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# The Role of Accounting Information System (AIS) in Rationalizing Human Resource Related Decisions: A Case Study of Selected Commercial Banks in Yemen

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### **ABSTRACT**

The purpose of the study is to explore whether there is a role for AIS in rationalizing HR related decisions. In addition to verify whether there are any obstacles to the use of the accounting information system (AIS) in rationalizing HR related decisions. A questionnaire was used in data collecting. Out of 140 questionnaires, only 101 were valid and suitable. The data analysis has been done by using SPSS and a number of statistical methods through descriptive statistics such as averages, standard deviations, and T-test. This study adds to the literature by providing an understanding of the role of AIS in rationalizing HR decisions in the commercial banks of Yemen. The study reached that there is a significant role for accounting information system (AIS) in rationalizing HR related decisions. It was also found that there are no obstacles to the use of AIS in rationalizing HR decisions. Finally, the study was concluded with some recommendations.

**Keywords:** Accounting information system (AIS), human resource decisions, commercial banks.

### INTRODUCTION:

The success of any organization largely depends on the ability and efficiency of the administrative leadership to make rational decisions. At present, the process of taking or rationalizing decisions is no longer an easy process that can be carried out without accurate and timely information. The issue of rationalizing decisions has become of great importance, especially those relating to human resources.

Human resources represent the spine of the organization, without which the organization will not be able to progress or move. Barney, 1995 defined human resources as "All the experience, knowledge, judgment, risk-taking propensity, and wisdom of individuals associated with a firm". Randhawa, 2007 stated that human resources are "the people who work in an organization".

Human resources are a complex part of work and provide support across the entire life cycle of employees from "attracting" to "going out" (Hunter et al., 2016). Moreover, Gill et al., 2018 said in their study results that education and the number of employees assist entrepreneurs to improve their business's financial performance. HR has become an important and effective factor for the success of any project. Some have called to consider human resource as one of the important assets of the project (Al-Hattami and Kabra, 2018).

If human resources represent the spine of the organization, the accounting system is the lifeblood of the organization. It is impossible to imagine working without such a system. Therefore, all enterprises and industries whether profit or nonprofit need such a system. Accounting system aims at providing financial and accounting information on the economic unit for decision makers, whether internal or external parties. The information provided by the accounting system is characterized by certain characteristics that are governed by recognized accounting principles and rules. The importance of accounting information lies in the great need for it because it helps the economic unit to take the right decisions that achieve the desired goals. It also enables

managers and decision-makers to perform their duties and responsibilities properly and accurately.

Accounting is often said to be the language of business. If so, the AIS is the vehicle that provides the information from that language (Romney and Steinbart, 2016). Accounting information system is a system to gather, record, stock, and process the accounting data for producing and providing information to decision-makers (Romney et al., 2013). According to Nicolaou, (2000) AIS is a computerized system for processing financial information and strengthening decision making functions. The elements of AIS are the computer and its attaches (software and networks), data, procedures, orders, internal control and security that safeguard the data, in addition to the people who operate the system (Haddad and Atma, 2009). Bodnar and Hopwood, (2013) defined accounting information system as a set of resources designed to convert financial data into information. Saeidi, (2014) stated that AIS is a part of the information system that facilitates decision making in organizations.

Accounting information system (AIS) represents the main artery which provides management and stakeholders with information that enables them to rationalize decisions. It is an unbiased tool that plays a major role in providing accurate and reliable information to all relevant levels and departments. However, AIS is a complex and rapidly growing region, especially in the field that involves human assets (Singh, 2000).

The study seeks to explore the role of this system in rationalizing decisions relating to human resources. In addition to ascertaining whether there are any obstacles to the use of the accounting information system (AIS) in rationalizing HR related decisions.

As far as we know, there are no studies have explained the role of AIS in the Yemeni context, especially regarding rationalizing human resource decisions. Our study adds to the literature by providing an understanding of the role of AIS in rationalizing HR related decisions in the commercial banks of Yemen. Commercial banks operating in Yemen have been selected as the study population for their importance in society, as well as the efficiency, and accuracy of the AIS therein. In addition to the rapid response of these banks to technological and environmental changes resulting from global competition. This paper divided into five sections: after the introduction, section 2 contains a brief literature review and hypothesis formulation. Section 3 discusses the methodology. Section 4 includes the analysis and results of the study. The final section presents the conclusion with some recommendations.

