

# Analysis of IT Impact of Using Accounting Information System in Vietnam

## 資訊科技影響下越南之會計資訊系統使用分析

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### 摘要

網際網路和資訊科技的演進已經轉變了  
很多企業的商務功能，由於網絡環境變化的影  
響，資訊科技的設置和相關設施業務應該是趨  
向易於使用，並支持使用者的需要和滿足。企  
業主管的使用支持，在於會計資訊系統的有效  
率，降低成本效率，業務自動化，容易支付和  
容易計費。

本研究的目的是描述在越南的企業在資  
訊科技的影響下，分析會計資訊系統在軟體使  
用中，依傳統和現在的使用需求和進行分析  
了解，藉以了解使用者的資訊需求和目的。  
分析結果顯示，大多數的使用者同意他們必需  
在現階段業務使用會計資訊系統，但是他們仍  
然需要在資訊科技影響下的專業協助。

**關鍵詞：**會計資訊系統、資訊科技、網際網路、  
越南

### Abstract

The proliferation of Internet and Infor-  
mation Technology (IT) has been transformed a  
lot in business features by the effect of net-  
worked environment change. IT settings and  
related facilities in business should be easy to  
use and support the satisfaction of users' needs.  
Business is supported to use Accounting Infor-  
mation System (AIS) because of its efficiency,  
cost-efficient, automated, easy- payment and  
easier billing.

The aim of this study aimed to describe the  
IT impact of business in Vietnam nowadays and  
understand the information needs of users

through an analysis of AIS in the traditional and  
the present way of software user. The findings  
revealed that most of the users were satisfied  
with their AIS on the IT impact; they still need  
professional assistance in their using IT for in-  
formation needs.

**Keywords:** *Accounting Information System, IT,  
Internet, Vietnam*

### 1. Introduction

Computer technology, which was devel-  
oped since 1950 (Rashid, Hossain and Patrick,  
2001), increases the use of information technol-  
ogy because it can analyze massive amounts of  
data, and then create reports timely and accurate  
[1]. Today, technology has allowed the produc-  
tion and storage of vast amounts of information.  
Moreover, IT has become a key resource in the  
business world and an ability to effectively ma-  
nipulate this information has become vitally im-  
portant for management because IT is a useful  
tool that can play a big part in making an orga-  
nization's business of successful one [2]. Elliot  
(1992) defined that information technology  
changed the way business which are being oper-  
ated. The world had recognized the usefulness of  
IT because IT impact on many businesses such  
as trading, accounting, education, medicine,  
publishing, filming and much more. Information  
technology provides the key to collecting, clas-  
sifying and manipulating this vast repository of  
information. One of the systems which collates  
and classifies data collected by organizations is  
the Accounting Information System (AIS).

The association between AIS and IT has  
discussed since a half century ago (McMickle,

1989). The development of accounting and IT has been extended the scope and roles of AIS (Ismail and King, 2005). In addition, IT has created significantly benefits for accounting department. Because IT helps accountants shorten time to prepare and present financial information to management and stakeholders. Moreover, IT help accountants improve the overall efficiency and accuracy of the information (Maziyar, Valid, Mohammad and Elham, 2011). More, IT impact on inventory accounting. In the early 1960s, many organizations have started utilizing inventory control package technology to integrate and automate their inventory control system (Rashid, Hossain and Patrick, 2001). This system helps increase in business productions and transactions as now companies are able to create more products because the more systematic order schedule plan offered by the system [1]. Besides, AIS also uses software for taxes and other accounting needs that change often. To be effective, information technology associated with AIS must be flexible to accommodate the changes [3]. Thank to IT, AIS becomes popular and useful

The AIS provides financial information that can be used to plan, evaluate and diagnose the impact of operating activities and identify the financial position of the organization [4]. AIS is a tool that organizations can use to achieve stronger, more flexible corporate culture to face continual changes in the environment [5]. Besides, AIS is very important because it helps organizations in adapting to the uncertain environment and shows a high degree of competitiveness. In addition, the main advantages of an optimal use of AIS in an organization are better adapted to changing environments, better management of arm's length transaction and a high degree of competitive [6]. The AIS pulls data from centralized database processes and transforms them to generate reports quickly, correctly and timely. This thesis, the author would like to find out about IT, AIS. The author also introduced about the development of AIS in Vietnam. Moreover, I showed the application of IT in AIS and the role of IT in accounting change. From there, the author would like to compare between the traditional and present AIS to find the difference. Concurrently, I showed many accounting software which is used in Vietnam and explain reasons why many companies use them.

