Role of accounting information systems on relevance of accounting information

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Abstract: Accounting is an information system and managers should obtain high-quality and suitable information from formal and informal channels for decision-making. Accounting information system (AIS) is a part of this system that registers and summarized financial events. Then it reports information as accounting information to support managers in decision-making the question is that whether AIS affects relevance of accounting information in financial statements? To do this research, a sample of 105 confidant auditors from Tehran Stock Exchange and professors of Islamic Azad University, region 5, was selected by Simple Random Sampling (SRS) method as questionnaires. Inferential statistical method, Clemogrov-Smironov test, and t-student test were used. It was found that accounting information systems highly affect on relevance of financial statement.

Keywords: Species richness; beta-diversity; taxonomic diversity; forest

1. Introduction

Regarding to the potential capabilities of accounting information systems (AIS), and regarding to the continuous changes and rapid developments of economical units, provision of relevant, reliable, and comparable financial information is necessary [6].

Since at first, people appeal to multiple information sources, and because of increasing trend of information volume and its production speed, a system must be produced to refine, store, and transfer this information. This forms management information system [17].

Accounting information system (AIS) is a part of this system that registers and summarized financial events. Then it reports information as accounting information to support managers in decision-making. Thus, most part of information in organizations include accounting information [3].

Most economical decisions and strategies to maximize profits and minimize costs conclude to accounting information. Since accounting measures economical information and offers it to users and we know it as an information system, therefore, managers need high-quality information for success of organizations [4].

On the other hand, information technology (IT) and AIS are key elements for removal of location and time limitations, better and rapid access to information, up to date information, etc.

It means creating AIS and by well-known companies changes work methods and provides an electronic base instead of paper [8].

On the other hand, the goals of financial statements and accounting sources requires special features for financial statements to be used by investors and other users. These features are called "qualitative features of accounting information" (relevance), which includes relevance, reliability, and comparability [12].

Therefore, sequential changes and rapid advances are taking place in economical units that severs provision of financial information, which are relevance, reliability, and comparability. Also, increasing growth of society complexities justifies requirement of economical information related to information systems and information generating processes [9].

Therefore, regarding to potential capabilities of AIS and as computer AIS, this research is going to study usage of IT and its role on relevance.

2. Theoretical fundamentals of research

In this research, recognition role of information systems in promotion of accounting and accounting information qualitative features is necessary.

2.1. Accounting information systems (AIS)

AIS is an essential part of management information system (MIS) that receives data from

financial events and processes it to make suitable information for intra- and extra-organizational users [10].

There are different definitions for AIS: "AIS is components and elements of an organization that provides information for users by processing financial events" [2].AIS has two great goals: 1.Making information for legal operations 2. Making information for decision-making AIS has valuable benefits if it achieves these goals [11].

2.2. Qualitative features of accounting information

(relevance)

Qualitative features are those features that make information suitable for users [5]. Some qualitative features relate to information contents in financial statements and some others relate to quality of information [18].

1. Relevance: include well-timed information, suitable anticipation, and suitable evaluation.

2. Reliability: include confirmation capability, comprehension, correctness, priority of contents on forms, and neutrality.

3. Comparability: include procedure stability and disclosure. [12]

3. Research history

What is investigated more in foreign researches is role of IT in qualitative features of reporting.

Ashback, Johnson, and Warfield studies significant changes in financial statements in internet, especially well-timed information [14].

Graham & Baldwin (2003) suggested that using information in financial statements affect judgment trend. In other words, it affects relevance of information [17].

In a research titled "Concepts of accounting information value", Theodore J. Mack emphasized on recognition of value of information and suggested that information value requires using suitable AIS [15].

In Iran, there are several essays about information systems and role of accounting software in changing traditional space, registration of events, and reporting by students and professors.

Arab Mazar and Pajuhi (1993) in an essay titled "Study of application of computer and in provision of financial information by Iranian companies.

Manian (1994) in an essay titled "Study of effective factors in satisfaction of final users and

official planning to use application softwares and literacy of users [13].

Khadem (1978) from University of Tehran, in his thesis titled "Effect of accounting information on decisions of managers of companies accepted in Tehran Stock Exchange " [7].

Jadidi (2002) from University of Esfahan, in his thesis titled "Effect of features of AIS on improvement of decisions of managers of Bahman Group" [8] suggested importance of information systems and their role in improvement of decision-making by managers, investors, creditors, and users of financial statements.

