

# Application of Information Technology in Accounting

Mid-Semester Dissertation Report

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## Declaration

I, Arshiya Begum, declare that this mid semester dissertation report is my original work. It has not been submitted to any other university or higher institution for any award and where it is indebted to work of others, due acknowledgement has been made.

### **Student**

Signed..... Date.....

### **Supervisor**

This project paper has been presented for examination with my approval as University Supervisor

Signed..... Date.....

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## ABSTRACT

Many organizations have evolved from account booking keeping era to computerised accounts databases management systems. The effectiveness and efficiency of accounting software's depends on performance and usefulness of the accounting software's with reduced dependency of manual interventions in financial record maintenance and statement generations. This can be achieved by automation of the financial statement generation, strong data validation rules etc.

To achieve competitive advantage organization acquiring accounting software's for data validation and generation for financial statements is not sufficient, apart from financial statements generation the capability of analysing the financial statement for effective, accurate and timely decision making process is required. The accounting software should also include the business intelligence handle for analysing the financial statement, apart from data validation and financial statement generation serves as an extended accounting software's commonly referred as Accounting Information System (AIS). An important question in the field of accounting and management decision-making concerns the fit of AIS with organizational requirements for information communication and control.

The purpose of this study is to identify and establish the effect of different information technology software applications in the accounting sector of any organization. The aim of this study is to investigate usefulness of accounting information system (AIS) for effective organizational performance. AIS is the whole of the related components that are working together to collect, store and disseminate data for the purpose of planning, control, coordination, analysis and decision making. Therefore, impact of AIS on elements of organizational performance such as: performance management and financial performance is examined. The objectives of this study includes the creation of the Accounting Information System

Accounting Information System in this project in a nutshell would be a three step process using three different software's with varying complexing at each step: Data Validation forms the first step of the Accounting Information System. In this step a standard Microsoft excel software is used with basic data validation rules and summation logic to be incorporated to form the balance sheet, it is up to the personals due diligence to enter the entries in balanced format. The Second step of the Accounting Information System would be a software to read the data from the balance sheet generated from the first step and form different financial statements such as Income Statement etc. The final step of the Accounting Information System be the Business intelligence system which wold take the journal entry excel sheet of an organization and analyse the data to generate dashboards, weekly/monthly/yearly reports, project graphs etc. which would be effective for decision making process.

Conclusively, the study would majorly focus on different information technology software's for varied difficulty level for collecting, storing, retrieving and maintaining accounting information invariably referred as accounting information systems with extended capability of analysing the accounting information for advanced, accurate, efficient knowledge for enhancing the decision making process of an organization to achieve competitive advantage over the other equally competent organizations in the market.

## ACRONYMS

AICPA - American Institute of Certified Public Accountants

AIS – Accounting Information System

FIS - Financial Information System

GAAP - Generally Accepted Accounting Principles

IS - Information Systems

IT – Information Technology

MAIS - Management Accounting Information Systems

PM - Performance management

ROA - Return on Assets

ROE - Return on Equity

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# 1. Introduction

## 1.1 Terminology

**Information technology**, also known as IT, is a comprehensive term that includes all types of technology used to exchange, store, and use or create information. From basic computer terminals to IP-based telephony systems, information technology is an integral part of most modern business operations. Adoption of information technology resources allows companies to maintain a competitive advantage over their rivals. Companies using a first-movers strategy can use information technology to create new products, distance their products from the existing market or enhance their customer services. Companies that follow a low-cost product strategy can look to information technology solutions to reduce their costs through increased productivity and reduced need for employee overhead. However, the growth of IT and internet remain staggering, the large portion are untapped in accounting. An intrinsic part of financial processes, technology is often taken for granted in accounting offices.

**Accounting** is the process of recording, summarizing and reporting the myriad of transactions from a business, so as to provide an accurate picture of its financial position and performance. The primary objective of financial accounting is the preparation of financial statements - including the balance sheet, income statement and cash flow statement - that encapsulates the company's operating performance over a particular period, and financial position at a specific point in time. These statements - which are generally prepared quarterly and annually, and in accordance with Generally Accepted Accounting Principles (GAAP) - are aimed at external parties including investors, creditors, regulators and tax authorities.

