

## **INVESTIGATING THE INFORMATIONAL ASYMMETRY AND CONSERVATIVENESS IN THE STAGES OF THE GROWTH OF THE ACCEPTED COMPANIES IN TEHRAN STOCK EXCHANGE**

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### **ABSTRACT**

In this paper we turn to investigating the informational asymmetry and conservativeness at the stages of the growth of the accepted companies in Tehran Stock Exchange. So the statistical society is all accepted companies in Tehran Stock Exchange, that the researcher has selected 104 companies by using the systematic omission as sample volume. The website of Stock Organization and Novin- Rahavard CD were used for analyzing the information in this research. In order to test the research hypothesis, data normality was first assessed by the use of Smirnov Kolmogorov test, and then was tested by the use of the research hypothesis regression. The results of hypothesis test show that there was no relation between the conservativeness and informational asymmetry at the stage of growth.

**Keywords:** *Conservativeness, Informational Asymmetry, The Company Growth*

### **INTRODUCTION**

One of the effective factors on deciding is the proper and relevant information to the decision subject. On the basis of theoretical concepts, such the financial informational reporting is useful that has qualitative properties. Basic qualitative properties related to the information content are relevancy and reliability. And caution or conservativeness is one of the basic properties of reliability. Caution in theoretical concepts of financial reporting has been defined as follow:

Caution is the applying some degree of observation needed for judging the assessment in ambiguity condition so that incomes or properties are not presented more than reality and expenditures or debts less than reality.

In fact we can consider conservativeness the ambiguity product, and whenever the accountants are encountered with ambiguity, they use conservativeness. Also, informational asymmetry between the investors can cause the demand for conservativeness. Since, in developing countries such as Iran, the role of minor stockholders in the economy prosperity is salient, noticing these investors is important such that one can help improving the society economic condition by persuading this group to more investing through absorbing their capital. The minor investors are the only source for making decision on published financial statements by the company. So, one of the reasons for applying conservativeness in financial statements is preventing the informational asymmetry between the users of financial statements. The purpose of this research is investigating the relation between the informational asymmetry and conservativeness at the stage of the company growth.

### **Background**

Watts, in 2004, investigated time asymmetry of profit, the market value ratio to the book value and conservativeness in present reporting. The results state that the correlation between the market value ratio to the book value on a time point, and time asymmetry depends on the period extent at which the time asymmetry is being measured, and also time horizon of MTB measurement (Watts 2004).

Aharony et.al. (2006) have compared the descriptive powers of the cash-flows-based criteria and accrual-items-based criteria in specifying the company value at different stages of the company life cycle. The results of this research show that the descriptive power of cash-flows-based criteria at the growth stage is

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more than the other criteria, and at the puberty and wane stages the descriptive power of accrual-items-based criteria are more (Aharony, 2006).

Antti Fredrikson has investigated the effect of conservative accounting on decreasing the debt expenditures in 2006. The findings of the research have confirmed the desired relation and explain that when conservative accounting and reporting are used as criteria for strengthening the lender-borrower power, the debt expenditures are decreased (Antti Fredrikson, 2006).

Kalunki and Silva (2008) have proceeded to investigate the utilization degree of cost-finding system on the basis of activity at the different stages of the company life-cycle. The result was that because of changes in the informational needs of the management, the utilization degree of cost-finding on the basis of activity at different stages of the life-cycle is different. The utilization degree of cost-finding system on the basis of activity in the companies at the maturity and revival stage is more than the growth stage (Kallunki and Silva, 2008, pp62-79).

Karami and Omrani (2009) by investigating the company life cycle effect on the relevancy degree of the risk and operating criteria found these results that the relevancy degree of risk and operating criteria and increasing descriptive power of risk criteria at different stages of the life cycle are different from each other meaningfully (Karami, 2010).

Rahmani, Masjed Musavi and Gheytsi have proceeded to investigate the profitability and efficiency regarding to the life cycle and the company size. The results suggest that the variables of the life cycle and the company size are the effective factors on the relation between the profitability and efficiency and cause the increase of the adjusted R<sup>2</sup> (determination coefficient) (Rahmani, 2004).

