The Determinants of Internet Reporting in Companies Listed in Tehran Stock Exchange

1Ali Khosravi, 2Hashem Valipour (Ph.D.) and 3Javad Moradi (Ph.D.)

1Accounting graduate, National Iranian South Oil Company.
2Assistant Professor, Department of Accounting, Islamic Azad University of Firoozabad.
3Assistant Professor, Department of Accounting, University of Shiraz.

ABSTRACT

Background: The main objective of this study is to examine the factors affecting Internet reporting in companies listed in Tehran Stock Exchange. In addition, this research argues that the availability of financial information including the firm size, profitability, liquidity, leverage, industry type and the size of the board of directors explains variation in the spread of Internet reporting among companies listed in Tehran Stock Exchange. In this research, information from 71 companies listed in Tehran Stock Exchange was collected at the end of regression model. 62 percent of Iranian companies have reported important information in the year 2012 and assessed them through multivariate information on their websites. The findings of the research are significant in the sense that they provide up-to-date and online information about the form of the listed companies which can be satisfactory or unsatisfactory in the eyes of national investors. As a result, they will invest more and verify reporting activities. Practically, Internet reporting is an effective tool for the development of investors’ decision-making process.

INTRODUCTION

Reporting is a requisite for accountability. Reporting was first done orally and by allusive signs. Afterwards, it was done in the written form and by written symbols, and with the emergence of writing system, it entered a new phase. Written reporting did not change much until recently. But with the recent advances in computing, information technology and finally Internet network, financial and non-financial reporting entered a new phase. Information technology covers all aspects of today’s human life; therefore, the 21st century is called the century of the Internet or the information age. Internet has changed the form of information flow from suppliers to users and vice versa and has facilitated access to information, therefore, users can get their favorite information and manipulate them for further studies. One of the organizations’ tasks and economic units is reporting to shareholders and beneficiaries, etc. Financial reporting is also one of the most important reports that is provided based on accepted principles of accounting for external reporting (to shareholders, creditors, etc.) or it is provided based on management needs for internal reporting. Today, providing financial reporting through the Internet has been common in many companies around the world.

The purpose of this study is to examine the determining factors affecting the level of Internet reporting of the companies listed in Tehran Stock Exchange. The research findings are significant in the sense that they provide information about the characteristics of Iranian companies that could be satisfactory for the demand of national and international investors regarding the updated information. As a result, they invest more and verify reporting activities. Practically, Internet reporting is an effective tool for the development of investors’ decision-making process.

Statement of Problem and Theoretical Foundations of Research:

Using the Internet as a channel for distributing companies’ information is a phenomenon that has been developing in recent years. Through multimedia, the Internet has facilitated providing information in the audio-visual form. Also, by using this tool, live meetings of board of directors and general assembly could be available for shareholders, investors and other beneficiaries. Internet financial reporting by the companies’
website implies distributing information about the financial performance. The information provided by these facilities differs from the information provided by traditional reporting. Better communication of data has reinforced accessibility to data and has facilitated step by step access to information. In addition, the global information network has facilitated the evaluation of non-financial performance and the use of graphs for a better understanding. Practically, the distribution of financial information by the Internet has been so far done by many companies. Internet offers companies new solutions for supplement, replacement and management of the old methods of relationships between owners and managers to disclose and give financial information relevant to investors. In other words, accounting, based on the worldwide network, is a new technology that came into existence in the domain of financial reporting and information systems of management and accounting. By establishing Internet accounting information system, companies provide facilities for users especially domestic users of financial reports. Such systems are established and being used in many developed countries such as America, Germany, England, etc.

There are two main reasons for conducting this research in Tehran Stock Exchange Firstly, Iran, as a developing country, should increase its capital and attract foreign investment and enhance the feeling of trust and understanding in the shareholders. Thus, equity, efficiency, profitability and transparency of financial information are among the important factors in capital transactions, and companies are motivated to attract more international and national investors to publish Internet financial information.

Secondly, Ragab and Omran in a study [10] addressed this issue that to what extent national and international investors perceive the financial information in capital transactions and how beneficial they are in valuing the shares. They found out that accounting information in the capital market is valuable and claimed that the capital market needs this complementary information and also the published accounting reports. We believe that Internet reporting is an important source of information that potentially complements other published accounting reports in the capital market. Finally, there are some evidences that the number of Internet users in Iran is increasing. These evidences indicate that the demand of the various stakeholders for seeking information through Internet is growing.

