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## **The Implications of The Use of Accounting Information Systems**

### **In Decision Making**

### **An Empirical Study In Iraqi Private Companies**

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### ***Abstract***

The aim of this study is to highlight the role of accounting information (AI) and financial reports for decision making process and for performance evaluation in Iraqi private sector's companies. In particular, the study is concerned with discussing three main phases *first*; the extent to which decision makers in Iraqi private companies are aware and recognize the significance of information generated by accounting system and financial reports for decision making and for other essential management functions; *Second*, the extent to which this information is actually, used for decision making and other management functions, particularly for planning and control human resources, marketing and other aspects of work; and *Third*, the extent to which, from the decision makers' view point, such information can cover decision making needs and requirements. To achieve these objectives, questionnaire method is used and covered (30) Iraqi companies in the middle and south of Iraq, an average of (4) executives were selected from each company. (120) questionnaire forms were distributed on the executives, (100) forms of them were collected. Statistical methods were used to analyze the information and data gathered. The study concluded that most of the decision makers believe that cost accounting information and financial reports are very significant for decision making. However, the majority of them explained that they have no sufficient skills to use such information practically in decision making. Many of them explained that they have no sufficient skills to analyze and interpret the accounting information to understand the main indicators highlighted by such information. Most of the decision makers believe that accounting information and other

accounting information cannot cover all the needs of decision making, and thus they resort to other sources of information to assist in deciding making process.

### **Key Words**

Accounting Information Systems, Decision Making, Accounting Information

### ***Introduction***

Debate has continued since many decades about the importance of using accounting information, in particular cost accounting, in making administrative decisions and other main functions such as planning and control, organizing, and performance evaluation. Opinions differ about whether this source of information can be relied upon as a basis for these purposes, or it is unreliable source because of its dependence on historical information

It is very important for Iraqi private companies to answer such questions and to understand what are the improvements to be made on this source of information to be relied upon by decisions makers in these companies.

There is no doubt that recording and analyzing accounting information and how it is prepared requires familiarity with preparation standards and recording principles. Knowledge of accounting processes and financial reporting is usually the job of professional accountants. However, decision making in our companies are often a job of other specializations' people, such as administrative, engineers, or other specializations, who didn't study accounting. Therefore, the question that would arise is whether there is sufficient understanding by the decision makers about the importance of this source of information for decision making, whether they actually use this sources in making decisions for different purposes, and whether they believe that this source is sufficient as a basis for decision making process.

This study is an attempt to discuss these aspects and to know the realities that our companies have achieved in using cost and financial accounting information and reports in these fields.

### ***Research Structure***

The research includes four main parts: (1): Research methodology, (2): Theoretical aspect, (3): Empirical aspect, (4) Conclusions and recommendations.

#### ***First Part***

#### ***Research Methodology***

##### ***1-Research Problem:***

Through the foregoing, the research focuses on three aspects that lie in :

- 1-Is there sufficient awareness by the decision-makers in Iraqi private sector companies of the importance of accounting and financial reports information for decision-making in various fields?
- 2- Do the decision makers in the companies under study actually use accounting information and financial analysis statements in making decisions in an effective and practical way?
- 3- Is there is a satisfaction among the decision-makers in the mentioned companies about the adequacy of information generated by the accounting information systems for decision-making and administrative functions and that this information have appropriate objective characteristics?

##### ***2-Research Objectives:***

According to the above, the research objectives can be summarized as follows:

- 1- Knowing the extent of awareness of decision makers in the companies under study about the importance of cost accounting information and financial statements for decision-making process.

2- Knowing whether the decision makers are actually using the cost accounting information and financial information in the decision making and other administrative purposes.

3- Knowing the extent of conviction of the decision makers in the sample with the adequacy of the accounting information and its relevance to decision-making and other functions.

### **3-Research Contribution:**

In addition to the above three main points which will be highlighted by the research, the research contributes in developing a practical guide for decision makers of which areas they can use accounting information for. In addition to this, the research highlight the role of accountants and internal auditors in assisting decision makers in this regards.

### **4-Research Hypotheses:**

To verify the validity of the search results, the following three hypotheses have been developed :

**First Nil Hypothesis (HO1):** The officials of the companies under study have sufficient awareness of the importance of accounting information and financial reports for decision-making process.

**Second Nil Hypothesis (HO2):** There is a wide and effective practical use by the companies under study of accounting information and financial reports in making decisions and managing other functions.

**Third Nil Hypothesis (HO3):** Officials in these companies believe that the accounting information and financial reports are sufficient for the purposes of making decisions in various fields.

### **5-Research Method :**

Questionnaire method is used to collect information from the sample companies. The researcher used the Quadruple level to analyze the information obtained (Appendix 1). (30) companies were chosen in the middle and southern of Iraq as a sample for research, and (4) executive officers are selected in each company, with a total of (120) employees. (100) forms were collected out of (120) forms distributed which represents (83%) of the distributed forms. The sample included various industrial, commercial and agricultural companies, and the sample officers included administrators at the levels of

general manager, director and assistant director. Statistical methods such as weighted average rates and standard deviation are used to analyze the information collected.

