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Accounting Earning Transparency and Capital Structure

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Abstract

Complete, on-time, and quality disclosure of financial information can lead to the transparency of such information and decrease information asymmetry. Among the published information of firms, earnings are of priority importance to many users; therefore, the issue of the transparency of accounting earnings is significant. This study investigates the accounting earning transparency and capital structure, where the relationship between accounting earnings and short-time liabilities, long-term liabilities, and the total liabilities representing the capital structure is investigated. The study's hypotheses were tested by applying financial data from 121 listed firms on the Tehran stock exchange from 2019 to 2023. The study results indicated no statistically significant relationship between accounting earnings transparency and capital structure in the listed firms of the 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 essential for the users of such information. Such information helps shareholders evaluate cash flows, influencing the determination of the intrinsic values of shares. The financial status of firms is higher than that of 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

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users seek risk reduction or trust enhancement practices. However, more information is needed to 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 the capital market is the corruption related to financial reporting. Wrong and deceitful reporting caused the bankruptcy of Enron and WorldCom firms and caused a severe shock to American capital markets. The activists in today's capital markets agree that transparency is one of the most important ways to prevent such failures [3]. Bushman et al. mention that financial statements can affect markets in their ways as follows. First, financial statements help distinguish good and bad investments, which causes a decrease in risk estimation and capital expenses. Second, better financial statements help investors distinguish good and bad managers; this reduces the costs 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 a firm and the whole of the capital market. Transparency has a significant role in the improvement and increase of the efficiency of market information. Fluctuations in risks related to decision-making and the trust of activists in the 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, controllable by appropriate contracts. Assuming the non-failure of the capital market, information is accessible to everyone without any expense. Information leakage 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 | Literature

2.1 | Transparency of Financial Information

Transparency of accounting earnings is among the most important issues in accounting and financial reporting. Bushman et al. [4] 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 significant 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 by adding transparency of disclosed information to the 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 the capital market [7]. If the managers of firms have access to private information, this will cause information asymmetry and, consequently, inappropriate selection and bad ethics [8]. Healy and Palepe [9] believe that firms can reduce information asymmetry and the rivalries between agents and foreign investments through financial reporting and information disclosure. So, it is concluded that the disclosure quality will influence the quality of investment decisions. The possible advantages of disclosure and transparency include fewer capital expenses [10], [11], a decrease in the costs of agents [12], and an enhancement of the worth of shares [13], [14]. Appropriate and enough disclosure of information helps investors and creditors seek investment opportunities so capital enters the most efficient firms.

2.2 | Transparency Regimes and Capital Structure

Modigliani and Miller [15] noted that capital structure is influenced by defects in markets, including bankruptcy costs and asymmetry in information. This can be realized in 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.

2.3 | Review of the Related Literature and Hypotheses

Yu [16] investigated the relationship between accounting transparency and the validity structure of firms. From Yu's viewpoint, 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. Andrade et al. [17] investigated the relationship between the transparency of financial statements and liability expenses. They provided proof 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 also found that the amount of the financial statements transparency influences the pricing processes of the liability contracts.

Subramaniam et al. [18], in a study similar to Yanto, investigated the relationship between the structure of the firms and the amount of saved capital flow. Gathering data from the New York Stock Exchange from 1988 to 2006 showed that firms with non-centered and more diversified ownership keep less 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. Fetch et al. [19] investigated the transparency of firms' accounting information and bond liquidity. They found a statistically significant relationship between transparency and bond liquidity. The results indicated that such a relationship will strengthen during crises.

Zaman et al. [20] investigated the relationship between firms' ownership and performance: The role of transparency and disclosure in Pakistan's banking sector. Their aim was to experimentally investigate transparency, disclosure, and firm performance. The inquiry lasted from 2007 to 2011. The least square regression statistical analyses showed that disclosure and transparency negatively correlated with performance (ROE and AOA). Kordestani and Alavi [21] investigated the effects of transparency in accounting earnings on share capital expenses based on Fama and French. The results showed that transparency in accounting earnings with decreasing risk will decrease shareholders' expected efficiency, and there is a negative statistical relationship between these two variables.

Arabmazar et al. [22] investigated the relationship between Iran's financial reporting and tax reporting transparency. By interrogating five groups, including university faculty members, independent audits, stock exchange experts, financial managers, and tax agents, they showed that there is a positive relationship between financial reporting transparency and tax reporting transparency; this is because preparing tax reports attached to financial reports will greatly enhance the transparency of financial reporting. Haghighat and Alavi [7] investigated the relationship between share transparency and abnormal returns, using information from 92 accepted firms in Tehran's stock exchange between the years 2006 and 2011. They found a statistically significant negative relationship between the transparency of accounting earnings and abnormal returns, with or without Tehran's stock exchange as the controlling variable.

I. There is a statistically significant relationship between the transparency of accounting earnings and current liabilities.

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

3 | Methodology

The approach used in this research was applied using historical data from a retrospective study and accounting confirmatory research. Data analysis was performed using SPSS software. The population of this research consists of the firms listed by the Tehran Stock Exchange. The period for this study was 5 years, from the

beginning of 2019 to 2023. The sample for this research consists of accepted firms in Tehran's stock exchange with the following features:

I. It will be accepted in Tehran's stock exchange until the end of February 2019.

II. The financial data for all variables will be available during the period mentioned.

III. They showed they were not part of banks, credit institutes, leasing companies, or insurance companies.

IV. They must keep their fiscal year the same during the research period.

V. Their fiscal year ends in March.

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

4 | Research Variables

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

4.1 | Independent Variables

In this study, capital is regarded as the independent variable. The theoretical framework of the research considers capital structure to be the ratio of liabilities (short-term, and total) to all properties [6], [23].