## 2. Research problem

The information technology impact on AIS significantly to improve the efficiency of decision makers and to facilitate for accountants. However, the influence of IT in AIS depends on many factors such as staff' skill, organization'

goal, appropriate system and technology acquired. Thus, this study shows research problems as below:

- Lack of knowledge, awareness and understanding about IT of manager and accountants
- The benefit of the organization can be reduced because the cost for IT increase
- The efficiency of IT in AIS may not be realized in a shorted time due to the different nature of business, chosen IT and management directions

## 3. Literature Review

### 3.1 Related papers

Information technology (IT) and Accounting information system (AIS) has positive associations. Clark and Copper (1985) were the earliest authors who studied about the application between IT and AIS. They found out that the use of computer based AIS has become all pervasive in all the organizations. And then, Mc.Mickle (1989) affirmed that AIS and IT has existed for a long time. Maziyar, Vahid, Mohammad and Elham (2011) also study on the impacts of IT on AIS. They said that IT has created significant benefits for accounting departments [7]. Because the IT usage in accounting mainly focuses on the automatic aspect, hence, the business transactions, the reports are processed quickly, timely and accurately (William, 1991). Based on the efficiency of IT, Wichmann, Robinson and Gifford proposed that organizations should use IT to help accountants show correct and detail information. Xiao, Dyson and Powell (1996) stated that accounting has always been seen as a front-runner of IT usage. AIS is the first area to be computerized in the organization (Macintosh, 1985). In the 2005, Ismail and King asserted that the application IT in AIS has become all widely even to the smallest organizations.

In another study, Mahmoud Al-Eqab and Dalia Adel also studied about the effects of IT sophistication on the perceived usefulness of AIS. They considered that both of accounting and IT are considered as integral parts in modern business because IT has greatly affected the accounting.

Although IT is very useful, the sophistication of IT makes also the biggest challenge to an accountant and auditors. Therefore, the modern accountants need to get better skills and knowledge about IT (IFAC, 2003). If the accountants don't have much knowledge about IT, they can be lost control over information (McMickle, 1989). This is the reason why the accountants need to study about IT such as strategic IT alignment; IT resource and IT value delivery (Janie, 2005). For a long time, Clark and Cooper (1985) showed that IT skill and

knowledge is as important as financial and business skills for accountants.

Thank to IT, AIS can process business transactions automatically. The automation of AIS helps accountants in privation and organizations in general save time, cost and increase accuracy [8]. Thus, Siamak Nejadhosseini Soudani stated that AIS plays role important to all organizations [9]. Because according Zulkarnain Muhammad Sori, AIS also provides information on both actual and budget data of the organization that helps company's management to plan and control business operation [10]. In addition, Pornpandejwittaya and Pairat (2012) showed that AIS pulls data from a centralized database, processes and transforms them to generate reports quickly, correctly [11]. Mitchell (2000) argued that AIS could help manage short-term problems in area such as costing, expenditure and cash flow by providing information to support monitoring and control. Corner (1989) the effectiveness AIS as a measure of success to meet the established goal. Thus, many organizations use AIS.

### 3.2. Definition of accounting information system (AIS)

The Accounting Information System (AIS) has been defined in various ways. Chang (2001) stated that AIS is very important in enhancing organizational effectiveness in a global competitive environment [12]. However, Uday and Wiggins indicated that AIS is a subsystem of the management information systems (MIS). Amy Fontinelle showed that AIS provides financial information to monitor and manage organizational resources together with conventional accounting controls: inputs, processes and outputs [13]. Caillouet and Lapeyre (1992) viewed the AIS as providing financial data for managerial functions such as planning, controlling, providing performance reports of the variances and special reports to analyze problem areas. Bodnar and Hopwood (2004) are a collection of resources, such as human and equipment designed to alter financial data and other data into information. Based on the previous study, I think that AIS is a system which can collect, record, process and analyze transaction data to generate financial information to decision makers.

