

# The Impact of Accounting Information Systems on the Banks Success: Evidence from Jordan

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#### **Abstract**

Through the current study we aim to investigate the impact of accounting information systems (IAS) on banks success in Jordan. The researcher developed and distributed a structure questionnaire to the head offices of the surveyed banks. Hundred and thirty questionnaires were spread, the accepted number of questionnaires that for analysis was (112), with ratio (90 percent) of the distributed questionnaires. Correlations, multiple regressions were applied in order to answer for the study hypothesizes. The findings showed that accounting information systems, has a significantly affects on banks success. The researcher generate the following variables for measuring the accounting information systems as follow: inputs, processes, outputs, control, feedback, flexibility, Simplicity of use and reliability that could be classified in three groups as follow: information quality, involves(inputs, control and outputs) system quality, involves (Processes, Control and reliability) and system usage that involves (Flexibility, Simplicity of use) and how these variables affect on the banks success, Furthermore, the study suggested a number of recommendations to help bank managers in decision making process successfully which reflected on banks success.

**Keywords:** Accounting Information Systems, quality of accounting information, decision making process, Commercial Banks, Jordan.

#### 1. Introduction

According to the challenges that faced firms, and the negative findings of global crisis necessitate from all employees at different levels to award the important role of information that played in the activity of the firm. From here arising the importance of information. Information is the main source of decision-making, so this information must be characterized by a set of characteristics, in order to achieve the goals required for decisionmaker. Accounting information is one of the oldest information systems known in companies, as accounting information described with a great importance in identifying the financial and economic reality of the firms, and how company's relationships with its environment (Kassem, 2004). In general Accounting information system plays an important role in the management of firms, and one of the most important reasons for the existence of accounting and its continuous evolution is that it provides the appropriate information for both managers' and external parties concerned with such information. The study try to assessment the role of accounting information systems in supporting decisions in Jordanian banks through providing high quality of accounting information. The study problem is to identify and measure the role of accounting information systems in improving banks operation and activities which reflected positively on banks success. In addition to help wide range of users in decision making, and discovering the possibility of accounting information systems in improving and ensure the quality of the decision taken, the study used the traditional method of analysis that employed in earlier studies, the method of deductive and descriptive analysis to recognize the nature of the relation between the study variables, starting from development hypotheses and testing the data collected to reach good understood, better interpretation, until extraction valuable results, the study sought to test the answer the following questions:

- 1. Faithful accounting information systems generate appropriate accounting information (high quality) to help managers in decision making process in Jordanian banks.
- 2. Accounting information systems help banks managers in achieving better performance in Jordanian banks.
- 3. Providing appropriate accounting information systems helps to improve the profitability of banks in Jordan.

The study seeks to discover the reliable accounting information systems that secure to provide reliable and relevance information that improve decision making, and how (AIS) treatment with decision-making problems within the Jordanian banks, the study recommended the development of computerized accounting information systems is necessary to suit and meet the needs of various departments of information in banks, the need to pay attention to the provision of accounting information systems in a timely manner with the aim of serving as a competitive advantage.

## 1.1 Research Importance

The importance of this study stems from the importance of the Jordanian banks sector. Through its essential role in support the Jordanian national economy, and how use (AIS) to continue the development program.

Using accounting information systems in these banks make a significant impact on rationalization of administrative decisions, and therefore this study derives its importance from scientific and practical



## considerations as following:

(1) Highlighting the importance of accounting information systems in the Jordanian banks and their role in developing administrative efficiency, which raises the level of these facilities and contributes to increase the level of employment Job, which in turn its contribution to the GDP of Jordan. (2) Contribute the development of banks and maintain their continuity. (3) This study contributes to opening up prospects for further researchs on the design of Accounting information systems and how increases their efficiency to provide the accurate information needed to meet administrative needs. (4) Benefiting users of accounting information (internal and external users) and improve their abilities in decision making process, as well as any other groups interested in these banks through using efficient accounting information systems, and banks provide recommendations that increasing the contribution level for different users to secure achieved precious information to take suitable decisions, through the use of information Accounting systems. Depending on above, the current study attempts to examine this issue regarding (AIS) using data by Jordanian banks. Therefore, it is expected that the study will shed light on the main role of (AIS) in improving the decision making process according to users opinion in banks. It is also hoped that this study will help different users of accounting information. In addition try to come up with some recommendations that may help to develop decision making process in Jordanian banks, and this research is considered an important source and reference for researchers and those interested in the using the financial reports, in particular banks managers.

## 1.2 Statement of Research Problem

Depending on what mention above, this research aimed to explore the nature influencing of applying (IAS) on the banks success. Consequently, the study problem may be expressed in the following questions:

Is there a relationship between the accounting information systems (IAS) application and banks success? This question create sub question should be investigated to understand the main question, relating how we can measure the (AIS), the researcher will use a proxy to measure it, and applying sub variables as a proxy for measuring the banks success.

Is there a relationship between the accounting information systems (IAS) application and banks profitability and stock price?

Is there a relationship between the accounting information systems (IAS) application and improving customer satisfaction of banks?

Is there a relationship between the accounting information systems (IAS) application and improving employee's satisfaction in banks?

Is there a relationship between the accounting information systems (IAS) application and improving the competitive advantage of banks?

Is there a relationship between the accounting information systems (IAS) application and improving the innovation activities in banks?

Is there a relationship between the accounting information systems (IAS) application and improving what customer saying about banks services?

Is there a relationship between the accounting information systems (IAS) application and improving the social success of banks?

Is there a relationship between the accounting information systems (IAS) application and improving the client retention?

Is there a relationship between the accounting information systems (IAS) application and improving customer conversion?

#### 1.3 Research Objectives

Statement and analysis the role of accounting information system in improving and raising efficiency of banks administrative performance, and discovering its effect on accounting information, and Identify the limitations that hinder the development of accounting information systems in the banks to rationalization of the resolution, and Identify the basic characteristics and requirements that must be taken into account in Accounting information systems to meet the administrative requirements of users. So the core purpose of the study is to recognize and investigate the impact of using (IAS) on banks success. Specially, the objectives of the study are:

To examine the importance of (IAS) application on Jordanian banks according to banks manager's perspective.

To examine the impact of (IAS) application on improving customer satisfaction according to banks manager's perspective.

