

The Influence of Top Management Support and Manager Accounting Knowledge on the Effectiveness of Accounting Information Systems in Commercial Banks in the Republic of Yemen

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Abstract

The core aim of this study is to assess the influence of top management support and manager accounting knowledge on the accounting information systems effectiveness in commercial banks in the Republic of Yemen. This study analyses the data obtained from all main commercial banks in Yemen 11 and its branches in Sana'a. This study uses SPSS package for producing the frequency distribution, Cronbach Alfa values, as well as regression analysis for testing hypotheses of the study particularly, sample linear regression which applied for data analysis. Worth mentioning, this study points out that the top management support and manager accounting knowledge have a positive significance on the effectiveness of accounting information systems in commercial banks in the Republic of Yemen. This study recommended that top management commitment should to develop the regulations, systems, and laws of the work in commercial banks in Yemen which lead to improving accounting information systems outputs, and they should hold different workshop and conferences for discussion concerning the possibility of the development of systems regularly. Moreover, the manager should keep abreast with sophisticated IT and accounting knowledge.

Keywords: Top Management Support; Manager Accounting Knowledge; Accounting Information Systems Effectiveness

Introduction

The institutions in the world today seek to develop and support their products in a world of competition, as the size of the institutions and the complexity of their administrative, financial and organizational aspects make the management of these institutions looking for policies and procedures for efficient and successful management of their activities. Therefore, it is necessary to have information systems that protect the institution from risks and preservation of its resources and property which allow it for controlling its activities. Consequently, it is necessary to have information systems that protect the institution from risks and preservation of its resources and property which allow it for controlling its activities. The necessitate for an accounting information system has evolved since the inception of commercial, industrial and other projects, with this, the accounting information system forms a subsystem within the integrated information system. The establishment represents the internal environment in which this system operates, and with an existing internal control ensure the achievement

of the planned objectives, and the emergence of major economic projects has increased interest it by accountants and corporate departments in recent years.

The information of the system is a set of data composed and prepared in a way that made it suitable for use via its user, and it represents the outputs of the information system, the system is a group of parts and interrelated elements that interact with each other to achieve a common goal by accepting inputs and producing outputs, so the need for accounting has evolved as a system of information (Abd El-basset, 2015; P 3). In order for a more immeasurable understanding of the accounting information system, three words of AIS are decorated independently. To begin with, "accounting" which is a language of business, which records all the monetary or financial activities, To continue with, "information", which is the treated form of all financial activities data which is handled by decision-makers. Ultimately, the "system" is an integrated entity that concentrates on the set of purposes (Alnajjar MIM, 2016).

Therefore, Most of the business environment needed the different kinds of accounting information, that is used by different decision-makers in the various levels of the organization. So, all this information is required from AIS that can be dealing with all transactions in a harmonious manner to convert all data into helpful information to support the top management or managers to take the necessary decision regarding the financial or non-financial matters in the organization.

Commercial banks are considered to be one of the fastest organizations adopting technological developments in the field of information systems, which makes those banks and other systems that are composed of them, vulnerable to influencing many factors imposed by the nature of their work and dealings, so this study comes to shed light on the impact of top management support and manager accounting knowledge on the effectiveness of accounting information systems in commercial banks in the Republic of Yemen, in order to be able to produce appropriate and more accurate accounting information to serve the banking decision in all its forms

Review of the Literature:

Top Management Support

Most of the previous studies have shown that the top management support factor has a positive impact on the performance and effectiveness of accounting information systems in the business environment which leads to achieving the desired objectives of the system. As stated by the (Laudon & Laudon, 2014), top management support is "the mechanism for dealing with the level of risk in each

new system in the project". Mooney A et al. declared that top management support comprises guidance and direction about the project, political support for the project and responsibility for fulfilling the required resources. According to (Sandesh Sheth, 2010) acknowledged that top management support is a tipping point between the potential failure and completion of the management projects, while improving and achieving these projects. According to (Solihin, 2009), announced that "Top management is the highest executive position in the company which sets goals and overall corporate strategy. (Chalk, 2008) supposed that "Management commitment is a leadership style where the top and middle management participate together in the creation of employment goals, determine the level of authority and clarify the performance commitment. This support could be in different styles, such as it could be in the form of commitment to adjust organizational strategies. Besides, it can also be in the form of cooperation in supporting the employees for building a constructive attitude towards the usefulness of the information systems. Moreover, it could be the administrative authority contract on the availability and the suitability of the resources for the implementation of accounting information systems (Alnajjar, 2016; P2).