Ghorbani (2006) investigated the relation of the profitability and the valuable cash flows of the company in the framework of the company size. His findings show that the relation of the company valuable cash flows at the growth and wane stages are stronger than the relation of the company valuable profits, and at the maturity stages, this is converse (Ghorbani, 2006)

### **Formation of the informational asymmetry concept**

In 1970,s three scholars, Michael Spence, George Akerlof and Josef Stiglitz (the winners of Nobel Memorial Prize in Economy in 2001) established a theory on the information economy named the informational asymmetry theory. At that time the financial and economic assemblies had these questions:

Why some people are to buy second-hand automobile, prefer to refer to the mediators than the sellers?

Why the institutes, despite the awareness of the dividend tax, divide the profit among their stockholders?

Why the interest rate is excessive high in third world countries?

The problem of the asymmetric information happens when one has some information about the economic events and the other(s) have no such information. So far we assume that the quality of the bargained commodities is always specific for all participants in a bargain.

There are many examples based on this fact that this assumption is not true. Usually, one treater has more information than the other. Since the information amount possessed by a treater, is not recognizable via the court or other judicatories, one cannot adjust a contract for balancing the information.

The Nobel Prize winners presented a common answer for the considered questions, and developed their theory using the realistic hypothesis of the informational asymmetry, and answered the above mentioned questions as follows:

The sellers have more information about the automobile quality than the buyers.

The company managers are more informed of the institute profitability condition than the stockholders.

The borrowers are more informed of their ability to repay the loans at the future than the lenders.

Clearly, Akerlof showed that the informational asymmetry can cause the increase of the adverse selection in the markets, which occurs before transacting. Spence pointed that on special conditions, the informed mediators can increase their market income by transferring their private information to the less-informed mediators. So the company manager announces the profit increase by spending the addition expenditures for the dividend tax.

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Akerlof paper (1970), "Unorganized market", introduces the first formal analysis of the markets encountering with the adverse selection problem. Akerlof pictures a kind of market in which, idiomatically, the seller has more information than the buyer. Of course, the accountants have accepted the complete disclosure policy for decreasing the problem of adverse selection to increase the public information.

The companies that are informed of their high profitability on the basis of final information pay the dividend, and the market considers it good news and maintains a higher price for that company stocks. And thereby compensate the paid tax on the dividend by the increased price (Jalili, 2008, p.208).

### **Informational asymmetry and Tehran Stock Exchange**

Regarding to the accomplished investigations on the informational asymmetry and its relation with the accounting data, M.H Ghaemi and M.R Vatanparast have studied the role of accounting information in decreasing the informational asymmetry in Tehran Stock Exchange during 2002-2004. The results show that before announcing the profit, the informational asymmetry is more than after announcing the profit. And consequently, abnormal cumulative return and volume before announcing the profit are more than after announcing the profit.

### **Conservativeness concept**

Vigant and Varfield (2001) define the conservativeness as: "traditionally, conservativeness in accounting is a tool that when there is an uncertainty in selecting a trend that may cause over-presentation of the properties and profit, chooses a solution with the least consequence". For example, article 95 of the financial accounting statements No.2 (1980) says that: "if there are two estimates with a same probability degree for a received or paid amount, its conservativeness will select such an estimate in which less optimism have been considered".

The researchers use three criteria for evaluating the conservativeness:

- Net properties criteria
- Accrual-items and profit criteria
- Profit and stock return relation criteria

All these criteria are for recognizing the profits and losses relying on the effect of the conservativeness asymmetry (Watts, 2003, p.288).

### **The company growth concept**

At this stage, the company size and also the sale and incomes are more than at the advent stage. More financial resources are invested in producer properties and the company is more flexible in cash indexes. DPS (dividend per share) at this range of companies is fluctuating between 10% and 50%. The investment return or adjusted investment return is more than the weighted expenditure for proving the capital; in other words the relation ( $IRR > K$ ) is established (Adezes, 1989).