To examine the impact of (IAS) application on improving the competitive advantage of banks according to banks manager's perspective.

To examine the impact of (IAS) application on improving the innovation activities in banks according to banks manager's perspective.

To examine the impact of (IAS) application on improving employee's satisfaction in banks according to banks



## manager's perspective.

To examine the impact of (IAS) application on improving what customer saying about banks services according to banks managers' perspective.

To examine the impact of (IAS) application on improving the social success of banks according to banks manager's perspective.

To examine the impact of (IAS) application on improving the client retention according to banks manager's perspective.

To examine the impact of (IAS) application on improving customer conversion according to banks manager's perspective.

To examine the impact of (IAS) application on the banks success according to managers perspective in Jordan

## 1.4 Research Hypotheses

According to the prior study's findings, the researcher generates hypotheses concerning the association between the (AIS) application (dependent variable) and a banks success that will be measured by proxy variables as (independent variables).

The following are the hypotheses of the study stated at their alternative forms:

**H1:** There is a significant difference among the beliefs of banks managers in determining the importance of applying accounting information system in Jordanian banks.

**H2:** There is a strong effect of (IAS) applications on improving customer satisfaction according to banks manager's perspective.

**H3:** There is a strong effect of (IAS) applications on improving the competitive advantage of banks according to banks manager's perspective.

**H4:** There is a strong effect of (IAS) applications on improving the innovation activities in banks according to banks manager's perspective.

**H5:** There is a strong effect of (IAS) applications on improving employee's satisfaction in banks according to banks manager's perspective.

**H6:** There is a strong effect of (IAS) applications on improving what customer saying about banks services according to banks managers' perspective.

**H7:** There is a strong effect of (IAS) applications on improving the social success of banks according to banks manager's perspective.

**H8:** There is a strong effect of (IAS) applications on improving the client retention according to banks manager's perspective.

**H9:** There is a strong effect of (IAS) applications on improving customer conversion according to banks manager's perspective.

H10: There is strong effect of (IAS) applications on banks success according to managers' perspective in Jordan.

## 2. Theoretical Framework

This study stands on the contingency theory such as (Khandwalla 1972; Haldma 2002; Ajibolade 2013). This theory supposes that no single type of organizational structure is suitable, applicable to all organizations. Moreover, organizational effectiveness is dependent on a fit between the type of technology, environmental volatility, company's size and other characteristics such as organizational structure and its information (Alhtaybat, 2013; Haldma & Laats, 2002).

The accounting information system can be defined as one of the core components of an administrative organization to collect, classification, processing, analysis and delivery of appropriate financial information for decision-making to different parties of accounting information users.

The accounting information system is one of the basic components of the information system and the main difference between them (the two systems), the accounting information system is concerned with accounting data and information while information system is concerned with all data and information that affect on the activity of the company.

## 2.1 Factors Influencing Accounting Information System

## 2.2.1 Inputs

Which represent the raw materials that arise from economic processes events happened inside and outside the company which can distinguish between four sources of such data, namely, (Hussein, 1997)

- 1. Routine data arising from daily operations such as sales and purchase, payments and collections
- 2. Non-routine data arising as a result of the surrounding external environment such as government policies and legal legislation
- 3. routine data arise as a result of daily operations within the facility between internal departments as data such as costs in production stages and inventory movement



4. Non-routine data arising from internal management decisions and as a result of accounting policies and

#### 2.2.2 Processes

It represents the technical side of the system and is a collection of calculations, Logical comparison, summarization, classification, and sorting performed on entered data with a view to converting it into information provided to the final beneficiary (Kasem, 2004). The processing activities include various additional processes where data is managed through the following functions (Dahrawi and Kamel, 1998).

- 1. Storage: System memory is the place where data and information are stored for use In achieving the goals for which they were created, the data is saved and stored in files or on a format Database.
- 2. Update: It is to modify the data that is stored and updated to reflect the evolution of events and processes and the impact of decisions made after data is entered into the system and stored.
- 3. Callback: It means extracting and re-ordering stored data for further operation or submission to interested users in the form of financial reports.
- 4. Control and control: It includes all processes that are taken to maintain the system entity and its continuity to achieve its objectives include all procedures necessary to protect data and prevent its loss or manipulation control of all phases and functions of the system.

## 2.2.3 The Outputs

They represent system works results that access, and the information is communicated to beneficiaries according to different formats such as reports, tables, lists and diagrams, these Information is called the outputs of the information system (Kassem, 2004).

## 2.2.4 Control

Request accurate information and the ability to have control over the input processes and output to ensure that the system produces and delivers information according to the assumed standards Its design, it is a set of procedures and rules designed to verify that the operation system is done as planned when it is designed, and that the system contains all control procedures to ensures that the correctness of inputs, processes and outputs.

#### 2.2.5 Feedback

The process of measuring the response of beneficiaries of accounting information system, to make sure that the system perform its functions as it is supposed to be designed, but some information may not suit the needs Users, then users request to re-change the system to satisfy what they want, (Kassem, 2004, p. 16). It aims to provide a guiding tool for the system's activities. It evaluates the results of the system's work and corrects the objectives if there are flaws in the system's objectives.

## 2.2.6 Flexibility

Flexibility mean the degree of consistent with its environment and organizational structure, or how carry out the financial operations without any complications during the work. therefore the accounting information system should have the ability to adapt and change in the company depending on its needs, operations, and management 2.2.7 Simplicity of Use

Appropriate design of AIS that secure supports business strategies in ways that increasing the company profitability and improve performance, this design should be described with the easiest in input the data and with easiest way to understand the outputs (Samuel, 2011).

## 2.2.8 Reliability

Reliability means the completeness of information, so the accounting information system should be described with comprehensive, and the numbers exactly represent what actually happened, in other words any person use the same inputs should arrive for the same result.

