



**International Journal of Biology, Pharmacy
and Allied Sciences (IJBPAS)**

'A Bridge Between Laboratory and Reader'

www.ijbpas.com

**INVESTIGATING THE WEB-BASED FINANCIAL REPORTING AND ITS IMPACT
ON THE QUALITATIVE CHARACTERISTICS OF ACCOUNTING INFORMATION**

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ABSTRACT

The present study aims to investigate the web-based financial reporting and its impact on the qualitative characteristics of accounting information. Accordingly, 78 companies listed on the Tehran Stock Exchange were examined in the period 2008-2013. Data was collected using a researcher-made questionnaire and analyzed based on the Chi-square test. The results showed that the web-based financial reporting affects the qualitative characteristics of information for decision making. Also, the web-based financial reporting increases the qualitative characteristics of information relevance and availability and decreases the information reliability. According to the results of this study, it is recommended the Stock Exchange and Auditing organizations to develop standards such as the extensible language of financial reporting for the web-based financial reporting standard form.

Keywords: financial reporting, accounting information, web-based, qualitative characteristics of information

INTRODUCTION

In the last two decades of the twentieth century, three major innovations including fax, mobile phone, and Internet showed that how communications development can affect the creation of products market and change

the work and life practices of people. Advances in communications technology has increased the global production and supply of communications and services by reducing the cost of services, improving the

communication networks and privatization and commercialization of the communications sector [1, 2].

The organization of global communications network can be seen clearly in the growth of the Internet and World Wide Web sites as international information infrastructures. Although Internet has been existed in various forms since 22 years ago, in recent years with more than three and a half million sites, now, it publicly provides services to its all users in the world. Web sites are a major source of information, which are used in transferring the data of libraries, newspapers, catalogs, brochures, shops, and businesses [3].

Accounting is the language of business, so that businesses and organizations cannot exist without it. Business units can continue their activities without offices, funds, and sometimes even without employees, but they cannot survive without an accounting system [4]. Business units are seeking profit and to be successful in making profit, they have to apply a full accounting system; a system with higher capabilities which provides safer and easier solutions compared to the existing ones.

Information and Communication Technologies (ICT) has overshadowed everything in the contemporary world, so that the famous phrase “there is a trace of oil in

everything around us”, once used for oil, now can be undoubtedly used for information technologies [5, 6]. In the age of advanced information and communication technologies, the face of organizations and companies has significantly changed and it can be said that perhaps they have accepted the greatest impact of these changes. This new wave not only has affected and transformed information systems of organizations, but also has dramatically influenced the way of doing activities and even the transposition of work processes. Accountants, more than anyone, are seeking the consequences of changes in the ICT world, because these changes are directly related to the way of doing their daily tasks and improving the processes of doing them.

The accelerated process of changes in the field of information and communication technologies, especially Internet in the accounting, has led to a new and revolutionary method for financial reporting [3, 4, and 6]. Considering the importance of this type of reporting that could have a major impact on decisions of users of financial information, this study seeks to answer the following questions:

- Can the web-based financial reporting affect the qualitative characteristics of accounting information for decision making?

- Can the web-based financial reporting improve the qualitative characteristics of accounting information relevance?
- Can the web-based financial reporting reduce the qualitative characteristics of accounting information reliability?
- Can the web-based financial reporting improve the qualitative characteristics of accounting information availability?
- Are the directors of Iranian companies familiar with the culture of the web-based financial reporting?

METHODOLOGY

The present research has been conducted in the form of a survey and field study. On the other hand, in terms of the objectives, it is considered to be an applied research. The research population consists of all companies listed on the Tehran Stock Exchange in 2008-2013, from which 78 companies were selected as the statistical samples. The study was performed in this way that firstly introductory descriptions about the measurement tools and the purpose of the test were provided; then, it was explained in details to the participants how to respond the tests. Regarding the ethical considerations, after obtaining the consent from the participants and giving necessary information to them, they were assured that the information would be used only in the

research and protected from any misuse. A researcher-made questionnaire was used to collect data. The questionnaire included 19 items adjusted based on the 5-point Likert scale. The questions 1-4, 5-8, 9-11, 11-15, and 16-19 respectively measured the levels of directors' familiarity with financial reporting, the qualitative characteristics of accounting information, the information relevance, the accounting information reliability, and the accounting information availability. To determine the validity of the questionnaire, it was firstly given to professors and experts to express their opinions about it; then, after being amended based on the opinions, the questionnaire was confirmed by them. The reliability of the questionnaire was determined using the Cronbach's alpha; in this way that in a pilot study, 30 questionnaires were distributed in the population under study. Then, after collecting the questionnaires, the Cronbach's alpha was calculated equal to 0.87, which indicates the optimal reliability of the measurement tools. The Chi-square test was used to test the research hypotheses. The significance level was considered to be $P \leq 0.05$.