**Accounting Information Systems** is defined as a system that collects, records, stores and handles data to provide information to decision-makers through using advanced technology or simple system or in between of the two. (Romney & Steinbart-2012, Gill, 2010) defined it as a collection of parts and sub systems that are connected with each other and with the surrounding environment and operate as a single overlap relationship between each other and between the system that combine it where each part depends on the other in achieving the goals sought by the comprehensive system of accounting, in order to provide data and information to decision makers.

Accounting information systems offers value and is a very important part of the value chain. Although "adding value", making the value of the finished component greater than the sum of its parts. It can mean, making it faster, making it more reliable, providing better service or advice, providing something in limited supply, providing enhanced features or customizing it. Value is provided by performing a series of activities referred to as the value chain which includes primary activities and support activities. These activities are sometimes referred to as "line" and "staff" activities respectively. Information technology can significantly impact the efficiency and effectiveness with which the preceding activities are carried out.

An accounting information system mainly consists of the people, records, and methods used to gather financial information about business events, record it, process it into a useful form, and communicate the information to end users and decision makers. In other words, an accounting system is everything and everyone involved in collecting, recording, and organizing financial transactions for the company.

In essence, the goal of an accounting system is to record financial data and turn it into useful financial information. There are many different parts and components to any accounting information system, but they can typically be broken up into five main categories: source documents, input devices, information processors, information storage, and output devices.

## 1.2 Background

Business managers today operate in a highly competitive and changing global business environment and therefore require information systems that provide speedy responses to complex business enquiries. Information has become a key resource of most organisations, economies, and societies. Indeed, an organisation's basis for competition has changed from tangible products to intangible information. The advancement in technology has enabled companies to generate and use accounting information systems. One of the major reasons why business enterprise takes advantage of accounting information technology is to receive support for their business decisions. The benefits of accounting information systems can be measured by its impact on improvement of the decision making process, quality of accounting information performance evaluation, internal control, and facilitating company's transactions (Alsharayri, 2011). Accounting information systems assist companies to gauge the risk of some operations or predict future warnings using sophisticated statistical software applications (I. X. Zhang, 2002).

Accounting Information Systems (AIS) are a tool which, when incorporated into the field of Information and Technology systems (IT), are designed to help in the management and control of topics related to organization's economic-financial area. Accounting information system (AIS) is one of an important component of modern information system (IS). Developments in the areas of accounting, information technology (IT) and IS over the last decades of twentieth century have widened the range and roles of AIS (Mitchell, Reid & Smith, 2000). But the stunning advance in technology has opened up the possibility of using accounting information from a strategic viewpoint. Accounting Information System (AIS) is vital to all organizations (Wilkinson et al., 2000) and perhaps, each organization either profit or non-profit-oriented need to maintain the AISs (Wilkinson, 2000: 3-4). On the other hand, an AIS is the whole of the related components that are put together to collect information, raw data or ordinary data and transform them into financial data for the purpose of reporting them to decision makers (Salehi Mahdi, 2010). To better understand the term 'Accounting Information System', the three words constitute AIS would be elaborated separately. Firstly, literature documented that accounting could be identified into three components, namely information system, "language of business" and source of financial information (Wilkinson, 2000). Secondly, information is a valuable data processing that provides a basis for making decisions, taking action and fulfilling legal obligation. Finally, system is an integrated entity, where the framework is focused on a set of objectives (Bhatt, 2001).