## **Second Part**

### **Theoretical Aspect & Previous Studies**

#### ***First: Theoretical Aspects:***

##### ***1- The process of preparing Accounting information:***

In any organization, decision-making process requires information of a financial and non-financial nature. The information provided by the accounting systems is one of the most important of these sources, which required by the decision makers because of its comprehensiveness and accuracy in measuring the results of activities and their ability to express quantitative criticism of these results. Accounting is, therefore, a service function for management to collecting, recording, analyzing, and communicating the financial information (Dahman, 2012, pp. 18-21), ( Katarina & Lajos, et .al, 2006).

However, an important part of the process of using cost and financial accounting information for decision-making purposes is how to read, understand ,and interpret financial statements figures they contain and understand the implications they have. This makes the use of this information for decision-making not always easy.

Also, we need to verify the accuracy and integrity of the numbers by preparing the trial balance, which is the primary step to start preparing final accounts and statements that reflect the results of the activities . The final accounts and accounting statements includes the income statement ( Profit and loss account), the balance sheet ( Financial Position statement) ,and the cash flow statement (Alexandra, 2012, P4).

The accounting operations referred to above indicate mainly that cost and financial accounting information provides the information necessary to prepare the final statements and accounts. However, accounting can provide other information of great importance to the decision making, such as the information provided by management accounting, which can be used as complementary information which can be used for tax and external purposes. (Yunus, 1989, p. 9).

## ***2- Accounting Information and Decision Making:***

Accounting information is an important source for management and decision-makers. The use of accounting information reduces the state of uncertainty and facilitates the selection process and highlights possible areas for management and clarifies the alternative solutions. Accounting Information systems should assist in the decision-making process and support other administrative functions. This support can be before the preparation of decisions through the collection and analysis of information and through the selection of alternatives and after the selection of the decision by communicating the decisions taken to the implementers. Some writers have pointed out that accounting can provide an information system that leads to reduce the uncertainty and provide the decision-making process with many benefits (Boswell, J., 1980).

In order to use accounting information in the decision-making process, we have to analyze the financial statements. Within this framework, we can describe the process of analyzing financial statements as the process of converting financial data into information that can be used in measuring and evaluating the efficiency and quality of work through the use of various analysis tools, (Charron, & Separi, 2010)), (Katarina & Zagir, et. al, 2006).

Within the process of financial analysis (FA), management can use a wide range of tools used in the analysis. At the forefront of these tools comes the comparative analysis of the (FA) and the horizontal analysis with the analysis of the structure of the (FA) in addition to the vertical analysis. By means of the horizontal analysis, which depends on comparing the (FA) for several years, we try to diagnose the

general trends of the paragraphs of the (FS) and the change in their ratios and their status over the time stages. (Hall, 2010), (Friedman, 2004).

Based on this understanding of the importance of financial and accounting information, the role of financial statements for decision making and for basic administrative functions, the questionnaire for this study has been designed to arrive at the results and goals that the research seeks.

### ***Second: Previous Studies:***

#### **1-Arabic Studies:**

1- Al-Zubaidy (2010) "The effect of accounting information on investment decisions in shares of companies listed on the Iraq Stock Exchange":

This study aimed to highlight the importance of accounting information included in the financial reports of companies registered in the Iraq Stock Exchange for investors to assist them in their investment decisions. The researcher used (92) form for analysis and concluded that the Iraqi investors find that accounting information contained in the financial reports is clear, understandable and sufficient for investment purposes. They also count the profit and loss account as the basis for their investment convictions. The researcher also concluded that the Iraqi investor adopts sources other than financial reports for his investment decisions as the advice of financial intermediaries (Al-Zubaidi, 2010).

2- Al-Makhademah, (2007): The effect of computerized accounting information systems on investment decision-making "An applied study on Jordanian companies":

In this study, the researcher investigated the opinions of a sample of Jordanian industrial companies on the impact of accounting information systems on making investment decisions in light of computerized accounting systems, through reviewing accounting information systems, explaining types of investment decisions, and linking them in light of electronic accounting systems.

The study concluded that all the previous factors affect the process of investment decision-making with the exception of the neutral and comparative property, as it was found that all qualitative

characteristics of accounting information are widely available in computerized accounting system information, and that the software used in computerized accounting systems affects investment decision-making. (Al-Makhademah, 2007).

### 3- Muteeh, et.al., (2007) “Accounting Information Systems”:

This study aimed to clarify the types of accounting information used in the decision-making process. The study divided the information into (5) types which are personal information, basic information, and information related to the selection of alternatives and information for determining the future and information of defining the criteria used. The study contributed a full explanation of the nature of the information necessary for each type of basic decision. (Muteeh, et.al. 2007)

## **2-Foreign Studies:**

1 -Bouchet, Hopkins F. et.al, ( 1998), *"The impact of information use on decision Making in the pharmaceutical industry"*:

This study sought to measure the impact of the use of accounting systems information on the process of making various administrative decisions in pharmaceutical facilities and came out with the conclusion that accounting information has a clear impact on the decisions taken by departments in the pharmaceutical and industries in particular and that it took a sample of research and the research confirms that a marked improvement has occurred in the decision making process as a result of utilizing of accounting information (Bouchet & Hopkins, et. al.,1998).

