparency and validity structure of firms. From the view point of, Yu it can be predicted that the transparency of disclosed accounting information will decrease validity risks. Investigating the accepted firms of the New York stock exchange, Yu showed that there is a statistically significant relationship between accounting information and validity risk. Investigating the accepted firms of the New York stock exchange, Yu showed that there is a statistically significant relationship between accounting information and validity risks. On the other hand, disclosing ambiguous and deficient information will increase the validity risk of firms [15].

Andrade et al., (2009) investigated the relationship between the transparency of financial statements and liability expenses. They provided proofs indicating that with the increase in financial reporting the liability expenses of the firms will decrease. They found that the improvement of the financial reporting of the investors will lead to a significant decrease in the financial expenses of the firms and found also that the amount of the financial statements transparency influences the pricing processes of the liability contracts [16].

Subramaniam et al., (2011) in a study similar to Yanto investigated the relationship between the structure of the firms and the amount of saved capital flow. Gathering data of New York stock exchange during the years 1988 to 2006, they showed that firms which have non- centered and more diversified ownership keep less of capital flow compared to those of centralized firms. Their further investigations show that firms with diversified ownership have more relationships with other firms and related industries, so they keep less capital flows [17].

Fetch et al., (2014) investigated the transparency of the firms accounting information and liquidity of bonds. They found a statistically significant relationship between transparency and liquidity of bonds. The results indicated that such a relationship will strengthen at the time of crises [18].

Zaman et al., (2014) in a study investigated the relationship between firms' ownership and their performance: The role of transparency and disclosure in Pakistan's banking sector. Their aim was the experimental investigation of transparency, disclosure and the performance of firms. The domain of the investigation ranged during the years 2007 to 2011. The results of the statistical analyses with the use of the least square regression showed that disclosure and transparency had a negative relationship with performance (ROE and AOA) [19].

Kordestani and Alavi (2011) investigated the effects of the transparency of the accounting earnings on the expenses of the share capital based on Fama and French. The results showed transparency of the accounting earnings with decreasing risk will lead to the decrease in the expected efficiency of shareholders, and there is a negative statistical relationship between these two variables [20].

Arabmazar et al., (2012) investigated the relationship between the transparency of financial reporting and tax reporting in Iran. By interrogating five groups including faculty members of universities, independent audits, stock exchange experts, financial managers and tax agents, they showed that there is a positive relationship between the transparency of financial reporting and tax reporting; this is while by preparing tax reports attached to financial reports, transparency of financial reporting will be provided to a great extent [21].

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Haghighat and Alavi (2014) investigated the relationship between the transparency of shares and abnormal returns, using information from 92 accepted firms in Tehran's stock exchange between the years 2006 to 2011, they found that there was a statistically significant negative relationship between the transparency of the accounting earnings and abnormal returns with or without controlling variable is Tehran's stock exchange [7].

5 Methodology

The approach used in this research was of applied one using historical data in the form of a retrospective study and in the realm of accounting confirmatory research. Data analysis have been performed with the use of the SPSS software. The population of this research consists of the accepted firms of Tehran stock exchange. The time period for this study was a 5-year period from the beginning of the year 2010 to 2014. The sample for this research consists of accepted firms in Tehran's stock exchange with the following features:

1. Being accepted in Tehran's stock exchange until the end of February of 2005.
2. The financial data of all variables be available in the time period mentioned.
3. They showed not be part of banks, credit institutes, leasing companies, and insurance companies.
4. They must not change their fiscal year during the research period.
5. Their fiscal year ends in March 19.

According to these criteria the numbers of firms in the sample was 121.

6 Hypotheses of the study

1. There is a statistically significant relationship between the transparency of accounting earnings and current liabilities.
2. There is a statistically significant relationship between the transparency of accounting earnings and long- term liabilities.
3. There is a statistically significant relationship between the transparency of accounting earnings and total liability ratio.

7 Research variables

In this section we introduce the variables of the study categorized into two groups:

7.1. Independent variables

In this study capital is regarded as the independent variable. Regarding the theoretical framework of the research capital structure is the ratio of liabilities (short- term, long- term, and the total) to all properties [6, 23].
STD= Ratio of short- term liabilities to total properties
LTD= Ratio of long- term liabilities to total properties
TTD= Ratio of the total liabilities to total properties

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7.2. The dependent variable

Transparency of the accounting earnings is regarded as the dependent variable here. For measuring TRANS we used the model provided by Bart et al., as follows:

$$RE_{it} = \alpha + \beta_1 \frac{E_{it}}{P_{it-1}} + \beta_2 \frac{\Delta E_{it}}{P_{it-1}} e_{it}$$

in which:

R_{EIT}: is the efficiency of the annual share in the year t

E_{it}= the earnings of each share from non- ordinary items of the firms

ΔEit= the fluctuations of the earnings before non-ordinary items of the years t-1 to t.