#### 3. Literature Review

Many researchers such as (Abdallah, 2013: Adrian-Cosmin, 2015) test the impact of the accounting information systems on the quality of financial statements. They found there is a strong effect of using the accounting information systems on the quality of financial statements. Zakaria et al. (2017) assess the impact of accounting information system (AIS) on the users' tasks efficiency. The findings ascertain a significant impact of (AIS) on their tasks efficiency related to budgeting, financial reporting, auditing and financial controlling in the companies. While Shuhidan et al. (2015) detect a significant impact of (AIS) on the organizational performance; they also discovered a strong relationship between AIS success and organizational performance. whereas Onaolapo and Odetayo (2012) found that Accounting Information System (AIS) enhance organizational effectiveness especially in global technology advancement, agree with Patel (2015), who detect the importance of accounting information systems, that helps in facilitating decision making and amend organization's environment, structure and requirements of task, furthermore, emphasizes accounting information plays an necessary role in decision making process related to the financial and economic issues such as cost accounting system, management accounting system, price and profitability which provide the useful information to the manager to make the financial and economic decisions, also they a certain that (AIS) played a significant role in



survival of organization.

In addition Rapina (2014) discovered a strong relation between the organizational factors (management commitment, organizational culture and organizational structure) on the quality of accounting information system and how (AIS) effect on the quality of accounting information. Furthermore he detects a significant influence of AIS application on the quality of financial reports. While Srivastava and Lognathan (2016) detected any firms try to increase its profitability so, the Accounting information system will be important elements to reaching this goal. Also they define the role of good accounting information system in increasing the company profitability target.

From other hand, they found a significant role of AIS on in decision making. But Nwinee et al. (2016), examined how applying AIS enhances the management efficiency and decreased the cost of control to achieving firms goals. Although Tan (2016), test the impact of AIS on internal auditors in Turkey, he revealed the importance role of accounting information systems in companies through enable all levels of management to access comprehensive information that goes into the planning and controlling of activities within business organizations. In addition, AIS provide high quality of information to internal and external users and typically cover six main aspects: people, procedures, data, software, information technology infrastructure, and internal controls. Alnajjar (2016), investigate the impact of accounting information systems on the management performance and organizational performance. The result detect that the accounting information systems significantly impact the management performance and organizational performance. Through applying accounting information systems, the obtain information will be more useful, for decision making in order to achieving the company's goals and objectives, which increase the company performance. Samuel (2011), indicate that Accounting Information Systems are essential means for organizations' effective management, for decision-making and controlling activities, also AIS is very effective tool for controlling and coordinating the activities of an organization. Moreover AIS consider a serious factor to produce high quality of accounting information.

The same result achieved by Hafij Ullah et al. (2014), who confirm there is significant relationship between accounting information and strategic decisions, whilst Awosejo et al. (2014), recognize the using of AIS improved the firms productivity, from other hand Qatanani and Hezabr (2015), discover the main factors that managers need to improve the accounting systems which in turn improve the quality of accounting information required to progress the value chain of business organizations (clearly defined responsibilities and authorities, specific work procedures, internal controls, recruit employees who have the competent qualifications, training and high quality of accounting systems).

Furthermore Almbaidin (2014) achieved to important fact about the role of accounting information system in improving the effectiveness in Jordanian banks. From other hand Jawabreh and Alrabei (2012), detect there is no relationship between accounting information system and planning, controlling, and decision-making in Hotels. The same result achieved by Jose Antonio Perez-Mendez and Angel Machado-Cabezas (2015), they find applying AIS does not assurance improve the performance in companies, also Soudani, (2012), find there is no any relationship between using AIS in improving the company's performance, Ismail and King (2005) revealed a positive relationship between AIS and performance measures.

Also Powell and Dent-Micallef, (1997), notice that using IT didn't provide competitive advantage for achieving results. Saeidi (2014), revealed Accounting information systems (AIS) which is part of information systems (IS) are make easy the decision making process within organizations and should be modified to an company's environment, requirements, and structure. Grande et al. (2011), measuring the relationship between the use of the Accounting Information Systems (AIS) and how improved performance indicators and productivity, also they find appositive relation between variable. (Grande et al. 2011; Ofori and Lu (2016), they discovered a strong relation between the accounting information systems, in a way that will be contributed in rising the company efficiency.

According to literature survey, some results obtain a positive relationship between investment in AIS and financial profitability, (Menachemi et al., 2006; Huang and Liu, 2005; Ravichandran and Lertuangsatien, 2005; Verhees and Meulenberg ,2004; Brynjolfsson and Hitt, 2003; Santhanam and Hartono, 2003; Bharawadj, 2000; Li and Ye, 1999; Powell and Dent-Micallef ,1997; Barua et al., 1995; Dos Santos and Peffers, 1995; Abdallah, 2013: Adrian-Cosmin, 2015; Zakaria et al. 2017). While from other hand few researches shows that no clear relationship exists between applying AIS and improving performance indicators, such as (Jose Antonio Perez-Mendez and Angel Machado-Cabezas 2015; Soudani, 2012; Dibrell et al., 2008; Bharadwaj, et al. 1999; Rai et al., 1996; Jawabreh and Alrabei 2012). Depending on that, this study come to discover the nature relation between using AIS on banks success, and how actually AIS effect on banks positively or negatively, used different techniques for measuring the variables, in order to obtain more precise results.

## 3.1 What Distinguishes This Study From The Previous Studies?

According to the researchers' knowledge, until yet there are little studies that have been completed to inspect the



nature impact of applying (AIS) on the improving the banks success according to banks managers perspective,

Although few studies that argued the (AIS) effect on the banks success in developing countries, and most studies didn't investigate this issue independently as main study problem; they discussed it in the context of other financial and accounting topics. Such as decision making, improving the company's performance or improving the quality of accounting information see (kanakriyah, 2016).

## 4. Research Methodology

#### 4.1 Population and Sample

The population of this study includes all financial managers in banks sectors listed on Amman Stock Exchange (ASE). For the year 2017, the total number of banks listed on ASE was 26 companies. The sample of the study consists of all of those companies.

#### 4.2 Data Collection

The data needed for this study are collected through a structured questionnaire which developed for this purpose. In addition, for building the theoretical background, literature review and developing hypothesis, thus the study depends on prior literature, books, and studies relevant to this study.