2-Katarina Zagir , Lagos Zagir (2006), *"The Role of Financial Information in Decision Making Process"*:

This study is concerned with the quality and efficiency of the information provided by the accounting systems for the purposes of decision-making and its ability to provide the advantages that



make them valid for the decision-maker. The study is interested in explaining the characteristics and nature of accounting information and how it is read and interpreted as the way to provide a better environment for making decisions that depend on its efficiency and effectiveness (Katarina & Lajos, 2006).

3 -Alexandra –Daniela Socea –( 2012), “*Managerial Decision Making and Financial Accounting Information*” :

In this study , the researcher believes that the accounting information includes varied contents, and that decisions making process constitutes a broad world and therefore it is difficult to reach a complete agreement on what must be included in the accounting information. The research focuses on the accounting information role to the accounting decision-making process. The study concluded that the accounting information assist decision makers and managers in identifying what happened in the company and its current state, and provides a quantitative review of information about its activities . Within this framework, the research advises that accounting information to be useful should be accurate, closely related to events, reliable, and comparable (Alexandra, 2012).

4--Rahman, Khondoker Ziaur ( 2016 ), “ *Accounting Information System as A Strategic Decision Making Tool in Banking Sector- Evidence from Bangladesh*”:

This research shows that accounting information is an essential part of any organization and that this information is used as a basis for making strategic decisions, and since strategic decisions are planned in advance, it is necessary to analyze accounting information from a strategic point of view. The study aims to discover the impact of accounting information as a tool for making strategic decisions in the banking sector in Bangladesh. The study uses the questionnaire as a means to obtain the necessary information to reach the study to its goals. The questionnaire was distributed to 40 institutions. The study found that 72.5% of surveyed banks actually use this information as a tool for strategic decisions. The researcher concludes that accounting information can be used as a strategic tool for decision-making in banks operating in developing countries (Rahman, 2016).

5- Bubaker , Shareia , ( 2006): *The role of accounting system in decision making, planning, control in a developing country: the case of Libya* ):

This study was submitted to Wollongong University, and it is directed to examine the effect of accounting systems on decision making and basic administrative functions such as planning and control in Libya. The study used the global economic development. To interpret the data with a special focus on the social and cultural factors that determine the country's economic situation. The study concluded that the accounting information does not provide any important information for the purpose of planning, control and decision-making, but only to meet the legal requirements. The study advises those interested in the accounting profession to develop its contribution and the information it produces to meet development requirements and provide a sound basis for decision-making, planning and oversight (Shareia, 2006).

*6- Breuer Adela; et al,(2013)” The role of Management accounting in The Decision Making Process : Case Study Caras Sever in County”.*

This study is concerned with discussing the role of management accounting as a branch of accounting for decision-making . The research adopts the field study using the questionnaire method and the selection of (50) institutions of different sizes to obtain the information necessary to achieve the goals of the research. Statistical program (SPSS) was used to analyze the information. As a result, the researcher concludes that many institutions within the research sample use management accounting information as an acceptable option for accounting information for decision-making purposes (Breuer, et. al., 2013).

### **Third Part**

#### **Empirical Study**

##### ***1-Analysing Questionnaire Results:***

##### ***First: Analysis of the personal information –Part One:***

The first part of the questionnaire includes the following questions about the personal information of the respondents: (1) Position (2) Experience (3) Certificate (4) Specialization, (5) The type of company.

Tables (1-5) show sample answers about the information mentioned:

**Table No. (1)**

**Repeated distribution of answers about the Job of respondents to the study sample**

<b>Job</b>	<b>Frequency</b>	<b>Percentage</b>
Directorate General	38	38%
Director	32	32%
Directorate Assistance	30	30%
Total	100	100%

**Table No. (2)**

**Repeated distribution of answers about the experience of the respondents, the study sample**

<b>Period of Experience</b>	<b>Frequency</b>	<b>Percentage</b>
5-10Years	32	%32
11-15Years	36	%36
More than 15 Years	32	%32
	100	100%

**Table No. (3)**

**Repeated distribution of answers about the function of the qualifications of the study sample**

Company Sector	Frequency	Nature of Activity
Trade	10	33%
Manufacturing	15	50%
Agricultural	5	17%

**Table No. (4)**

**Repeated distribution of answers about the specialization of respondents to the study sample**

**Table No. (5)**

**Frequency distribution of answers about the companies' Nature**

Qualification	Frequency	Percentage
Undergraduate Diploma	19	19%
Bachelor	69	69%
Postgraduate	12	12%
	100	100%

The analysis of the information of the first table indicates that 38% of the respondents are at the level of

making

and the use

of accounting information , Which is a necessary condition for obtaining appropriate information to

answer research questions. Table (2) information indicates that 36% of the respondents have their