Accounting literature argues that strategic success is considered an outcome of Accounting Information System's (AIS) design. Several studies have analysed the role of AIS in strategic management, examining the attributes of AIS under different strategic priorities (J. Bouwens, 2000). It has also been analysing the effect on performance of the interaction between certain types of strategies and different design of AIS (e.g. different techniques and information). The appropriate design of AIS supports business strategies in ways that increasing the organizational performance (Chenhall, 2003). Increasing AIS investment will be the leverage for achieving a stronger, more flexible corporate culture to face persistent changes in the environment. Innovation is the incentive with which a virtuous circle will be put in place, leading to better firm performance and a reduction in the financial and organizational obstacles, while making it possible to access capital markets. AIS



are systems used to record the financial transactions of a business or organization. This system combines the methodologies, controls and accounting techniques with the technology of the IT industry to track transactions provide internal reporting data, external reporting data, financial statements, and trend analysis capabilities to effect on organizational performance (Elena Urquía Grande, 2010).

### 1.3 Research Problem

Currently, most organizations continue to increase spending on information system and their budgets continue to rise. Moreover, economic conditions and competition create pressures about costs of information. Generally, information system is developed using information technology to aid an individual in performing their job. Therefore, most organizations focus on developing information system in order to support decision system, communication, knowledge management, as well as many others. The key part of information system needed for decision making in organization is accounting information system.

Today, information technology and an increasingly transparent financial sector have become key driving forces in business operations, strategies, structures, ownership, and performance. These forces cut across many industries to force changes that, in turn, have had significant economic and social impacts on the organizational effectiveness (Doms, 2004). Structurally, the emerging information technology industry is uncharacteristic of typical traditional processes which has gradually grown out of the need to increase efficiency and cut on operations costs in the industry. The ability of firms to achieve competitive advantage is predicated, in part, on their capacity to develop efficient, internalized accounting information systems to provide market coordination and linkages between their operations and global commodity and financial markets.

Accounting Information Systems (AIS) is an important topic for managers and researchers alike. However, there is evidence of a gap between FIS research and practice. Accounting information systems and management decision- making opines that in managing an organization and implementing an internal control system the role of accounting information system (AIS) is crucial. He questioned the fit of AIS with organizational requirements for information communication and control and concluded that although the information generated from an accounting information system can be effective in decision-making process, purchase and installation, the usage of such a system are beneficial when the benefits exceed its costs.

(Hunton, 2002) Investigated the relationship between automated accounting information system and organizational effectiveness. He showed that there was strong relationship between accounting information system and organizational effectiveness. To compare Accounting Information System Chang, Y. W. (2001) studied the nexus between organizational strategies and performance. They found out that organizations systematically vary the AIS design to support their chosen strategy, recognizing that AIS have the potential to facilitate strategy management and enhance organizational performance (Chang, 2001).

This current study examines in detail three possible explanations for the gap. First, is the deficiency in validating of data used in accounting information systems to practice and secondly, the insufficient use of the information technology in accounting and finally analysing the accounting information for business decision making process. It will examine the use and logic of transformation of accounting in the accounting information system. This study departs somewhat from the above practice of focusing on the ways in which specific information technologies affect the operation of organizations but specifically focus on the impact of Accounting Information Systems on the effectiveness of the decision making process.

### 1.4 Objective of the project

The objective of this project is to determine the application of different information technology applications in effective maintenance of accounting information and using accounting knowledge for decision making process.

### 1.5 Importance of the study

The study is of importance of information technology in accounting sector in terms of determining the benefits accruing due to the integration of accounting information systems in their operations. The study is useful to other researchers interested in the problem under investigation as the study has laid a platform on which further studies related to the subject can be undertaken.

The study would provide a theoretical basis about accounting information system successful adoption dimension to firms. It would provide practical guidance for accounting information systems implementation in small and medium business and it would also provide empirical and practical contributions for organization in effectively applying accounting information system in their operations. Accounting information systems provide information about the financial resources, obligations, and activities of an enterprise that is intended for use primarily by external decision makers – investors and creditors. This study provides useful information in making investment and credit decisions

## 2. Literature Review

### 2.1 Introduction

Information age has changed the way in which traditional accounting systems work traditionally, accounting information system tended to mirror historically developed manual accounting processes. Therefore, traditional AIS were unable to adapt to change, to support critical business processes and models, and to satisfy users' information requirements, which are constantly changing over time. Modern AIS can generate several types of information including accounting and non-accounting information to help management manages short-term problems and integrates operational considerations within long-term strategic plans (Mitchell et al., 2000).

