
The Critical Risk of Computerized Accounting Information System in the Indian Banking System

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ABSTRACT

Today's business environment is very dynamic and undergoes rapid changes as a result of technological innovation, increased awareness and demands from customers. Business organizations, especially the banking industry of the 21st century operate in a complex and competitive environment characterized by these changing conditions and highly unpredictable economic climate. Information and Communication Technology (ICT) is at the centre of this global change curve. Organizations and managers cannot ignore Information Systems because they play a critical role in contemporary organizations. However, in spite of the benefits of the computer to the banking industry and businesses in general, some problems are still left unsolved and risks have been credited to the use of computerized accounting information system. Hence, this study seeks to investigate the critical risks of computerized accounting information system with a focus on the Indian banking system.

KEYWORDS: Computerized accounting information system, critical risks, banks, Indiaal

Introduction

The advancements in information technology have eventually led to the introduction of computerized accounting systems in displacement of manual accounting system in corporate reporting to help produce relevant and faithful representative financial reports for both management and external users for decision making (Greuning, 2006). The use of manual banking system made it uneasy to serve customers in a more diverse ways as urgent demand for information coupled with reconciliation of financial statements of the various institutional customers were very hard to come by, but with the introduction of Computerized Accounting System, the more tedious banking functions through the use of manual banking system have been reduced. The use of computerized Accounting System in the various banks is drastically changing the way banking activities are being organized. The adoption of computerized accounting systems brought about information and communication technology in the banking sector. Information Technology (IT) is the automation of processes, controls, and information production using computers, telecommunications, software and ancillary equipment such as automated teller machine and debit cards (Khalifa, 2000). It is a term that generally covers the harnessing of electronic technology for the information needs of a business at all levels. IKechukwu (2000) lists some banking services that have been revolutionized through the use of ICT as including account opening, customer account mandate, and transaction processing and recording. Information and Communication Technology has provided self-service facilities (automated customer service machines) from where prospective customers can complete their account opening documents direct online. It assists customers to validate their account numbers and receive instruction on when and how to receive their cheque-books, credit and debit cards. Communication Technology deals with

the Physical devices and software that link various computer hardware components and transfer data from one physical location to another (Laudon and Laudon, 2001).

According to Frankwood and Alan (2005), the many advantages from the use of these systems have led many to conclude that Computerized Accounting Systems in corporate reporting is the engine of growth in business organizations. This was evidenced with numerous advantages of computerized accounting over manual accounting system; manual accounting requires that all journal entries, invoices and other financial documents be created by hand. Computerized accounting allows users to input information into accounting software programs. Computerized accounting produces information much faster than manual accounting system. Accounting software packages, such as QuickBooks and Sage 50 Accounting, come with built-in databases that allow users to input data. Manual accounting systems are prone to mathematical errors and misplaced numbers. With a computerized accounting system, company data is automatically calculated based on numbers of input data. In a manual accounting system, company's income statement, balance sheet and statement of owner's equity are prepared by hand. Information from your journal entries helps formulate company's financial statements. Computerized accounting systems allow financial statements to be created from information stored in the database.

The cost of computerized accounting systems can range from hundreds to thousands of dollars for large businesses. A computerized accounting system may save on man hours used for creating financial statements and other reports. For this reason, many small and mid-sized businesses use computerized accounting software. Reports are created in a timely manner when using a computerized accounting system. Reports generated from computerized accounting software allow managers to run the company in a more efficient manner. In spite of the benefit of computer to the banking industry and businesses in general, some problems are still left unsolved and risks have been credited to the use of computerized accounting information system. Some of these risks include; the displacement of labour hands in the accounting department, the loss of information due to system failure and the violation of privacy. Against this background this study is set to investigate the risks of computerized accounting information system with a focus on the Indian banking system.

Statement of the Problem

Business managers need accounting information system (AIS) to plan, control and make both short and long term decisions. Computerized accounting has been a useful tool in performance appraisal of business organizations (banks), to increase stakeholder's confidence in the organization and encourage them in investing more in the organization. In order for an organization to appraise its performance, it needs some important information that must be timely, accurate and useful to the users. The information must allow for quick comparison between current and previous years data, offer financial statement for use by both managers and stakeholders etc. Computerized accounting system allow managers to easily identify and solve problems instantly. Nevertheless, there is a problem associated with application of computerized accounting system in an organization that poses risk; this is in respect of displacement of labour hands in the accounting department, loss of information due to system failure and violation of privacy in the banking system. The problem of this study therefore is to investigate the risks of computerized accounting information system with a focus on the Indian banking system.

Concept of Computerized Accounting System

Marivic (2009) described a computerized accounting system as a method or scheme by which financial information on business transactions are recorded, organized, summarized, analyzed, interpreted and communicated to stakeholders through the use of computers and computer based systems such as accounting packages. He emphasized that it's a mechanized process of facilitating financial information inflows as well as the automation of accounting tasks such as database recording and report generation. Marivic adds that keeping accurate accounting records is a vital part of any organization. Apart from helping it to keep its float financially and legal, it is a requirement of funding bodies or donors.