Table 1: The Definition of Accounting Information System

Author	Definition
George and William, 2001	AIS is as a computer-based system designed to transform accounting data into information

Ulric, Steven, 2002	AIS is a specialized subsystem of Information System
Chenhall, 2003	AIS plays a proactive role in the strategic management
Pennsy, 2003	AIS is a collection of data and processing procedures that creates needed information
Norma Mndzebele, 2004	AIS is a tool that organizations can use to achieve stronger, more flexible
H. Sajady, M. Dastgir, and Hashem, 2008	AIS is considered as a subsystem of management information system (MIS)
Michael, Alexander, Miklos, 2008	AIS is the application of IT to the practice of accounting, auditing and reporting
Muhamad Sori, 2009	AIS assigns the quantitative value of the past, present and future economics events
Muhamad Sori, 2009	AIS indicate an integrated framework within an entity
Salehi, Rostami, Mogadam, 2010	AIS is an information system that designated to make the accomplishment of accounting function possible.
Dony, 2011	AIS is the process data into information for all levels of management
Noerlina, Johan and Yoswara, 2011	AIS is one of the support system which give the information about recording of all the necessary things in the company
Lazhar, 2012	AIS is all technical devices that organization puts in place to: capture, classify and record data of encrypted database.
Pairat, 2012	Effectiveness of AIS consists of reliability, relevance and timeliness
Abed El-Rahman, 2012	AIS collects and process transaction data and communicates financial information to decision makers
D.Heagy, M.Lehmann, Hui Dui, 2013	AIS is a delivery system for accounting information
Samba-sivamAssefa, 2013	AIS is a system that collects, records, and process data
Javad Baghersefat, Hemati and Jafari, 2013	AIS uses the technique of the capital budget and controlling and comparing capital costs to manage implementation of the decision.
Awosejo, Kekwaletse, Pretorius and Suva, 2013	AIS is an important mechanism of an organization that is vital for effective management decision making in the controlling

	organization
Dr. Muhamnd admad, Dr. ahamad ayasra and Dr. Farah, 2013	AIS as one of the most critical system in the organizations has also changed its way of capturing, processing, storing and distributing information.
Fernando Belfo, Antonio Trigo, 2013	AIS is responsible for the collection, storage and processing of financial and accounting data that is used for internal management decision making
Dr. Yuvaraj Sambasiva, 2013	AIS is a set of formal procedure by which data are collected and processed into information and distributed to users
Onaolapo and Odetayo, 2013	AIS provides a tool for the finance department to enhance organizational effectiveness, especially in this era of global technological advancement
Lacopo Enrico, 2014	AIS is a system of people, data records and activities that process data and information in an organization

Source: Development for this study

### 3.3 Traditional and present of AIS

We know that task of the traditional AIS business system, evaluate business system design and report potential weakness. Furthermore, traditionally usually focuses on recording, summarizing and validating of data about business financial transactions. Therefore, developments in the IT have facilitated the use of cost and management accounting procedure. Before, traditional AIS was performed manually; thus, it was very slow and easy to make mistakes. Nowadays, IT help accounting develop quickly. Accounting is processed by computer with high correction and speed [14]. If we use traditional AIS, the response for accounting information may take weeks. Thus, the traditional AIS becomes outdated. Errors such as wrong data entry, inefficient task performance and massive utilization of paper products have created many problems to business activities and the organization's performance [1]. Thank to IT, AIS changed significantly. IT distributed importantly to create the present AIS. There are many difficult characteristics between traditional and present Accounting information system. I would like to show four main factors to compare about traditional and present AIS. The authors used four factors to compare between traditional and present accounting information system because they are important factors which include effectiveness, speed, accuracy and cost

Table 2: Comparison between traditional and current accounting information system