Manager Accounting Knowledge

Manager Accounting Knowledge related to accounting information system contains the knowledge of computer application programs, accounting, internet, e-mail, database, spreadsheet, and word processing. As stated by (Pearlson & Saunders, 2010), managers, especially the managers who are in the middle level of the organization should have a basic knowledge of accounting information systems and information technology to make decisions that have serious implications for the business. Thus, it is estimated that in firms wherein the manager possesses adequate IT and accounting knowledge, there will be a higher degree of accounting information systems implementation and its benefits (Jarvenpaa & Ives 1991). In additional, (Hussein et al., 2007), they also argue that managers with appropriate knowledge and skills are expected to be more participative, proactive and productive to information system and information technology, and they perform to have a concrete attitude towards information system and information technology. Likewise, (Zikmund et al., 2010) they pointed out that accounting knowledge is a mix of experience that we have experienced previously, bottomless experience, and the information that shapes in an organized memory. Moreover, (O'Brien & Maracas, 2010) revealed that "systems cannot benefit an organization, if its employees fail to contribute their knowledge, if they fail to use the system to regain

information, or if the system simply is not available where and when needed”.

Accounting information systems

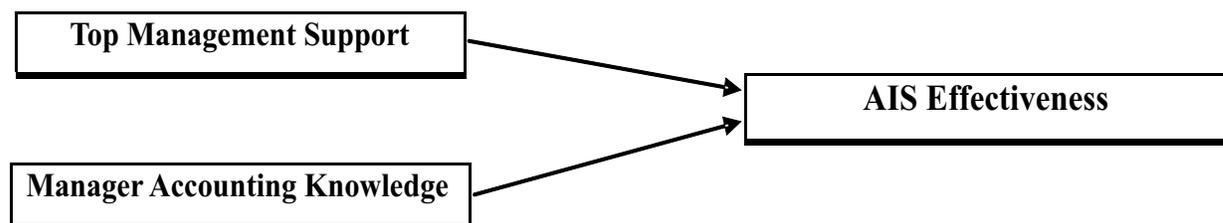
Accounting information systems, like any other system, performs its own function to support the foundation's goals in obtaining, operating, and converting data into usable information. Accounting information systems is considered as a subsystem of a comprehensive Information System of organization. Thus, it involves all constituents which are accessible in the Comprehensive Information System, such as tangible and intangible support, procedures required to gather and process data, subsystems, and objectives. (Mueedh, 2019: P 48). As mentioned by (Grande et al., 2011) accounting information systems are a “tool which, when incorporated into the field of information and technology systems (IT), were designed to help in the management and control of topics related to firms' economic-financial area”. Moreover, (Salah aldeen, 2008; P 69) defined accounting information systems as "that part of the overall information system that specializes in collecting, operating, storing and retrieving monetary and non-monetary data for the purposes of providing information to decision makers through regulation". Consequently, AIS refers to the group of individuals, equipment and bonds that interact with each other in a

specific framework, according to a set of policies and procedures in order to process data expressive of economic events with the aim of preparing information that meets the needs of a different group of users (Salim, 2009; P 103). Above discussion of AIS definitions we could summarized the elements of accounting information systems such as knowledge of the goals of accounting information systems, knowledge of accounting information systems environment, knowledge of accounting information network, knowledge of the components of accounting information systems, knowledge of accounting information systems data processing cycle, and knowledge of accounting information systems control. The wisdom of calling the previous aspects the main pillars of accounting information systems is that no system can be put in place, and works effectively on the reality, if any of these pillars is neglected (Hajar, 2009: P 32).

Research Model

The supposed research model is exposed that two variables are hypothesized to have a positive relationship with accounting information systems effectiveness: Top Management Support (X1), Manager Accounting Knowledge (X2), and the dependent variable is AIS Effectiveness (X3).

Figure 1: Research Model



Based upon the above discussion, following hypotheses are formulated:

H1: There is no statistically significant relationship between Top Management Support and accounting information systems effectiveness applied in the commercial banks in the Republic of Yemen.