STD= ratio of short-term liabilities to total properties.

TTD= ratio of the total liabilities to total properties.

4.2. | The Dependent Variable

Transparency of the accounting earnings is regarded as the dependent variable here. For measuring TRANS, we used the model provided 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 earnings fluctuations 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.

The above-mentioned model has been estimated separately for each firm in the sample, and its determinant coefficient has been regarded as the transparency of earnings.

To measure the annual efficiency 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 the share at the 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 to the rise of capital from the demands and earning.

5 | Data Analysis

5.1 | Descriptive Statistics

The first step in analyzing data is describing the descriptive statistics [24]. In *Table 1*, the mean and standard deviation of all research variables have been depicted. Based on the results, the ratio of short-term liabilities is much larger than that of long-term liabilities among the accepted firms. This is while more than 50 percent of the total liabilities are short-term (56 percent with a 21 percent standard deviation). This is for long-term liabilities, which 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 long-term ones to finance their projects. The mean efficiency of these firms was 38/55 percent, with a standard deviation of 79/86 percent. According to these figures, it can be concluded that the firms in the mentioned period did not perform well (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
Liability ratio	605	0.65	0.25
efficiency	605	38.55	79.86

5.2 | Hypothesis Testing

The main instrument for testing the study's hypothesis is the regression model [25]. The liability of these models is based on the establishment of several basic assumptions, such as the normality of the dependent variable and the linearity between descriptive variables. In this part, we deal with such assumptions.

5.3 | The Evaluation of Normality

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

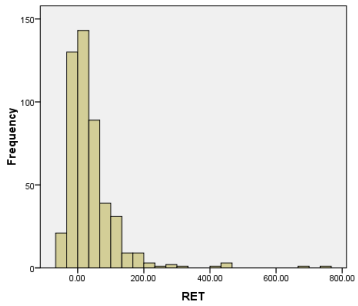

Fig. 1. Variable distribution RET.

As the *Fig. 1* shows, the efficiency of shares is skewed in the right section. In other words, a few firms in the studied sample have efficiency of shares larger than other firms. And the efficiency of the shares of these firms has been put at the right of the distribution. The existence of firms with more significant efficiency of shares at the correct position causes the distribution of the efficiency of shares to be away from normal distribution [26]. We used the logarithmic transformation to overcome this non-normality of the dependent variable. To investigate the normality of the efficiency of shares before and after the logarithmic transformation, the Kolmogorov-Smirnov Test results have been depicted in *Table 2*.

Table 2. The results of the Kolmogorov- Smirnov (K-S) test.

Variable	Frequency	K-S Statistic	Level of Significance	Skewness Coefficient	Significance Coefficient
Efficiency logarithmic	605	3.527	0.000	4.083	26.041
Efficiency	605	1.708	0.006	-0.982	6.075

The results of the K-S Test show that the normality hypothesis regarding the efficiency of the shares is not confirmed (KS=03.527, Sig.<0.05). However, this hypothesis is confirmed at the error level 0.001 (KS=1.708, Sig.>0.001). In the table mentioned above, the skewness and significance coefficients have also been reported to investigate the impact of the logarithmic transformation on the characteristic of the efficiency of the shares. 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.

5.4|The Analysis of Linearity

One of the other primary regression model hypotheses is the non-existence of linearity between descriptive variables. There are several methods to investigate linearity. One of the frequently used ones is 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 the other two variables, and this causes linearity between the descriptive variables. Linear regression models have been used to test the hypotheses of the research. For this, the relationship of each of these ratios with the transparency of earnings is tested separately.

Table 3. The results of the 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.			

5.5|Testing the Hypotheses

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

5.5.1|Testing the first hypothesis

There is a statistically significant relationship between accounting earnings transparency and current liabilities. This hypothesis has studied the relationship between earnings transparency (dependent variable) and current liabilities ratio (independent variable). The results of the earnings transparency and current liabilities ratio are depicted in *Table 4*.

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
R2			0.004
F statistic			0.467
F significance level			0.496

Based on the *Table 4*, there is no statistically significant relationship between long-term liabilities and accounting earnings transparency (Sig.>0.05), so there is not enough proof to support the second hypothesis. Based on the determinant coefficient obtained, only 0.3 percent of the accounting earnings transparency variances are explained by the long-term liabilities ratio.

5.5.2 | Testing the second hypothesis

There is a statistically significant relationship between accounting earnings transparency and the ratio of total liabilities. This hypothesis investigates the relationship between earnings transparency (as the dependent variable) and the ratio of total liabilities (as the independent variable). The following table depicts the results of the regression between earnings transparency and the total liability ratio.

Table 5. 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
R2			0.006
F statistic			0.706
F significance level			0.403

Based on the *Table 5*, there is no statistically significant relationship between the ratio of total liabilities and transparency of accounting earnings (Sig.>0.05). Therefore, there is not sufficient evidence to prove the second hypothesis. Based on the obtained coefficients, only 0.6 percent of the variance of the transparency of accounting earnings is explained by the ratio of total liabilities.

6 | 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 the budgeting approaches of firms. Moreover, we see the incidence of budgeting expenses with higher interest rates 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 inappropriate selections), and improve the efficiency of the performance of the firms. Performing such an 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 testing the study's hypotheses reveal that there is no 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.

Data Availability

The financial data used in this study were obtained from publicly available sources, specifically the Tehran Stock Exchange database.

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