The main advantages of an optimal use of AIS in an organization are: better adaptation to a changing environment, better management of arm's length transactions and a high degree of competitiveness. There is also a boost to the dynamic nature of firms with a greater flow of information between different staff levels and the possibility of new business on the network and improved external relationships for the firm, mainly with foreign customers accessed through the firm's web (Elena Urquia Grande, Raquel Perez Estebanez and Clara Munoz Colomina, 2010).

For the first time in 1966, the American Institute of Certified Public Accountants (AICPA) stated that: "Accounting actually is information system and if we be more precise, accounting is the practice of general theories of information in the field of effective economic activities and consists of a major part of the information which is presented in the quantitative form".

In the above definition, accounting is a part of a general information system of an economic entity. Accounting information systems is generally defined as systems that operate functions of data gathering, processing, categorizing and reporting financial events with the aim of providing relevant information for the purpose of score keeping, attention directing and decision-making.

Recently several studies have asserted that AIS plays a proactive role in the strategy management, acting as a mechanism that enables organizational strategy (Chenhall, 2003). In the

present study it is assumed that the organizational performance is a function of the financial performance, performance management and the AIS. Fitness will exist in the combination of strategy and AIS that contribute to financial performance.

This chapter explains past relevant literature from other researchers who have conducted research in the same field. It contains opinions, attributes, research outcomes and conclusions thereon from previous research work done by other people and organizations. Section 2.2 discusses the theoretical literature. Section 2.3 presents the empirical literature. Section 2.4 looks at the local studies of the case study and section 2.5 summarizes the literature review.

## 2.2 Theoretical Literature

### 2.2.1 Contingency Theory

Contingency theory suggests that an accounting information system should be designed in a flexible manner so as to consider the environment and organizational structure confronting an organization. Accounting information systems also need to be adapting to the specific decisions being considered. In other words, accounting information systems need to be designed within an adaptive framework.

The first paper to specifically focus on the contingency view of accounting information systems in the accounting literature was "A Contingency Framework for the Design of Accounting Information Systems," (Gordon & Miller, 1976). This paper laid out the basic framework for considering accounting information systems from a contingency perspective.

Contingency theory also proposes that organizational performance improves as a result of the interaction between organizational structure and context. In this context, a greater level of fit between the context and the structure leads to better organizational performance (Mohammed Al-Omiri a, 2007). Some studies opt for this view, which tests the interaction between the contingency factors, the accounting information system and the performance (Boulianne, 2007). These studies suggest that there is an interaction between the accounting information system and the factors that influence it. This assumes, however, that these factors are not independent of each other. Companies must allocate their resources in order to facilitate this interaction. In this study, we will examine the role of certain factors that influence the accounting information system. These are the managers and computer external experts.

According to Donaldson (2001), each variable that moderates the effect of organizational characteristics on organizational performance is considered as a contingency. He added that the contingency approach assumes that the effect of one variable on another depends on a third contingent variable.

Although extensively studied in the last two decades, contingency theory has been given relatively little consideration in terms of the factors that influence the accounting information systems. Few organizations appear to have systematic processes in place for managing the evolution of their measurement systems and few researchers appear to have explored two of the main questions: What are the requirements of information system to cater accounting requirements? And, how efficient is the information systems in accounting? The paper addresses these questions by providing empirical evidence of management accounting information contingencies based on a sample of selected accounting data.

### 2.2.2 Agency Theory

Agency theory has been one of the most important theoretical paradigms in accounting during the last 20 years. The primary feature of agency theory that has made it attractive to accounting researchers is that it allows us to explicitly incorporate conflicts of interest, incentive problems, and mechanisms for controlling incentive problems into our models. This is important because much of the motivation for accounting and auditing has to do with the control of incentive problems.

It is generally assumed that the principal is risk-neutral and the agent is risk- and effort averse. The principal and agent are assumed to be motivated by self-interest, often leading to conflicting objectives. Compensation contracts bring these conflicting objectives into equilibrium. The sharing rule that determines the allocation of outcome between the principal and the agent is called a contract, whether it is written or not. Thus, agency theory provides a vehicle for formal, direct analysis of the economic elements of incentive compensation contracts based on effort levels or surrogates of effort levels.