Factors of Comparison	Traditional AIS	Present AIS
<b>Effectiveness [15]</b>	Only generate financial statements afford to financial executive and fewer accounting information, which make the user object become narrow [15]	Record all resources and economic business activities, users through event-driven buttons on interactive interface can get the information they want [16]
<b>Speed</b>	Slow  Because traditional use paper ledgers and journal where accountants manually record financial information; thus, speed is very slow [17]	Fast  Present AIS use of computers, spreadsheets and programs designed to record and report financial information electronically; hence, speed is very fast [17]
<b>Accuracy</b>	Low accuracy  Traditional AIS was a boring process because accountants spend much time to check numbers, accounting information. Thus, there are many mistakes such as transposing numbers or enter information into the incorrect column [17]	High accuracy  Present AIS applies accounting software to process accounting information; hence, there are few errors and spend less time on looking for errors [17].

<b>Fixed Cost</b>	Cheap  The initial cost is cheap because the traditional AIS only uses paper, pen [17].	Expensive  The initial cost is expensive because the organization has to buy a computer, printer, software and so on [17]
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## 4. Accounting information system in Vietnam

### 4.1 Accounting information system in Vietnam

AIS on the world has developed quickly and undergone many periods. Along with the development of AIS on the world, and the process of economic development and reform, AIS in Viet Nam has also been constantly reformed. The AIS reform in Vietnam is divided into three periods: Period one from 1954 to 1986, period two from 1986 to 1995 and period three from 1995 to present [18]

### 4.2 Implications of Accounting information system (AIS) in Vietnam

In Vietnam, many companies implicate of accounting information system. Many companies use accounting software as the implications of AIS in Vietnam. There are many accounting software in Vietnam. Because Accounting software helps organizations save much time. Accounting is a process which related to detail, rules, taxes, laws and many other complex calculations. Accounting software is designed to accommodate the current laws, rules...; thus, it will help organizations always comply with the law. Moreover, accounting software helps organizations calculate many complex calculations. In Vietnam, there are four kinds of accounting software which are used popularly, which are Fast, Misa, AC soft and Smart.

#### 4.2.1 Fast accounting software

*FAST Accounting software* is a product of the FAST managing software company. Fast is built in 1991, with the first version run with DOS. Fastest accounting software is the most popular in Vietnam. Fast accounting software includes 16 subsystems such as: General accounting system, Accounting cash, deposits, loan, sale accounting and so on. Fast Accounting was developed on Microsoft technology, programming language is C#.NET. Besides, Database is SQL Server. Fast is easy to use, speed of Fast is

very quick and the cost is cheap [19]  
4.2.2 MISA accounting software

MISA accounting software is accounting software which is used for small and medium enterprises and Trade Company. Nowadays, Misa is accounting software which is very popular in Vietnam because Misa is easy to use [20]. Furthermore, the MISA accounting software allows organizations to perform operations: Funds, Bank, Purchase, Sales, Tax, warehouse, fixed assets, tools and devices, price, contract, budget, Shareholders, Synthesis. The software will automatically set the tax report with bar codes and closely manage invoices, ordering or electronic accordance with the provisions of the General Department of Taxation [21].

#### 4.2.3 ACsoft accounting software

*ACsoft* is accounting software which is applicable to the enterprises which are producing companies, building companies, trade and service companies [22]. ACsoft is applied widely and is used by many companies because ACsoft helps companies gather costly, and then calculate the cost price for each order detailing products. Besides, the interface of ASsoft is quite beautiful and speed is quick. ACsoft is quite simple, easy and convenient (DR: Truong Hoa Binh, 2007).

#### 4.2.4 Smart accounting software

Smart accounting software is software which is consistent with the company about construction, manufacturing, trade, services. Smart software is programmed on on the latest Microsoft.NET technology. Smart accounting software is applied SQL Server and Visual Basic technology, which help process data very quickly and accurately. Furthermore, Smart can transfers one data to other files to backup and restore the lost data. Besides, Smart use report DevExpress technologies that allow customers to adjust the reporting forms and vouchers to suit the original unit. Moreover, Smart help updated tax reports, financial statements directly. Specially, many construction companies use Smart accounting software because this software helps collect and detail the cost of the project [23].

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