According to Abiahu (2014), computerized accounting system involves the use of computers and computer capabilities in the performance of accounting functions in an organization. To Frank Wood and Alan (2005), it is the total suit of components that together comprises all inputs, storage, transactions, processing, collecting and reporting of financial transaction data. Ama (2004) defines this system as a system that uses specialized machines called calculators and computer in gathering information. It is technically known as Electronic Data Processing (EDP) Accounting System. A computerized accounting system also allows analysis of the stored information. This is particularly crucial in the crafting of business and strategic plans especially as competition in the specific business or industry heats up.

A computerized accounting system will work with whatever type of business. This is because any business in general, whether it produces products or delivers services, has a basic structure: input, process and output. There are uniform reporting requirements and accounting principles to comply with and use. A computer-based accounting system processes data in basically the same manner as does a manual system. Transactions are initially recorded manually on source documents, the data from these source documents are then key-punched into punched cards, which can be read by the computer. The computer process the information and performs such routine tasks as printing journals, posting to ledger accounts, determining account balances and printing financial statements and other reports. A computerized accounting system according to the free online Merriam Dictionary is a system which allows the user to enter the transaction into the program just once and all accounts are updated as necessary.

Principles of Computerized Accounting Systems

In the course of recording, classifying and summarizing financial data, Lucey (1990) asserts that there may arise cases where the exercise of discretion becomes very essential. Some practical principles have been developed to help accountants in the exercise of such judgment, the four basic principles of accounting are important because they provide the conceptual guidelines for application of the basic accounting system. Also, they give the measurement, recording and reporting phases of the accounting information processing cycle. They include:

- Historical Cost Principle
- Revenue Recognition Principles
- Matching principles
- Full-disclosure principles.

According to Ama (2004), the introduction of computerized accounting systems provide major advantages such as speed and accuracy of operation, and, perhaps most importantly,

the ability to see the real-time state of the company's financial position. In my experience I have never seen a business that has upgraded to a computerized accounting system return to paper based accounting systems (Ama, 2004). A typical computerized accounting package will offer a number of different facilities. The primary objective of an accounting function in an organization is to process financial information about the activities of the organization and prepare financial statements at the end of the accounting period. Businesses are going international for various reasons which include: the presence of cheap resources overseas, better tax regulations, trade liberalization, and other favorable legal requirements. Other businesses are expanding internally. All these activities have bearing on the accounting procedures and processes of an organization. With a substantial increase in the volume of accounting transactions and increase in exposure of information to errors due to complexity of these accounting systems, there was a need for a system which could store and process accounting data with increased speed, storage, and processing capacity. This led to the development and introduction of accounting software packages (deSantis, 2010). Several authors have conducted investigation on the impact of ICT on the banking sector of the Indian economy. The convergence of computer and telecommunication after about four decades of applying computers to routine data processing, mainly in information storage and retrieval, has created a new development where information has become the engine of growth around the world. This development has created catch-up opportunities for developing countries to attain desired levels of development without necessarily 'reinventing the wheels' of economic growth.

This new technology has brought far-reaching revolution in societies, which has tremendously transformed most business (banking) scenes (Ovia, 2005). When using a computerized accounting system, input screens have been designed for ease of use. The main advantage is that each transaction needs only to be inputted once, unlike a manual double entry system where two or three entries are required. The computerized ledger system is fully integrated. This means that when a business transaction is inputted on the computer it is recorded in a number of different accounting records at the same time. A computerized accounting system saves a lot of time and effort, significantly reduces (if not eliminate) mathematical errors, and allow for much more timely information than the manual system does.

Laudon and Laudon (1991) assert that in real-time environment, accounts are accessed and updated immediately to reflect activity, thus combining the collection and analysis of data from transactions and events with respect to their effects on the financial position of the organization and journalizing the transactions in the general journals called the book of original entry. The need to test for equality of debits and credits through trial balance is usually not required in a computerized accounting system, since most systems test for equality of debit and credit amounts as they are entered. If someone were to attempt to input data containing an inequality, the system would not accept the input. Because the computer is programmed to post amounts to the various accounts error obviously reduced. Computers may also be programmed to record some adjustments automatically at the end of the period. Most software programs are also able to prepare the financial statement once it has been determined that the account balances are correct. The closing process at the end of the period can also be done automatically by the computer. However, human judgment is still required to analyze the data for the entry into the computer system correctly. Additionally, the accountant's knowledge and judgment are frequently required to determine the adjustments that are needed at the end of the reporting period. The components of the system however, can easily be handled by the computer.