### LITERATURE REVIEW AND HYPOTHESIS FORMULATION:

In an increasingly information-focused world, commercial, social and even personal decisions require more reliable, timely and relevant information (Etemad et al., 2010). The administrative sciences are replete of many studies related to the accounting information system. These studies have been conducted in various areas, environments, and countries. For example, Swalhah, (2014) carried out a study applied to Jordanian banks. The study concluded that AIS plays a key role in rationalizing administrative decision making. Another study examined the impact of AIS on the Islamic banks of Jordan. The study reported that AIS assists in providing proper and timely information (Alrabei, 2014). Samuel, (2013) conducted a study on automobile companies in Kenya. The study noted that AIS is an important mechanism for efficient management, making decisions and monitoring activities of the organization. The results of Hanifi and Taleei, (2015) showed that accounting information system plays an important and positive role in making management decisions in PARS GARMA holding organization. El-Dalabeeh and Al-Shbiel, (2012) did a study at Hospital of King Abdullah University. The study results indicated that there is an important role for computerized accounting information systems in reducing the costs of medical services.

A study conducted by Haleem, (2016) revealed that the application of AIS at government departments leading to improve decision making. Onaolapo and Odetayo, (2012) reached in their case study of selected construction companies in Nigeria that the accounting information system aids preparing well financial reports and better decision making. Soudani, (2012) investigated the usefulness of AIS for effective organizational performance in listed companies of Dubai financial market. The results showed that AIS is so useful and has an impact on organizational performance, but there is no relationship between the accounting information system and performance management.

Furthermore, Ponemon and Nagida (1990) confirm that accounting information is found to facilitate decision making. AIS plays a key role in the presence of successful and ongoing organizations (Etim, 2011). According to Ghorbel, (2017) AIS is a key factor in corporate competitiveness. It assists managers in making decisions by providing them with relevant accounting information.

The literature also shows that there is a positive relationship between AIS and HR management (Al-rabei et al., 2015; Kariyawasam, 2016; Mwakio, 2017). A study conducted by Esmeray, (2016) focused on the impact of AIS on firm performance in small and medium firms in Turkish. The study found that there is a positive

relationship between using AIS and the educational level of managers. Furthermore, with increasing the number of staff, the use of the AIS is also increasing. Kouhy et al., (2009) their study was carried out in six companies and 100 phone interviews. The study turned out that managerial accountants work closely with their colleagues in human resources to support the function of human resources management. Moreover, Rahman, (2016) found that AIS has a significant impact on HR policy related decisions in the banking sector of Bangladesh. Therefore, the following hypothesis is formulated:

**H0:** There is no role for accounting information system (AIS) in rationalizing HR related decisions.

The major challenge of AIS is the expected gap between technology and human reaction. The positive attitude of the staff and their readiness to admit AIS is the key to the effective and efficient achievement of organizational objectives (Amin et al., 2016). Etim, (2011) stated that the ability of the manager to use his or her resources efficiently and effectively relies on the effectiveness of the organization's accounting information system.

However, there are some obstacles or constraints to the effective use of the accounting information System. For example, Alshaefee, (2007) found that oil companies in Yemen do not apply modern accounting information systems sufficient to enable them to achieve new changes in technology. Therefore, the present systems applied in oil companies do not meet the Yemeni environment needs. A study by Salehi and Abdipour, (2011) found that there are obstacles to the implementation of the accounting information system in companies listed on the Tehran Stock Exchange. Another study carried out by Alobaid, (2016) pointed out that there are barriers to the capability of the accounting information systems of the Kuwaiti companies in dealing with e-commerce operations. These barriers were: lack of awareness of senior management, lack of experience in financial management, and risks of e-commerce operations. Al-Shara, (2014) according to his study results the banks' management studied in India and Iraq realize that the process of application and use of AIS faces many difficulties. For example, there are consecutive stops in hardware and software due to errors and viruses. In addition, HR and training in the field of informatics are few. A recent study by Aldegis (2018) was applied to Jordanian Industrial Public Shareholding Companies. The study showed that organizational culture affects the quality of AIS.