However, there are some contracting aspects that agency theory does not address or provide clear explanations for. Under the agency perspective one could expect a comprehensive set of detailed covenants and performance indicators. Second, accounting-based covenants are frequently renegotiated outside of financial distress. Debt contracts often rely on financial covenants that do not appear to directly limit or incentivize certain actions by the borrower. Instead, some covenants require a borrower to adhere to a pre-specified threshold of performance or interest coverage. One could argue that such covenants improve incentive alignment between creditors and shareholders but, within the agency theory framework, this argument is hard to reconcile with frequent renegotiations of covenants.

In conclusion agency theory is used in this research to address two questions; how do features of information, accounting, and compensation systems affect (reduce or make worse) incentive problems? And how does the existence of incentive problems affect the design and structure of accounting information systems? Agency theory provides a framework for addressing these issues and rigorously examining the link between accounting information systems, incentives, and behaviour.

### 2.2.3 Behavioural Theory

Early behavioural theory accounting research explored bivariate relations between control system characteristics (for example; reliance on accounting performance measures or budget participation) and various criterion variables (e.g., performance or dysfunctional behaviour). Behavioural theory accounting research evolved rather quickly, however, to more complex contingency models of the organization with a richer view of the organization and of individual behaviour. The fundamental premise of contingency theory research has been that organizational structure and control system design is related to organizational context. Thus, the effects of control system characteristics are moderated by contextual factors which impact the individual and the organization.

Specific characteristics of the control system must be matched to the contextual variables that define the organization's environment. The (often implicit) assumption is that a better match is positively related to organizational. Understanding control system design and effectiveness, in general, begins with analyses of the characteristics of specific organizations and their environments and this forms the basis of the researcher.

## 2.3 Criteria of Effectiveness

There are many ways to measure the effectiveness of an organization. Different theoretical perspectives can account for the diversity in usage of effectiveness measurements. Rational perspectives emphasize goal attainment and focus on output variables such as quality, productivity, and efficiency. Natural system perspectives focus on the support goals of the organization such as participant satisfaction, morale, interpersonal skills, etc.

Accounting is a system that provides information to various interested parties. The main purpose of accounting is to give information about profit or loss and financial position of the business to its owner. This information is also useful to investors, auditors, suppliers, buyers, bankers and other financial institutions etc. But more importance of accountancy is concern to the person within the organization. Since every decision involves a number of alternatives. Accounting information must help the user to decide his course of action. Accounting is a process which helps managers with the accounting records produces financial statements. In management, the important duties of managers consist of planning, organizing, leading, supervising, controlling and decision making. Accounting Information System is considered to be one of the most important systems of any organization. Its aim is to provide necessary information to the managers at different levels. This information helps them in performing their responsibilities in an effective and efficient manner in the areas of planning, controlling, performance evaluation and decision making.

Onaolapo (2012) says that AIS provides tools to finance department to enhance organizational effectiveness. Showed that there is strong relationship between accounting information system and organizational effectiveness, this means access to accounting information, will lead to organizational effectiveness. In managing an organization and implementing an internal control system the role of accounting information system is very important.

According to Hadi (2014) Accounting Information system is a part of company's information system which help company in providing processed information. This processed information helps the management in taking decision and which has great impact on organizational profitability. Good information provides efficiency, consistency and internal control of the organization.

## 2.4 Empirical Literature

### 2.4.1 AIS and Financial Performance

Gerdin and Greve, (2004) described AIS according to the perceived usefulness of four information attributes, namely scope, timeliness, level of aggregation, and integration. Scope refers to the measures being used and to the extension of AIS in time and space. Then information could focus on future vs. historical events or external vs. internal events. Also the information could be quantified in monetary or non-monetary terms. Timeliness refers to the frequency, speed of reporting and the orientation of the information (e.g. short or long run). Aggregation refers to the way data is aggregated in time periods, functions or in accordance with decision models. Finally, integration refers to the need of providing information to reflect the interaction and coordination effects of several functions in the organization. These four attributes have been analysed for comparing AIS and organizational strategies and performance (Gerdin and Greve, 2004). Only recently have studies begun to examine whether organizations systematically vary the AIS design to support their chosen strategy, recognizing that AIS have the potential to facilitate strategy management and enhance organizational performance (Gerdin and Greve, 2004).