According to McBride (2000), computerized accounting uses the concept of database. For the reason, accounting software is used to implement computerized accounting. It does away with necessity to create and maintain journals, ledgers, etc which are essential parts of manual accounting. A database is a collection of data that is organized so that its content can easily be assessed, managed and updated. It is basic software which allows access to the data contained in the databases. The computer can be used to perform virtually every accounting function, including account receivable, accounts payable. Payroll, inventory control, budgeting, cost volume profit analysis and general ledger

Benefits of Computerized Accounting Systems

According to Ezeagba (2017), "the place of sound accounting and internal control systems in any business, irrespective of its scale, cannot be overemphasized". Accordingly, McBride (2000) opine that computerized packages can quickly generate all types of reports needed by management for instance budget analysis and variance analysis. Data processing and analysis are faster and more accurate which meets the managers need for accurate and timely information for decision making. Frankwood and Sangester (1999) consented to the speed with which accounting is done and further added that a computerized accounting system can retrieve balance sheets, income statement or other accounting reports at any moment. He consented that computerized accounting system allow managers to easily identify and solve problems instantly.

McBride (2000) asserts that computerized accounting has many benefits such as accuracy in issuance of bank statements and fast processing of financial statements as well as easing the highly cumbersome auditing procedure. As electronic commerce is now regarded as the panacea for the survival of any modern day business. The introduction of this computerized banking system improves banking activities in a very convenient way. This concurrently affects the profitability of the bank. Data processing and analysis at the bank are faster, accurate and timely which meets management need for decision-making. Retrieving information such as balance sheets, income statement is made easy. Problems related to balance sheet and income statement can be easily identified and solved instantly. There will be improvement in the overall performance of the bank as a result of computerization of the accounting system.

In developing budgets, many firms use computerized budgeting systems especially financial institution. Such systems not only speed up the budgeting process, but also reduce the cost of budget preparation. This is especially true when large quantities of data needs to be processed. Computers are particularly useful in continuous budgeting. Reports that compare actual results with amounts budgeted can also be prepared on timely basis through the use of computerized systems. Managers can mathematically represent the operating and budget relationship on a computer spreadsheet or simulation model. By using computer models, the impact of various operating alternatives on the budget can be assessed (Warren, Reeve and Fess, 1997).

Critical Risks and Disadvantage of Computerized Accounting System

Vermaat and Shelly (2011) stated there are risks associated with computerized accounting system. Some of these risks are related to the violation of privacy, loss of labour, system failure, public safety, the impact on the labor force, and the impact on the environment and health risks.

Failure of system: A system failure can occur because of a hardware failure or severe software issue causing the system to freeze, reboot or stop functioning altogether. This is also a disadvantage of computer accounting in that information that have been stored overtime can be lost.

Violation of Privacy: Nearly every life event is stored in a computer somewhere in credit reports, tax records, medical records, bank history etc. In many instances, where personal and confidential records were not protected properly individuals have found their privacy violated and identities stolen. This is a hinge that affects the accounting system

Impact on Labor Force: Although computers have improved productivity in many ways and created an entire industry with hundreds of thousands of new job, the skills of millions of employees have been replaced by computers. Thus, it is crucial that workers keep their education up-to-date. A separate impact on the labor force is that some companies are outsourcing jobs to foreign countries instead of keeping their homeland labor force employed (Vermaat and Shelly, 2011).

Impact on Environment: Computer manufacturing processes and computer waste are depleting material resources and polluting the environment. When computers are discarded in landfills, they can release toxic materials and potentially dangerous levels of lead, mercury and flame retardants.

Health Risks: Prolonged or improper computer use can lead to injuries or disorders of the hands, wrists, elbows, eyes, neck and back. Computers users can protect themselves from these health risks through proper workplace design, good posture while at the computer, and appropriately spaced work breaks. Two behavioral health risks are computers addition occurs when someone becomes obsessed with using computers. Individuals suffering from technology overload fell distressed when deprived of computers and mobile devices.

Time: Processing expenses and invoices in accounting software will usually take more time than simply logging the expense on a ledger pad or spreadsheet software and creating handwritten invoices or spreadsheet-based invoices. If using the computer is not a large part of your daily routine, the time required to process basic daily financial data may outweigh any benefit gained from the software.

Public Safety: Adults, teens and children around the world are using computers to share publicly their photos, videos, journals, music and other personal information. Some of these unsuspecting, innocent computer users have fallen victim to crimes committed by dangerous storage protect yourself and your dependents from these criminals by being cautious in e-mail messages and on web – sites for example, do not share information that would allow others to identify or locate you and do not disclose identification numbers, passwords or other personal security details.

Conclusion

In conclusion, finding from the study indicate that advancement in technology has become a driver to business success. Computerized accounting system has a positive effect on bank's profitability and as well as customer patronage. The risks identified include; loss of data and system failure. Evidence from findings reveal that there are numerous benefits both financial and non-financial which are derived from the use of a Computerized Accounting System. The quality of accounting information in terms of relevance to users contributes significantly to the performance of bank.

Recommendations

1. More effort should be directed towards the production of good quality accounting information in all the commercial banks in India in order to improve financial performance.
2. To improve the quality of accounting information, commercial banks in India must employ highly skilled competent professional accountants to generate the right quality of financial information, amongst others.

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