

## **The role of Accounting Information Systems (A.I.S.) in rationalized Administrative Decision- making (field study) Jordanian banks**

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### **Abstract**

The study aims to demonstrate the role of Accounting Information Systems in rationalized Administrative Decision- making (field study). For this purpose, a case study has been applied on Jordanian banks i.e., the study problem is the lack to capture high development of the technology and necessity responding to the Accounting Information Systems for them. Since the existence of good Information Systems will produce unique Information that helps the management on decision-making processes. This research aims at identifying the role of Accounting Information Systems in rationalized Administrative Decision making (field study) ,applied on Jordanian banks i.e., (Jordan Islamic Bank, Islamic International Arab Bank, the Housing Bank for Trade and Finance).The total number of the employees constitutes the three banks, the study population. The questionnaires were distributed among a random sample of (250) employees, (210) questionnaires were retrieved, i.e. (88 %) of the total number of questionnaires distributed. (205) were subjected to the statistical analysis, i.e. 97 % of the questionnaires retrieved .The researcher used the descriptive and analytical methodology, questionnaire has been designed for this purpose, and SPSS (version 19) has been used in the analysis. The main results are; the availability of the required properties in the accounting information that is reliable in the rationalization of administrative decision-making process. Accounting information is used by employees in the rationalization of administrative decision-making. Accounting information systems play a major role in the rationalization of administrative decision-making, there is no difference in the attitudes of the respondents towards rationalization of administrative decision-making due to sex, marital status, age and qualification .There is a difference in the attitude of the respondents towards rationalization of administrative decision-making due to the variable experience. As result, the study concluded the following recommendations: Effective use of accounting information systems in the administrative decision-making, highlighting the role of information systems in the activation of accounting control procedures and settings ,the development of tools, hardware and software that used in the operation of the accounting system, expand the use of accounting information in the planning of marketing operations and formation of future sales ‘polices, increase attention to the accounting information that can help to make analytical comparisons and predictions for the future.

**Key word: Systems, Accounting Information Systems, Decision- making**

### **1- Introduction**

Accounting Information is naturally characterized with specific properties, governed by the principles and policies approved and recognized as conventionally practices in accounting. Thus, Accounting Information provides financial information translated into numbers, which are formulated in the form of reports complying with its purposes. So, Installations can move forward on their work through receiving the necessary support to carry out their activities and to take the decisions necessary to achieve the requested goals.

In this regard, this point reflects the importance of the availability of Information Systems that operate effectively and efficiently, in order to rationalize the administrative decisions in business

installations, to assist management in solving problems faced by, as well as providing useful information for related decision-makers, which have a positive role in supporting the continuity of these installations. Therefore, this study is designated to indicate and analyze the role of accounting information in the Jordanian commercial banks, as well as to identify the efficiency and effectiveness of accounting information systems used and to highlight its benefits on the organizational decision-making, that will reflect positively on these companies and the community in general.

## **2- Problem and questions of the study**

Like other business sectors, business Installations in Jordan have been affected by the successive developments in the international arena, which required the development of its performance through the provision of good information systems, that help management in making decisions properly and securely, in order to contribute effectively in the economic life. However, at the same time these installations have been "affected by many economic and social factors and dimensions prevailing in the region, which is reflected negatively on its performance ". Therefore, this study aims to demonstrate the role of accounting information systems and the factors influencing them, in order to identify some ways and means to activate its role in the rationalization of the organizational decisions in Jordanian business installations.

The problem of the study is resumed in the following question:

**What is the role of accounting information systems in the administrative decision-making in Jordanian banks?**

### **Study hypothesis**

The study experienced the following hypothesis:

1. The required properties are not available in the accounting information that is reliable in administrative decision-making process in Jordanian banks.
2. Accounting information is not used by employees in the administrative decision-making process in Jordanian banks.
3. accounting information systems have no significant role in rational administrative decision-making process in Jordanian banks.
4. The study sample's points of view do not differ at the level of 5% toward rational management decisions according to (qualification, experience).

## **3- Methodology**

The researcher used the descriptive analysis research methodology, because it is a more widely method used in studying humanistic and social phenomena. It is used when prior knowledge and sufficient information exist about the phenomenon under study.