Pi t-1= The price of share at the end of year t-1.

For each of the firms the sample, the above- mentioned model has been estimated separately, and its determinant coefficient has been regarded as the transparency of earnings.

To measure the annual efficiently of the firms we used the comprehensive efficiency formula as follows:

$$R_{it} = \frac{P_t(1+\alpha+\beta) - (P_{t-1} + ca) + D_t}{P_{t-1} + ca}$$

P_t= the price of share at the end of period t

P_{t-1}=the value of share at beginning of period t or end of period t-1

D_t= earnings paid cash in year t.

α= the percentage of the increase in capital from demands and cash earnings.

β= the percentage of the increase in capital from reserves

Ca= the nominal amount paid by the investor for the increase of capital from the demands and earning.

8. Data analysis

8.1. Descriptive statistics

The first step in analyzing data is describing the descriptive statistics. In Table (7) the mean and standard deviation of all variables of the research has been depicted. Based on the obtained results, the ratio of short- term liabilities is much larger than the long- term liabilities among the accepted firms. This is while more than 50 percent of the total liabilities are short-term liabilities (56 percent with 21 percent standard deviation). This for long- term liabilities is less than 10 percent (9 percent with 13 percent standard deviation). Based on these findings, the accepted firms of the sample prefer to use short- term supplies rather than the long-term ones to finance their projects. The mean of the efficiency of these firms was equal to 38/55 percent with a standard deviation of 79/86 percent. According to these digits it can be concluded that the firms in the mentioned period did not have a good performance (the efficiency of shares is less than 50 percent).

Table 1 the results of descriptive statistics

Variable	Frequency	Mean	Standard deviation
Ratio of short- term liabilities	605	0.56	0.21
Ratio of long- term liabilities	605	0.09	0.13
Liability ratio	605	0.65	0.25
efficiency	605	38.55	79.86

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9 Hypothesis testing

The main instrument for the testing hypothesis of the study is the regression model. The liability of the mentioned models is based on the establishment of a number of basic assumption such as the normality of the dependent variable and the linearity between descriptive variables. So in this part we deal with such assumptions.

9.1 The evaluation of normality

In the model of Barth et al. to evaluate the transparency of the accounting earnings, efficiency of the shares has been used as the dependent variable. So in this section we deal with the hypothesis of the normality of this variable. The following figure (1) depicts the distribution pattern of the efficiency of shares of the accepted firms in the sample.

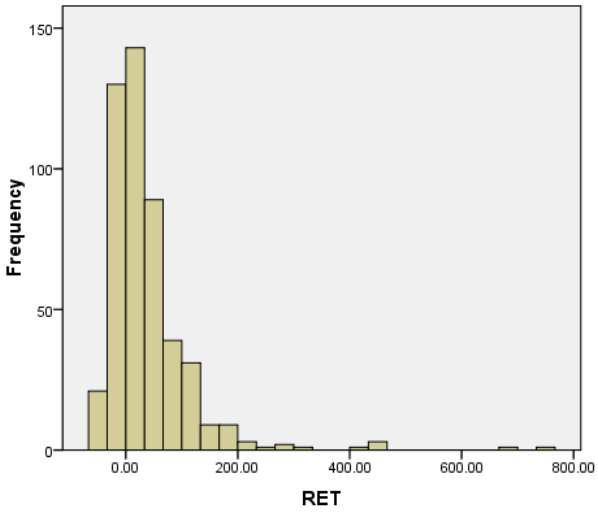

Fig. 1 Distribution pattern of the efficiency of shares of the accepted firms in the sample

As the above picture shows the efficiency of shares has skewness in the right section. In other words, a few numbers of firms in the studied sample have efficiency of shares larger than other firms. And the efficiency of the shares of these firms have been put at the right of the distribution. The existence of firms with larger efficiency of shares at the right position causes that the distribution of the efficiency of shares be away from normal distribution. To overcome this non- normality of the dependent variable, we used the logarithmic transformation. In order to investigate the normality of the efficiency of shares before and after the logarithmic transformation, the results of the Kalmogorov - Smiranov Test have been depicted in Table 2.

