

Adaptation of Accounting Information System for the Requirements of Developing Accounting Measurement and Disclosure

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Abstract:-

This study aims to show the possibility of adapting accounting information system to the requirements of developing accounting measurement and disclosure techniques according to the decision making in the terms. The study has relied on a sample that consists of 40 persons among the accountants, auditors, and users of accounting information. In addition, this has come to a conclusion indicated whereby that there is still a need to highlight the concept of accounting information system and the importance of adopting it with the needs of modern era, in two basic directions, which are the attractiveness of the system first and then of the information secondly.

Introduction:

the evolution of the business environment as a result of economic and political changes that led to a new era with all its data, which has been left a clear impact on the nature of the accounting performance in the two main pillars of it, namely, measurement and discloser. These two factors depend mainly on the role and efficiency of the accounting information system applied whether it was functional system or cost system.

The efficiency of information accounting system is often determined depending on the capacity and safety of its components and basic elements which are often consist of individuals who are accountants and auditors, the most important of them, and the equipment and devices that have become computers as an integral part and important in the system and the consequent applications and programs that contribute to the tasks achieved by the system more efficiently and effectively.

Accounting information system plays a prominent role in the aspects of a measurement and accounting discloser after becoming an accessory. Financial information is moving in the project as a huge stream of quantum towards decision-making centers or the recipients, which requires the system to be adapted to the demand for the information. First to apply them with the real needs, and before that the adapting with the trends of development in the measurement and discloser requirements according to the needs arising from the information.

In light of the forgoing ideas of the research named, "Adaptation of Accounting Information System for the Requirements of Developing Accounting Measurement and Discloser," was built as scientific effect to show the compatibilities between two parties represented by the accountants, auditors from one side, and the users of accounting information from the other side.

This paper is divided into many sections: the theoretical framework comes first, to explain the concepts of accounting information system, measurement and discloser. In the second section, we review the research methodology. Thirdly, presents the results of statistical analysis and testing of hypotheses. Finally, the paper states the conclusions and recommendations that emerged from the research.

First: The Theoretical Framework:

1. The concept of accounting information system.

In view of the increasing needs for accounting information, the rely on the traditional techniques to face the massive outpouring of this information become un-due and does not meet the needs of work, the requirements of making the right decisions, especially with the scientific and economics progress prevailing at the present time, so it was necessary on companies and economic units to find methods to the collection and storage of information to supply administration continuously with the real needs of this information which allows the administrative levels of decision-making and transfer to executive positions in the company, each according to his needs.

The accounting information system as one of the most important sub-systems in the companies, which is a prominent essential part of the information system, focuses on supplying necessary information to the parties inside and outside the companies. That is essential to sustain the work after the trend of looking to accounting has been changed. As it is a tool to serve the community and a reason for its well-being, especially with the emergence of social accounting. (Qasm, 1989, p.4)

The accounting information systems concerned with the collection and processing of information, compiled, summarized, then delivered to the various administrative level to take advantage of them to take appropriate decisions and whenever such systems have resulted in its role on the good level of the information is more accurate, and provide to its users in a timely manner (Shaib 0.1977, p.32). this means it is important that these systems adapt to the actual needs of the users so the information in light of the agreed accounting rules and principles, also according to the needs of the community and its changes, which can be achieved through the standards issued by the special authorities deal with financial and accounting matters from time to time.

The adaptation of accounting information systems process is not something foreign to accounting and its systems, so that the evolution in the course of the financial and accounting work is continuing with the environmental changes, and that made accounting by itself represents an information system, until it regarded now as the science deals with designing, managing, and evaluating information systems relating to the process of decision-making that influence company's goals (Kaplen, et al., p.1). In this regard, (Matter, 1996, p.20) also said that the adaptation of accounting information system means that these systems work to gather information needed to carry out the function of planning, coordinating, directing, controlling, and formulating these functions on a scientific basis so as to remove any conflict out with the generally accepted accounting principles.

Moreover, (Khalifa, 1989, p.18) states that the volume of information collected by the system maybe very large, so the accountant must be aware of the type of decisions to be taken based on the accounting information, as well as study the difference needs of the users, then provide them with the information that suit and benefit them.