Specialization	Frequency	Percentage
Management	34	34%
Accounting	32	32%
Financial Sciences & Econ.	15	15%
Technical Sciences%	19	19%
	100	100%

ranged

11-15

32% of

experience

between

years, and

the sample

have more than 15 years of experience, and the remaining percentage of those who had their experience ranged between 5-10 years, which means that the majority of the sample have sufficient periods of experience, which enables them to know the nature of decisions in the company and how to take them and the nature of the information needed. If we move to Table No. (3) information about the qualifications of the sample members, the percentage of bachelor's holders is 69% and about 12% for those with a higher diploma and higher studies, i.e. a total of (81%) of the sample have good qualification necessary for decision-making. If this information is combined with the schedule information No. (4) on the nature of the specializations of the individuals of the sample, we find that all members of the sample are from the disciplines close to the use of accounting information. The accounting specialization came at the forefront of these specialties and its percentage approached (32%). If this ratio is combined with the ratio of financial sciences and economics, the ratio becomes (47%), and the percentage of administrative specialization reached (34%), which is one of the specializations close to the use of accounting information. Therefore, the majority of the sample members are from the appropriate specializations to deal with accounting information and how to be used in decision-making, which gives confidence in the accuracy of the information that they obtained in this Side.

As for table No. (5), the information provides a clear idea of the comprehensiveness of the sample companies. The surveyed companies were distributed between commercial 54% and industrial 36%, and the rest represent agricultural companies.

This information indicates that the selected sample are those with job positions, certificates and experience appropriate to the research requirements. The inclusion of the sample also provides the opportunity to obtain objective information necessary to search and answer its questions.

## ***2- Analysis of the Questionnaire Results- Part Two:***

The survey form contains (30) questions grouped in three aspects:

**The first Phase:** To what extent the decision makers in your company aware about the importance of cost and financial accounting information and financial reports for decision-making process?

**The second Phase:** To what extent the decision makers actually use the cost and financial accounting information (CFAI) and financial statements in decision-making in your company?

**The third Phase :** To what extent the decision makers believe in the adequacy and sufficiently of (CFAI) to meet the requirements of decision-making and other managerial functions?

**First: Analyzes of the first Phase's information:**

Table No. (6) shows on its right side the absolute numbers of the respondents 'answers to each of the questions of the first Phase. The northern part indicates the weighted average numbers after multiplying them by the values of the four levels of the answer to the questionnaire form.



**Table No. (6)**

**Analysis of The First Phase Information of the Questionnaire**

المعدل المرجح	غ.موافق تماما (1)	غير موافق(2)	موافق (3)	موافق تماما(4)	السؤال
2.68	5	76	108	84	1
2.58	8	74	108	76	2
2.52	7	78	126	48	3
2.58	7	72	126	60	4
2.68	7	54	150	64	5
2.71	3	68	147	56	6
2.71	5	58	153	60	7
2.62	4	80	126	56	8
2.64	1	104	84	76	9
2.36	9	110	54	72	10
26.08	المجموع 56	774	1182	652	
2.608	المعدل ( 10/ 26.08)				

The review of the weighted average of all the answers shown in Table No. (6) above, we find that they are all positive in comparison with the general average of the levels weigh (2.5), i.e.  $(4+3+2+1)/4$  and for all questions , (except for question No.(10) which refers to (2.36 as an average ) indicating the non satisfaction of the decision makers about the importance of accounting information for decision-making process. In this answer , the respondents indicate clearly the lack of sufficient experience in this field, as the weighted was (2.36), in comparison with the general average (2.5).

### ***Measuring the standard deviation of the first aspect's answers:***

By using the Standard Deviation formula shown below (Lyman, 1988, p. 48):

$$S = \sqrt{\frac{\sum X^2 F - (\sum XF)^2 / 100}{\sum F - 1}}$$

And applying them to the values of the answers of the first phase indicated in Table No. (6) (after calculating them for each of the questions of the first ten questions and extracting their average as shown in the following table No. (7), we find that the standard deviation rate for the answers of the first phase is (0.659872)), which means that there is a deviation from the mean of the measurement but for a small degree. This indicates the objectivity of the answers , because its dispersion from the mean is not significant. (The table for calculating the standard deviation of the three phases of the questionnaire were not attached due to the limitations of the number of research's pages).

**Table No. (7)**

#### **The standard deviation of the answers of the first Part's Questionnaire**

Standard Deviation	Question
0494511	س1
0740201	س2
0600589	س3
071605	س4
0600589	س5
0676891	س6
0550898	س7
071605	س8
065782	س9
0845367	س10
6.598715	المجموع

0659872	معدل الانحراف المعياري
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### ***Measuring the significance of the arithmetic mean (test z) - first Phase:***

The tabular "z" values at the level of significance " $\alpha$ " are:  $\alpha: 0.05 = 1.645$   $\alpha: 0.01 = 2.364$   $n = 100$

The formula used to measure the calculated (z) is:

$$Z = \frac{\bar{X} - \mu}{S / \sqrt{n}}$$

Where (n) represents the sample size of the individuals under study (100), ( $\mu$ ) represents the calculated mean, and ( $\bar{X}$ ) represents the mean of the arithmetic measurement. Referring to the general weighted average of answers to the first axis questions (Table 6 above) which is (2.608), and (S) represents the standard deviation rate for the mentioned axis questions (Table 7 above) which is (0.659872) and the application of the significance measurement equation, we find that the calculated value of (z) is (

