

Research article

# Effect of E-Commerce on Accounting Information System, Computerization Process and Cost Productivity

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## Abstract

The effect of electronic commerce (e-commerce) on Accounting Information System (AIS) firms is not an easy task to be determined. The importance of that effect determination comes from the need to recognize e-commerce and AIS as one the greatest developments in the world of business, e-commerce affects: reliability of AIS on the firm, the operational performance, cost of reduction, customer services. This paper aims, to study that effect and analyze its dimensions in Jordan market as a case study. To achieve the objectives of the paper a questionnaire was designed and distributed to the society of the Jordanian firms. The data analysis found out that the firms in Jordan have positive impact towards information technology they agree on the benefit of e-commerce and what customer can get from it. The statistical analysis showed that e-commerce had a positive impact on the AIS and that e-commerce has a significantly statistical relationship with AIS itself, AIS development, cost reduction aspect in the AIS of the bank, the aspect of improving the operational performance of the bank's AIS and finally with the customer service. **Copyright © AJCTA, all rights reserved.**

**Keywords:** AIS; E-Commerce

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## 1. Introduction

Since the 90's, as computers and computerization process spread widely, information technology has become an inseparable and a very essential success factor for establishments in all fields. Information technology especially accounting information systems has played a strategic role in achieving a competitive outstanding quality, and this fact has come to awareness by most firms. Hence, this study is to highlight the importance of the Electronic Commerce on the Accounting Information System of Jordanian firms. One definition of e-commerce is the process of buying, selling, transferring, or exchanging products, services, and/or information via computer networks, mostly the internet and intranets [5]. It also worth mentioning that e-commerce is a part of a broader definition which is referred to as e-business; it includes not just buying and selling but also servicing customers collaborating with business partners, and conducting electronic transactions within the organization.

Management information system (MIS) processes financial transactions to provide internal reporting to managers to be used in planning and controlling current and future operations and for non-routine decision making, external reporting to outside parties such as to stockholders, creditors, and government agencies. Accounting information system (AIS) is considered a part of a management information system. It is also indicated that the accounting is the language of business and that the AIS are the intelligence of that language [12].

As a result to the growth of information technology, competitiveness is widely increasing, and the companies need to keep up with these changes by improving their selves while continuing to guarantee the quality of their product. Jordanian society has been affected by Information technology as well as the variety of fields forming the business firms in Jordan. As a result of the wide spread computers and other electronic devices which ease the communication between the company and its customers, and the fact that networks are widely used as the main way to exchange information, competitiveness is increasing. Most companies have been forced to redefine their existing business activities to moderate themselves, as a result of these changes. Therefore companies need a good information system which enables efficient and effective use of information to gain competitive advantages.

## **2. Objectives**

This paper aims to achieve some important objective to share in e-commerce and AIS development. Those objective in include the identification of the e-commerce concept and AIS. In addition to examine the relationship between the reliability and confidentiality of AIS and e-commerce in Jordanian banks. The relationship between the ability of saving cost through AIS and e-commerce in Jordanian banks should be examined, in addition to examine the improve ability of the operational performance and the customer services of Jordan banks.

## **3. Problem**

There are not much researches of the effect of e-commerce on improving AIS of firms especially in Jordan; this paper looks into the effect of e-commerce on the AIS, the effect of e-commerce on the AIS development, the effect of e-commerce on the reliability of AIS, the effect of e-commerce on the AIS from the perspective of cost reduction, effect of e-commerce on the AIS from the perspective of improvement in the operational performance of a firm, the effect of e-commerce on the AIS customer service.

## **4. Related work**

This subject of research is mostly new, because of that there are not much researches regarding it, although researchers have found a few studies regarding the impact of e-commerce on the accounting information system in general. Al-Qudah (2011) [1] conducted a study to investigate the impact of accounting information systems on the effectiveness of internal control in Jordanian commercial banks. The study concluded that AIS have an impact on the effectiveness of accounting control in Jordanian banks particularly that the AIS helps generate accurate, up to date, comprehensive and comparable data. Moreover, there is a positive effect of AIS on the effectiveness of management control at Jordanian banks in that the data produced by the AIS helps decision makers to make operational and strategic decisions.

Another study was conducted by Obaid (2005, 2006) which concluded the following results; most of the commercial governmental banks in Jordan had its own website on the internet and the conduct some of their business online but with different degrees. Also, the year 2005, was known for the increasing numbers of commercial, investment banks, and the branches of the foreign banks which has websites that electronically disclose their annual and periodic financial statement. There is a significant relationship between the size of the bank and the e-commerce application. Whereas, There is a significant relationship between the hierarchies of the possession and the work nature of the bank with the application of e-commerce in the internet banking services.

