Effect of Accepting by Tehran Stock Exchange on Disclosure Rate

Mohammad Reza Sarebanha and Iman Zareb

Abstract—Economic development is based on availability of financial resources. Different groups rely on information system in order to make their decisions about investment. Information disclosure have basic role in corrective & informative decisions of different groups, particularly investors. Moreover, information is important for investors & others, it must be disclosed properly, sufficiently and completely in order to be useful in their decisions. We want to know rate of sufficient disclosure before and after acceptance in Tehran Stock Exchange. Checklist of disclosure is set by instruction review of Tehran stock Exchange. Number of disclosure cases in this checklist is 50 that derive from instruction of Tehran Stock Exchange. It uses normality test Kolomugorof Simonov to review level of information disclosure and it uses t-test for comparison rate of disclosure before and after company acceptance in Tehran Stock Exchange and it uses p-test to reject or accept assumption. With regard to above cases, the following results obtain:

There is meaningful relationship between rate of sufficient disclosure in financial statements in companies before acceptance in Tehran Stock exchange and after it. And level of accepted company’s disclosure in Tehran Stock exchange have improving trend, and rate of sufficient disclosure in financial statements in companies is more than unaccepted companies in Tehran stock exchange.

Index Terms—Adequate disclosure, complete disclosure, disclosure, financial statements, sufficient disclosure.

I. INTRODUCTION

According to financial accounting standards board (16) investors and creditors use more information than other external groups and for this reason their decisions have a major impact in the allocation of economic resources of a country. Because investors and creditors are external users of financial information, one of the main mission management and accounting systems are paying special attention to the information need of these people(17). These financial reports are the main sources of financial information about the unites of economic criteria. Financial accounting standards should provide information that actual and potential investors and creditors and other users can make their own useful decisions.[1]

Financial reporting discloses allocation of capital resources and capability of making profit in a commercial company. Certainly, the disclosure principle as one of accounting principles express important events related to the business units and activities should be disclosed [2]. Disclosure principle requires financial statements be prepared in terms of being understandable from point of financial reporting purposes, can make as much full awareness as possible Sufficient disclosure, enough disclosure and full disclosure are terms which are used in accounting books and articles. The most common define of sufficient disclosure is the minimum disclosure which is required in other words, financial statements should not be misleading.

Hypothesis of this Research:

Hypothesis of this study are expressed as follows:
1. Between the amounts of adequate disclosure in financial statements of companies before be accepted by the Tehran Stock Exchange and after that, there are significant differences.
2. The level of sufficient disclosure in the financial statements of companies which are accepted by Tehran Stock Exchange is higher than companies which are not accepted.

The purpose of this research is how accepting a company by Tehran stock exchange affects the amount of its disclosure; duration of this study is the period of years 1385-1375 Iranian calendar (1996-2006).

II. INTERNATIONAL AND LOCAL RESEARCHES:

Alan Robert Cerf (1961) during his research "reporting companies and investment decisions" made in America revealed that the quality of financial reporting under the influence of some variables is often dependence between variables not mentioned. [3]

Singh and Desai (1971), "experimental analysis of quality financial disclosure in the U.S.A" found that sensitive information of business units can occur in different forms. In fact, annual report to shareholders the most important forms of sensitive information is a commercial unit. The results include:

1. Large companies than small companies have a better quality of disclosure.
2. Companies that have more shareholders, have a better quality of disclosure.
3. Audit firms by major professional bodies (CPA) to audit companies by professional institutions exposing small quality enjoy more. Companies with efficiency equity (net profit / net worth) higher than companies with lower efficiency of equity have a better quality of disclosure.

Buzby Research entitled "selected cases annually reporting their information disclosure " in America found that many of the items in the annual reporting companies do not have enough disclosure, samples revealed that relative importance of solidarity between the cases is the amount of disclosure were low. [4]

Mr. Cook study entitled " size, industry and to be in the list stock market effect on disclosure in the annual reports of
listed companies in Japan [5] Cook the regression model to achieve the following results: 1- Company size (total assets) is related with the amount of disclosure. 2- The amount of disclosure are higher in the manufacturing companies than in the non-manufacturing companies. 3- Manufacturing companies which are accepted by the Stock exchange compare to other production companies have more disclosure.

Malekian studied (1376), “The integrity and annual reports the financial characteristics of companies which are accepted in Tehran Stock Exchange [6]. The results of this research were:

1. There is a significant relationship between the company size (total assets) and full disclosure in annual reports.
2. Meaningful relationship exists between debt to equity ratio and full disclosure of annual reports.
3. There is a significant relationship between net sales and full disclosure of annual reports.
4. There is a significant relationship between Profit before tax on equity ratio and full disclosure in annual reports.
5. There is a significant relationship between Profit before tax on net sales ratio and full disclosure of annual reports.