1.636689) as follows:

$$Z = \frac{\bar{X} - \mu}{S / \sqrt{N}} = \frac{2.5-2.6}{0.659872 / \sqrt{100}} = \frac{0.1}{0.065987} = 1.636686$$

By observing the results and comparing the tabular (Z) at the level of  $\alpha = 0.05$  which is 1.645 with the calculated (Z) (according to the above equation), we find that (P-value = 0.051), which is greater than the level of significance (0.05), meaning that ( $Z > (0.05)$ ).

Note (1): The (Z) test is used to measure the significance instead of (T) test, because the (Z) test can be used for cases where the sample size exceeds (30) while the second test is used only for the sample size (30) or less (Lyman), 1988, p98). The probability value (P) was also taken from the statistical tables of the values of (P) corresponding to the values of (Z).

### ***Testing The Hypothesis No. (1):***



The summary of the first phase answers indicates that there is a sufficient awareness of the importance of this role. The measurement of the standard deviations of the answers, as well as the significance test, which indicated that the value of (P) is greater than the value of ( $\alpha = 0.05$ ) significance, confirmed the fact that this awareness. Therefore, the advanced results prove the validity of the first hypothesis of the research (HO1) that there is sufficient awareness of the decision makers in the companies concerned of the accounting information's importance for decision-making process and reject the alternative hypothesis that there is no such awareness and awareness.

### ***Second: Analysis of the Second Phase's information:***

Table No. (8) shows the answers of the second phase's questions which asks about: "The extent of the actual use of accounting information and financial statements in decision-making in Iraqi companies":

Table No. (8) shows the results of the answers of the second phase's questions. This phase asks about: " what is the extent to which the decisions makers in the companies concerned actually use accounting information and financial statements in decision-making ".

The results of the questionnaire indicate a large gap between the conviction of the importance of accounting information for decision-making ( Phase (1)) , and the actual use of this information in reality for decision-making (results of the second aspect), where the general weighted average indicates (2.149), which is less than the arithmetic mean for the answers (2.5).

**Table No. (8)**

م.المرجع	غ. موافق تماما	غ. موافق ضعيف	موافق متوسط	موافق قوي جداً
2.64	18	64	108	56
2.86	0	64	150	72
1.91	32	90	69	0

2.77	0	82	123	72
1.84	40	82	42	20
1.69	54	46	69	0
2.5	16	76	78	80
1.69	54	46	69	0
1.82	36	92	54	0
1.954	36	82	69	0
2.1494				

### Analysis of The Second Phase Information of the Questionnaire

رقم السؤال	موافق تماماً	موافق	غ. موافق	غ. تماماً
قوي جداً	متوسط	ضعيف	ضعيف جداً	
11	14	36	32	18
12	18	50	32	0
13	0	23	45	32
14	18	41	41	0
15	5	14	41	40
16	0	23	23	54
17	20	26	38	16
18	0	23	23	54
19	0	18	46	36
20	0	23	41	36

It is noted from the table that the positive answers were on questions (11), which asks about "the extent to which accounting information and financial analysis statements are used in determining financial solvency and facing financial hardship" ( average 2.64), and question (12) which asks about "the extent of actual use of accounting information and financial analysis statements in future financial planning "average is (2.86)", and question (14) which asks about " The actual use of accounting information and financial analysis statements in supporting the financial position and profit distribution plans " average is (2.77), as well as question (17) which asks about : "The extent about the use of cost and financial accounting information to face financing problems," whose answers are positive (2.5) as an indication of the actual use of accounting information in these areas. On the other side, the answers of the other six questions indicate lower weighted average which is less than the general arithmetic mean indicating weakness in the skills of using accounting information to solve the problems of production and identification of alternatives (Q3) and optimal determination of workers 'salaries (Q5), and development of work efficiency (Q6), and improvement of competitive positioning in the market (Q8), and diagnosing

the administrative and marketing work obstacles (Q9), and improving the quality of work in general (Q10).

### ***Measuring the standard deviation of the answers of the second Phase:***

Using the formula to measure the standard deviation referred to above and applying it to the values of the second phase's answers indicated in Table No. (8) (after calculating each of the questions and extracting its average as explained in the following table No. (9), we find that the standard deviation is (0.800265), which indicates a deviation from the general mean, but not to a large degree, which indicates the objectivity of the answers and that its dispersion from the general mean is not significant.