RESULTS

The Chi-square test was used to analyze the research data. The main hypothesis was that

the web-based financial reporting does not affect the qualitative characteristics of accounting information. In the research questionnaire, 4 items (questions 5-8) were

allocated to the qualitative characteristics. Table 1 shows the frequency distribution of answers to these questions.

Table 1: frequency distribution of the qualitative characteristics of accounting information

Items	Very Low	Low	Moderate	High	Very High	Total
Ques. 5	4	0	16	42	16	78
	5%	0%	20%	54%	21%	100%
Ques. 6	0	2	10	52	14	78
	0%	2.5%	13%	67%	18%	100%
Ques. 7	0	4	16	45	13	78
	0%	5%	20%	58%	17%	100%
Ques. 8	0	2	22	42	12	78
	0%	2.5%	28%	54%	15%	100%
Total	4	8	64	181	55	312
	1%	2%	21%	58%	18%	100%

According to table 1, in total, only 3%, 76%, and 21% of the total respondents have respectively selected the options “low and very low”, “high and very high”, and “moderate”. The results of the Chi-square test showed that the value of calculated χ^2 was equal to 22.6 with 12 degrees of freedom; and since the value is higher than the value of χ^2 in the quantiles diagram ($\chi^2 = 21.03$), the impact is significant ($P \leq 0.05$); thus, it can be said that the web-based financial reporting affects the

qualitative characteristics of information for decision making. In the following, the impact of the web-based financial reporting on qualitative subscales of information is examined. In this regard, the impact of the web-based reporting on the accounting information relevance has been assessed. The questions 9-11 of the questionnaire were allocated to this issue. Table 2 shows the frequency distribution of answers to these questions.

Table 2: the frequency distribution of the information relevance

Items	Low	Moderate	High	Very High	Total
Ques.9	2	16	46	14	78
	3%	20%	59%	18%	100%
Ques. 10	2	6	50	20	78
	3%	8%	64%	25%	100%
Ques. 11	6	22	48	2	78

	8%	2%	61%	3%	100%
Total	10	44	144	36	234
	4%	19%	62%	15%	100%

As observed in table 2, none of the respondents has answered the very-low option; and in total, only 4%, 77%, and 19% of the total respondents have respectively selected the options “low”, “high and very high”, and “moderate”. The results of the Chi-square test showed that the value of calculated χ^2 was equal to 26.27 with 8 degrees of freedom; and since the value is higher than the value of χ^2 in the quantiles diagram ($\chi^2 = 15.51$), the impact is

significant ($P \leq 0.05$); thus, it can be concluded that the web-based financial reporting increases the accounting information relevance in decision making. Another hypothesis of this research was that the web-based financial reporting affects the accounting information reliability. The questions 12-15 of the questionnaire were allocated to this issue. Table 3 shows the frequency distribution of answers to these questions.

Table 3: the frequency distribution of the information reliability

Items	Very Low	Low	Moderate	High	Very High	Total
Ques. 12	0	6	12	44	18	78
	0%	8%	13%	56%	23%	100%
Ques. 13	0	2	10	32	34	78
	0%	3%	13%	41%	43%	100%
Ques. 14	0	8	10	48	12	78
	0%	10%	13%	62%	15%	100%
Ques. 15	0	4	10	54	10	78
	0%	5%	13%	69%	13%	100%
Total	0	20	40	180	74	312
	0%	6%	13%	57%	24%	100%

As observed in table 3, none of the respondents has answered the very-low option; and in total, only 4%, 81%, and 13% of the total respondents have respectively selected the options “low”, “high and very high”, and “moderate”. The results of the Chi-square test showed that the value of

calculated χ^2 was equal to 28.98 with 12 degrees of freedom; and since the value is higher than the value of χ^2 in the quantiles diagram ($\chi^2 = 21.03$), the impact is significant ($P \leq 0.05$); thus, it can be concluded that the web-based financial reporting reduces the qualitative

characteristics of the accounting information reliability in decision making. The other objective of this research was to investigate the impact of web-based financial reporting on the accounting information availability.

The questions 16-19 of the questionnaire were allocated to this issue. Table 4 shows the frequency distribution of answers to these questions.

Table 4: the frequency distribution of the information reliability

Items	Very Low	Low	Moderate	High	Very High	Total
Ques. 16	0	2	8	42	26	78
	0%	3%	10%	54%	33%	100%
Ques. 17	0	4	34	32	8	78
	0%	5%	45%	41%	10%	100%
Ques. 18	2	0	14	42	20	78
	3%	0%	18%	54%	25%	100%
Ques. 19	4	0	2	42	30	78
	5%	0%	3%	54%	38%	100%
Total	6	6	58	158	84	312
	2%	2%	19%	50%	27%	100%

As observed in table 4, in total, only 6%, 2%, 77%, and 19% of the total respondents have respectively selected the options “very low”, “low”, “high and very high”, and “moderate”. The results of the Chi-square test showed that the value of calculated χ^2 was equal to 69.59 with 12 degrees of freedom; and since the value is higher than the value of χ^2 in the quantiles diagram ($\chi^2 = 21.03$), the impact is significant ($P \leq 0.05$); thus, it can be concluded that the

web-based financial reporting increases the accounting information availability in decision making.