H2: There is no statistically significant relationship between Manager Accounting Knowledge and accounting information systems effectiveness applied in the commercial banks in the Republic of Yemen.

H3: There is no statistically significant relationship between top management support and manager accounting

knowledge together and accounting information systems effectiveness in the commercial banks in the Republic of Yemen.

Methodology

The study has mainly used a descriptive method of survey supported by theoretical groundings to assess the factors that influencing the effectiveness of accounting information systems in commercial banks in the Republic of Yemen namely: top management support, manager accounting knowledge. This study is carried out depend on both primary data and secondary data. The source of primary data of the study was collected from a questionnaire administrated to covers all dimensions of the

study as well as a web-based link distributed to the various groups of respondents selected in the banks, regarding their perceptions of the accounting information systems effectiveness in the commercial banks in the Republic of Yemen.

The sample of this study is drawn from all main commercial banks in the Republic of Yemen and its branches in Sana'a. It comprised of executive managers, financial managers, account managers, accountants, and auditors who are related to the accounting information systems in commercial banks in the Republic of Yemen. Therefore, this study collects data from all main commercial banks in Yemen and its branches in Sana'a, through distributed questionnaires equally to each of the selected banks. Out of 340 questionnaires, I received 272 responses which used for data analysis.

The questionnaire was designed such that the required data could be collected from different groups of respondents in the commercial banks' sector in Yemen. Its design was done in harmony with the already existing methods mentioned in the preceding literature review in this area of research, and

adequate attention has been given to the advantage and drawbacks of each method for the possibility of conducting the research within the study area. Five points Likert scale has been used which ranging from strongly agree to strongly disagree to manage the questionnaire and collect the required data, for the reason of, its multiple options allowing respondents to choose between them and to avoid possible constraints by respondents in order to increase the level of accuracy of the responses required, and top management support (TMS) is measured by 13 items, and manager's accounting knowledge (MAK) is measured by 9 items, and effectiveness of accounting information systems (AIS) measured by taking the update model of DeLone and McLean (2003). This study uses SPSS package for producing the frequency distribution, Cronbach Alfa values, as well as for testing hypotheses of the study.

Data Analysis and Testing of Hypothesis

Demography of the study

The results of the frequency pattern of the demographic portfolio are abstracted in the schedule below:

Table 1. Demographics Profile of Study Respondents (n = 272)

Demographics	Characteristic	Percentage
Gender Group	Male	76.8
	Female	23.2
Age Group	20-29 Years	14.3
	30-39 Years	65.1
	40-49 Years	19.1
	50 and above	1.5
Educational Group	Diploma	3.3
	Bachelor	89.0
	Master	7.7
Professional Group	Executive Managers	9.2
	Financial Managers	16.2
	Account Managers	14.3
	Accountants	39.3
	Auditors	21.0
Experience Group	Less than 10 Years	63.2
	10-20 Years	32.4
	Above 20 Years	4.4

As exposed in Table (1), the most important personality of the respondents are obtainable in a group of gender, age, educational level, professional level, and experience level. In terms of gender, the study respondents can be classified into 76.8 % as male and 23.2% as female and most of the participants which have ages between 30-39 are (65%). The majority of respondents of the study are a bachelor's degree (89%). According to professional level the majority

of respondents in the study are accountants (39.3). As a final point, On the subject of experience, most of the respondents have less than 10 years of experience (63%).

Descriptive Statistics of the study

The results of the Descriptive Statistics of the current study are abstracted in the schedule below:

Table 2: Descriptive Statistics of Study

Variables of study	N	Minimum	Maximum	Mean	Std. Deviation
Top Management Support	272	1.79	5	3.86	0.776
Manager Accounting Knowledge	272	1.79	5	4.07	0.684
Effectiveness of AIS	272	1.79	5	3.94	0.681

Table 2 portrays that the overall mean value of all the relevant questions of the top management support factor is 3.86 which corresponds to a high level of approval, and the standard deviation of this factor is 0.776 which indicates that there are agreement and harmony among the respondent's responses in this axis. According to manager accounting knowledge factor, all its values are explaining the central tendency of response rate, wherein the mean value for all managers accounting knowledge have occupied 4.07 which express a great conformity of respondents concerning the role of manager accounting knowledge on the accounting information systems effectiveness, with a standard deviation of 0.683 that explains the distribution of responses from the mean. Moreover, the overall mean value of accounting information systems effectiveness is 3.94 which indicates a high level of approval in commercial banks in Yemen, with

a standard deviation of 0.681 which elucidates the dispersion of responses from the mean.