## 4.3 Design of the questionnaire

The study undertaken as an interpretive study to discovering the impact of (AIS) on the banks success through a questionnaire which has been designed and developed according to literature review using a Likert model, it includes five values (5-1) that applied widely in social science studies, range from: strongly agree, to strongly disagree. (Sekaran 2003). This type (the questionnaire) always used when the responded number is large (N ≥100), to assurance getting and eliciting the perceptions of respondents that concerning the research topic. The questionnaires divided for two parts, the first part relating to the demographical information of respondents', including current occupation, experience, academic education and major. The second part concerned with measure the respondents' images on the importance of applying AIS and how effect on banks success (take in our consideration the sub variables). Cronbach's alpha for the questionnaire is 0.90 which mean reliable instrument, measure the purpose which prepared for (Streiner 2003). Statistical Package for Social Sciences (SPSS) was applied in addition. Regression and correlation was used to measure the strength of the association between each independent variable and the dependent variable.

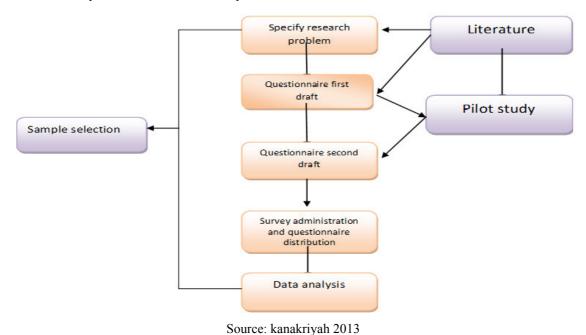


Figure 1: The stages of survey development and implementation

## 4.4 Variables Definitions

## • 4.4.1 Dependent Variable

The dependent variable in this study is banks success, that calculated by the sub variables as following: customer satisfaction, competitive advantage, innovation activities, employee's satisfaction, what customer saying about banks services, social success, client retention and customer conversion.



## 4.4.2 Independent Variables and their Measurement

The independent variable (AIS) will be measured through the following ingredient variables: flexibility; simplicity of use and reliability

**Table 1: Variables and their Measurements** 

Variable	Type	Code	Proxies	
Banks success	Dependent	BSUCC	Through 8 sub variables customer satisfaction, competitive advantage, innovation activities, employee's satisfaction, what customer saying about banks services, social success, client retention and customer conversion.	
Flexibility	Independent	FLEX	The natural logarithm of the total assets.	
Simplicity of use	Independent	AISS	Profitability measured by net income/sales.	
Reliability	Independent	AIS R	Risk measured by total liabilities/total assets.	

BSUCC=  $\beta 0 + \beta 1$ FLEX +  $\beta 2$ AISS +  $\beta 3$  AIS R + et (Study Model)

## 4.5 The Regression Model

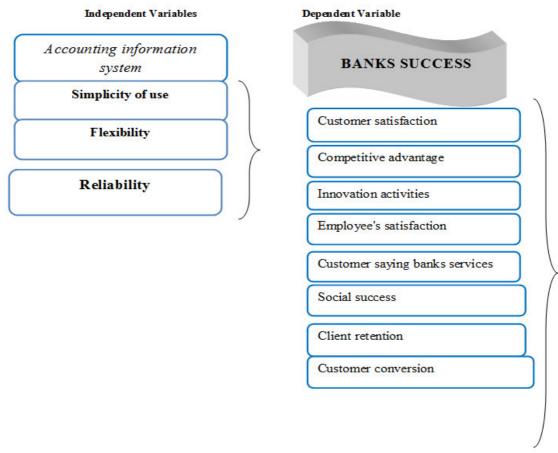


Figure 2: The Study Model

## 4.6 Statistical analysis

Statistical analysis methods differ in terms of their comprehensiveness, depth, and complexity, so any researcher should used the test that give him what he want, (regarding the hypotheses). In order to reach reliable results, to achieve and supports the objectives of the study and its assumptions. The first hypotheses tested through the average, standard deviation and t-test for one sample, while the other hypotheses tested through using the regression and correlation to describe and evaluate the relationship between a variable (usually called the dependent variable) and one or more of other variables (usually referred to as the interpreted variables or the independent variables) for the purpose of study model and its hypotheses, where the statistical packages of social sciences (SPSS) were used for analysis data of the questionnaire and obtain the outputs of all the questionnaire questions to see the approval of the sample members study on hypotheses.



## 5. Results and analysis:

Table 2: Descriptive Statistic of Respondents' demographic information of Respondents (Questionnaire)

Panel (1)	•		<u> </u>	Timeton of respondents (Questionium)
Sex	Male	77	percent	68.8 percent
	Female	35	percent	31.2 percent
Panel (2)				
			Number	percent
	Bachelor de	egree	80	71.4 percent
	Master deg	Master degree		20.5 percent
<b>Education Level</b>	PhD		9	08.1 percent
Panel (3)				
			Number	percent
	0-5		7	6.2 percent
	6-10		16	14.2 percent
	11-15		40	35.7 percent
Experience	16-20		21	18.7 percent
	21-25		13	13.5 percent
	26-30		9	11.6 percent
	31- more		6	5.3 percent
Panel (4)				
	Finance		32	28 percent
	Accountant		49	43 percent
	Management		17	15 percent
Specialization	Economic		5	.04 percent
(Major)	Marketing	Marketing		.03 percent
	Others		5	.04 percent

## 5.1 Results of the study models test:

The study adopted a regression technique to get precise findings. This type of analysis examines the nature association between the variables, and whether (AIS) application effect in depended variables. The explanatory variable accounting information system'(AIS) expressing by (X) and measured via three sub-variables flexibility; simplicity of use and reliability. While the depended variable is banks success, expressing by (Y), discovering this effect, means understanding the core subject of the study.

Hypothesis (1) there is no significant difference between the opinions of accounting professionals in determining the importance of applying (AIS) in Jordanian banks. It is necessary to examine this hypothesis, which was statistically expressed:

Ho:  $\mu \le 3$  H1:  $\mu > 3$ 

This hypothesis aim to discover the attitude and beliefs of banks managers about the importance of applying accounting information system (AIS) on Jordanian banks, depending to the analysis result as shown in Tables 3 and 4 (t-values = 22.854, p = 0.00) which indicate a complete agreement amongst the respondents about the magnitude of AIS use, (Shuhidan et al.2015; Abdallah, 2013: Adrian-Cosmin, 2015; Almbaidin 2014; Nwinee et al. 2016), according to the result the mean of the agreement is high (4.581) with a low standard deviation (0.422). Which mean high realize and large agreement between all banks financial managers in Jordan concerning the significance of applying AIS.