**Table No. (9)**

#### **Standard Deviation Of The Second Phase of the Questions**

Questions	Standard Deviation
Q1	0.947298
Q2	0.696601
Q3	0.739847
Q4	0.736563
Q5	0.84948
Q6	0.82505
Q7	0.989847
Q8	0.73161
Q9	0.725509
Q10	0.760847
Total	8.002653
Average of Standard Deviation	0.800265

### ***Measuring the significance of the arithmetic mean (Z test):***

The Tabular “Z” values at the significance level “ $\alpha$ ” are:  $\alpha: 0.05 = 1.645$   $\alpha: 0.01 = 2.364$   $n = 100$  Referring to the general weighted average of the answers of the second Phase's questions (Table 8 above) which is (2.1494) and the standard deviation of the second phase's questions calculated (Table 9) which is (0.800265) and their application in the moral measurement equation, we find that the calculated (Z) is (3.8125) .

By comparing the result with the tabular (Z) at the level of significance  $\alpha = 0.01$  which is (2.364), we find that the calculated (Z) is greater than the upper limit of the tabular value, indicating that its occurrence is within the level of significance which indicates a disagreement with the hypothesis (2). From the calculation of the value of (P), we find that it is less than the significance values of  $\alpha = 0.01$ , meaning that ( $P < 0.01$ ), which means that there is a significant statistical difference at the level of 0.01, which leads to rejecting the second Nil hypothesis that there is widespread actual use of accounting information for decision-making and accept the alternative hypothesis that there is weak use of this information for decision making process.

### ***Testing The Hypothesis No. (2):***

The above discussion about the answers of the second phase's questions clearly rejects the second Nil hypothesis (HO2) about the existence of actual use of cost and financial accounting information for decision making purposes and accept the alternative hypothesis that there no (or weak) actual use of this information for decision making .

The measurement of the standard deviations of the answers, as well as the significance test, which indicated that the value of (P) is less than the moral value of the value of ( $\alpha$ ), indicating weak actual use of this information in decision-making, and therefore rejects the second Nil hypothesis (HO2), and accepting the alternative hypothesis that there is no actual use of accounting information for decision making process in the companies concerned.

### ***Analysis of the answers of the third phase's Questions:***

This phase asks about : "The adequacy of cost and financial accounting information to meet the requirements of decision making process and supporting other administrative functions":

**Table No (10)**

#### **Analysis of The Third Part Information of the Questionnaire**

موافق تماماً	موافق	غ.	غ. موافق	المتوسط
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المرجع	تماما	موافق	متوسط	قوي جداً
2.08	40	48	72	48
2.31	29	44	114	44
2.58	24	44	78	112
2.15	33	74	36	72
1.93	34	96	27	36
2.11	28	82	69	32
1.91	36	82	57	16
2.9	5	46	147	92
2.54	20	60	78	96
2.76	8	64	108	96
2.327	المعدل العام			

رقم السؤال	موافق تماماً	موافق	غ. موافق تماماً	غ. موافق
21	12	24	24	40
22	11	38	22	29
23	28	26	22	24
24	18	12	37	33
25	9	9	48	34
26	8	23	41	28
27	4	19	41	36
28	23	49	23	5
29	24	26	30	20
30	24	36	32	8

The third phase's questions are concerned with the diagnosis of the adequacy of accounting information and financial reports to meet the requirements of decision-making and support other administrative functions , which is illustrated in Table No. (10). The weighted average of the answers as it is shown in the table is (2.327), which is less than the general arithmetic average (2.5). This means that there is no satisfaction about the adequacy of accounting information to cover all the needs of decision making process in the sample companies. However, the answers of some questions confirmed the existence of such satisfaction that this information is sufficient for some activities, for example, question No. (23), which asks whether: “Financial statements and financial analysis statements represent one of the basic sources of information that being used to make decisions”, the average of this question is (2.58 ) which is greater than the general average (2.5).

Also the answer of question No. 28, which asks whether : “ Cost and financial Accounting information are necessary for Financial Analysis statements to give clear idea about operational activities.” , and question No. 29, which asks whether the “ Cost and financial Accounting information represents one of the primary sources of control over the work and can be relied upon in planning, monitoring, and evaluating the performance and operational processes, ”and question No. 30, which asks whether“ the accounting information and financial statements are necessary for financing and investment aspects ”, were the answers are positive and indicate a satisfaction that accounting

information provides a suitable framework to cover the mentioned aspects with a weighted average of (2.58), (2.9), (2.54), (2.76) respectively for the four questions. As for the other questions' responses, the results indicated a clear decline from the general mean. This indicates non satisfaction with the adequacy of the accounting information and financial reports for the purposes indicated. The answers to the remaining questions were also low compared with the general mean regarding its ability to provide adequate frameworks for planning, control, operations, marketing, evaluating performance, and efficiency of operations and human resource use.

### ***Measuring the standard deviation of the third phase's questions :***

Using the equation of standard deviation referred to above and applying it to the values of third phase's questions, the results are indicated in Table No. (10). After calculating them for each of the

**Table No (11)**

#### **Standard Deviation Of The Third Phase's Questions**

Questions	Standard Deviation
Q1	1.060589
Q2	1.011999
Q3	1.138668
Q4	1.076611
Q5	0.890522
Q6	0.908934
Q7	0.842015
Q8	0.810287
Q9	1.067613
Q10	0.911431
Total	9.718671
Average of Standard Deviation	0.971867

questions of the third phase's questions and extracting their average as explained in table No. (11), the standard deviation of the answers will be (0.971867), which means that there is a decline from the general mean, but within the accepted limits..