Given the importance of Internet reporting and a lack of research in this field in our country and according to initial studies, it is not exactly known that what companies implement Internet reporting in our country, because no comprehensive information about their method and amount of disclosure and distribution of financial information through the Internet and factors affecting it, is given to the people interested in capital market. In this study, the factors affecting the disclosure and distribution of financial reports of the listed companies in Tehran Stock Exchange through the Internet were studied. The purpose of this study is to establish the determinant and potential factors that affect the level of Internet reporting of the listed companies in Tehran Stock Exchange in capital transactions.

**Literature Review:**

Similar researches were not found in Iran because they were mostly descriptive. Only Mahdavi Pour et al [2] have done a research in this field in which they studied the amount of disclosed information in 100 websites of the listed companies before 2007 in Tehran Stock Exchange through the Internet. They also studied its relationship with some characteristics of companies including the firm size, leverage, profitability and type of industry. The results indicate that there is significant relationship between the disclosure of financial information on the Internet (the dependent variable) and the firm size, leverage, profitability and type of industry that the company is active in (independent variables). But a significant relationship between the dependent variable and the profitability variable was not observed.

Mano Del Larran and Begona Giner studied Internet financial reporting in 44 companies listed in the Stock Exchange of Madrid. To evaluate the amount of Internet exposure of the sample companies, an indicator consisting of 107 components of Internet disclosure was designed and accordingly they studied the websites of the related companies. The results suggest that there is a significant relationship between the firm size, financial leverage and return on equity and the amount of information disclosed through the Internet.

Doa Ali et al studied the effect of seven variables including the firm size, profitability, financial leverage, liquidity, the amount of audit, foreign companies and industry type on Internet financial reporting by using 82 indicators and the data collected from 62 companies of the listed companies of the Stock Exchange of Egypt. The results for the sample of 62 companies listed on the stock exchanges of Egypt demonstrate that more than 50 percent of Egyptian companies voluntarily report financial information on their websites. The results also show that profitability, foreign list and industrial sectors (communications and financial services) are the most important factors that affect the amount and format of Internet reporting in Egypt.

Ali Yar analyzed the content of the websites of the listed companies in Istanbul Stock Exchange. The results demonstrate that the firm size listed in the stock exchange has a significant relationship with Internet financial reporting. On the contrary, the type of industry and profitability are not as such.
Research Hypotheses:

Compared to small companies, large companies use information technology more to improve Internet reporting. Ashbaugh et al [6] noted that according to economy, large companies tend more to provide financial and non-financial reports on their websites. This is due to the fact that larger companies often have more products and a wider distribution network that need more complex management information systems and information sources for the purposes of management control. On this basis, the first hypothesis is formulated as follows:

The first Hypothesis: there is a significant relationship between the firm size and Internet financial reporting.

Signaling theory indicates that profitable companies are more motivated to distribute information in order to show the profitability of their company to investors for the support of the management of their status. Agency theory also suggests that in order to make progress, the managers of profitable companies have greater motivation to disclose more information. On this basis, the second research hypothesis is formulated as follows:

The second Hypothesis: there is a significant relationship between the profitability of the company and Internet financial reporting.

Agency theory describes the relationship between the financial leverage and disclosure. Increasing exposure can reduce the interests of debtors and can retain the costs [11]. Debreceny, observed that by increasing the ratio of debt to equity, agency costs can be provided. Management can make a voluntary disclosure on the Internet so that the creditors can constantly monitor the company’s affairs. On this basis, the third research hypothesis is formulated as follows:

The third Hypothesis: there is a significant relationship between the financial leverage of the company and Internet financial reporting.

From the agency theory’s perspective, large companies demand more boards of directors to control the activities of the company. Therefore, the size of the board of directors is an active mechanism among the shareholders to assess the performance of the company and to control high-level managers. Hence, it affects the transparency of disclosure. The majority of good control systems argue that the board of directors should be composed of reasonable numbers of members, because the optimal value depends on their efficiency in completing their supervisory functions. Agency theory argues that larger board of directors can be more careful of agency problems, due to the fact that more people will have control over management performance. Larger board of directors has greater tendency to develop skill, experience and judgment. On this basis, the forth research hypothesis is formulated as follows:

The Forth Hypothesis: there is a significant relationship between the size of board of directors and Internet financial reporting.

Research Methodology:

This research, in terms of implementation, is descriptive -correlational ,because it attempts to describe the relationships between variables using statistical tests and also because it is conducted within the framework of deductive- inductive reasoning. For this purpose, at the stage of collecting and setting the research literature, library method that is referring to libraries, magazines, specialized journals, Internet sites, etc. was used. In the field method, the actual data of companies was used for gathering the required information for the study. Finally, by using statistical methods, the research findings were tested.