4. Research assumption

Research assumption: accounting information systems affect relevance of information of financial statements.

5. Research method

This is a descriptive-application research based on field studies. This is a sectional research by time. A questionnaire was prepared to investigate and analyze the variables and ideas of statistical society for effect of information systems and accounting . Lickert Scale was used to response the questions. A broad response area and more options are from features of this scale. Thus, respondents wanted to choose an option.

6. Statistical society and sample

The specifications for statistical society of this research are:

1. Confidant auditors member of Bourse

2. Professors of Islamic Azad University, region 5

3. Familiars with AIS and accounting packages
    Simple Random Sampling (SRS) was used in this research. In this method, each element has an equal chance for selection. Two stages were taken to determine sample volume [1].

Formula for sample volume (Kukeran Formula) is:

$$n_0 = \frac{z^2(\frac{a}{2}) \, var(\theta)}{d^2}$$

in which,

z a/2　　= standard normal for 100(1-α)
var(θ)　= variance of estimated parameter
d　　　= error value

If society volume is infinite, the above formula is used. But, if society volume is definite and equal to N, the following formula is used:

$$n = \frac{n_0}{1 + \dfrac{n_0}{N}}$$

Of course, var(θ) is unknown. If a parameter has two cases, var(θ)=pq is considered. Its goodness is that maximum value for var(θ) is calculated. This is when p=q=1/2.

$$n_0 = \frac{(1.96)^2 (0.5)(0.5)}{(0.08)^2} = 150.06$$

Thus, n0=150.06 when d=0.08 and N=300.

$$n_0 = \frac{150.06}{1 + \dfrac{150.06}{300}} = 100.04 \approx 101$$

Thus, sample of this research is n=105 for N=300.

7. Data analysis method

Two descriptive and inferential methods were used in this research.

7.1. Descriptive statistics

This part of questionnaire consists 26 questions. Then Lickert Spectrum was used to analyze data.

7.2. Inferential statistics

In this research, Clemogrov-Smironov test was used to normalize data, single-sample t-student test was used to study effect of AIS on relevance, and variance test was used to compare effect of AIS on relevance.

8. Data analysis

8.1. Normalization test in assumptions

Normalization test (Clemogrov-Smironov) in the main assumption to test the effect of AIS on relevance .

H0: Data is normal (data is from a normal statistical society)

H1: Data is not normal (data is not from a normal statistical society)

If sig. level > $\alpha = 0.05$ $\rightarrow$ H0

If sig. level < $\alpha = 0.05$ $\rightarrow$ H1

Sig. level of this test = $0.068 > \alpha = 0.05$ $\rightarrow$ H0: data is normal

Significance level for all cases is > $\alpha = 0.05$, then data is normal. Thus, variables are tested by parametric methods.

8.2. Study of effect of AIS on relevance by single-sample t-student test

8.2.1. Main assumption: effect of AIS on relevance

Single-sample t-student test for effect of AIS on relevance

Table 1: Single-sample t-student test for effect of AIS on relevance

Number	Average	StD	St. average	T	Freedom degree
105	3.2468	0.4923	0.0696	3.55	0.000

H0: $\mu \le 3$

H1: $\mu > 3$

H0: AIS highly affect relevance

H1: AIS lowly affect relevance

If freedom degree > $\alpha = 0.05$ H0

If freedom degree < $\alpha = 0.05$ H1

Freedom degree = $0.000 < \alpha = 0.05$ $\rightarrow$H1

Therefore, we conclude that AIS highly affect relevance.

8.2.2. Sub-main assumption 1: effect of AIS on relevance of information in financial statements

The results are:

1. AIS highly affect relevance of financial statements.

9. Findings of research

According to the results, it was found that AIS highly affect on relevance of financial statements.

By discussion about theoretical fundamentals it can be said that wonderful progress of AIS help users in better decision-making, because they increase relevance of information. Findings indicate that AIS affect well-timed information.

10. Conclusion

In this research, effect of AIS was studied and the results are as follows:

Table 2: Effect of information systems on Relevance

Row	Qualitative feature	Effect level	Rank
1	Relevance	High	First with α error

The results show that using AIS significantly affect financial statements of companies accepted in Tehran Stock Exchange. It is especially dominant in relevance of information, which comes from well-timed information.

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