Noori fard (1377) studied on “Information disclosure in financial reports [7]. The results of this study were:

1. The relationship between company size (total assets) and the amount of disclosure were positive, and statistically significant.
2. The relationship between profit margins and amount of disclosure were positive and statistically significant.
3. Company size (total assets) has a better relationship with the amount of disclosure than the profit margin.
4. There is no relationship between Industry Type of a company and the amount of disclosure.
5. In this study, three factors are considered: the amount of assets, profit margin and industry.

III. VARIABLES OF THIS STUDY

Models usually can be formed to research the subject, should, so a good representative of the topic to research and theoretical support and reliable enough evidence necessary to use models which had decided to use financial information is available. Of the same model research topic, and thus the research assumptions are considered. That is expressed in TABLE I-1.

<table>
<thead>
<tr>
<th>Row as a specific model name</th>
<th>Title</th>
<th>Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>level of disclosure before accepting by exchange</td>
<td>1</td>
</tr>
<tr>
<td>Y</td>
<td>level of disclosure after accepting by exchange</td>
<td>2</td>
</tr>
<tr>
<td>μ₁</td>
<td>before accepting by exchange average</td>
<td>3</td>
</tr>
<tr>
<td>μ₂</td>
<td>average after admission by exchange</td>
<td>4</td>
</tr>
</tbody>
</table>

A. Credit Research

Valid concept that deals with this tool measure the same conditions, how to get the same results. Validity coefficients generally range from zero (no relation) to 1 (full connection) is. Different methods to measure the validity coefficient measuring instrument are used [8].

B. Validity Test

Concept of validity to answer this question tool that measures what extent are the desired characteristics weighs. Without self-awareness tool validity cannot be accurately measured data to ensure it was from [8].

The method chosen to determine the validity study, the method is content validity. In this research, so the Members of the cases disclose information disclosed executive instruction Tehran Stock Exchange (including 50 cases) has been used.

C. Society and the Statistical Sample

The companies in the Tehran Stock exchange which are: the availability of stock information, over at least two years profitable during the past and probably enjoy profit in the future.

<table>
<thead>
<tr>
<th>Row</th>
<th>Description</th>
<th>Total units of society</th>
<th>Number of sample units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mining</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Manufacturing automotive parts</td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Textiles</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Industrial agriculture and related services</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Basic Metals</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Wood and paper industries</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Machinery and equipments</td>
<td>27</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>Vnhsvlat materials Pharmaceutical</td>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td>9</td>
<td>Metal products</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>Materials and Chemical Products</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>Other non-metallic mineral products</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>Printing and publishing industries and proliferation</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>Cement, lime, gypsum</td>
<td>27</td>
<td>6</td>
</tr>
<tr>
<td>14</td>
<td>Tile and sramyk</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Food products except sugar and ashamny day and skirk</td>
<td>19</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>Furniture and artifacts classification</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>Sugar and sugar</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>Produced radio and tv</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>Industrial Building</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>Petroleum products</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>Rubber and plastyk</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>Transportation equipment industries</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>23</td>
<td>Electrical set and machinery</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>24</td>
<td>Construction Remedies</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td>294</td>
<td>72</td>
</tr>
</tbody>
</table>

So respect to the different methods to determine sample size calculation method (the main variable than the community size) to determine the sample size we have. (1)

\[ N = \frac{N^2 \times p \times q}{(1 - N^2) \times d^2 + t^2 \times p \times q} \]

\[ D = |\bar{\mu} - \bar{X}| \] indicates where particular care and \( t \) indicates the ability of (95% or 99%).

Amount equal to the 0/5 allocate the amount d equal 0/1 and t equal 1/96 are selected. Value \( t = 1 / 96 \) equivalent reliability is 95%.

Therefore,

\[ n = \frac{294 \times (1/96)^2 \times 25}{293 \times (1/96)^2 + (1/96)^2 \times 25} = 72 \]
Mode selection of companies in different industries is as follows:

Number of companies per industry* (Number of sample units / Total units of society)

\[
\frac{72}{294} = 25\%
\]

So 25% of industry companies will be selected randomly.

IV. THE DATA COLLECTION METHODS AND INFORMATION RESEARCH

A. Methods Library

This method utilizes books and existing journal inside and outside the country as well as articles related to the subject extracted from the Internet, information about the representation of subject research literature has been collected.

B. Field Method

This way, the practice has been to two:

1. list items are disclosed through the disclosure of executive review instructions Tehran Stock Exchange (including 50 cases) cases listed in order to determine adequate disclosure of financial statements In this research to determine the dependent variable value (y) is required

2. list of matching items with the disclosure of financial statements for companies, small sample in this study to disclosure index (dependent variable) that the disclosure is adequate, financial statements for each sample with companies mentioned list was adapted to score disclosure each company to have been obtained.