Research Variables and the Method of their Measurement:

For the hypothesis test, the variables of the research are divided into two groups of independent and dependent variables

Dependent Variable:

Disclosure Indicators: To determine the amount of Internet information disclosure, the used components of disclosure in the research have been collected and used as a measure of disclosure. These indicators include 61 content indicators. 23 of which are accounting and financial information indicators, 24 of which are the companies’ administration information indicators, 8 of which are sources of information indicators, 6 of which are the details of the contact with the company indicators. In addition, there are 31 format indicators which include 15 characteristics of technology indicators and 15 website usability indicators. In addition to referring to the website of the sample companies, if the related company discloses the studied component (variable) on its website, it is assigned one value otherwise, it would be assigned a zero value. In the end, by calculating the ratio of the sum of the disclosed items to the total score of the disclosed items, the indicator of Internet disclosure of the firm can be achieved. It should be noted that with the disclosure of all components, the maximum value of Internet disclosure of the company will be one. The above explanations can be applied to a mathematical form which was achieved by (Equation 1).
\[ ICDI = \frac{\sum A}{\sum B} \]  

(1)

ICDI : Internet disclosure indicator for each firm  
\( \sum A \) : total score of the disclosed components  
\( \sum B \) : total score of all components

Independent Variable:

Four key variables in the research include the firm size, profitability, financial leverage and the size of the board of directors and they are measured as follows:

Firm Size: firm size is described by various indicators such as assets value, the amount of sales, value of stock market and so on. In this study, to determine the firm size, the natural logarithm of annual sales achieved by (Equation 2) is used.

\[ SIZE = \ln(TotalSale) \]  

(2)

Profitability: This variable is achieved by dividing the net profit by total equity at the end of the period (Equation 3).

\[ ROI = \frac{EBT}{E(t)} \]  

(3)

\( EBT \) = Net profit before fraction of the taxes, \( E(t) \) = Equity in year \( t \)

Financial Leverage: This variable is achieved by dividing the total debt by total assets (Equation 4)

\[ Debratio = \frac{Total\ debt}{Total\ assets} \]  

(4)

The Size of Board of Directors: the number of board of directors is used to calculate this variable.

Research Model

To test the research hypotheses, the empirical analysis of the relationship between the indicators of disclosure and research variables was used. Therefore, hypothesis testing method is the simple and multivariate regression. And the following empirical model, designed by Doa Ali et al, is used which is achieved by (Equation 5).

\[ ICDI = \beta_0 + \beta_{Size} \times \text{Size} + \beta_{Profitability} \times \text{Profitability} + \beta_{Leverage} \times \text{BoardSize} + \varepsilon \]  

(5)

The time period of this research includes the companies which have been listed in Tehran Stock Exchange until the year 2012. The study population also consists of the companies which are the members of Tehran Stock Exchange. The studied samples have also been selected from these companies. In this research, the top 300 companies in Iran in the year 2012 were first confirmed and selected by the organization of industrial management and we have studied the following characteristics:

They should have a website.

In order to increase the comparability and to integrate the selected companies, the financial year of the company should end with the end of each year, and the activity and the fiscal year should not change during the period of study.

3) The required information for the research in available sources should be present.

After passing through the sample selection conditions, the sample size consisted of 71 companies and the data related to the year 2012 was collected for these companies. After initial processing of data by spreadsheet EXCEL version 2010, statistical tests were performed using SPSS software, version 19.

Research Findings:

Hypotheses Test of the First, Second and Third Group:

In the first group test, the “content” indicators, in the second group, the “format” indicators and in the third group, the “total” indicators have been analyzed with the hypotheses. The results achieved from the hypothesis test of this group are shown in the following tables:

Given the Durbin–Watson statistics that was calculated in the tables of the coefficient of determination, the independence of the remainders can be assessed. Because the value of this statistics according to the above tables lies in the range 1.5<Durbin-Watson<2.5, it could be concluded that the remainders are independent.
The results of hypothesis test of the first group of the “content” indicators.

<table>
<thead>
<tr>
<th>significant factor</th>
<th>p.v</th>
<th>t-statistic</th>
<th>Variable coefficients</th>
<th>variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>insignificant</td>
<td>0.097</td>
<td>-1.06</td>
<td>-34.963</td>
<td>constant</td>
</tr>
<tr>
<td>significant</td>
<td>0.031</td>
<td>2.03</td>
<td>1.477</td>
<td>firm size</td>
</tr>
<tr>
<td>significant</td>
<td>0.009</td>
<td>2.06</td>
<td>15.516</td>
<td>profitability</td>
</tr>
<tr>
<td>significant</td>
<td>0.003</td>
<td>3.06</td>
<td>13.333</td>
<td>financial leverage</td>
</tr>
<tr>
<td>significant</td>
<td>0.007</td>
<td>2.84</td>
<td>3.405</td>
<td>the size of board of directors</td>
</tr>
</tbody>
</table>

The results of hypothesis test of the second group of the “format” indicators.