Also to make sure from this result the researcher applied another technique of analysis to get accurate findings to be more understood results; through using ANOVA test to recognize the extent of conformity between banks managers. The findings of ANOVA shown in Table 4 specify that there is extensive agreement (homogeneous) among banks managers.

This finding due to the fact that banks financial managers has further awareness about the importance of accounting information system to achieve banks vision. According to that, it become clear that banks financial managers understand the magnitude of using the AIS in banks sector to ease the accounting system which in turn develop the decision making process, normally, because they recognize the importance of adopting the AIS in banks operation, which will make the banks activates more excellence and positively reflected in the accounting system in banks sector, providing clear image about banks financial position and ensuring the truthfulness of data included in banks financial statements. That described with accurateness, completeness, understandable, less expenditure, and quickly result, which will progress the probability to gain profit, and improved the



efficiency of banks financial managers in investing its resources correctly.

Table 3: Results of Testing the First hypothesis using the t-test (ANOVA)

	n	Mean	Standard Deviation	t-value	Sig
H1	111	4.581	0.422	22.854	.000

The researcher examine the hypothesis from two to eight in to know how (AIS) effect on these variables (customer satisfaction, competitive advantage, innovation activities, employee's satisfaction, what customer saying about banks services, social success, client retention and customer conversion), then the researcher make an average for these depended variables that used as a proxy to measure the banks success and then test how (AIS) effect on this proxy, which clarified by hypotheses No 1.

Hypothesis (2): There is no positive relationship between the (IAS) applications on improving customer satisfaction according to banks manager's perspective.

Table 4: Correlation, Regression and T-test for hypothesis

Hypothesis	N Regression equation		R	t-value	Sig	R <sup>2</sup> %
No.						
H1	112	Y=1.076+0.734x	.734	5. 915	.000	.538
H2	112	Y1=2.558+0.786x1	.786	12.675	.000	.617
Н3	112	Y2=1975+0.771x2	.771	8.885	.000	.594
H4	112	Y3=0.776+0.684x3	.684	6.231	.000	.467
Н5	112	Y4=2.396+0.791x4	.791	14.012	.000	.625
Н6	112	Y5=2.876+0.645x5	.645	10.564	.000	.416
H7	112	Y6=1.675+0.822x6	.822	19.541	.000	.675
Н8	112	Y7=1.478+0.772x7	.772	7.006	.000	.595
Н9	112	Y8=0.992+0.608x8	.607	6.894	.000	.368
H10	112	Y9=2.1132+0.759x9	759.	12.443	.000	.334

For testing the second hypothesis, the impact of (AIS) on improving customer satisfaction, which measured by questionnaire questions:

1. Promptness in giving service, 2. Willingness to help customers 3. Buildings customer relationship and management 4, enhancing loyalty (Mistry 2013), 5. Degree of safety transaction and consistency in service. the correlation and regression findings state a significant statistical relationship between the two variables; the correlation is strong, which equal 78% see table 4 this findings could be due to the banks financial managers are more aware that profitability and survival can be achieved through understand customers need and wants and how can satisfy this need with less cost. In addition financial managers always concentrate on increasing responsiveness, reliability and service qualities. This result indicates a high concentrate between all managers in banks.

**H3:** There is no relationship between the (IAS) applications on improving the competitive advantage of banks according to banks manager's perspective.

The researcher here applied some questions to measure competitive advantage (how differentiate yourself from other competitors). Sub variables used in order to measure the competitive advantage as following 1. Service quality 2. lease price 3. new technological advancement 4. promotion effort (Darshani, 2013), according to correlation and regression findings as presented in table 4, the R value is .77 percent indicating a strong impact of (AIS) on improving competitive advantage, also depending on T-vaue = 8.885 and sig = 0.00 which leading to reject the null hypotheses and accepting the alternative.

**H4:** There is no positive relationship between (IAS) applications on improving the innovation activities in banks according to banks manager's perspective.

Innovation means create a new process, service, distribution method, marketing technique and product. The researcher used the following question for measuring innovation activities in banks: is AIS application improve bank process, is AIS application improve bank service, is AIS application improve bank image, is AIS application improve bank procedures, is AIS application improve bank organization. The central reason of this hypothesis to evaluate the impact of AIS on the innovation activities, depending on the correlation and regression analysis as demonstrate in table 4 the result show a strong relation between the AIS application (X) and innovation(y), also the value of R = .68%, from other hand, according to the t-value = 6,234 and sig value = 0,00 this leading to accept the alternative hypotheses and reject the null hypotheses. This result could be attributed to awareness of banks manager for the important role of AIS in improving the different method of banks operation and how differentiate their banks.

**H5:** There is no positive relationship between the (IAS) applications on improving employee's satisfaction in banks according to banks manager's perspective. According to Meena and Dangayach, (2012), supposed employee satisfaction is an essential feature for organization's success and survival. There are different variable used in order to measure the employees' satisfaction, the researcher used the following variables: health, office



environment, wellbeing, improvement in employee productivity, greatest services, excellent behavior between staff and management, socially, economically, development and job satisfaction (Meena and.Dangayach, 2012) in study questionnaire. These variables employed in order to measure the employees' satisfaction, after analyze the nature relation and impact of AIS application on employees' satisfaction, the result state a complete impact of AIS application on employees' satisfaction, as we hound the R value = 79 percent which explain a high impact, the same result we get it from the T- value = 14.012 and sig = 0.00 indicating accept the alternative hypotheses and reject the null hypotheses, this results attributed to awareness of respondents of the important role of AIS application in increasing the degree of loyalty for employees.

**H6:** There is no positive relationship between the (IAS) applications on improving what customer saying about banks services according to banks managers' perspective. The researcher measure "what customers saying" through the following sub variables 1. Invested in technology, 2. Customer service quickly and without delay, 3. A good financial situation leads to more reassurance 4. Customer information protection (identity theft protection) 5. Degree of trust by meeting customer expectations. 6. Transparency, which used as a proxy to measure "what customers saying" then test the relation between AIS application and how effect on what customers say, through the correlation analysis, we find a significant impact of AIS implementation (the independent variable X) and the dependent variable what customers saying (Y variable), the outcome as detected in table 4 present a positive association between X and Y the value of R .64 percent ,regarding to accepting or rejecting the hypotheses, we noticed the t-value computed t- value = 10,564 is more t-distributions and the sig value 0-00. This result leads us to accept the alternative hypothesis which shows that the application of AIS guides to an effect on "what customers saying".