Reliability

Cronbach alpha suggests how well items in a set are positively correlated with each other (Sekaran, 2003). The reliability of the study is always a big concern. For that reason, the Cronbach Alfa test is applied for testing the reliability of the data of the current study. Cronbach Alfa is a fit value when the reliability value between (1 to 0.6). Therefore, the value which will be above 0.6 is considered to be good and accepted and the value which is lesser than 0.6 is considered poor and rejected. The current study Cronbach Alfa value are 0.925, 0.942. and 0.962 which is highly reliable. Hence, the outcomes of the current research are reliable and can be propagated.

Table 3: Reliability Statistics of Study

Variables	Cronbach's Alpha
Top management support	.925
Manager Accounting Knowledge	.942
AIS effectiveness	.962

Hypothesis of Study Results

Simple linear regression was carried to find out if the various factors such as (top management support and manager accounting knowledge) have any significant impact on the effectiveness of accounting information

systems applied in the commercial banks in the Republic of Yemen independently.

The model that is created for one independent variable for the prediction of the dependent variable can be expressed as

$$Y = B_0 + B_1X_1$$

The regression equation can be written as:

$$X_3 = P_1X_1 + P_2X_2 + R$$

Whereas:

X_3 = accounting information systems effectiveness; X_1 = Top management support; X_2 = Manager accounting knowledge

In the regression equation, we handled accounting information systems effectiveness (X3) as the dependent variable and top management support (X1) and manager accounting knowledge (X2) as the independent variables

Top management support

Simple linear regression analysis was carried out through using the top management support factor as the independent variable and overall effectiveness of AIS as the dependent variable. Table 4 portrays the regression analysis

Table 4

REGRESSION ANALYSIS FOR THE RELATIONSHIP BETWEEN TOP MANAGEMENT SUPPORT AND AIS EFFECTIVENESS

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	2.691	2.854		9.421	.000
Top management support	.426	.099	.881	22.764	.000
Adjusted R²	0.656				
R	.881				
Significant	.000				

The regression equation can be written as:
 Effectiveness of AIS = 2.8691 + .426 (Top Management Support).

As can be seen from the previous table the calculated t value = 22.764 is greater than the t-indexed = 1.96 and its relevant significance value (p = .000). Thus, top

management support affects the effectiveness of accounting information systems positively and directly with statistical significance. Moreover, the regression coefficient Beta is .881, which indicates that there is a strong effect compared to other factors and this result is supported by a Pearson correlation coefficient ($r = 0.881$) between the two variables that have the same value of Beta. The results indicated an adjusted R² value is 0.656. This signifies that the predictor factor 'top management support' might explain about 65 percent of the variance in the effectiveness of accounting information systems in commercial banks in the Republic of Yemen. The unstandardized coefficient (B value) for top management support is .426, the thoughtful is that one unit variation (enhance) in the top management support results in .426

units of variation (raise) in the effectiveness of accounting information systems in commercial banks in the Republic of Yemen. It can be concluded that the predictor 'top management support' could significantly predict and explain the relationship with effectiveness of accounting information systems in commercial banks in the Republic of Yemen.

Manager Accounting Knowledge

Simple linear regression analysis was carried out via using the predictor 'manager accounting knowledge' as the independent variable and overall effectiveness of accounting information systems (AIS) as the dependent variable. The regression analysis is given in the table 5.

Table 5
REGRESSION ANALYSIS FOR THE RELATIONSHIP BETWEEN MANAGER ACCOUNTING KNOWLEDGE AND AIS EFFECTIVENESS

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	2.758	3.746		9.812	.000
Manager Accounting Knowledge	.489	.198	.664	14.605	.000
Adjusted R²	0.439				
R	.664				
Significant	.000				

The regression equation can be written as:

Effectiveness of AIS = 2.758+ .489 (Manager Accounting Knowledge).

