

## Determining the Relationship between the Quality of Voluntary and Compulsory Disclosure and Information Asymmetry

Mehrdad Ghanbari <sup>\*1</sup>, Seyyed Yahya Asadollahi <sup>2</sup>, Fatemeh Taheri<sup>2</sup>

<sup>1</sup> Department of Accounting, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran.

<sup>2</sup> Department of Accounting, Malayer Branch, Islamic Azad University, Malayer, Iran

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### Abstract

Due to the necessity of reducing information asymmetry and following the principle of disclosure by companies, the present study investigated the relationship between disclosure quality (voluntary and compulsory disclosure) and information asymmetry. Therefore, by considering particular criteria and conditions, 101 companies were selected between 2010 and 2014 as the target sample by systematic deletion from all listed companies in Tehran Stock Exchange. Information related to variables was collected and analyzing the relationship between variables was carried out using multiple regression and based on panel data method. This study includes two hypotheses. These two hypotheses tried to investigate the effect of voluntary and compulsory disclosure on information asymmetry in these companies. Variables in this study include information asymmetry as dependent variable, disclosure quality as independent variable, and company size, profit prediction, financial leverage and ownership structure as control variables. The obtained results from testing the hypotheses revealed that voluntary disclosure results in reduction of information asymmetry but no relationship found between compulsory disclosure and information asymmetry.

**Keywords:** Compulsory Disclosure, Voluntary Disclosure, Information Asymmetry, Principle Of Disclosure

### Introduction

One of the effective factors in decision making is appropriate and related information to the issue of the decision. If the required information is distributed asymmetrically among people, it leads to different results toward the same issue. Thus, before the information itself is

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\* **corresponding author:** Mehrdad Ghanbari, Department of Accounting, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran. E-mail: Mehrdadghanbary@yahoo.com

important for the decision maker, the quality of information distribution should be examined precisely.

Informed investors are mainly people with secret information like managers, analyzers, institutes and people who are giving out information. Informed investors due to having access to secret information that is not reflected in the prices try to transact. However, the only way of accessing information for uninformed investors who are ordinary people is the issued reports by the companies. These investors are called cash investors that transact only because of their liquidity.

When information asymmetry related to a company's share increases, its intrinsic value will be different from the value investors give to this share in the market. Hence, the true value of companies' shares is different from the expected value of investors (Diyamond & Verkechiya, 1991). Accounting information provides grounds for investors to evaluate profits, development potential as well as risks in investment policy of the company. Well-qualified accounting information for investors includes the one which is influential in shares' prices or trading volume. Regarding effective market hypothesis, shares' prices use all the existing information; therefore, they are related to accounting information. However, there are some problems that challenge this hypothesis and in turn lead to this idea that accounting numbers may have weak informative content and may not be useful for investors.

In addition to evaluation errors, due to inappropriate methodologies and accounting classifications that are misguided potentially by opportunistic managers some studies indicate differences and inharmoniousness between investors' interpretations and information asymmetry. This asymmetry is due to irregularity and disorder in collecting and processing information as well as the applied methods and different skills.

The concept of information asymmetry is defined in an interconnected way that reveals that participants in the market suffer from a set of information inequalities. In other words, information indicates that assured investors are more aware of number of proceedings related to a company.

Literature review has indicated that ownership separation and control within listed companies generally lead to information asymmetry. Lack of information or misleading information results in undesirable economic decisions, loss of economic resources, disorder in investing markets, economic poverty, reduction of general welfare level in society due to lack of optimal allocation of the resources become scarce.

One of fundamental preconditions to attract investors' assurance and creditors in order to do useful economic activities and eventually economic development is the presence of financial information for making decisions about shopping, maintenance, selling shares and evaluating performance of managers. When new information from status of companies in the market is published, this information is analyzed by investors, analyzers and other people and they use it as a basis for buying and selling. This information and the way it influences the behavior of its users, especially shareholders, lead to change in price and volume of transaction of shares because the way people treat this new information forms price fluctuations. Therefore, in case of information leakage different reactions from investors can be seen due to information asymmetry in investing market which is accompanied by incorrect and misleading analyses from the status of the market.

Batachariya et al indicated that one of the main roles of accounting information is providing information for allocating capital efficiency in financial markets. They also argued that due to this fact decisions and consequences of quality of accounting information are the main benefits for investors, managers, and standard setters. Reporting and disclosing financial

information is vital for desirable performance of profit market. The request for financial reporting and disclosure is mainly due to asymmetry and brokerage relationship between owners' capital and management.

The problem of information asymmetry resulting from differences in information and contradictory motivations is among entrepreneurs and savors. This issue potentially can lead to disorders in performance of profit market (Akerlof, 1970).

Hence, in this study due to the great importance of information and its disclosure by companies and its influence on information asymmetry as an important factor in decision making of shareholders related to buying or selling of their own shares, the relationship between information asymmetry and quality of disclosure among listed companies in Tehran Stock Exchange was investigated.

## **Material and methods**

### **Research hypotheses**

**Hypothesis 1:** There is a significant relationship between compulsory information disclosure in annual financial reports and information asymmetry.

