

The Effect of Information Technology on Efficacy of the Information of Accounting System

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Abstract. In this research we will try to study the amount of information technology's effectiveness on the efficacy of accounting data and reports. By using statistical analysis methods and Freedman's test in order to classify the intended factors, we will study the effectiveness of information technology on factors such as in time supply and presentation of the data, the convergence of accounting data with changing economic conditions, the ease of interpreting the data resulted from qualitative desirability of the outputs, the managers' confidence on the appropriateness of the system, the variety and format of the outputs and the interference of the data related to decision-making. Here we have tried to select an appropriate sample of statistical society from among managers of companies accepted in bourse to assess the effectiveness of information technology on factors related to accounting reports. After analyzing the data, we concluded that on the whole information technology is effective on efficacy of the data resulted from accounting system.

Keywords: Information Technology, Accounting System's Data, Financial Reports' Accounting

1. Introduction

Today astonishing changes have happened in information technology and its developments have been generalized and this has created different trends in different fields. The most important characteristic due to that issue are the high speed in processing the data, very high precision, high speed access to data, being up-to-date, the possibility of data exchange, high quality, very cheap prices which always decreases, and also broadening of performance range and its complication. Regarding these factors we do not need to justify the use of information technology in today's world and accounting is inevitably applying and using all or some of the new methods in presenting its services and duties.

The rapid developments in information technology have revolutionized the business methods and publishing the financial information. These advancements are continually changing the nature of accounting and the role of accountants in a way that since these data are up-to-date and they are published in time, they may have special importance. Thus, the data suppliers, especially accountants should try to supply qualitative and desirable data to be welcomed by the data users. Information technology has revolutionized the method of activities implementation and has changed them into an electronic format. Rapid changes in information technology, overall development of multi-user systems and the tendency of the organizations to supply and administer new systems and software have changed computers to be simpler than the past and accounting tasks are being carried out more rapidly and precisely, compared with the past. Accounting, as the business language and information system, should adjust itself with new technologies to be presented to the financial users.

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2. Research Methodology

Regarding the level and range, our study involves a set of business, service and manufacturing companies in which accounting system is organized by a credited reference and they are among firms accepted in Stock Exchange. Accordingly, 50 companies were selected as our statistical sample population. This number was due to the limitations and the lack of responding by other organizations to our questions.

2.1. Data Collection

In this research, data collection was carried out by using questionnaires. The questionnaire in this research involves 1 main and 7 subordinate question. The main question is related to the effect of using information technology in presenting accounting reports on accounting outputs and the subsequent 7 questions are presented about the minor hypotheses of this research.

2.2. Data Analysis

Statistical analysis technique was utilized in analyzing the results and testing hypotheses. Then the averages related to each factor were extracted for 50 questionnaires and depending on the appropriate intervals they were ranked between 1 and 5 to result in the rejection or approve of the main hypothesis. In the next step the tables and frequency graphs related to each one and the statistical information related to the questions were extracted. Then, the classification of each independent factor was carried out by using freedman's test, regarding the amounts they were affected.

3. Research Hypotheses

3.1. Main Hypothesis

Information technology has a positive effect on reports and accounting systems' data.

3.2. Minor Hypotheses

- Information technology has a positive effect on supplying and in time presentation of the data.
- Information technology has a positive effect on the convergence of accounting data with changing economic conditions.
- Information technology has a positive effect on mangers' reliability about the appropriateness of the system.
- Information technology has a positive effect on the ease of outputs' interpretation.
- Information technology has a positive effect on form variety and format of the outputs.
- Information technology has a positive effect on data interference related to decision-making.
- Information technology has a positive effect on the qualitative desirability of the outputs.

4. Discussion and Research Hypotheses

As it was stated earlier, questionnaire is the main tool for data collection to study the research hypotheses in this research. The measurement method for the variables is ranking and Liekert's spectrum was used to achieve it. Responses are placed in a spectrum from very low to very high. Weight 1 is assigned for very low and weight 5 is assigned for very high. Thus, regarding the main hypothesis, weights 1 to 3 approve the zero hypothesis, which means the rejection of the relationship between the variables and weights 4 and 5 reject the main hypothesis which means that the relationships between the variables are approved. Then the answers to the questions presented to the managers were calculated and compared with the items mentioned above.

4.1. Analyzing the Main Hypothesis of the Research

Information technology has a positive effect on reports and accounting systems' data.

$H_0: m \leq 3$

$H_1: m > 3$ m : Average of 1-5

Table 1: the results of main hypothesis

	Sample's number	average
The main research hypothesis	50	3.3

This average is more than the presupposed average (3). Thus, we can not accept zero hypotheses. This means that the main hypotheses in this research is accepted and we can claim that information technology has a positive effect on reports resulted from accounting system's data.

4.2. Analyzing the Minor Hypotheses

Table 2 shows the results of 7 minor hypotheses. As it is shown in the table, hypotheses 1, 2, 4, and 7 are approved and hypotheses 3, 5, and 6 are rejected. In fact we can claim that information technology has a positive effect on factors such as: in time supply and presentation of information, the convergence of accounting information with changing economic conditions, the ease of outputs' interpretation, and qualitative desirability of the outputs. But we can not say that the effect is positive on the other 3 factors. Also table 3 shows the results of ranking these 7 factors by using Freedman's test. As it can be observed, the amount of information technology's effectiveness on ease of outputs' interpretation has appropriated the highest rank to itself and managers' reliability over the appropriateness of these systems has gained the least rank.

Table 2: the results of minor hypotheses

Minor hypotheses	1	2	3	4	5	6	7
Average	3.30	4.2	2.2	4.2	2.7	2.32	3.32
Hypotheses result	approved	approved	rejected	rejected	rejected	rejected	rejected

Table 3: Rankings resulted from Freedman's test

7 factors	The average of ranks
The ease of outputs' interpretation	6.24
The convergence of accounting information with changing economic conditions	6.15
Qualitative desirability of the outputs	4.51
In time supply and presentation of information	4.32
Variety of form and outputs' format	2.84
The interference of information related to decision-making	2.17
Managers' reliability on the appropriateness of the system	1.77

5. Conclusions

The results of 7 minor hypotheses show the effectiveness of using information technology on each of the hypotheses. Also the main hypothesis approves this issue. Thus, we can state that information technology has affected accounting reports and they should be taken into consideration by the managers. The broader researches about more use of information technology in managers' decision making to know about the obstacles and difficulties can identify the necessity of knowledge about these facts among company and entity managers. All companies are generally confronting difficulties related to utilizing accounting systems. These difficulties which are related to input data, data processing and utilizing the outputs need to be investigated more to develop theoretical concepts and practical accounting methods besides using information technology.

6. References

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