<table>
<thead>
<tr>
<th>significant factor</th>
<th>p.v</th>
<th>t-statistic</th>
<th>Variable coefficients</th>
<th>variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>insignificant</td>
<td>0.247</td>
<td>1.169</td>
<td>4.338</td>
<td>constant</td>
</tr>
<tr>
<td>significant</td>
<td>0.006</td>
<td>2.829</td>
<td>1.358</td>
<td>firm size</td>
</tr>
<tr>
<td>significant</td>
<td>0.009</td>
<td>2.693</td>
<td>2.748</td>
<td>profitability</td>
</tr>
<tr>
<td>significant</td>
<td>0.011</td>
<td>2.624</td>
<td>3.175</td>
<td>financial leverage</td>
</tr>
<tr>
<td>insignificant</td>
<td>0.602</td>
<td>0.525</td>
<td>0.275</td>
<td>the size of board of directors</td>
</tr>
</tbody>
</table>

The results of hypothesis test of the third group of the “total” indicators.

<table>
<thead>
<tr>
<th>significant factor</th>
<th>p.v</th>
<th>t-statistic</th>
<th>Variable coefficients</th>
<th>variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>insignificant</td>
<td>0.059</td>
<td>1.92</td>
<td>-30.625</td>
<td>constant</td>
</tr>
<tr>
<td>significant</td>
<td>0.008</td>
<td>2.851</td>
<td>1.855</td>
<td>firm size</td>
</tr>
<tr>
<td>significant</td>
<td>0.011</td>
<td>2.619</td>
<td>18.624</td>
<td>profitability</td>
</tr>
<tr>
<td>significant</td>
<td>0.002</td>
<td>3.162</td>
<td>16.508</td>
<td>financial leverage</td>
</tr>
<tr>
<td>significant</td>
<td>0.001</td>
<td>3.035</td>
<td>3.68</td>
<td>the size of board of directors</td>
</tr>
</tbody>
</table>

Interpretation of the Hypotheses and Conclusion:

In the first hypothesis, it was predicted that the firm size affects Internet financial reporting. The results of the first hypothesis suggest that in companies listed in Tehran Stock Exchange, there is a positive relationship between the firm size and the amount of Internet disclosure. This hypothesis is related to content, format and total indicators and the results indicate that by considering the total sales, the firm size has an impact on Internet financial reporting. In other words, the increase in sales increases the level of Internet financial reporting. The results of this hypothesis test are consistent with the results of the research conducted by Mano Del Larran and Begona Giner, Doa Ali et al and Ali Yar. The study conducted in Iran by Mahdavi et al [2] also confirmed this hypothesis.

In the second hypothesis, it was predicted that profitability has as an impact on Internet financial reporting. Hence, it was expected that in the companies with high profitability, there is a more significant factor. The results indicated that the profitability achieved from return on equity ratio affects Internet financial reporting. In other words, the increase in the profit of the company increases the level of Internet financial reporting. This research is consistent with the researches conducted by the Mano Del Larran and Begona Giner, Doa Ali et al and Ali Yar.

In the third hypothesis, it was predicted that profitability has as an impact on Internet financial reporting. Therefore, it was expected that in the companies with high financial leverage, there is a more significant factor. The results showed that the financial leverage achieved from debt ratio affects Internet financial reporting. In other words, the increase in debt of the company increases the level of Internet financial reporting. The results are consistent with the results of research conducted by Mano Del Larran and Begona Giner, Doa Ali et al and Ali Yar.

In the forth hypothesis, it was predicted that the number of board of directors has as an impact on Internet financial reporting. Therefore, it was expected that in the companies with more boards of directors, there is a more significant factor. The results indicated that the test of the content indicators and the test of total indicators of the number of board of directors have an impact on Internet financial reporting. However, in the test of format indicators, no impact on Internet financial reporting was observed. In other words, the increase in the number of board of directors increases the level of Internet financial reporting. This research is consistent with the research conducted by Akhtaruddin et al [5] and Homayoun et al [8]. So far, no research has been done in this regard, therefore, this research is not comparable.

REFERENCES