Saleh (2005) conducted a study about electronic commerce which. That paper shows the E-commerce as a one of the reasons that the rates of trading are rising. Also, it considered it to help in the growth of the internal and external trade. Where, the effect of meeting the requirements of e-commerce on the usage of e-commerce was not carefully studied. Another point is that effect of the security on the web on the increased usage of e-commerce. Another work, the author Choe f [2] studied the importance of the relationships among performance of accounting information systems. It showed that the use of information system a statistically significant influence on the performance for the firms. Significant relationship between the size of the

firm and the AIS application was presented in the paper, in addition to the relationship between the employees and the AIS applications.

### 5. Methodology

This paper considers a hypothesis represents the main effects of e-commerce on AIS. The questionnaire is explained in table-1. Where the hypothesis introduced in this paper are:

1. There is a statistical significant relationship between e-commerce and AIS development in firms.
2. There is a statistical significant relationship between reliability and confidentiality of the AIS of Jordanian firms and e-commerce.
3. There is a statistical significant relationship between the ability to save cost through AIS and e-commerce in Jordanian firms.
4. There is a statistical significant relationship between the ability to improve operational performance of Jordanian firms through AIS and e-commerce.
5. There is a statistical significant relationship between the ability to improve customer services through AIS and e-commerce in Jordanian firms.

The estimated results of questionnaire states that e-commerce positively affects AIS, and improve companies' strategies in general to keep up with worldly changes and the growth of information technology while keeping product quality.

This paper flow the following procedure research, starting from reach problem definition and ending to results of this paper:

1. Concluding exploratory study.
2. Developing thesis proposal as the primary model of the thesis.
3. Developing the questionnaire.
4. Collecting data through the questionnaire and other data collection method.
5. Carrying out a statistical analysis.
6. Developing the final form of the study.
7. Writing up the conclusion and recommendations.

**Table 1:** sample of questionnaire that performed for the hypothesis of this paper

NO	NO#	Question	Answer			
			Sure	Yes	May be	No

1	Hepo1				
2	Hepo2				
3	Hepo3				
4	Hepo4				
5	Hepo5				
6	Hepo6				
7	Hepo7				
8	Additions				

## 6. Results

This paper studies the effect of e-commerce on AIS in Jordanian companies. The survey is Jordan organizations since the countries like Jordan has its Organizational companies to work in very dynamic work order. The study sample was taken as 40% of the companies in Jordan. As seen in the table below, 26% of the sample assured our 1<sup>st</sup> hypothesis that there is a statistical significant relationship between e-commerce and AIS development in firms, 30% said yes, 26% said maybe while 18% said no. 34% of the sample assured our 2<sup>nd</sup> hypothesis that there is a statistical significant relationship between reliability and confidentiality of the AIS of Jordanian firms and e-commerce, 24% said yes, 28% said maybe while 14% said no. 48% of the sample assured our 3<sup>rd</sup> hypothesis that there is a statistical significant relationship between the ability to save cost through AIS and e-commerce in Jordanian firms, 30% said yes, 16% said maybe while 6% said no. 49% of the sample assured our 4<sup>th</sup> hypothesis that there is a statistical significant relationship between the ability to improve operational performance of Jordanian firms through AIS and e-commerce, 26% said yes, 18% said maybe while 7% said no. 38% of the sample assured our 5<sup>th</sup> hypothesis that there is a statistical significant relationship between the ability to improve customer services through AIS and e-commerce in Jordanian firms, 24% said yes, 26% said maybe while 12% said no. The survey of the questionnaire takes two weeks of telephone filling of the questionnaire form. The good point that limits the time of that survey is that, the exact and bounded design of the questionnaire itself and the good stating of the hypothesis. Other else, it could take a month or more time. Most of study sample was helpful but there have no experience with such researches, so, a problem was faced in dealing with them regarding to his first experience in survey and researches.

**Table 2:** shows the questionnaire result of the hypothesis.

Hypothesis	Answer			
	Sure	Yes	May be	No

Hypo-1	26%	30%	26%	18%
Hypo-2	34%	24%	28%	14%
Hypo-3	48%	30%	16%	6%
Hypo-4	49%	26%	18%	7%
Hypo-5	38%	24%	26%	12%

The results above support the assumption that the effect of e-commerce on AIS is positive, hence the increase in productivity, reliability, and financial stability of companies.

## 7. Conclusion

Electronic commerce had a statistically significant influence on the accounting information systems development of Jordanian firms. The results also showed statistically significant between electronic commerce and reliability of the accounting information systems in Jordanian firms, the Impact of electronic commerce has enhanced the reliability which represents one of the qualitative characteristics of accounting information by improving the ability to deal with the data for most Companies, reduce errors, verification of data, security and protection. Electronic commerce had a statistically significant influence for ability to reduce cost, improve operational performance of Jordanian companies through accounting information systems. The use of Electronic commerce in the accounting information systems for Jordanian companies contributed to the improvement of services provided to the clients. Electronic commerce had contributed to increase efficiency and effectiveness of accounting information systems in Jordanian companies.

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