**Hypothesis 2:** There is a significant relationship between voluntary information disclosure in annual financial reports and information asymmetry.

### **Methodology**

The general research method of this study is as follows:

- This study is applied in terms of purpose due to using the existing models and theories.
- Due to using sample and generalizing the results to the population, it is descriptive-analytic in terms of inference.
- It is an Ex post facto research in terms of research plan because previous information of the companies was used for data collection.

### **Statistical population**

All the listed companies in Tehran Stock Exchange formed the statistical population of the present study and the hypotheses related to this population were investigated. Due to expansion and size of the population and some inconsistencies among members of the population, the following conditions were set to select the statistical sample:

1. The company should be listed in Tehran Stock Exchange before 2010 and be active until 2014.
2. Some listed companies like banks, financial institutions, financial intermediaries and handling companies with different reporting structures were eliminated from the sample.
3. Their fiscal years should be March 19<sup>th</sup>.
4. The companies should not have remarkable transaction interruption during the study.
5. They should not have any changes in the fiscal year during the study.

Therefore, regarding the aforementioned conditions and limitations as well as using systematic elimination method, 101 companies were selected as the target sample of this study.

### **Data collection methods and instruments**

There are four main data collection instruments including, document mining, observing, interview and questionnaire each of which has special applications for special studies. The instruments in this study include:

1. Data from investigating the existing documents in library of Tehran Stock Exchange
2. Financial statements and auditing reports of companies
3. Comprehensive data base of companies on Tehran Stock Exchange`s website
4. Excel software

**Research model and the method for measuring the study`s variables:**

Model 1 for testing the first hypothesis

Model 2 for testing the second hypothesis

Table (1)

The method of measuring operational variables of the study

Kind of variable	Variables	Operational definition of variables	Symbol	How to calculate research variables
Dependent	Information asymmetry	Range of offered price for buying and selling of shares	ABSit	$ABSit = \frac{AP-BP}{(AP+BP)/2} \times 100$
Independent	Quality of disclosure	Voluntary disclosure	QD	This index is calculated by scores published by Tehran Stock Exchange for periods for each company periods of three, six, nine and twelve months. In order to calculate the total score of corporate disclosure, the criteria of punctuality and reliance weight of 1/3 and 2/3 are used.
		Compulsory disclosure	QE	
Control	Indices	Company size	Size	
		Financial leverage	Liability	

	Percentage of shares belonging to institutional ownership	<b>I N S</b>	Equal to percentage of stock holders by governmental companies from the whole capital shares.
	Percentage of shareholders belonging to ownership centralization (main shareholders)	<b>O W N C O N</b>	Sum of percentage of ownership of shareholders that own at least 5% of companies' shares.

### Descriptive statistics

Descriptive statistics related to research variables are presented in Table 2.

Kind of variable	Variables	Variable	Min.	Max.	Mean	SD
<b>Dependent</b>	Information asymmetry	Offered price range for buying and selling of shares	0.18652	1.42389	0.34450	0.17309
<b>Independent</b>	Disclosure quality	Voluntary disclosure	.134690	72940.	0.304499	0.183189
		Compulsory disclosure	0.19617	0.8937	0.690548	0.35293
<b>control</b>		Company size	4.578719	8.007358	5.7758	0.615599
		Financial leverage	0.168869	0.897436	0.60942	0.152959
		Percentage of shares belonging to institutional ownership	0.0155	0.9983	77.4217	17.7992
		Percentage of shareholders belonging to ownership centralization (main shareholders)	0.0586	0.57303	0.2478	0.1434

### Testing research hypotheses

#### Testing the first hypothesis

**H0:** there is no significant relationship between voluntary disclosure of information in annual financial reports and information asymmetry.

**H1:** there is a significant relationship between voluntary disclosure of information in annual financial reports and information asymmetry.

Table 3-

Data analysis results in order to test the first hypothesis

<b>(Absit) Information asymmetry</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>SD</b>	<b>t-statistic</b>	<b>p-value</b>
<b>C</b>	1.33241	0.612149	5.52839	0.0000
<b>QD</b>	-1.188125	0.756523	-3.40945	0.0000
<b>Size</b>	-0.601654	0.508529	-2.94707	0.0477
<b>LEV</b>	0.771536	0.755238	0.94385	0.4284
<b>OWNCON</b>	-0.95459	0.587993	-1.64545	0.0066
<b>INS</b>	-0.188464	0.02865	-4.86512	0.000
<b>Durbin-Watson statistic</b>		2.6436	<b>Adjusted R-squared</b>	
Prob(F-statistic)		0.000	0.3863	

Based on the results from testing the regression model shown in Table 3, the amount of p-value related to F statistic (prob (F-statistic)) indicated the significance of the whole regression which equals 0.000 indicating that the model is significant at 95% of confidence level. R2 equals 0.3863 indicating that almost 39% of variations of dependent variable can explained by independent variables` model. Durbin-Watson statistic equals 2.6436 which is between 1.5 and 2.5 indicating self-correlation among variables. As Table 3 shows QD variable equals -1.188125 and its significance number (Prob) is 0.0000. Regarding t-statistic and p-Value of this variable, results show the significance of this coefficient at 5% error level. These findings show that there is a significant relationship between level of voluntary information disclosure in annual financial reports and information asymmetry of listed companies in Iran Stock Exchange.