**H7:** There is no positive relationship between the (IAS) applications on improving the social success of banks according to banks manager's perspective.

In the direction of measure social success variable, the researcher applied the following question: 1. social media to create communities, 2. charitable activities to communities, 3. social responsibility. According to the result that extracted from regression and correlation analysis that illustrated in table 4 which demonstrate the R value = .82 percent involve a strong correlation between the variables (AIS application (X) and social success (Y)). Also ascertain this result by the values of t- value = 19,541 and the sig = 0.00 lading to accept the alternative hypotheses and reject the null hypotheses consistent with (Darshani 2013).

**H8:** There is a negative relationship between the (IAS) applications on improving the client retention according to banks manager's perspective. The researcher using the following question to measure the client retention the nature relation with customers. How management understands wants /needs of their clients/customers, 3. How you understand customer satisfaction, and the last point relate with the relation with employees. Also, according to the p-values = 0.00 which leading to reject H0. additionally, the outcome illustrate a positive correlation between X (AIS applications) and Y (client retention), as illustrated in table 4 the R value = 77 percent it enhances the a strong relation between the two variables.

**H9:** There is no positive relationship between the (IAS) applications on improving customer conversion according to banks manager's perspective in Jordan. Firstly customer conversion means decisions to stay with or leave their banks, and to measure this variable the researcher asked question about some issues relating this variable as follow: customer satisfaction, corporate image, switching barriers, consumers' behavioral intentions and customer loyalty Cohen et al. (2006), they suggest companies must deliver services to their customers which should be more than consumers' expectations in order to enhance satisfaction and sustain a positive image. Regarding to the correlation and regression analysis, the finding discovered a strong association between the variables (AIS applications X, customer conversion Y) this is clear from R value = 60 percent, also according to t-value which equal 6.894 and sig value=0.00 that indicating to accept the alternative hypotheses and reject the null hypotheses.

**H10:** There is a negative relationship between the (IAS) applications on banks success according to managers' perspective in Jordan. this statistically expressed as follows:

This hypothesis look for to discover the attitude and thinking of effect of AIS on banks success, To investigate this hypothesis, the researcher take all previous variables completely as a proxy to measure banks success (customer satisfaction, competitive advantage, innovation activities, employee's satisfaction, what customer saying about banks services, social success, client retention and customer conversion). Here because we have two variables, so will applied the AIS application as independent variable (interpreter) which explains the change in variable X and dependent variable Y (banks success), through the regression analysis as shown in table 4 we arrived to a strong correlation because the R value = .75 percent, which is nearest to 1.0, so we can say the AIS application interpreting the changes that happened to depended variable, and investigation reveal positively impact of AIS on banks (firms) success. Furthermore according to analysys result the P- value 0.000 < 0.05 and the t- value = 12.433 more than the t-statistical value at 95% confidence level H0 is rejected and H1 accepted, which is statistically significant at a confidence level of 0.05.



## BSUCC= $\beta 0 + \beta 1$ FLEX + $\beta 2$ AISS + $\beta 3$ AIS R + et (Study Model) ........1 sub HY

The researcher applied two steps to discover the nature effect of AIS application on banks success. The first step test how the three variable which integrated the accounting information system (flexibility, simplicity and reliability) on banks success as illustrated in table 5 and the result show a significant relation.

The second step started through compute a new variable (the average of the three variables which mentioned in table 5 as (AISAPP) that Appeared in equation 2 through analyzing how the new variable effect on banks success, the result again ascertain a significant relation of applying the AIS on banks success see table 6 which explain a strong relation between the two variables as shown in table 6 (R=75 percent).

BSUCC y= β0 + β1AISAPP + et (Study Model)..... Equation No.2 the main Table 5: Coefficients<sup>a</sup>

Tuble of Coefficients						
Model	Unstandardized Coefficients		Standardized Coefficients			
	В	Std Error	Beta	t	Sig	
1 (Constant)	871	,651				
flexibility	9.578	13.574	.447	.889	.000	
simplicity	155.956	43.598	.17,612	8.461	.014	
reliability	9504.845	20.426	17.253	6.649	.000	

Dependent Variable: Banks success

According to the model summary in table 6 detect R Square value of 0.57. which mean that independent variables (AIS application) explain .57 percent of the variation of banks (firms) success. Therefore the model appears to be a good to explain banks (firms) success.

**Table 6: Model Summary** 

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.759 <sup>a</sup>	.576	.557	316745.00355618

a. Predictors: (Constant), AIS application (flexibility, simplicity and reliability)

b. Dependent Variable: banks success

#### 5.2 Conclusion

The analysis results revealed that there is almost a complete consensus among all respondents about the importance role of applying accounting information systems, and this is clear from the results of the first hypothesis. This is logical because the senior management always seeks excellence and achieving the highest profit rate. Therefore, it must rely on information characterized with a high degree of credibility and suitability, in other words all managers believes with the significant role of AIS in develop the banks activates which in turn reflected positively on banks success,

The most important result disclose the relative impact of accounting information system on the banks success which is appear through the result of sig value (Sig = 0.000) which is less than 5 percent for the last Equation No.2 which signifies the model is statistically significant in interpreting the banks success.

Consequently, the banks must improve their strategies to introduce new AIS technology that described with high facilitates, because that will be reflected on the firm's success, through improving different concepts which effect positively on firms success etc. (customer satisfaction, competitive advantage, innovation activities, employee's satisfaction, what customer saying about banks services, social success, client retention and customer conversion) since, it shapes the degree of banks success. Banks have to analyze the industry competition in order to recognize new ideas to be implemented in the financial environment. In addition the result noticed that the current AIS application has important impact on banks success, this result could be attributed to the fact that AIS plays an important guide to improving tasks efficiency on the usual processes related to budgeting, financial reporting, auditing and financial controlling in the agencies.

Table 5 presented the result regarding of the overall model (equation no.2), which assured a strong relation between all variables that used in explanation the banks success. Also the findings sustained the evidence which presented in prior studies such as (Darshani, 2013; Zakaria et al. 2017; Adrian-Cosmin 2015; Shuhidan 2015; Salehi 2010; Trigo et al. 2016; Belfo and Trigo 2013) that the use of the AIS has led to improve the bank's profitability. The regression value (R) of the model = 75 percent which ascertain the significance of the model and implies that the independent variables that employed in the model explain more than 57% of the variation in banks success in Jordan.