2. Measurement and Disclosure:-

After identifying the appropriate information that can be measured, the next step is to show the measurement process and the concept of accounting measurement. In general, measurement can be defined as a process which associates numbers with certain attributes or phenomenon (Suppes, 1959*). The IASB frame work states: accounting measurement is the process of determining the monetary amount at which elements of the financial statements are to be recognized and carried in the balance sheet and income statements. (IASCF, 2005, 18), accordingly the accounting measurement, in brief, is the expression of financial and economic events of a firm quantitatively by the prevailing monetary units of the country.

(Shirazi, 1990, p.48) pointed that accounting measurement processes are at the core of accounting theory and institute great importance in providing management with the information from its internal and external sources and that will lead to organize the facts generated by such information in the way of taking correct and appropriate decisions and in a timely manner. As the basic objective of accounting is to communicate financial information to the users; however, this information can be divided into two main groups depending on decision-makers use them. (Fadkh, 1999, p.3) The first group is management accounting information, which is used by decision-makers within the company and by various administrative levels. The second group represents the financial accounting information, which is used by decision-makers outside the company. Besides, the accounting information system stands accountable to senior management requirements by supplying them with the essential information to make decisions necessary to carry out its functions, as well as, in this field, the information resulted from the accounting process, which relates the costs and its various elements, also, overlaps with the two types of information that mentioned above.

As for the concept of disclosure, (Gibbins and Waterhouse, 1990, 122***) defined financial disclosure as any deliberate release financial (and non-financial) information, whether numerical or quantitative, required voluntary, or via formulary informal channels, there are different means for companies to disclose information such as: annual reports, conference calls, analyst presentations, investors relations, interim reports, prospect uses, press release...etc.

The corporate annual report is considered a very important official discloser vehicle although on its own is not sufficient in the capital market context (Omaira and Marston, 2010). In deciding what information the report (Kieso, etal, 2008)* assume that companies must follow the general practice of providing information that are of sufficient importance to influence the judgment and decisions of an informed user. Consequently, the concept of disclosure refers to a method that can be adopted for communication between financial authorities responsible for the accounting measurement and the users of such information through specific tools for this purpose represent the reports and financial statements. The limits of the discloser vary according to three concepts cited by (Shirazi, 1990), which are a sufficient disclosure, full disclosure, and fair disclosure, and the

support any of these depends on the need of users, followed by the efficiency of accounting information system in measuring and generating accounting information. The concept of disclosure is considered as the borderline and the basis on which depends in adopting accounting information system and its ability to reconcile between the requirements of accounting measurement from one side and the needs of users of the measurement results from the other side.

Second: Research Methodology:

1. The importance of research:

The importance of the research reflect in several directions, the most important among, which go along with the current trend that focus on the interest of accounting information system, as well as, highlight the concept and basic components that deal with the accounting information which support the decision-maker and give him acceptable assurance when taking his decision that concern the goal to be attainable.

The other trend is that the process of adopting accounting information system represent a necessary and important condition especially after accounting has become a service activity with a descriptive nature, and extend several parties with financial and quantitative information, so the importance of the research arise as follows:-

1. Highlight the concept of accounting information in the company.
2. To show the extent of adopting information system to the requirements of decision-makers from two points of view. First, the persons who prepare and audit the financial information. Secondly, the users of these information, both in two directions:
 - a. Effectiveness of the system in measure and disclose the financial events in the accounting records.
 - b. The ability of the system to source the relevance accounting information to the decision-maker.

2. The problem of the research:

The basic standard to assessing the effectiveness and the role of accounting information system is determined in the light of its ability to enrich the needs of the beneficiaries of the information provided, and that is settled according to two factors which are measuring of financial and economic events, and disclosed in the financial statements, which are considered as key aspects involved in the accounting information system, so the problem stand out about inability of accounting information system to adopt with the changing trends that will inflect these two factors (measurement and disclosure) according to the needs of the users of accounting information.

3. Research Hypothesis:

The research was built based on the premise that the adaptation of accounting information system with the requirements of the development taking place in the measurement methods and accounting disclosure increase the effectiveness of the system and ensure the proper flow of accounting information for decision-makers in the project.

From the hypothesis identified above, two assumptions subgroup:

1. There are no statistically significant differences between the accountants and auditors from one side and the decision-makers from the other side that the accounting information system is actively working in measuring the financial and the disclosed events in the accounting records and statements.
2. There are no statistically significant differences between the accountants and auditors from one side and the decision-makers from the other side that the accounting information system works to secure the flow of proper accounting information for decision-makers in the project.