### **Efficient capital market theory**

Early in 20<sup>th</sup> century, some factors of securities tools believed that historical study of prices included useful information for predicting the prices. So by getting the prices trend, the changes pattern is recognized, and this pattern tell us that often a special trend occurs. The believers of this ideology were called chartists because they concentrated on the charts (Sinaee, 1993, p.50). In the point of view of this group, there is no need to fundamental analysis, and its supporters believe that the history recurs.

Since 1930,s other studies started, opposed to this view. These researches basic focus was on the randomness of the prices behavior and that the prices don't follow a special trend. The results of these studies entered the economy and investment discussions as strong theoretical flow, and the theory of the prices random behaviors was formed (Sinaee, 1993, p.50).

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Random walk theory confirmed through the empirical tests that the prices continuous changes in short-term periods, such a day, a week, or a month, are independent (Fischer and Jordan, 1991, p.635). After 1960s the researches were led from statistical forms of the prices behaviors studies to the problem of the economic characteristics of the stock market causing random changes. This problem led to the emergence of the efficient market theory (Sinaee, 1993, p.50). Fundamentalists believe that by analyzing the key economic and financial variables one can estimate the real value of the stock (Fischer and Jordan, 1991, p.635).

On the basis of this theory, nobody can get systematically a return more than the perceived risk in long term. In such a market, the stock price is a reflection of the related information to them, and the prices changes have no special and predictable pattern.

### The research hypothesis

Conservative accounting removes the informational asymmetry among the investors through two potential mechanisms: first, conservative accounting can provide, except for the stock price, the best possible summary of the absolute information about the company current operating for the investors. Another, the absolute information provide a criteria, by using it one can get creditable information about non-acceptable profits from uncertain resources. These predictions form the hypothesis basis as follows:

- There is a relation between the informational asymmetry and conservativeness at the company growth stages.

### The analytical model of the research

In this research, Feltham and Ohelson (1995) model was used for measuring the conservativeness. The following regression model is computed during a three-year temporal period (t-1 to t-3) for the company yearly.

$$ox_{it+1}^c = w_0 + w_1 ox_{it}^c + w_2 oa_{it} + \varepsilon_{it}$$

$ox_{it}^c$  = unusual operating profit of each company stock, I in year t  
 $oa_{it}$  = net operating asset book value of each stock in company I in year t

If:

$w_2 >$ . Shows that the company has used the conservative trends.

$w_2 <$ . Shows that the company has used impetuous trends.

The operating profit is gotten from the below relation as Feltham and Ohelson research:

$$ox_{it}^c = ox_{it} - r oa_{it-1}$$

$ox_{it}$  = operating profit of each stock of the company I, in year t

$r$  = the company stockholders expected return rate I, in year t

For computing the informational asymmetry in Tehran Stock Exchange, the following model has been used. This model was used by Chiang and Vinkatch in 1986 for determining the offered price extent of selling and buying the stocks. After them, some other people utilized the model in their researches. The model is described as follows:

$$SPREAD_{it} = \frac{AP - BP}{(AP + BP)/2} * 100$$

In which:

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t= under-studied temporal period

i= under-studied sample

SPREAD = price difference domain offered for selling and buying the stocks

AP (ASK PRICE) = the average of the offered price for selling the company stocks I in period t

BP (BID PRICE) = the average of the offered price for buying the company stocks I in period t

### **METHODOLOGY**

The research is of correlation kind naturally. In this kind, the main purpose is specifying that if there is a relation between two or more variables. And if so, what is its extent. This research is applied in the view of purpose. This kind of research aims at developing an applied knowledge on a special field. Also, the applied researches are directed toward practical application of the knowledge. It is performed in deductive-inductive reasoning framework, i.e. theoretical framework and background of the research is specified via library studies, review of articles and sites deductively, and gathering the information for accepting or rejecting the hypotheses inductively.

#### **The research temporal period**

Since the research relies on the stocks information and transactions in Tehran Stock Exchange, assuming that this research is performed, the researcher can get the related information to the stocks transactions of the desired companies.