Jawabreh and Alrabei, (2012) conducted a study to recognize the reality of accounting information system (AIS) in Jodhpur hotels and its impact on planning, controlling, and decision making processes. The study reached that there is no relation between AIS and planning, controlling, and decision making processes in Jodhpur hotels. The study also concluded that Jodhpur hotels face obstacles in applying the accounting information system, as the cadres applying the accounting information system methods are not qualified. In addition, the senior management is dissatisfied with the AIS methods, also there is no competition urging the application of such a system. Moreover, Ramly, (2011) confirmed that qualified HR, programming, equipment, and databases affect the productivity and scalability of the accounting information system. Accordingly, the following hypothesis is formulated:

**H0:** There are obstacles to the use of the accounting information system (AIS) in rationalizing HR related decisions.

# RESEARCH METHODOLOGY:

The aim of this study is to explore whether there is a role for AIS in rationalizing HR related decisions. In addition to ascertaining whether there are any obstacles to the use of the accounting information system (AIS) in rationalizing HR related decisions. A case study approach was used in this study as suggested by Yin (2003). The use of case studies in research includes a thorough and detailed study of a limited number of individuals, objects or environments (Dana and Dana, 2005). The study population consists of commercial banks operating in Yemen amounting to eleven banks (CBY, 2013). The study covered seven (7) randomly selected banks. A questionnaire was used and distributed to different levels of employees (General Manager, Finance Manager, Head of Department, Accountant, and other employees). Out of 140 questionnaires, only 106 were returned. The number of valid and suitable questionnaires was 101 yielded 72.14% responses rate. To score replies, the five Likert scale was used. Data collected were reviewed and analyzed using SPSS software. The selected commercial banks are Yemen Bank for Reconstruction and Development; International Bank of Yemen; Yemen Kuwait Bank; Yemen commercial bank; Yemen Gulf bank; National Bank of Yemen; and Cooperative & Agricultural Credit Bank. Table 2 shows commercial banks operating in Yemen.

Table 1: List of commercial banks operating in Yemen.

No.	Name of bank
1	Yemen Bank for Reconstruction and Development
2	International bank of Yemen

No.	Name of bank				
3	Yemen Kuwait Bank				
4	Yemen commercial bank				
5	Yemen Gulf bank				
6	National Bank of Yemen				
7	Arab Bank Limited				
8	United Bank Limited				
9	Cooperative & Agricultural Credit Bank(CACBANK)				
10	Al-Rafidayn Bank				
11	Housing Bank				

### DATA ANALYSIS AND HYPOTHESIS TESTING

Table 2: Personal levels of the study respondents (n = 101)

		Percent %
Gender	Male	63.4%
Gender	Female	36.6%
	Less than 30	28.7%
A 500	From 30 to 40	53.5%
Age	From 40 to 50	10.9%
	More than 50	6.9%
	Diploma	5.0%
	Bachelor	62.4%
Qualification	M.A	27.7%
	Ph.D.	1.0%
	Other	4.0%
	General Manager	5.0%
	Finance Manager	18.8%
Job	Head of Department	27.7%
	Accountant	42.6%
	Other	5.9%
	Less 5 year	16.8%
Evnovtice	5-10 year	41.6%
Expertise	10-15	25.7%
	Over 15	15.8%

The main characteristics of the study sample are presented in Table 2 above. The table shows that 63.4% of the sample is male and 36.6% female. Regarding age, the highest percentage was for respondents that have 30 to 40 years old (53.5%). As for the qualification, the majority (62.4%) are holding a bachelor degree. Regarding Job, the percentage was: 42.6% for accountants, 27.7% for heads of departments, 18.8% for finance managers, 5% for general managers, and 5.9% for other respondents. Finally, regarding expertise years, the high percentage (41.6%) was for those having 5-10 years' expertise.

**Table 3: Reliability testing** 

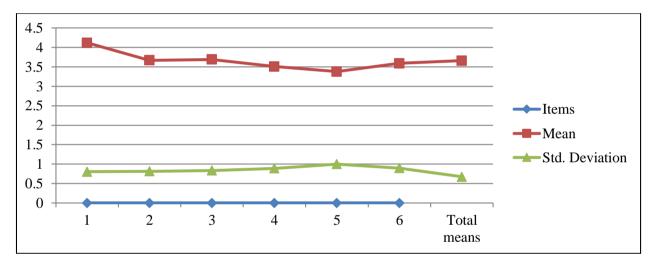
Dimension	N of Items	Cronbach's Alpha
Role of AIS	6	.861
Obstacles to the use of AIS	5	.859

Table 3 shows that both values for Alpha are greater than the acceptable rate of 60% (Malhotra, 2004), reflecting the stability of the measuring instrument used. High stability coefficients indicate the ability of the instrument to achieve the study objectives according to Sekaran (2003).