## **4- Literature review**

Management is the fundamental basis of the administrative leadership work and it is the starting point for all activities and actions, which not only take place within the facility but also in their relationships and interactions with its external environment. The disruption of any kind in decision-making process leads to business disruption and to interruption of behaviors and activities. The larger is the size of the organization and the widest is the multiplication of the administrative aspects of its activities and the most is the relation with the audience, the greatest are the importance and the gravity of the decisions (kanaan ,2010). The decision-making process is also the core of the manager function, where we find that planning, organizing, personnel

management, command and supervision are the main functions of management. All of them are clearly related to decisions in order to implement the plan and to set goals (Deisler ,2010). The decision-making process is the major issue that gets a lot of attention by the manager and occupies a large portion of his activity. It is associated closely with the function of planning, because the activity of planning itself is to make decisions (Alsahen, 2000). According to (Alhelo , 2000), decisions are classified according to the level at which decisions are taken:

**Strategic decisions:** associated with goals and master plans of the organization and relatively cover a long period of time.

**Management decisions:** functional decisions that are taken in the middle management level in order to achieve the ideal performance of the different functional activities inside the organization such as production, marketing, finance, etc.

**Operational decisions:** concern the internal distribution of materials and the translation of goals and plans into work and short-term missions. It is mainly related to routine work. Such decisions are carried out by the executive departments.

believes that information is the material of the administrative decision. If the production process requires raw materials, the material, that human requires in administrative decision-making, is the data and information that are available to him. The decision success depends on the validity and the accuracy of this materiel, as well as the way to organize its security, storage and transportation to the positions that we need it for. It is noted that safety and decisions success essentially depend on the accuracy and the effectiveness of the communication system that transmits data and information to decision-making positions, as well as it also depends on the distance between information centers and decision-making positions, i.e. the shorter the distance is, the decision-making process more effective is.

Boockhodt (1999), defines accounting information systems as systems that operate functions of data International Journal of Management and Social Sciences Research gathering, processing, categorizing and reporting financial events with the aim of providing relevant information for the purpose of score keeping, attention directing and decision making.

In managing an organization and implementing an internal control system the role of accounting information is crucial. An important question in the field of accounting and management decision making concerns the fit of accounting information with organizational requirements for information communication and control (Nicolaou 2000).

A number of factors are critical in A.I.S. design. Organizational memory, whether tacit or Formalized, may be systematically coded but information may not always be readily available. Organizations vary in the emphasis they place on formal routines. Goals and feedback, by Definition, are strongly conditioned by the environment in which the firm operates. Firms Operating in uncertain environments face challenges in implementing A.I.S. designed to promote reutilized organizational learning. As environmental uncertainty increases, organizations need to adapt their A.I.S. in order to promote learning (Ouchi, 1977).

Due to the increase of accounting information provided to the various users of this type of information in order to rationalize their administrative decisions, this type of information must be characterized by the following qualitative characteristics: (Ahmad, 2006)

1. Adequate information to carry out the control in terms of what has been implemented compared with what has been planned for.
2. Adequate information to make decisions evaluation.

3. Adequate information to make decisions development.
4. To be relevant, so that it has the ability to influence various decisions.
5. Helpful for decision-makers to predict the future and to take appropriate decisions based on.
6. Make information available to management in a timely manner.
7. To be valid and reliable and reflect reality as well as reliable.
8. Neutral and far from bias.
9. To be greater than the cost of its benefits.
10. To be understandable and clear to its users.

The significant of accounting information systems in that they exist within the facility, and control all their activities (Marshal & Paul, 2006, p4) (George & Hoffer, 2001, p279),

**Table 1**  
**Type of accounting information related to administrative decisions**

Information type	Decision type	Beneficiary	Information source	Complexity level	Clearance Level	Time	Use
<b>Strategic information</b>	Strategic Decision	Senior management	External and internal environment	Complex	few	Future	Strategic Planning  Formulation and implementation of strategies
<b>Tactical information</b>	Tactical decision	Middle management	The organizational environment in the first degree	Less complex	Relatively clear	Present + Future	Planning functional activities,  Administrative control
<b>Operational information</b>	Operational decision	management in the first line	internal environment	Not complex	Clear	Present	Implementation of scheduled operations