Regarding to what was said, the best temporal period for the present research is between years 2007-2012.

#### **Society and statistical sample**

The research statistical society was the companies have been active during 2007 to 2012 in Stock Exchange. In these years, 571 companies have been active in Stock Exchange.

#### **Sampling method**

Sampling means selecting some individuals, events and things from a defined society as its representative (Delavar, 2005).

Sample is some individuals of a society having common characteristics with that society, and homogeneity with its other individuals, and is its representative. So, sampling is a set of actions of selecting some individuals of the society so that is its representative (Hafezniya, 2006, p.121).

For determining the sample volume, the systematic omission method has been used.

1. The sample companies should be active in Stock Exchange before the research period starts (2007) and remain active up to the end of the period.
2. The companies should not have consecutively a financial standstill more than 150 days.
3. Their fiscal years don't change during the research.
4. The sample companies' fiscal years ending 12/19.
5. The companies are not members of investing companies, banks and financial institutes.
6. And finally, they should have complete information during the research period.

104 companies were selected totally.

#### **Descriptive statistics**

The above table shows that the meaningfulness level of Kolmogorov-Smirnov Test for the variable data of the informational asymmetry is more than 5%. This variable data follow a normal distribution. Also, since the maximum of conservativeness variable is 1 and its minimum is 0, and have no outlier data, so follows normal distribution.

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**Table1: Kolmogorov- Smirnov test for assessing the normality of the variable data of the informational asymmetry at the growth stage.**

57	Number
0/0185	average
0/	deviation معيار
0/081	Absolute Value limit
0/081	Positive limit
-0/079	Negative limit
0/607	Kolmogorov-Smirnov amount
0/855	Meaningfulness level

**Table2: description of frequency percent of the conservative and non-conservative companies at the growth stage**

Cumulative percent	Frequency percent	frequency	number	indexes
33/9	33/9	33/9	19	Impetuous companies
100	66/1	66/1	37	Conservative companies
	100	100	56	total

The above table shows that 33.9% of 56 companies in the life cycle have had impetuous trend and 66.1% conservative trend.

**Table3: Central indexes and variable data dispersion of the informational asymmetry**

57	Number
0/0186	Average
0/018	Mean
0/0038	Mode
0/0062	Deviation معيار
0/036	Domain
0/0038	Minimum
0/040	Maximum

The above table shows that the average of the companies' informational asymmetry at the growth stage is 0.0186, and its standard deviation is 0.0062.

**Statistical inference**

To test these hypotheses, regression analysis with Enter method has been used. For performing the test, the presupposition of the regression analysis should be performed so that the results of the regression can be documentable.

1. Presupposition of the errors independency: in regression analysis, the errors (difference between the observed and predicted) should be independent. For this, Durbin-Watson Test is used. This test is among 1.5- 2.5, so that the error independency is accepted.
2. Presuppositions of the correlation between the dependent and independent variables.

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3. Presupposition of the model specification: in this presupposition it should be specified that if the independent variables have the ability of specifying the dependent variable (average effect of independent variables on dependent ones).
4. Presupposition of investigating the existence of a relation between the dependent and independent variables: ANOVA is used in this presupposition.

**Testing the research hypothesis**

- There is a relation between the conservativeness and informational asymmetry at the growth stage.

H<sub>0</sub>: There is no relation between the conservativeness and informational asymmetry at the growth stage.

H<sub>1</sub>: There is a relation between the conservativeness and informational asymmetry at the growth stage.