Therefore, H1 is accepted and the null is rejected.

#### Analyzing the second hypothesis

**H0:** There is no relationship between compulsory information disclosure in annual financial reports and information asymmetry.

**H1:** There is a relationship between compulsory information disclosure in annual financial reports and information asymmetry.

Fig.(4). Results from data analysis of the second hypothesis

<b>(Absit) Information asymmetry</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>SD</b>	<b>t-statistic</b>	<b>p-value</b>
<b>C</b>	1.75515	0.855856	2.972725	0.0032
<b>QE</b>	1.97558	0.544157	1.132083	0.0693
<b>Size</b>	-0.553126	0.047033	-3.027569	0.0027
<b>LEV</b>	0.624114	0.78852	0.748781	0.4946
<b>INS</b>	-0.784474	0.087156	-2.188922	0.0254
<b>OWNCON</b>	1.635881	1.057855	1.539486	0.048
		1.64855	<b>Adjusted R-squared</b>	
		0.63941	0.000	

Based on the results from testing regression model, P-value and F statistic (Prob(F-statistic)) showed the significance of the whole regression indicating that the model is significant at 95% confidence level. R<sup>2</sup> equals 0.63941 showing that almost 64% of variations of dependent variables can be explained by independent variables indicating the great accountability of the regression. Durbin-Watson statistic is 1.64855 which is between 1.5 and 2.5 indicating lack of self-correlation among variables. As Table (4) shows, QE equals 1.97558 and significance number (Prob) is 0.0693. Regarding t-statistic and p-Value of this variable, results indicate insignificance of this coefficient at 5% error level. These findings show that there is no significant relationship between compulsory information disclosure in annual financial reports and information asymmetry of listed companies in Iran Stock Exchange. Hence, H1 is rejected.

Table (5)  
summary of research findings

Hypotheses and measuring model	Coefficient	SD	t-Statistic	p-value	Kind of relationship
Hypothesis 1	-1.18812	0.756523	-3.40945	0.0000	Negative & significance
Hypothesis model 1	ABSIT = B <sub>0</sub> + B <sub>1</sub> QD + B <sub>2</sub> SIZE + B <sub>3</sub> LEV+ B <sub>4</sub> INS + B <sub>5</sub> OWNCON + ε <sub>i,t</sub>				
Hypothesis 2	1.97558	0.544157	1.132083	0.0693	Positive & insignificance
Hypothesis model 2	ABSIT = B <sub>0</sub> + B <sub>1</sub> QE+ B <sub>2</sub> SIZE + B <sub>3</sub> LEV+ B <sub>4</sub> INS + B <sub>5</sub> OWNCON + ε <sub>i,t</sub>				

### Conclusion and suggestions

In this study two hypotheses were investigated. In the first hypothesis, the relationship between voluntary disclosure and information asymmetry in annual financial reports were examined. Results from statistical analysis confirm a relationship at 95% confidence level. Therefore, based on the obtained results it can be concluded that theoretically when in capital markets an appropriate method is used for voluntary information disclosure, we will have information asymmetry. In the second hypothesis, the significant relationship between voluntary information disclosure and information asymmetry in annual financial reports was examined. Results from the statistical data analysis reject this relationship at 95% confidence level. By testing the second hypothesis it can be concluded that theoretically when in capital market an appropriate method is not used for information disclosure, we will have information asymmetry and in other words there will be a gap between offered prices for selling and buying of shares. Based on the obtained results from this analysis, information asymmetry in Iran Stock Exchange is also seen.

### Suggestions

Concerning the role of clear, reliable and timely information in decision making and reduction of information asymmetry as well as helping public contribution in investing in Stock Exchange the following suggestions are presented:

1. Based on the findings of this study, it is recommended that people who are active in capital market, decision makers, financial analyst and potential and actual investors pay special attention to relationships between differences and the effect of disclosure quality on information asymmetry in analyzing investing plans in financial properties and notes payable. Since considering these important factors results in selecting optimal investment portfolio with minimum risk and maximum productivity. Moreover, clarity of environment of decision making and the obtained results become doubled.
2. Since the obtained results from the first hypothesis indicated the reduction of level of information disclosure by voluntary disclosure, it is recommended that investors try to buy shares from companies that their voluntary information disclosure compared to other companies is more. Since voluntary information disclosure leads to reduction of information asymmetry and makes the information an important factor in pricing shares of a company. Therefore, these companies have clearer financial reporting and in turn decision making for selling and buying shares for shareholders is easier.
3. As the obtained results from testing the second hypothesis indicated lack of relationship between compulsory disclosure and information asymmetry, the results showed that only compulsory disclosure with more emphasis on historical reports in weak form of market cannot lead to information asymmetry. Hence, it is recommended that authorities should pass and set new laws and standards to make the company disclose more and timely information.

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