**Source: Arab Society complex, 2001(4): 347**

1. **Examples of accounting information use in the field of administrative decisions:**  
(Vaassen, 2002.)

a) **Resources allocation use:**

Accounting system provides various information that will help the decision-maker to identify available resources and its possible uses as well as to make a comparison among the alternatives available in order to achieve optimal allocation of these resources

b) **Manufacturing or procurement decision:**

This decision is one of the vital non-routine decisions that require management attention and wise balance between the advantages and disadvantages of each alternative, as it may not be rushing to take the decision based on comparing the costs of the alternatives only. Such Decision-making is linked to long-term strategies for the facility.

c) **Addition or disposal decision of one of the production lines:**

This decision raises the problem in multi-production industrial installations that depends on several specialized production lines. In such installations, administration face the problem of alternatives that require comparative study and decisions-making in short term as a result of changing the circumstances of productivity and the competitive conditions in the market

d) **Pricing decisions:**

Pricing decision requires the availability of financial information relating to the cost of the product, in addition to the market conditions, the demand size of the installation products, consumer trends, suppliers' policies as well as the formal laws and legislation related to taxes and fees on products.

5- **Hypothesis test:**

**Results of the first general hypothesis:**

H0: the requested properties are not available in accounting information that is reliable in the process of rationalizing the administrative decisions-making / case study of Jordanian commercial banks.

**Table 2**

**One-Sample t-test results for the first hypothesis**

The computed t-value	Sig ,T	The t-table	The null hypothesis
12.333	0,000	1.96	Rejected

The One-Sample t-test has been used. Regarding to the results obtained from computer in the previous table, we notice that the computed t-value = (12.333) is larger than its t-table. Regarding that the decision table rule accepts the null hypothesis (H0) if the computed t-value is less than the t-table, as well as it rejects the null hypothesis (H0) if the computed t-value is larger than the t-table, accordingly we reject the null hypothesis (H0) and accept the alternative hypothesis (H1). This means that the requested properties are available in accounting information that is reliable in the process of rationalizing the administrative decisions-making/ case study of Jordanian commercial banks.

**Results of the second general hypothesis:**

H0: we do not use accounting information by employees in rationalizing the administrative decision-making / case study of Jordanian commercial banks.

**Table 3**

**One-Sample t-test results for the second hypothesis**

The computed t-value	Sig ,T	The t-table	The null hypothesis
12.402	0.000	1.96	Rejected

The One-Sample t-test has been used. Regarding to the results obtained from computer in the previous table, we notice that the computed t-value = (12.402) is larger than its t-table. Regarding that the decision table rule accepts the null hypothesis (H0) if the computed t-value is less than the t-table, as well as it rejects the null hypothesis (H0) if the computed t-value is larger than the t-table, accordingly we reject the null hypothesis (H0) and accept the alternative hypothesis (H1). This means that accounting information is used by employees in rationalizing the administrative decision-making / case study of Jordanian commercial banks.

**Results of the third general hypothesis:**

H0: accounting information systems have no significant role in rational administrative decision- making process / case study of Jordanian commercial banks.

**Table 4**

**One-Sample t-test results for the third hypothesis**

The computed t-value	Sig ,T	The t-table	The null hypothesis
10.102	0,000	1.96	Rejected

The One-Sample t-test has been used. Regarding to the results obtained from computer in the previous table, we notice that the computed t-value = (10.102) is larger than its t-table. Regarding that the decision table rule accepts the null hypothesis (H0) if the computed t-value is less than the t-table, as well as it rejects the null hypothesis (H0) if the computed t-value is larger than the t-table, accordingly we reject the null hypothesis (H0) and accept the alternative hypothesis (H1). This means that Accounting Information systems have a significant role in rational administrative decision- making process / case study of Jordanian commercial banks.

**Results of the fourth general hypothesis:**

H0: There are no statistically significant differences at the level of (5%) in the attitudes of respondents about the efficiency of the management organizational change due to personal variables (qualification, experience in the bank).