Table 2. the results of the Kalmogorov - Smiranov Test

Variable	Frequency	Kalmogorov - Smiranov Statistic	Level of significance	Skeweness coefficient	Significance coefficient
Efficiency logarithmic	605	3.527	0.000	4.083	26.041
Efficiency	605	1.708	0.006	-0.982	6.075

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The results of the Kalmogorov-Smiranov Test shows that the normality hypothesis regarding the efficiency of the shares is not confirmed (KS=03.527, Sig.<0.05). But this hypothesis is confirmed at the error level of 0.001 (KS=1.708, Sig.>0.001). In the above-mentioned Table, in order to investigate the impact of the logarithmic transformation on the characteristic of the efficiency of the shares the skewness and significance coefficients have been reported as well. Before the logarithmic transformation, the skewness and significance of the efficiency of the shares were 4.083 and 26.041 which are far from the corresponding amounts of the normal distribution. The skewness and significance of the normal distribution are equal to 0 and 3. These amounts have been close to the normal distribution after the logarithmic transformation.

9.2 The analysis of linearity

One of the other basic regression model hypotheses is the non- existence of linearity between descriptive variables. To investigate linearity there are a number of methods. One of the frequently used ones is the correlational coefficient testing. In Table 3, the Pearson correlational coefficient has been reported between the descriptive variables. Based on the obtained findings, the ratio of the total liabilities has a significant correlation with other two variables, and this causes linearity between the descriptive variables. Based on this to test the hypotheses of the research, linear regression models have been used. For this the relationship of each of these ratios with transparency of earnings is tested separately.

Table 3. The results of Pearson correlation

	Ratio of short-term liabilities	Ratio of long-term liabilities	Ratio of the total liabilities
Ratio of short term liabilities	1		
Ratio of long-term liabilities	-0.024	1	
Ratio of the total liabilities	0.846*	0.514*	1

Level of significance 0.05

9.3 Testing the hypotheses

After measuring the transparency of earnings in the previous section now it is time to test the hypotheses of the study.

9.3.1 Testing the first hypothesis

There is a statistically significance relationship between accounting earnings transparency and the current amount of liabilities.

In this hypothesis the relationship between earnings transparency (dependent variable) and current liabilities ratio (independent variable) have been studied. In Table 4 the results of the earnings transparency and current liabilities ratio have been depicted.

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Table 4. The results of the first hypothesis

$$TRANS_{it} = \beta_1 + \beta_2 STD_{it} + e_{it}$$

Variable	Regressional coefficient	t statistic	Level of significance
Constant coefficient	0.498	5.135	0.000
Current liability ratio	-0.113	0.683	0.496
Determinate coefficient			0.004
F statistic			0.467
F significance level			0.496

Based on the above Table, there is not any statistically significant relationship between long-term liabilities and accounting earnings transparency (Sig.>0.05). So there is not enough proof for proving the second hypothesis. Based on the determinant coefficient obtained, only 0.3 percent of the accounting earnings transparency variances is explained by long-term liabilities ratio.

9.3.2 Testing the third hypothesis

There is a statistically significant relationship between accounting earnings transparency and the ratio of the total liabilities.

In this hypothesis the relationship between earnings transparency (as the dependent variable) and the ratio of the total liabilities (as the independent variable) is investigated. In the following table the results of the regression between earnings transparency and the total liability ratio is depicted.

Table 6. The results of the third hypothesis

$$TRANS_{it} = \beta_1 + \beta_2 TTD_{it} + e_{it}$$

Variable	Regression coefficient	t	Level of significance
Constant coefficient	0.512	5.322	0.000
Ratio of total liability	-0.119	-0.840	0.403
Determinant coefficient			0.006
F statistic			0.706
F significance level			0.403

Based on the above table there is not any statistically significance relationship between the ratio of the total liabilities and transparency of accounting earnings (Sig.>0.05). Therefore, there is not sufficient evidence for proving the third hypothesis. Based on the obtained coefficients only 0.6 percent of the variance of the transparency of the accounting earnings is explained by the ratio of the total liabilities.

10 Discussions and conclusions

The absence of transparency and inappropriate leakage of information increases the asymmetry between the owners and managers of the firms; this causes information crisis and distrust influencing budgeting approaches of firms. Moreover, we see the incidence of the expenses of budgeting with higher amounts of interest rate and increasing the expected efficiency of shareholders. Therefore, managers have to keep the additional cash flows. On the other hand, financial reporting with clear disclosure of information of firms can decrease asymmetry of information, cause optional allocation (appropriate choice instead of

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inappropriate selections, and efficiency of the performance of the firms. Performing such accounting role helps to develop economic enhancement. The current study has investigated the effect of the transparency of accounting earnings on capital structure. The results of the testing the hypotheses of the study reveals that there is not any statistically significant relationship between the transparency of accounting earnings and capital structure, i.e., the transparency of accounting earnings does not contribute to the capital structure.

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