4. Research Variables:

The research includes two key variables and other subsidiary variables, are:

1. The effectiveness of the accounting information system, which is measured on the side of the measurement and disclosure based on the Sub-derived variables:
 - a. Objective: To what extent the desired objective of accounting information provided was achieved to decision makers.
 - b. Objectivity: The accounting information is based on a degree of objectivity.
 - c. Absorption and Accompanying: The extent of the ability of the entire information to absorb the needs of decision and its ability to keep pace with the time's variables and requirements.
 - d. Satisfactory: The ability of information to arrive to decision-making positions adequately.

2. Secure the flow of information: The smooth flow of accounting information for decision-makers is linked to properties that establish subsidiary variables, are:
 - a. The speed: insuring the flow of information required fast.
 - b. The accuracy: The information flowed must be accurate
 - c. The profit: the ability to measure the benefit achieved that influence the positive decision taken.
 - d. The access: There should be an ease to obtain the required information from the decision-makers.
 - e. Research design method:
 - f. This research depends on the study of a questionnaire consisting of a sample of twenty accountant and auditor in different companies in the socialist sector, and it is mixed with twenty diverse users of accounting information. The, prepared for this purpose, questionnaire has been distributed in the light of the research-based variables, and mediated by the statistical analysis and the analysis of the results. A set of facts, I have through research, have been achieved.

The common statistical methods have been used as follows:

1. The Mean value: To find out the level of response of the members of the sample.
2. The standard deviation: To see the dispersion response of the sample members from its average arithmetic.
3. T-Test: The inference on the significance level adopted to prove the hypothesis.

Third: View and Analyze the Results:

1. The preliminary analysis of the sample answers:

Using Minitab software, the data are inserted based on the answers of the research sample. These data helped reaching the mean value and the standard deviation, which determined the response degree of the sample and the extent of dispersion. Both the response degree of the sample and the extent of dispersion were achieved by the answers of key variables and its sub- variables according to the following table (1) below:

The mean value and standard deviation of the sample
 Table (1)

<i>Main Variables</i>	<i>Sub-variables</i>	<i>Mean value</i>		<i>Standard deviation</i>	
		<i>Accountants and auditors n = 20</i>	<i>Users of accounting information n = 20</i>	<i>Accountants and auditors n=20</i>	<i>Users of accounting information n=20</i>
<i>Effectiveness</i>	<i>1. The objective</i>	<i>2.75</i>	<i>3.53</i>	<i>1.20</i>	<i>1.15</i>
	<i>2. Substantive</i>	<i>2.80</i>	<i>3.66</i>	<i>1.15</i>	<i>1.16</i>
	<i>3. Absorption and accompanying</i>	<i>3.25</i>	<i>3.73</i>	<i>1.11</i>	<i>0.96</i>
	<i>4. Sufficiently</i>	<i>2.90</i>	<i>3.03</i>	<i>1.16</i>	<i>0.85</i>
<i>The smooth flow of information</i>	<i>1. Speed</i>	<i>2.95</i>	<i>3.36</i>	<i>1.23</i>	<i>0.97</i>
	<i>2. Accuracy</i>	<i>2.75</i>	<i>3.46</i>	<i>1.83</i>	<i>0.93</i>
	<i>3. Benefit</i>	<i>2.88</i>	<i>3.50</i>	<i>1.32</i>	<i>0.87</i>
	<i>4. Access</i>	<i>2.50</i>	<i>3.14</i>	<i>1.33</i>	<i>0.80</i>

- a. Effectiveness:

The results of the mean value and the standard deviation of the main variable and the sub-variables

resulting from it indicate that the response of the sample members of the research from accountants and auditors varies. The sub-variables: objective, substantive, and sufficiency have a mean value between 2.9 and 2.7 and a Standard deviation between 1.16 and 1.20 with the exception of one of the sub-variable, absorption and accompanying, that got the highest degree of attention among the members of the sample. Absorption and accompanying got a mean value of 3.23 and a standard deviation of 1.11. The answers of the members of the research sample on this variable are close, and there is no dispersion in the answers. In regard with the response of the accounting information users about the first main variable and its sub-variables, the answers of the sample is varying and it sets objective and absorption and accompanying in a mean value between 3.05 and 3.07 and a standard deviation between 0.96 and 1.16 with the exception of the sufficiency variable that earned a level of importance among the sample members of the users as the mean value of 3.03 appeared with a standard deviation of 0.85. In general, results show that the responses of the sample members are close, and there is no relative dispersion in the answers about this variable.