To test this hypothesis we test the following sub-hypotheses:

**The first sub-hypothesis:**

H0: There are no statistically significant differences at the level (5%) in the attitudes of respondents about the rationalization of administrative decision-making due to the Qualification.

**Table 5**  
**One-way analysis of variance test (One Way ANOVA) to compare the differences between the means of the rationalization of administrative decision-making, according to the Qualification variable**

Dependant variable	Independent variable	Arithmetic Mean	The standard deviation	F value	Sig , F	number of freedom degrees	Result
Rationalization of administrative decision-making	Bac+2	4.13	1.31	1.819	0.165	2-202	Acceptance
	Bachelor degree	4.32	1.14				
	Master +	4.76	0.700				

The one-way analysis of variance (One Way ANOVA) has been used in order to test this hypothesis. We note from the results mentioned above that the respondents who hold a Master degree or more are the most supportive respondents of the rationalization of administrative decision-making where the arithmetic mean of their answers is (4.76) and the standard deviation is (0700). We note that the sig, F (0,165) is larger than moral value (0, 05). Since the F computed value (1,819) is less than F-table (3,000), we conclude that there are no statistically significant differences at the level of (5%) in the attitudes of respondents about the rationalization of administrative decision-making due to the Qualification.

**The second sub-hypothesis:**

H0: There are no statistically significant differences at the level (5%) in the attitudes of respondents about the rationalization of administrative decision-making due to the Experience.

**Table 6**  
**One-way analysis of variance test (One Way ANOVA) to compare the differences Between the means of the rationalization of administrative decision-making, according to the Experience variable**

Dependant variable	Independent variable	Arithmetic Mean	The standard deviation	F value	Sig , F	number of freedom degrees	Result
rationalization of administrative decision-making	5-10	2.8	1.6	3.608	0.002	3-201	Rejection
	11-15	3.55	1.45				
	16-20	3.66	1.21				
	20+	4.00	1.51				

We note from the above results that the respondents whose experience is (20 years+) are the most supportive respondents of the rationalization of administrative decision-making where the arithmetic mean of their answers is (4,00) and the standard deviation is (1,51).

We note that the sig, F (0,002) is less than the moral value (0, 05). Since the F computed value (3,608) is larger than F-table (2,6), we can reject by the null hypothesis (H0A) and conclude that there are statistically significant differences at the level of (5%) in the attitudes of respondents about the rationalization of administrative decision-making due to the Qualification in the bank. In order determine these differences; Scheffé's method has been used for Post Hoc Comparisons to the impacts of years of experience on the fields of this Study.

**Table 7**  
**Post Hoc Comparisons to the impacts of years of experience**

Experience years	20+	16-20	11-15	5-10	Arithmetic Mean
5-10					2.8
11-15					3.55
16-20					3.66
20+					4.00

The Table number (7) shows that there is a difference in the attitudes of the research sample towards the rationalization of administrative decision-making due to the experience. , The previous table shows that the category whose experience is 20 years or more was the highest with a arithmetic mean (4.00), while the average of the total arithmetic mean of those whose experience ranges between (16-20) with an arithmetic mean (3.66), followed by category (11-15) with an arithmetic mean (3.55), while it was ranked at last the category (5-10) with an arithmetic mean (2.8).

## 6- Conclusions

The results showed that the requested properties are available in the Accounting Information that is reliable in the process of rationalizing the industry of administrative decisions in the Jordanian commercial banks. It is proposed that the Accounting Information is used by employees in the rationalization field of industry administrative decisions. Accounting Information Systems play also a significant role in rationalizing the industry of administrative decisions. The results indicated that there were no statistically significant differences at the level (5%) in the attitudes of respondents towards rationalizing the administrative decision-making, due to the Qualification variable, as well as a difference in the trends of the sample towards rationalizing the administrative decision-making, due to the Experience variable in the surveyed banks.

In light of the results study, the researcher presented a number of recommendations: effective use of Accounting Information Systems in administrative decisions-making , highlighting the role of Accounting Information Systems in activating control procedures and supervision , the development of tools and devices software used in the operation of the Accounting System , the expanded use of Accounting Information in the planning of marketing operations and future policy-making sales, increasing the interest of Accounting Information that helps to make comparisons and analytical future provisions.

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