**Investigating the relation between conservativeness and informational asymmetry**

**Table4: Pearson Test for the first hypothesis**

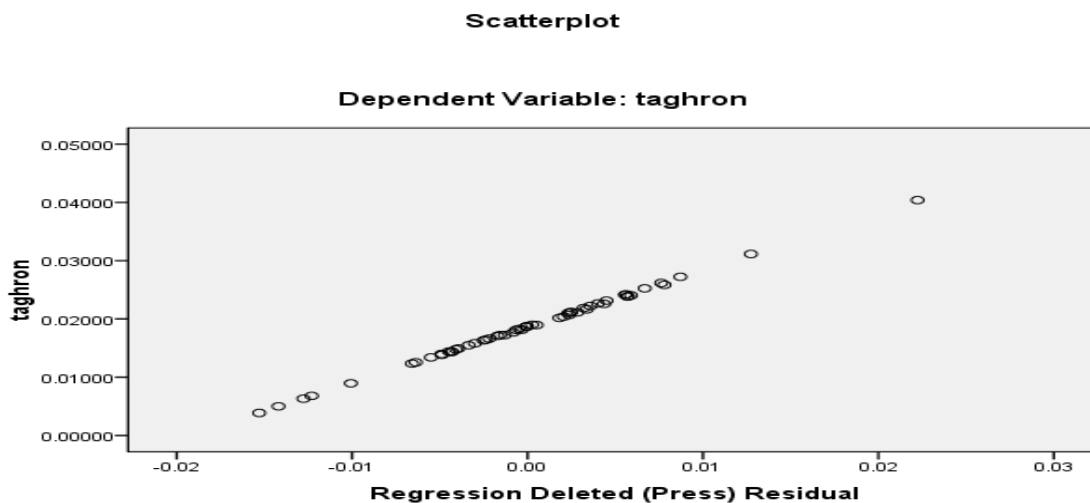
Asymmetry			Dependent variable Independent variables
result	sig	Correlation coefficient	
No relation	0/869	0/023	conservativeness

**Table5. Regression coefficients**

Meaningfulness level	t	Beta	Standard error	(coefficient)B	variables
0/000	12/66		0/001	0/018	Fixed amount of conservativeness
0/869	0/166	0/023	0/002	0/00	Amount of conservativeness
(0/869)0/028: (probability) F					
0/001: (R <sup>2</sup> ) Determination coefficient					
1/88: Durbin-Watson amount					
Dependent variable: asymmetry					

The above table shows that Durbin-Watson amount is 1.88, and since this amount is among 1.5-2.5, the presupposition of the errors independency is accepted. Also, we see the correlation coefficient in this table. The correlation amount is 0.023 suggesting that there is no correlation between the dependent and independent variables. The determination coefficient is 0.001. So, the model specification amount by the independent variable is zero. Therefore, one can state that the independent variable could not specify the model. Also we observe that the meaningfulness level of Fischer Test is more than 5%, so there is no linear relation between two variables.

The above table shows that the meaningfulness level of test t has been more than 5% for conservativeness variable; therefore, the regression equation is not designable. Thus, H<sub>0</sub> is confirmed and H<sub>1</sub> rejected. In other words, there is no relation between the conservativeness and the informational asymmetry at the growth stage.



**Graph1: Dispersion graph for the research hypothesis**

## CONCLUSION

To test the hypothesis saying that there is a relation between the conservativeness and the informational asymmetry at the growth stage, the regression has been used. Table 4 shows that the correlation coefficient is 0.023 suggesting that there is no relation between two variables. And we observe that Durbin-Watson amount is 1.88 in table 5 showing the errors independency. The specification degree of the model by the independent variable is zero, that we can say the model has not been specified by the independent variable. Also, the meaningfulness level of test F is more than 5%, so, the relation between the variables is not confirmed. Regarding to neglecting the hypothesis presuppositions (no linear relation), it is not possible to get results from the table of coefficients summary. Also, the coefficients summary table shows that the meaningfulness level of test t for the coefficients of the conservativeness variable has not been meaningful. Thus, these variables cannot participate in the equation, and effect on the dependent variable (informational asymmetry). So, there is no relation between the conservativeness and informational asymmetry.

## Suggestion for future researches

### Investors and financial analysts and creditors:

Regarding to this fact that there is not a relation between the conservativeness and informational asymmetry, it is recommended that for assuring the informational asymmetry decrease, they don't rely on the conservative accounting.

### Managers:

The managers are recommended that for decreasing the differences domain of the offered prices for selling and buying the stocks that prevent the investments efficiency of the unaware investors, utilize another trend instead of conservative accounting.

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