b. The smoothed flow of information:

The indicated mean values shown in Table (1) refer to the feeling of the research sample, accountants and auditors, of the primacy of the speed of information flow. That mean value was 2.9 and had a standard deviation of 1.2 while the mean values of the benefit variables, accuracy, and accessibility 2.8, 2.7, 2.5 in a descending pattern and respectively with a relatively convergent standard deviation, which refers to the response of the sample members to this variable and the sub-variables associated with it. About the same search, the result of the responses from the users of accounting information on this main variable show that the answers of the sample are close. The results for each of the variables: speed, accuracy, and utility fall in the midst of a mean value between 3.5 and 3.3 and a standard deviation between 0.97 and 0.87 with the exception of the information access variable that earned a level of importance among the sample members as the mean value 3.1 appeared with a standard deviation of 0.8. Overall, the results show that the responses of the sample members are close, and there is no relative dispersion in the answers about this variable.

2. Using statistical relationships (t-test) to prove the research hypothesis:

In order to verify the authenticity of the research hypothesis and taste it, a statistical method (t-test) has been relied on to measure the incorporeal link and relationship between the samples of both the accountants and the auditors on one side and the accounting information users (decision makers) on the other side. This test measures the effectiveness of accounting information system. Using the standard deviation of the mean value data extracted from Table (1), the following results appeared as shown in Table (2):

T-test of the research sample on the effectiveness of the system variable

Group	N	Degree of freedom	Calculates T	Spreadsheet T	Incorporeal relationship
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Table (2)

			0.01	0.05	0.01	0.05	
Accountants and auditors	20	N - 1	2.80	2.10	2.72	2.03	No significant Incorporeal differences.
Users of information accounting (Decision-makers)	20	40 - 1					

Table (2) shows that T calculated at the incorporeal level of 0.01 and 0.05 are 2.80 and 2.10. Compared to T spreadsheet, in the degree of freedom (n-1), and T calculated smaller than T spreadsheet, the results indicate a significant link in the answers of the sample members; between accountants and auditors on one side and the accounting information users on the other side. This shows the effectiveness of the accounting information system in achieving some operations including: reaching the aims, having objective results, assimilating and Keeping pace with contemporary changes, and the efficiency in the use. The results indicate that the level of effectiveness emphasizes the adaptation of accounting information system with the needs of users of accounting information in the directions represented by the sub-variables which has to accept the first sub-hypothesis that states:

There are no statistically significant differences between each of the accountants and auditors from one side and the users of accounting information or decision-makers from the other side that the accounting information system works dynamically by measuring the financial events and disclosing it in the accounting records and statements. Using the same statistical method and the method adopted in measuring the incorporeal link degree and relationship between the answers of accountants and auditors on one side and the accounting information users (decision-makers) on the other side about the flow of accounting information, and by using the mean value data and standard deviation, the results are shown in the following the table (3):

T-test of the research sample on the information flow variable:

Table (3)

Group	N	Degree of freedom	Calculated T		Spreadsheet T		Incorporeal relationship
			0.01	0.05	0.01	0.05	
Accountants and auditors	20	N - 1	2.11	2.02	2.72	2.03	The relationship is not incorporeal. There are incorporeal differences.
The accounting information users (decision-makers)	20	40 - 1					

The above table shows that the T calculated at a significance level of 0.01 and 0.01 is 2.11 and 2.02. Compared with T spreadsheet, in the degree of freedom (n-1), and T calculated is smaller than T spreadsheet, the results suggest that the relationship is insignificant in the sample members answers of accountants and auditors on one side and the users of accounting information on the other side, which indicates that the flow of accounting information and the objectives related to it represented by the sub-variables: speed, accuracy, utility and accessibility are not verified. This underlines that the accounting information system is not adapted with the referred aspects, and especially with the needs of the accounting information users. As a result, the second sub-hypothesis gets rejected. The second sub- hypothesis states that: Statistically, there are no significant differences between the accountants and auditors on one side and the decision-makers from the other side that accounting

information system secures the proper flow of accounting information to the decision-makers in the project. From the information above, the following is noticed:

1. There is a clear fluctuation in the answers of the sample members of accountants, auditors, and accounting information users (decision-makers). This matter was raised based on the nature of the relationships among those who oppose the measurement and disclosure events and among its users.
2. Results indicate that the first hypothesis is proved to be true, and there is no statistical difference among the sample members from the two categories on the effectiveness of the accounting information system and the sub-variables relevant to this aspect. On the other hand, the second hypothesis is not proved to be true. The second hypothesis is referred to a main variable which is the smooth flow of information and the sub-variables associated with it. This is considered as a normal matter and constitutes the essence of the information adaptation process of the decision-makers requirements and their constant and rapid need to the accounting information at a time when the accounting information system's conceptual, intellectual, and practical framework is still in the nascent stage and still gaining importance.

Fourth: Conclusions and Recommendations:

Conclusions:

- a. Generally, the results of the sample members' answers of the mean value and standard deviation indicates that there is a clear fluctuation in the answers about the two main variables and the sub-variables associated with each of them which impacted the proof of research hypothesis.
- b. The primary analysis of the results of the sample members' answers showed that the interest in the sub-variables of the two main variables is uneven. The answers showed that there is a great interest in the procession and comprehension variable regarding the first variable and the access variable regarding the second variable while the reality indicates that other sub-variables may occupies a far more importance according to the accounting logic.
- c. The fact that the first hypothesis was proved but not the second one shows that the process of accounting information system adjustment with the evolution in the methods of the measurement and disclosure requirements is still incomplete theoretically and practically, or is incomprehensible by the people dealing with it.
- d. The evolution of accounting and accounting theory, and the completeness of the conceptual and Intellectual frame are achieved by meeting the environmental needs and the requirements relevant to accounting information.

Recommendations:

By the theoretical and statistical analysis presentation and the relationships' interpretation, a number of recommendations with the utmost importance and usefulness could be demonstrated, and they are:

- a. There should be a special care of accounting information systems in order to build an intellectual, conceptual, and practical framework regarding the importance of accounting information, and find ways to address and configure it to supplement the decision-makers in the project with what they actually need. Here, universities and institutes should play its role in this aspect, and it shall depart the traditional methods and topics related to accounting.
- b. Workers' awareness should be raised about accounting units in order to increase their capabilities allowing the possibility of increasing the effectiveness and efficiency of accounting information system in the project in order to enrich the decision-users with the important accounting information for making their decisions.
- c. The attempt to develop the actual reality of accounting information systems in businesses and build an efficient information system that contributes in processing the data, and creates the necessary and essential information to its users.
- d. The attempt to revise accounting information systems adapted by companies constantly in order to find out the extent of their adaptation to the actual needs of the information provided, as well as the extent of their sustainment with the decision requirements.
- e. The attempt to Rely on specialized and efficient elements in building accounting information systems as well as in revising it in order to make them constantly commensurate with the needs of the users of accounting information which are provided to them with the results of those systems .

- f. A future vision is associated with this research. This vision could take place when talking about financial details and costs of the project, and determining the level of adaptation of accounting processes and how to show them in the financial disclosures and records.

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Questionnaire:

Mr. Accountant, auditors, user of accounting information.

Thank you for your cooperation and we hope that you write down the number that actually corresponds to the reality in a way that ensure analyzing the results statistically about the extent (Adaptation Of Accounting Information System For The Requirements Of Developing Accounting Measurement And Disclosure).

Occupation:

Accountant Auditor accounting information user

Likert Scale:

Strongly agree agree neutral disagree strongly disagree
5 4 3 2 1

First: efficiency:

1. Often times, the resulting accounting information, which are provided to the users, achieve the desired objective.
2. Resulting accounting information are on a high degree of objectivity.
3. The provided accounting information are characterized by being fully satisfying the needs of the decision-maker in terms of keeping up with times and its givens.
4. The accounting information that makes up the center of the decision is characterized by being complete sufficiently.

Second: Secure the flow of information:

1. The accounting information provides the speed required by its users.
2. Often times, accounting information are characterized by its accuracy.
3. Measuring the possible benefit of accounting information is possible by the users of that information.
4. Often times, there are an ease in getting the information needed by decision-makers.