The study results showed that one of the most important factors of banks success depends on understanding the needs and desires of customers and how to satisfy them at the lowest cost, which requires an accounting information system characterized by reliability and relevance.

Mainly this study is one of the rarely studies that discovered this relationship between the operational fit of AIS in the context of banks according to managers perspective in Jordan. The study results showed that



computerized accounting information systems in Jordanian commercial banks characterized by the availability of four characteristics (quality, flexibility, simplicity, reliability) combined and still need for more growth and expansion.

Also the study detected a strong impact of (AIS) on improving bank competitive advantage, the reason for this result is that, whenever the information provided by the accounting system is characterized by timely access to all users of accounting information, whenever it generates a unique element distinguishes the bank from others.

The study detect a strong relation between the using AIS and the following variables that used by the researcher to measure the bank success (customer satisfaction; competitive advantage; Innovation activities; Employees satisfaction; customer conversion; customer saying banks services; client retention and Social success of the bank).

Focus on the permanent improvement of the accounting information systems in Jordanian banks, to guarantee keep abreast of technological developments because it reflected on the banks functions positively such as, planning, control and decision-making.

Until yet the sector banks in Jordan, do not perform the essential analyzes of the elements of the surrounding environment in proportion to the variables. This should be taken into consideration to develop the accounting information systems that necessary to keep abreast of developments.

#### References

- Abdallah, A. (2013). "The Impact of Using Accounting Information Systems on The Quality Of Financial Statements Submitted to the Income and Sales Tax Department in Jordan" European Scientific Journal, Special/Edition Vol.1, Pp 41-48.
- Almbaidin, T. (2014). "The Effectiveness of Accounting Information System in Jordanian Banks: From the Management Perspective" International Bulletin of Business Administration, Issue 14.
- Alnajjar, M. (2016). "Impact of Accounting Information System on Organizational Performance: A Study of Small and Mid-Sized Enterprises in UAE" International Journal of Accounting Research, Vol. 4, No. 1, pp. 1-7.
- Awosejo, J., Kekwaletswe, M., Pretorius., P and Zuva, T. (2013). "The Effect of Accounting Information Systems in Accounting", International Journal of Advanced Computer Research, Vol. 3 No. 3, pp. 142 150.
- Adrian-Cosmin, C. (2015). "Accounting Information System Qualitative Characteristics And The Importance Of Accounting Information At Trade Entities", Annals of the Constantin Brâncuşi" University of Târgu Jiu, Economy Series, Vol. 2 No. 1, pp. 168-174.
- Barua, A.; Kriebel, H.and Mukhopadhyay, T. (1995): "Information technology and business value: An analytical and empirical investigation", Information System Research, Vol. 6, No. 1. pp 3-23.
- Belfo,M and Trigo, A. (2013). "Accounting Information Systems: Tradition and Future Directions", Procedia Technology, Vol. 9 No. 7, pp. 536 546.
- Bharadwaj, S.; Bharadwaj, G.; Konsynski, R. (1999): "Information Technology effects on Firm Performance as measured by Tobin's q", Management Science, vol. 45, No. 7.
- Bharadwaj, S. (2000): "A resource-based perspective on Information Technology Capability and Firm Performance: An empirical Investigation", MIS Quarterly, Vol. 24, pp.169-196.
- Brynjolfsson, E. and Hitt, L. (2003): "Computing productivity: Firm-level evidence", The Review of Economics and Statistics, Vol. 85, No. 4. pp 793-808.
- Darshani,R. (2013). "A Study of Identifying The Factors On Competitive Advantage For Bank of Ceylon Leasing Sri Lanka: With Special Reference To Kahawatta Branch"International Journal of Marketing, Financial Services & Management Research, Vol.2, No. 8,pp. 120-129.
- Dibrell, C.; Davis, P.S.; Craig, J. (2008): "Fueling innovation through Information Technology in SMEs", Journal of Small Business Management, Vol. 46, No. 2, pp. 203-218.
- Dos Santos, B. and Peffers, K. (1995): "Rewards to investors in innovative information technology applications-First movers and early followers in ATMs", Organization Science, Vol. 6, No. 3. pp 241-259.
- Elena, U. and Raquel, P. and Clara, M. (2011). "The Impact of Accounting Information Systems (Ais) On Performance Measures: Empirical Evidence In Spanish SME".
- Frijat, Y. (2013). "The Impact of Accounting Information Systems Used In the Income Tax Department on the Effectiveness of Tax Audit and Collection in Jordan" Journal of Emerging Trends in Economics and Management Sciences, Vol.5, No.1,pp. 19-25.
- Grande, E., Estébanez, R., and Colomina, C. (2011). "The impact of Accounting Information Systems (AIS) on performance measures: empirical evidence in Spanish SMEs", The International Journal of Digital Accounting Research, Vol. 11, pp. 25 43.
- Hafij Ullah, M., Khonadakar, J., and Fahim, S. (2014). "Role of Accounting Information in Strategic Decision Making in Manufacturing Industries in Bangladesh", Global Journal of Management and Business Research:



- D Accounting and Auditing, Vol. 14 No. 1, pp. 9 22.
- Haldma, T. and Laats, K. (2016). "Influencing Contingencies on Management Accounting Practices in Estonian Manufacturing Companie ",University of Tartu,. Management Accounting Research, 13 (4) (2002), pp. 379-400.
- Huang, J.And Liu, J. (2005): "Exploration for the relationship between Innovation, IT and Performance", Journal of Intellectual Capital, Vol. 6, No. 2: pp.237-252.
- Ismail, N. and King, M. (2005): "Firm performance and AIS alignment in Malaysian SME's", International Journal of Accounting Information Systems, vol. 6, n.4: 241-259.
- Jawabreh, O. and Alrabei, A. (2012). "The Impact of Accounting Information System in Planning, Controlling and Decision-Making Processes in Jodhpur Hotels" Asian Journal of Finance & Accounting, Vol.4, No.1,pp. 173-188.
- Jose Antonio Pérez-Mendez and Angel Machado-Cabezas (2015), "Relationship between management information systems and corporate performance", Spanish Accounting Review 18 (1) 32–43
- Kanakriyah, R. (2013). "The effect of Asset Impairment (IAS 36) in Improving the Quality of Accounting Information According to Users' Perspective: Evidence from Jordan" phd thesis, Durham University.
- Kanakriyah, R. (2016). "The Effect of Using Accounting Information Systems on The Quality of Accounting Information According to Users Perspective In Jordan" European Journal of Accounting, Auditing and Finance Research, Vol.4, No.11,pp. 58-75.
- Kassem, A. (2004). "Accounting Information Systems" Dar Al Thaqafa Library for Publishing and Distribution, 1st edition.
- Khandwalla, N. (1972). "Environment and Its Impact on The Organization" Organization And Environment, Vol.2, No.3,pp. 297-313.
- Li, M. and Ye, R. (1999): "Information technology and firm performance: Linking with environmental, strategic and managerial contexts", Information and Management, vol. 35, No. 1. pp 43-51.
- Meena and Dangayach, S, (2016). "Analysis of Employee Satisfaction in Banking Sector", International Journal of Humanities and Applied Sciences, Vol. 1 No. 2 pp. 78-81.
- Menachemi, N.; Burkhardt, J.; Schewchuk, R.; Burke, D.; Brooks, R.. (2006): "Hospital Information Technology and positive financial performance: a different approach to finding ROI", Journal of Healthcare Management, Vol. 51, No. 1: 40-59.
- Mistry, S. (2013). "Measuring Customer Satisfaction In Banking Sector: With Special Reference To Banks Of Surat City" Asia Pacific Journal of Marketing & Management Review, Vol. 2, No. 7, pp. 132-140.
- Nwinee, K., Akpos, Y., Vincent G.and Ibinabo, T. (2016). "Impact of Accounting Information System on Organizational Effectiveness: A Study of Selected Small and Medium Scale Enterprises in Woji, Portharcourt", International Journal of Research, Vol. 3 No. 1, pp. 974 982.
- Odero, A. (2014). "The Effect of Accounting Information System Quality on Financial Performance of Smes In Nairobi County" Master Degree, University o Nairobi School of Business.
- Ofori, C. and Lu, L. (2016). "The Impacts of Accounting Information on Managers", International Journal of Novel Research in Marketing Management and Economics, Vol. 3 No. 3 pp. 84-90.
- Onaolapo, A. and Odetayo, T. (2015). "Effect of Accounting Information System on Organisational Effectiveness: A Case Study of Selected Construction Companies in Ibadan, Nigeria", American Journal of Business and Management, Vol. 1 No. 4 pp. 183-189.
- Patel,F. (2015). "Effects of accounting information system on Organizational Profitability", Annals of the "Constantin Brâncuși" International Journal of Research and Analytical Reviews, Vol. 2 No. 1, pp. 168-174.
- Powell, T.C. and Dent-Micallef, A. (1997): "Information Technology as Competitive Advantage: The role of human, business and technology resources", Strategic Management Journal, Vol. 18, No.5. pp 375-405.
- Qatanani, K. and Hezabr, A. (2016). "Impact of accounting information for management decision making", European Journal of Accounting Auditing and Finance Research, Vol. 3 No. 6 pp. 1-11.
- Rai, Arun, Borah, Santanu, and Ramaprasad, Arkalgud. (1996). "Critical Success Factors for Strategic Alliances in the Information Technology Industry": An Empirical Study, Decision Sciences, 27, pp 141-155.
- Rapina, (2014). "Factors Influencing The Quality of Accounting Information System And Its Implications on The Quality of Accounting Information" Research Journal of Finance and Accounting, Vol.5, No. 2,pp. 148-154.
- Ravichandran, T. And Lertwongsatien, C. (2005): "Effect of Information Systems, Resources and Capabilities on Firm Performance: A resource based perspective", Journal of Management Information Systems, Vol. 21: pp.237-276.
- Rostami, V. and Mogadam, A. (2015). "Usefulness of Accounting Information System in Emerging Economy: Empirical Evidence of Iran", International Journal of Economics and Finance, Vol. 2 No. 2 pp. 186-195.
- Saeidi, H. (2014). "The Impact of Accounting Information Systems on Financial Performance A Case Study



- Of TCS India" Indian Journal of Fundamental and Applied Life Sciences, Vol.4, No.4,pp. 412-417.
- Samuel, N. (2011). "Impact of Accounting Information Systems on Organizational Effectiveness of Automobile Companies In Kenya" Master Degree University Of Nairobi,
- Santhanam, R and Hartono, E. (2003): "Issues in linking Information Technology capability to firm performance", MIS Quaterly, Vol. 27, No.1. pp 125-153.
- Sekaran, U. (2003). Research methods for business, Wiley New York.
- Shuhidan, S., Mastuki, N., and Wan Mohd, N. (2015). "Accounting Information System and Decision Useful Information Fit Towards Cost Conscious Strategy in Malaysian Higher Education Institutions", Procedia Economics and Finance, Vol. 31 No. 1, pp. 885 895.
- Srivastava, P. and Lognathan, M. (2016). "Impact of accounting information for management decision making", International Journal of Applied Research, Vol. 2 No. 5 pp. 171-174.
- Tan,O. (2016). "Impact of Accounting Information Systems on Internal Auditors In Turkey" Marmara Universitesi Oneri Dergisi, Vol.46, No. 12,pp. 245-260.
- Trigo, A., Belfo, M., and Estébanez, R. (2016). "Accounting Information Systems: evolving towards a business process oriented accounting", Procedia Computer Science, Vol. 5 No. 7, pp. 987 994.
- Vaxjo, T. (2006). "The impact of accounting information on management's decision-making process" Bachelor thesis, School of Management and Economics.
- Verhees, H. and Meulenberg, G. (2004): "Market orientation, Innovativeness, product innovation and Performance in Small Firms", Journal of Small Business Management, Vol. 42, No. 2: pp. 134-154.
- Zakaria, W., Ilias, N. and Wahab, N. (2003). "A Survey on the Impact of Accounting Information System on Tasks Efficiency: Evidence from Malaysian Public Sector Agencies", International Review of Management and Marketing, Vol. 7 No. 1, pp. 183-190.