### ***Measuring the significance of the arithmetic mean (Z test):***

The tabular "Z" values at the level of significance " $\alpha$ " are:  $\alpha: 0.05 = 1.645$   $\alpha: 0.01 = 2.364$   $n = 100$

Referring to the general weighted average of phase's questions (2.327) and the standard deviation (0.971867), and using them in the significance measure equation, the calculated (Z) will be (1.780).

By comparing the result with the tabular (Z) at the level of significance  $\alpha = 0.01$  which is (2.364), we find that the calculated (Z) is greater than the upper limit of the tabular value. This indicates that this value is located within the level of significance beyond the state of satisfaction with the hypothesis (3), i.e. It represents a significant difference. From the calculation of the result of the value of (P), we find that it is less than the moral value  $\alpha = 0.01$ , meaning that ( $P < 0.01$ ), which means that there is a significant statistical difference at the level of 0.01. This leads to reject the third Nil hypothesis (3) and accept the alternative hypothesis that there is no sufficient satisfaction that the accounting information is sufficient to cover all the decision making process and other management functions.

### ***Testing The Hypothesis No.(3):***

The review of the 3<sup>rd</sup> phase questions and the weighted average of their answers, and from reviewing the standard rates for these answers as well as the moral test, it is clear that there is a significant difference leading to the conclusion that there is no or weak satisfaction with third hypothesis (HO3), i.e. reject the 3<sup>rd</sup> Nil hypothesis, and accept the alternative hypothesis that there is, "insufficient satisfaction with the ability of accounting information to cover the needs of the decision makers" .

## **Fourth Part**

### **Summary, Conclusions, and Recommendations**

#### ***Summary and Conclusion :***

This study addressed an important topic that highlights the extent of the benefit that the accounting information and reports can provide to decisions makers in Iraqi private sector's companies.

The study used the questionnaire method to obtain the required information, which was analyzed and interpreted using the weighted average rates and standard deviation and tested by (Z) test. Although the accounting information provided by the final, periodic and monthly financial statements and records cannot be the only source of information necessary for decisions makers, it is very obvious that it is necessary for administration to use as a main source of information necessary for decisions, because it represents the most accurate and objective source compared to the rest of the information sources.

This study came as an attempt to find out the extent to which decision makers in the Iraqi private companies have sufficient awareness and understanding of the nature of this information and its implications to decision making process and other managerial functions. For this, the study reached the following conclusions:

- 1- There is a clear awareness about of the importance of accounting information and reports for making decisions and other administrative functions, and there is an awareness that this information can contribute greatly to improve administrative decisions .
- 2- The study showed that the actual use of accounting information and financial reports for decision-making process and other administrative functions is very weak and facing a clear problem due to the insufficient skills and experience of the decision makers in analyzing the reports and interpreting the implications they reveal. In addition , audit reports prepare by internal and external auditors don't give sufficient clarifications and highlights about the activities and the expected financial problems.
- 3- The study indicated that a high percentage of the respondents expressed that accounting information and financial reports are not sufficient to support the decision-making process in a comprehensive manner because, as decisions makers believe, this information can not reflect the operational problems and deficiencies .
- 4- It is clear that most of the respondents feel that accounting information and reports fail to highlight many of the aspects and activities in the company such as operational aspects, human resources aspects, marketing aspects and those activities which can not expressed in direct financial figures.
- 5- The study showed that some administrative leaders have a clear understanding of accounting information, which enabled them to benefit from it appropriately in many cases. However when the



economic situation is characterized by the instability in Iraq, the historical accounting figures seem, to some extent, inappropriate for decision making.

5- Personal experience and exchange of opinions is the reliable source in making decisions for many companies.

6- As a result of the study and highlighting the nature of accounting information and its importance for planning, control and performance evaluation, it is clear that a significant percentage of the research sample showed an understanding of the need to develop their experience in this aspect and work to understand the indicators and implications provided by accounting information and reports.

7- It was observed that the external auditing bodies are rarely discuss seriously the results of auditing with company officials to clarify their contents.

8 - It is noted that the two most prominent indicators that attract the attention of administrative officials are the structure of capital and profit realized (according to the accrual and cash bases in order to know whether profits can be distributed or not as well as the availability and smooth flow of cash.

However, there are some companies whose officials have shown remarkable interest in accounting reports and the indicators they provide. Such companies can provide positive indicators that they can benefit to a large extent from accounting information and reports for decision making and other management's functions.

9- Some members of the sample indicated that they can manage the work without the need for financial and accounting reports, depending on personal experience, and that they does not need these reports except for official and tax purposes and to know what is the net profit that will be subject to tax. Some members of the sample also see that the accounting numbers are difficult to understand that need specialized expertise to identify their implications and put them in the actual use of decision making process.

### **Recommendations:**

According to the above discussion, the following recommendations can be given that companies' officials can follow:

1- There is an important need for decision makers to develop accounting experience especially for decision-makers who may not have enough experience in this field. This development should be

concerned with the building the ability and skills in understanding and interpreting accounting reports and their analysis.