Appropriate review between designing of AIS and performance of commercial units by analysing strategies explains that high performance of commercial units depends on a wide range of accounting information systems (Boulianne, 2007). So many studies begun to examine whether organizations systematically vary the AIS design to support their chosen strategy, recognizing that AIS have the potential to facilitate strategy management and enhance organizational performance (Gerdin and Greve, 2004).

Existing literature offers scant evidence of the relationship between these AIS and financial performance; though it is important to highlight the study made by Elena Urquia Grande, Raquel Perez Estebanez and Clara Munoz Colomina (2010) which discovered a positive association between AIS design and organizational strategy and performance. The successful implementation of AIS could save shareholder's money and time. The information value generated by AIS to shareholders and stakeholders in making investment decisions (Zulkarnain Muhamad Sori, 2009).

Financial managers need the financial and accounting data provided by AIS to evaluate the firm's past performance and to map future plans. Therefore, the organizational performance is measured in terms of ROA (Return on Assets) and ROE (Return on Equity) these ratios are financial performance measuring ratios (Sadia Majeed, 2011). Return on equity is a key to provide useful information about the performance of debt in the capital structure that the general manager must try to influence in order to improve financial performance (Alan Miller, Michael Boehlje and Craig Dobbins, 2001).

If AIS design can be linked to financial performance and financial performance is linked to organizational performance, then we can argue that AIS design can be expected to have positive effects on organizational performance through ROA and ROE. However, other researchers such as Ismael Younis Abu-Jarad, Davoud Nikbin and Nor Aini Yusof (2010) supported the use of Return on Assets (ROA), Return on Equity (ROE) as the most common measures of organizational performance.

#### 2.4.2 AIS and Organizational Effectiveness

Accounting information system should be effective and efficient enough which can give correct and consistence information on time. It is concerned with the provision of accounting information through the optimum use of resources. A good accounting information system provides data as and when it requires to the internal and external people related with the organization. The information is accurate and complete because AIS use various accounting software for recording business transactions. It complying with laws, regulations and agreements to which user process their subject such as internal policies and external criteria. Good AIS system maintains confidentiality. It is concerned with the protection of sensitive accounting information from unauthorized disclosure.

Bhavna P. Patel (2015) The term profitability is referred to as the ability to make profits progressively over a long period of time. Profits itself has different meaning to the different people. The term profit has various perceptions to proprietor, accountants, revenue Authority and economist. Profit is sometimes taken as return accruing to shareholders. To a common man, the term profit refers to all revenue that flows to the investor. To an Accountant, profit refers to income excess of revenue realized out of cost both manufacturing and other operating expenses. For all practical purposes profit is business income taken in the implication of an accountant. Profitability is the only realistic measures of return from funds invested in the business. It is measured in terms of market share which has been gained for a given period. So that profitability can be calculated on the basis of return on sales or profit margins which are used in business enterprises to ascertain profit



proportions on income. These profitability ratios are helpful for future reference and preparation of budget as well as it is helpful to the management in taking important decision.

Hunton (2002) study, which investigated the relationship between automated accounting information system and organizational effectiveness; showed that there was strong relationship between accounting information system and organizational effectiveness, which means access to accounting information will lead to organizational effectiveness. Several recent studies on value of accounting information for equity valuation, share price and earnings prediction have queried current financial reporting model in the developed world. The same issue can be raised in Kenya about the value relevance of accounting numbers to investors. This assists the researcher to determine whether the result agrees or digresses from the previous studies.