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Table 4: Means and Std.	deviations of	items related t	to the first	hypothesis	(n=101)

No.	Items	Mean	Std. Deviation
1	The bank's accounting information system plays an important and effective role in rationalizing HR decisions.	4.12	.804
2	The bank's accounting information system assists in the formulation of HR policies, processes, and procedures.	3.67	.814
3	The bank's accounting information system helps to rationalize decisions on employee performance evaluation.	3.69	.834
4	The bank's accounting information system helps to rationalize decisions regarding staff training and development.	3.51	.890
5	The bank's accounting information system helps rationalize decisions on promotion, reduction, and transfer.	3.38	.999
6	The bank's accounting information system provides information on the human resources cycle helping in planning for hiring new employees.	3.59	.896
	Total means	3.66	.672



It is noted that the sample trends are positive towards all the above items, as their arithmetical averages are greater than the average measuring instrument (3). That is, respondents generally agree that accounting information system plays a role in rationalizing HR related decisions.

Table 5: One-Sample T. Test

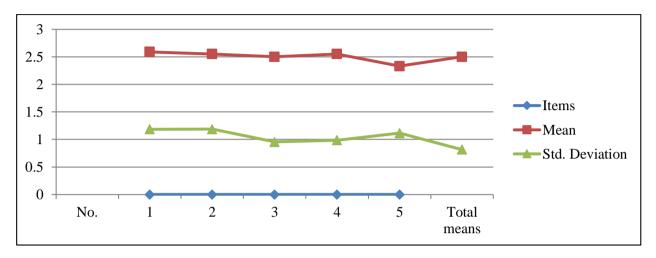
	Mean	Std. Deviation	df	t	Sig.	Result
First hypothesis	3.66	.672	100	9.892	0.000*	Reject

It is clear from Table 5 above that the level of significance (0.000\*) is less than 0.05. Therefore, we reject the null hypothesis (H0) and accept the alternative hypothesis (Ha). This indicates that there is a role for accounting information system (AIS) in rationalizing HR related decisions. The researchers believe that this is logical and realistic in the light of the optimum use of accounting information system.

Table 6: Means and Std. deviations of items related to the second hypothesis

No.	Items	Mean	Std. Deviation
1	Cadre who apply the accounting information system methods is not qualified.	2.59	1.185
2	There is no awareness of the important role of the accounting information system in rationalizing HR decisions.	2.55	1.187
3	Lack of confidence in the ability of the accounting information system to	2.50	.955

No.	Items	Mean	Std. Deviation
	accomplish the various tasks.		
4	There is less dissatisfaction and interaction for users because accounting information systems are complex and difficult.	2.55	.985
5	Difficulty dealing with automated accounting information systems.	2.33	1.115
	Total means	2.50	.816



It is noted that the sample trends are not positive towards all the above items, as their arithmetical averages are less than the average measuring instrument (3). That is, respondents generally disagree that there are obstacles to the use of the accounting information system (AIS) in rationalizing HR decisions.

Table 7: One-Sample T. Test

	Mean	Std. Deviation	df	t	Sig.	Result
Second hypothesis	2.50	.816	100	-6.096	0.000*	Reject

It is clear from Table 7 above that the level of significance (0.000\*) is lower than 0.05. This indicates the rejection of the null hypothesis (H0) and acceptance of the alternative hypothesis (Ha). Thus, there are no obstacles to the use of the accounting information system (AIS) in rationalizing HR decisions.

### **CONCLUSIONS:**

This study adds to the literature by providing an understanding of the role of AIS in rationalizing HR decisions in the commercial banks of Yemen. The study indicated that there is a significant role for accounting information system (AIS) in rationalizing HR related decisions. This system assists in the formulation of HR policies and the rationalization of decisions on training, development, and employee performance evaluation. Furthermore, it provides information on the HR cycle that helps in the planning of recruiting new staff. The study also found that there are no obstacles to the use of AIS in rationalizing HR decisions. These results partially correspond to some previous studies such as Al-rabei et al. (2015), Kariyawasam (2016), and Mwakio (2017). In light of the results, the study recommends activating training and development programs of the accounting information system. Furthermore, senior management should support and participate in the implementation of AIS. Although the study has achieved its aims, we are still aware of its limitations and shortcomings. First, the study was conducted in just seven (7) banks. It would be better if it was done in all banks. Second, the study sample was also small. Future research can re-apply the study not only in other Yemeni firms but also in other countries.

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