2- Developing the skills of accountants and internal auditors to contribute in providing positive advices for decision makers and provide beneficial financial analysis and reports about the shortcomings and deficit aspects in the companies' activities.

3- Benefiting from the experiences of the external auditors and making the process of providing the necessary technical and financial advice to the companies as a part of the final audit report.

4- The necessity for companies to set up a clear scientific framework for decision-making, which includes the basic steps for decision-making that includes collecting and analyzing information on the required aspects and options including accounting information and financial reports as a part of it. This process should also be subject to continuous development to be a guide for decisions making process.

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## Appendixes

### Questionnaire Form ( Appendix 1 )

**No. of Questionnaire Forms: (100 ) forms**

#### **(1): Personal Information:**

##### **Job:**

General Director  Director  Assistant Director

##### **Experience:**

5-10 years  11-15 years  More than 15 years

##### **Qualification:**

Below Bachelor  Bachelor  High Studies

##### **Company Nature:**

Trade  Industrial  Agriculture

##### **Specialization:**

Management  Accounting  Finance& Econ.  Trade Science

#### **(2): Questionnaire**

	غير موافق	Totally Agree	Agree	Don't Agree	Never Agree
Sr.	Awareness about the importance of Accounting Information for decision Making	V. Strong	Strong	Weak	Very Weak
1	The decision maker and management recognize the importance of cost and financial accounting information for decision making process(D.M).	21	36	38	5
2	The decision maker and the management have enough experience in using accounting information in D.M process	19	36	37	8

3	The decision maker and management have good experience in financial analysis statements (F.A.S. ).	12	42	39	7
4	The decision maker and management recognize the importance of (F.A. S.) for decision making.	15	42	36	7
5	The decision maker and Management are familiar with accounting subjects and courses.	16	50	27	7
6	The decisions Makers and management have good experience in using accounting information for operational activities.	14	49	34	3
7	The decisions makers and management have enough experience in using accounting information for financing decisions.	15	51	29	5
8	The decisions makers and management have enough experience in using accounting information for investment decisions.	14	42	40	4
9	The decisions makers and management have enough experience to use accounting information for human resources management.	19	28	52	1
10	The decisions makers and management have enough experience to use accounting information to deal with insufficiencies of work.	18	18	55	9
	<b>Total</b>	<b>163</b>	<b>394</b>	<b><u>387</u></b>	<b>56</b>
Se co nd	<b><u>To what extent there is actual use of (Accounting Information) in (D.M.P.):</u></b>	<b>Totally Agree</b>	<b>Agree</b>	<b>Don't Agree</b>	<b>Never Agree</b>
11	Accounting information system and financial analysis statements assist me in deciding financial adequacy.	14	36	32	18
12	Accounting information and financial analysis statements assist me in future financial planning.	18	50	32	0
13	Accounting information and financial analysis statements assist me in facing production problems and deciding the alternatives.	0	23	45	32
14	Accounting information and financial analysis statements assist me in supporting the financial position and profit distribution.	18	41	41	0
15	Accounting information and financial analysis statements assist me in deciding the ideal levels of employees salaries.	5	14	41	40
16	Accounting information and financial analysis statements assist me in developing the operational efficiency.	0	23	23	54
17	Accounting information systems and financial analysis statements assist me in facing financing problems.	20	26	38	16
18	Accounting information and financial analysis statements assist me in improving competitive position.	0	14	23	63
19	Accounting information and financial analysis statements assist me in identifying the work obstacles and marketing problems.	0	18	46	36
20	Accounting information and financial analysis statements assist me in improving work quality.	0	23	41	36
	<b>Total</b>	<b>75</b>	<b>269</b>	<b>361</b>	<b>295</b>
Th ird	<b><u>كفاية المعلومات المحاسبية والتقارير المحاسبية لأغراض جودة العمل :</u></b> The Adequacy of Accounting Information and Financial Reports to support	<b>Totally Agree</b>	<b>Agree</b>	<b>Don't Agree</b>	<b>Never Agree</b>

	decision making process and work Quality.				
21	Accounting information & financial analysis statements are adequate to cover my needs of knowledge about the work activities.	12	24	24	40
22	Accounting information and financial analysis statements are sufficient to give an ideal standard for managing and evaluating the work.	11	38	22	29
23	Accounting information and financial analysis statements represent one of the main information sources for decision making	28	26	22	24
24	Accounting information and financial statements are sufficient to manage the work.	18	12	37	33
25	Decision makers don't need more sources of information to manage and control the work.	9	9	48	34
26	Financial analysis statements and financial ratios are sufficient to assist in financial planning and control.	8	23	41	28
27	Financial analysis statements give a clear picture about the production and marketing and human resources activities.	4	19	41	36
28	Accounting information are necessary for Financial Analysis statements to give clear idea about operational activities.	23	49	23	5
29	Accounting information is a basic source to control the work activities and can be used for planning , control and performance evaluation.	24	26	30	20
30	Accounting information and financial statements are necessary for financing and investment activities.	24	36	32	8
		161	262	320	257