Chenhall (2003) asserted that AIS plays a proactive role in the strategy management, acting as a mechanism that enables organizational strategy. In the present study it is assumed that the organizational performance is a function of the financial performance, performance management and the AIS. Fitness will exist in the combination of strategy and AIS that contribute to financial performance.

Appropriate review between designing of AIS and performance of commercial units by analysing strategies explains that high performance of commercial units depends on a wide range of accounting information systems (Boulianne, 2007). So many studies begun to examine whether organizations systematically vary the AIS design to support their chosen strategy, recognizing that AIS have the potential to facilitate strategy management and enhance organizational performance.

#### 2.4.3 AIS and Performance Management

Existing literature offers scant evidence of the relationship between AIS and performance management. Accounting information systems are considered as important organizational mechanisms that are critical for effectiveness of decision management and control in organizations (H. Sajady, M. Dastgir and H. Hashem Nejad, 2008). Accounting Information System (AIS) as one of the most critical systems in the organization has also changed its way of capturing, processing, storing and distributing information. Performance management (PM) includes activities that ensure that goals are consistently being met in an effective and efficient manner. Performance management can focus on the performance of an organization. Accounting systems affect behaviour and performance management and have affects across departments, organizations, and even countries (Noellette Conway, 2009).

Management is engaged with different types of activities which require good quality and reliable information. Quality information is one of the competitive advantages for an organization. In an accounting information system, the quality of the information provided is imperative to the success of the systems (Hongjiang Xu, 2010). Salaun and Flores (2001) indicate that, currently, customers require good quality information which is basic to the requirements of business activity and lead to high quality work performance in the partnership between supplier and consumer. Business organizations often use accounting information systems to provide support for management decisions. Support usually includes financial analysis from company accountants. Analysis is often taken for the company's accounting information systems. Using business technology, this system can process copious amounts of documents electronically for owners and managers (Osmond Vitez, 2011).

Management compares information about current performance to budgets, forecasts, prior periods, or other benchmarks to measure the extent to which goals and objectives are being

achieved and to identify unexpected results or unusual conditions that require follow-up. In the same way that managers are primarily responsible for identifying the financial and compliance risks for their operations, they also have line responsibility for designing, implementing and monitoring their internal control system (www.ucop.edu). Internal controls typically center around the company's accounting information system, which is the primary function for moving financial information through a company. Therefore, internal controls help managers to monitor and measure the effectiveness of their accounting operations on performance (Osmond Vitez, 2010).

Performance measurement and management have seen increasing use in the innovation literature, where the focus is on the challenges and imperative of organisations innovating successfully (Tidd et al. 2005 pp37-44). Innovation has been found to be a difficult process, but essential as the various types of innovation studied involve developing an innovation with a novel element, which is then exploited for benefit. Accounting systems are often the most important formal sources of information in industrial organizations. They are designed to provide all levels of management with timely and reasonably accurate information to effect on performance management and help them make decisions which are in agreement with their organization's goals (Anthony G, 2006). Organizational performance is one of the most important constructs in management research (Pierre J. Richard, Timothy M. Devinney and George S. Yip, 2008).

Thus, the relationship between AIS and organizational performance would be moderated by the performance management. According to the pervious argument we analyse the contingency fit between AIS, performance management and organizational performance using accounting data, decision making and internal control process.

#### 2.4.4 AIS and Data Quality

Accounting information system (AIS) output depend on the quality of data, garbage in garbage out is the result of poor data quality, and therefore data quality is important to AIS (XU, 2003). All data production processes (data collection, data storage, and data utilization) must work properly in order to achieve high data quality (Lee and strong 2003). According to (Xu 2009), inaccurate and incomplete data may damage competitiveness of firms. They also found out that that input control and competent employees are important to data quality of accounting information system.

Good information quality can lead to success while poor information quality can lead to failure of the business (Bovee 2004; Redman 2008). Quality of accounting information can be evaluated by four attribute, Accuracy, timeliness, completeness, and consistency (Xu 2003) they examined critical success factors for accounting information quality, they identified and interviewed four groups namely (information producers, information custodians, information consumers and information managers, they found and suggested that organizational issue, system and human issue, are very much important to accounting information quality.