That is the method of calculating the cases disclosure list companies with financial reports and matched samples based score spectrum Lykrt 1 to 5 the following order for level are considered disclosed.

Score 1 for very poor level of disclosure - disclosure score for level 2 Poor - Average disclosure scores for level 3 - grade 4 level for good disclosure - disclosure score for level 5 very good

V. HYPOTHESIS TESTING METHODS

In this study, test samples for analysis of data pairs used for this test day two community samples to independent is random. Now suppose the samples are not independent of each other and belong together as if the random sample \((X_1, Y_1)\) are given \(d_1 = x_1 - y_1\) then we defined \(H_0 : \mu_1 = \mu_2\) the against \(H_1 : \mu_1 < \mu_2\) \(, \) or \(H_1 : \mu_1 > \mu_2\) want to test or \(H_1 : \mu_1 \neq \mu_2\).

Pearson test:

\[
\text{Tobs} = \frac{\bar{d} \cdot \text{sd}}{\sqrt{n}} = \frac{1}{n} \sum d_i
\]

\[
S^2d = \frac{1}{n-1} \sum_{i=1}^{n} (d_i - \bar{d})^2
\]

And if \(t_{0.025} > t_{cul}\), then Re will be accepted.

If the desired data do not follow the normal distribution of the rank test - Wilcoxon sign use.

A. Normality Test Kolomogorov – Simonov

This type of non-parametric test to evaluate the fit of a particular distribution of data obtained from a series of a variable used. Default this test is that all the observations (data) independently with a common distribution (here: normal) are: [9]

\[
X_1,\ldots,X_n \approx F_\mu(X)
\]

In the study covered the test, assume zero test is that variable X with distribution to a specific distribution F0 (X) is

\[
\begin{align*}
H_0 &: F_\mu(X) = F_0(X) \forall X \\
H_1 &: F_\mu(X) \neq F_0(X) \exists x
\end{align*}
\]

As we know that the theoretical distribution function of variable X is called a mathematical expression:

\[
X = F_\mu(X) \iff P(X(X) = F_\mu(X))
\]

Therefore, this study tests Kolomugorof - Simonov the study revealed normal levels being variable (dependent variable) deals.

B. -P Value

Recent articles and talk to a new concept of statistical-p value has been introduced in all the statistical software has been entered. First, the concept of intuitive expression value and then calculate how we show it.

Intuitive sense: Statistical Science Re reject H0, first, a first type of error that are considered a symbol to be displayed. Denotation is that of a Default H0 reject the sample observations should not commit an error of more than a will.

-P value in the real value in error by the H0 sample views is defined.

Is obvious that if-P value, the real error, error of first type, error assumption, is less than the logic of the sentence is in Default H0.

C. Calculated -P value

Assumptions as a way for

\[
\begin{align*}
H_0 &: \mu \geq \mu_0 \\
H_1 &: \mu < \mu_0
\end{align*}
\]

-P value equal to (sample observations) P is for two-way assumptions as

\[
\begin{align*}
H_0 &: \mu = \mu_0 \\
H_1 &: \mu \neq \mu_0
\end{align*}
\]

\[
\text{The P (} \bar{X} < K | \text{sample observations}) \text{ and 2min (} \bar{X} > K | \text{sample observations}) \text{ is calculated within the calculations}
\]

SPSS software is done automatically and-P value with symbols such as sig, p, prob the show.

VI. DEMOGRAPHIC CHARACTERISTICS

This section features introduced variables for research companies are going statistical sample. To this end, the summary statistic level of disclosure between 75-85 to 72 sample companies is affiliated to the Tehran Stock Exchange on 29/12/1385 with computer is calculated and given in TABLE III-1.

Overview information is as follows.

A: The mean level of disclose to 72 companies a year before accepting samples in the Forum 3 / 73 with standard deviation 14% and minimum and maximum value respectively 3 /01 and 3 / 73 is.

B: The mean level of disclose to 72 companies one year after admission samples equal to Forum 3 / 73 with standard deviation is 15% and the highest and lowest respectively 3 / 26 and 4 / 01 is.

C: The average level of disclosure to accept 72 sample companies in 85 year equal 4 / 28 with standard deviation is 12% and the minimum and maximum equal 3 / 84 and 4 / 51 is.