The results showed an adjusted R² value is 0.439. This implies that if this factor 'manager accounting knowledge' is taken individually, it contributes to the interpretation of 43,9 percent of the variation or changing in the effectiveness of accounting information systems in commercial banks in the Republic of Yemen. The output of the Simple linear regression model illustrates further a t values with its significance values of ($t = 14.605, P = .000$), which indicates that the manager accounting knowledge has a highly significant relationship with the effectiveness of accounting information systems at 95 % confidence

level. More importantly, have a look at the unstandardized coefficient (B value) for 'manager accounting knowledge' is .489 with standard error of 0.198 and a significant value of .000. It can be concluded that the predictor 'manager accounting knowledge' could significantly predict and explain the relationship with effectiveness of accounting information systems in commercial banks in the Republic of Yemen.

Multiple Linear Regression

Multiple linear regression is one of the most extensively employed methods in the analysis of data in the social sciences (Bryman & Cramer, 2001). This method can be employed to analyze the relationship between a single dependent variable and several independent variables

(Ismail Azizi, 2007). Before employed multiple linear regression for testing the hypotheses of current study Multicollinearity test conducted for examines whether independent variables were highly associated with each other. Hence, If multicollinearity between two or more independent variables occurs, it becomes impossible to achieve exclusive expects of the regression coefficients (Al-Saidi, 2016: P 164). And it could be seen that the pearson's (r) correlation between each pair of independent

variables are less than 0.9. Therefore, can be said that the independent variables are not highly correlated and multicollinearity does not occur in the collected data. So, to test the hypotheses, multiple regression was carried out to investigate the relationship among the various factors such as top management support and manager accounting knowledge together and the effectiveness of accounting information systems in commercial banks in the Republic of Yemen by the following regression equation:

$$Y = B_0 + B_1X_1 + B_2X_2$$

Whereas:

X1 = Top management support

B0 = Intercept

X2 = Manager accounting knowledge

Y = Effectiveness of AIS

Table 6
MULTIPLE REGRESSION ANALYSIS FOR THE RELATIONSHIP BETWEEN
FACTORS AND EFFECTIVENESS OF AIS

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	10.190	2.747		3.709	.000
Top Management Support	.899	.134	.322	6.706	.000
Manager Accounting Knowledge	.513	.186	.118	2.750	.006
Adjusted R²	.790				
R	.891				
Significant	.000				

The multiple regression equation for the above representation can be written as:

$$\text{Effectiveness of AIS} = 10.190 + .899(X_1) + .513(X_2)$$

$$(p=.000) \quad (p=.006)$$

The summary of the multiple regression analysis results is given in the table 6 shows adjusted R2 value is (0.79), which refers that the tow independent variables top management support and manager accounting knowledge collectively contribute to the explanation for 79 percent of

the variation occur in the behavior of the dependent variable (effectiveness of accounting information systems in commercial banks in the Republic of Yemen). For those data, when look at the t values of the independent variables the top management support (t = 6.706, with related p value of .000) is statistically relevant more than manager accounting knowledge (t = 2.750, p = .006). Therefore, it can be confirmed that top management support and manager accounting knowledge have a positive relationship with the effectiveness of accounting

information systems in commercial banks in the Republic of Yemen respectively. Thus, the Hypothesis H3 which states that top management support and manager accounting knowledge together have not significant relationship with effectiveness of accounting information systems in the commercial banks in the Republic of Yemen is rejected, and the alternative Hypothesis is accepted.

Conclusions

This paper concentrates on the perception of users of accounting information systems in commercial banks in the Republic of Yemen about factors that influence Accounting information system effectiveness. The result of the study pointed out that there is a significant relationship between top management support, manager accounting knowledge, and accounting information system's effectiveness. The study recommends that the top management support should to develop the regulations, systems, and laws regulating the work of commercial banks in general and computerized accounting information systems in particular, in a way that guarantees the stability and flexibility of work, and reflects positively on the effectiveness of accounting information systems in those banks. Moreover, the network of AIS must be properly secured and its devices with such as firewalls and intrusion detection systems in Yemeni commercial banks. In addition, Continuing to employ individuals who have specialized scientific qualifications in the field of accounting to suit the size and level of tasks required of them.

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