(Rahayu 2012) examined the influence of management commitment on data quality and AIS. He finds out that management commitment and quality of data together have adequate effect on the accounting information system, although he suggested that contribution of management commitment need to be improved and also to management adequacy training and funding of resource development need to be considered by organizations.



#### 2.4.5 Internal Controls

Internal controls encompass a set of rules, policies, and procedures an organization implements to provide reasonable assurance that; its financial reports are reliable, its operations are effective and efficient, and its activities comply with applicable laws and regulations.

In managing an organization and implementing an internal control system the role of accounting information system (AIS) is crucial. An important question in the field of accounting and management decision-making concerns the fit of AIS with organizational requirements for 13 information communication and control. Although the information generated from an accounting information system can be effective in decision-making process, purchase, installation and usage of such a system are beneficial when the benefits exceed its costs. Managers should obtain high-quality and suitable information from formal and informal channels for decision-making (Zare et.al, 2013) and because financial accounting information is regarded as not being adequate (Eierle and Wolfgang, 2013), the managerial accounting provided information underlie the decision making both inside and outside the enterprise.

Existing literature offers scant evidence of the relationship between AIS and Management Accounting Information Systems (MAIS). AIS are considered as important organizational mechanisms that are critical for effectiveness of decision management and control in organizations (Oguntimehin, 2001). Accounting Information System (AIS) as one of the most critical systems in the organization has also changed its way of capturing, processing, storing and distributing information. Nowadays, more and more digital and on-line information is utilized in the accounting information systems (Oguntimehin, 2001).

Management is engaged with different types of activities which require good quality and reliable information. Quality information is one of the competitive advantages for an organization. Business organizations often use accounting information systems to provide support for management decisions. Support usually includes financial analysis from company accountants. Analysis is often taken for the company's accounting information system.

Management compares information about current performance to budgets, forecasts, prior periods, or other benchmarks to measure the extent to which goals and objectives are being achieved and to identify unexpected results or unusual conditions that require follow-up. In the same way that managers are primarily responsible for identifying the financial and compliance risks for their operations, they also have line responsibility for designing, implementing and monitoring their internal control system. Internal controls typically center around the company's accounting information system, which is the primary function for moving financial information through a company. Internal controls aim to ensure the reliability of financial information, the effectiveness and efficiency of operations and the compliance of laws and regulations (I. X. Zhang 2002). Accounting systems are often the most important formal sources of information in industrial organizations. They are designed to provide all levels of management with timely and reasonably accurate information to effect on performance management and help them make decisions which are in agreement with their organization's goals (Anthony G, 2006).

Managers at various levels need AIS to make decisions in internal controls. A study by (Sajady, Dastgir, Hashemnejad, 2008) state that implementation of accounting information systems caused the improvement of managers decision making process with internal controls, the quality of the financial reports and facilitated the companies transaction. Therefore, the adaptation of internal control techniques is a critical management issue that ensures the usefulness of internal controls and the achievement of operational objectives.

Internal controls aim to ensure the reliability of financial information, the effectiveness and efficiency of operations and the compliance of laws and regulations (I. X. Zhang, 2002). The validity of an internal control system affects the significance of internal controls. (Hoitash, Bedard, 2009) state that the value of internal control influences operational performance through information reliability operational effectiveness. Computerized internal controls have effects on the value of internal controls and performance of operations. The usage of new information technology means computerized controls should be built into the AIS.

Thus, the relationship between AIS and organizational performance would be moderated by the strength of internal controls. According to the previous argument we analyse the contingency fit between AIS, management performance and organizational effectiveness using accounting data, decision making and internal control process.

### 3. Conclusion

The Study is intended to identify the capability of information technology in the accounting field. The project focuses on to establish a reliable connection between the information technology and the organization accounting department to enhance the organizations performance through automation and business intelligence analysis of the financial statements to enable and offer extended capability to decision making process ultimately leading to organization profitability and reduction of opportunity cost over other equally competitive organizations in the market.

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