TABLE III: SUMMARY OF PEARSON TO DISCLOSE THE LEVEL

<table>
<thead>
<tr>
<th></th>
<th>a year before admission Forum</th>
<th>One year after admission Forum</th>
<th>Year 1385</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.3872</td>
<td>3.7305</td>
<td>4.2838</td>
</tr>
<tr>
<td>Minimum</td>
<td>3.01</td>
<td>3.26</td>
<td>3.84</td>
</tr>
<tr>
<td>Maximum</td>
<td>3.73</td>
<td>4.01</td>
<td>4.51</td>
</tr>
<tr>
<td>Range</td>
<td>.71</td>
<td>.74</td>
<td>.67</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.13950</td>
<td>.15237</td>
<td>.12538</td>
</tr>
<tr>
<td>N</td>
<td>72</td>
<td>72</td>
<td>72</td>
</tr>
</tbody>
</table>

A. Data Analysis Revealed and Test Hypothesis

This section first reviews the amount of disclosure in corporate financial statements for a year before and one year after accepting companies to prove the First hypothesis.

The second hypothesis for review companies disclose the amount of one year before accepting the same amount of disclosure in 85 year companies (a few years after admission), we compared and disclosure rate before accepting the companies not accepted.

B. Disclose the Amount of Review to be Normal

Normality test Kolomugorof - Simonov to review the data values being normal level of pay disclosure in 72 companies, being normal data before test-t assumptions are coupled. Default zero in this test being based on normal values in the amount disclosed credentials, in other words:

\{ 
H_0 : \text{Data rate with normal distribution are disclosed} \\
H_1 : \text{Data rate with normal distribution are not disclosed} 
\}

TABLE IV: NORMALITY TEST KOLOMUGOROF – SIMONOVA ONE-SAMPLE KOLMOGOROV-SMINOV TEST

|                | before admission | After admission | | | |
|----------------|------------------|----------------|---|---|
| Normal Parameter \( \mu , \sigma \) | 3.3872 | 3.7305 | 4.2838 |
| Mean           | 3.3872           | 3.7305         | 4.2838   |
| Std. Deviation | .13950           | .15237         | .12538   |
| Differences    | .076             | .088           | .070     |
| Kolmogorov-Smirnov Z | .648 | .750 | .595 |
| Asymp. Sig.(2-tailed) | .0796 | .627 | .871 |

a. Test distribution is Normal.
b. Calculated from data.

Test analysis results Kolomugorof - Simonov is given in the table.

- \( P \) value of the test in a year before and after admission and 85 years respectively 8%, 62% and 87% is reason to reject Default error level of 5% zero there, in other words the level of disclosure to follow the normal distribution.

C. Test-T Coupled

In this test coupled with the comparison rate disclosure before & after one year of admission and 85 years are going. Pair-t test for comparison to a group during the different times is used. Default zero on this test, the lack of difference between the mean amounts of disclosure in two different time point is indicative, in other words we have:

\{ 
H_0 : \text{Between the mean rate of two period revealed no difference} \\
H_1 : \text{Between the mean rate period revealed two are differences} 
\}

To review the main research hypothesis as Default zero differences between the amount of disclosure a year ago and after accepting the Forum put, in other words:

\{ 
H_0 : \text{Between the mean rate of disclosure before and after admission there is no difference} \\
H_1 : \text{Between the mean rate before and after admission revealed there is difference} 
\}

The TABLE V-1, \( P \) test value is equal to 00,0 in the 95% confidence level is significant, then in Default is zero and can be 95% confidently concluded that between rate disclosure Companies before accepting and then there is statistically significant differences. Chart 2-1 shows the difference is there.
The recovery trend for the companies disclose the amount accepted in Tehran Stock Exchange (second hypothesis), with pair-t test to compare the amount of 72 companies reviewed disclose a year before admission and 85 year are going. In other words, we should test the following assumptions.

\[
\begin{align*}
H_0: & \text{ Between the mean amount of disclosure a year before admission as active in 1385(2006) are no differences} \\
H_1: & \text{ Between the mean amount of disclosure a year before admission as active in 1385 are differences}
\end{align*}
\]

Respect to the table that all VI-1,-P test in this case the value is zero. 95% confidence level, so Re is in this model. So with 95% confidence can be concluded between the companies disclose the amount accepted and not affiliated companies are significant differences.

TABLE VI: THE SECOND HYPOTHESIS TEST RESULTS PAIRED SAMPLES TEST

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair Year 1385 - a year before admission</td>
<td>-55329</td>
<td>.11202</td>
<td>-41.910</td>
<td>71</td>
<td>.000</td>
</tr>
</tbody>
</table>

Fig. 3. The rate of disclosure between before and after accepting and Year of 1385(2006).

VII. CONCLUSION

This research showed that there is meaningful relationship between rate of sufficient disclosure in financial statements of a company before accepting by Tehran Stock exchange and after it and level of accepted companies’ s disclosure by Tehran Stock Exchange have improving trend and rate of sufficient disclosure in their financial statements are more than unaccepted companies by Tehran Stock Exchange.

REFERENCES