One of the main questions of the research was to investigate whether the directors of Iranian companies are familiar with the culture of the web-based financial reporting or not. To answer the question, items 1-4 of the questionnaire were allocated to this issue. Table 5 shows the frequency distribution of answers to these questions.

Table 5: the frequency distribution of the familiarity of directors with the culture of the web-based financial reporting

Items	Very Low	Low	Moderate	High	Very High	Total
Ques. 1	12	36	26	4	0	78
	15.5%	46%	33.5%	5%	0%	100%
Ques. 2	15	38	22	3	0	78
	16%	49%	28%	4%	0%	100%

Ques. 3	14	42	20	2	0	78
	18%	54%	25.5%	2.5%	0%	100%
Ques. 4	17	48	10	3	0	78
	26%	61%	13%	13%	0%	100%
Total	58	164	78	12	0	312
	18.5%	52.5%	25%	4%	0%	100%

As observed in table 5, none of the respondents has answered the very-high option; and in total, only 4%, 71%, and 25% of the total respondents have respectively selected the options “high”, “low and very low”, and “moderate”. The results of the Chi-square test showed that the value of calculated χ^2 was equal to 10.71 with 12 degrees of freedom; and since the value is lower than the value of χ^2 in the quantiles diagram ($\chi^2 = 21.03$), the impact is not significant ($P \geq 0.05$); thus, it can be concluded that the amount of directors' familiarity with the culture of the web-based financial reporting is low.

CONCLUSION

The main purpose of this study was to investigate the web-based financial reporting and its impact on the qualitative characteristics of accounting information. The results of this study showed that the web-based financial reporting affects the qualitative characteristics of information for decision making. Hence, it can be said that the incredible advances in information technology, among which it can be pointed to

the web-based reporting as a good example, has enabled users to make better financial and management decisions. In fact, the characteristics such as high accuracy, high-speed access, and high quality have caused the web-based financial reporting to effectively provide useful information for decision-makers to assess the economic unit. Other results showed that the web-based financial reporting increases the qualitative characteristics of information relevance for decision making [7]. Considering the issue that since the web-based financial reporting is to use the information technology to make information available at all times via the Internet or its alternatives, decision makers can increasingly use diverse and timely information for decision making and also seek information for a specific purpose (with the use of powerful search tools). For these reasons, the web-based financial reporting can increase the qualitative characteristics of the accounting information relevance for decision makers. In addition, the results showed that the web-based financial reporting reduces the qualitative

characteristics of the information reliability. In this regard, it can be said that the inconsistency of data on the Web as well as the lack of adequate security of websites can make the reliable financial information seem unreliable or vice versa. According to the results of this study, the lack of reliability of accounting information can be considered as one of the main problems in using the web-based financial reporting [8, 9]. To increase the reliability of accounting information, the technologies such as electronic approval (digital signature) and electronic certificates (digital certificates) can be used; so that auditors can attach a digital signature to the audit report, through the file encryption, and assure users that the information is reliable. In this way, any changes made after the signature of the auditor can be detected and identified. Also, the results of this study showed that the web-based financial reporting increases the qualitative characteristics of the information availability for decision making. In the web-based financial reporting, due to the non-proprietary open nature of the Internet, access to accounting information is easier than the traditional financial reporting; accordingly, costs and the time of access to information are significantly reduced in this type of reporting. The other results of this

study indicated that the directors of Iranian companies are not familiar with the culture of the web-based financial reporting well. Since the emergence of web-based financial reporting dates back to 1997, the system is still new and unknown in Iran; as a result, there is not adequate information about it. So it can be said that the need for more activities on this system and providing the necessary content and introducing the system to the financial community of the country is completely felt. In this context, the role of the academic community, students, and professors is important and undeniable. The academic community of Iran can greatly contribute to the identification and recognition of the system as well as raising public awareness of activists in the financial sector through providing articles, dissertations and academic journals. The results of this study also showed that the web-based financial reporting affects the qualitative characteristics of accounting information, because this type of reporting provides information with different characteristics and with regard to the increasing development of information technology, it is expected that its positive impact on the qualitative characteristics of information and thereby on the decisions of users of accounting information to be

increased day by day. In fact, the use of new technologies such as the extensible language of financial reporting will help to make the information more reliable and relevant. Accordingly, due to the lack of adequate knowledge of managers as well as keeping pace with changes in information technology, it is expected the accounting system of the country transform the accounting profession and take steps in this direction and synchronize accounting and financial reporting with rapid changes in the business world; otherwise, the position of the accounting profession and accountants in the new world will be facing a crisis.

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