

# Digital Accounting system Reflections on Cloud Computing

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**Abstract:** In the modern era the rules and regulations in any competitive domain is rapidly changing with the new theories and new business procedures perpetuated by business doyens to increase the economy with leaps and bounds. It is therefore necessary for every business organization to be updated about the business procedures and changes in order to survive their business and be in the queue of business masters. Technology which in modern times and in the antiquity was a license of being a developed country is rapidly progressing in every avenue which intern in the business world is inevitable factor for business operations to maintain their competitiveness, especially when information plays a very important role in management decision. Business is progressive when the modern business tactics and tools are adopted at the particular time and accuracy. The antiquitic balance sheets and other business information has declined in the modern era as the business accounting procedure was cumbersome, tire sum and time consuming with errors at every juncture. Modern era has witnessed the accounting software's which provides information within the blinking of eye and the other business procedures are printed with a mouse click only. Accounting software's are important and essential tools for management to efficiently gather information easily and on time making decisions, determine business strategy and response quickly to the market. However, every person dealing with the business cannot afford the individual accounting software as the software available in the market is costly which. Therefore, the purpose of this study is to develop a digital accounting system that processes and stores accounting database on a cloud system which will benefit the poor businessmen and become an alternative option for all kinds of businesses, SMEs to big firms to be able to access and use an online digital accounting system on a cloud-computing service. The authors in the present study used Waterfall development model through the requirements, analysis, design, implementation, testing and maintenance as the method in order to help the business persons to perform their business related information on the accounting application. This research has

gathered information from users (SMEs), professors, lecturers, teachers and accounting instructors as a focus group by using PHP language in order to develop the system and MySQL for the storage of database. This software DAC costs less while offering the benefits of financial planning to its users. Therefore, DAC may become a new route of all kinds of businesses to achieve their goal and strengthen their market in order to compete with those who are using the costly software for their business upliftment. .

**Keywords: Domain, Economy, Business , Technology , Database , Digital , Software.**

## Introduction

During the past times all the accounting transactions, information, business procedures etc. were recorded manually by manipulating much hard work and time. After getting the information manually jotted on papers most of times the information seems incorrect full of errors and very much time consuming. So it is akin to say that manual penned information in the business is not relevant and beneficial for any small scale or large scale business persons. As everyone in today's world is aware that technology is the weapon through which one can boost his business and attain worldly desires in ease and effective way. It is the demand of the market which needs to be fulfilled in order to make the business profitable for himself as well to those who are directly or indirectly related to this business mechanism. To boost up the business and get a name in the pages of successful business person one has to divert his manual accounting to the technological accounting software for error free and quick information regarding the business. Hongchai, reveals in his treatise that, '[By] using a computer system and accounting software, managers will have information technology as a tool to get timely, accurate and reliable accounting information to efficiently make economic decisions' (67). Accounting software is not only important but also essential part of accounting information system processes by using the computer. Accounting software is used to execute the accounting transactions received or sent and quickly generate financial reports in order to provide information to managers and related parties. This software is a backbone of business and beneficial to managers because it offers timely accounting information such as the company's financial position and its performance on the current, current month or any of the day when the software firstly got used in the domain of ones business. Further, it is convenient and reliable as the managers are able to access the accounting information easily whenever or wherever it is needed. The accuracy of such

software that have originated in the world of technology. The software is having greater accuracy in the accounting process while executing any sort of information needed. Digital technology has been one of the most important accounting tools not only in the developed countries but also to those who are still new in the realms of business. Accountants must improve themselves in response to changes in technology. Accountants are forced to develop and integrate all skills, knowledge and attitude. As the modern era is innovative, so technology is so important and the persons like accountants should be able to use new technology to apply to accounting. One should be fully trained in this field and cannot deny the importance of the use of computers in accounting. In order to boost up the businesses one must have computer software that is efficient, reliable, authentic and should execute all the tasks required by the business. Aphiwatpisan penned a paper in the year 2012 entitled *The Selection of an Accounting Software Package for SMEs*. suggested three ways to obtain accounting software for the organization which includes:

- (1) The businessmen should develops its own accounting software in order to be more successful.
- (2) The business should purchases accounting software readily available in the market to boost up his business.
- (3) The business outsources its accounting needs through the software in order to get the records and info with the blinking of eye.

However, Malaiwong oppose the idea by pointing out in this work entitled *The Rule of IT in SME* pointed out that many business organizations and corporations which had developed their accounting software internally often face severe problems due to the rapid change in technological advancements throughout the globe as the staff working in their business fields are not trained and updated to keep up with these multitude of changes in the sphere of technology. He further says that businesses eventually replaced manual accounting systems with accounting software because companies providing the accounting software had strong, dedicated and up-to- standard teams; and were willing to spend time and resources to work with the rapid changes in technology. As we can analyze with the above justifications and see from the evidence in researches that the business world has changed toward technology and there emerged a new avenue globally called as cloud computing. More and more organization while trying to heighten the business adopted the cloud technology. Thus Holtzblatt and Tschakert are of the view that, ‘the healthcare sector using cloud service with e-device,

government sector using cloud service with taxation application, Marketing sector using cloud service with customer related data and analysis and education sector using cloud service in classroom (103). Thus it is crystal clear from the above revelations that Accounting Software is beneficial than the manual but not reliable than cloud computing.

A cloud computing service is not different from accounting software and works in a way which seems most reliable and secured than accounting software. While analysing the past records about this topic it was found that the advancement of information technology at global level facilitates the firms to use information technology in accounting information systems in order to track and execute the information easily and effectively. However, accountants must improve their accounting information system and computer skills since accounting information comes in the form of computer technology information. With skills in computer technology information, organizations can prosper and can reap the benefits of their businesses by saving time and costs while working more efficiently and effectively. Moreover, using digital accounting systems was an effective use of paper, or even when pursuing a paperless function. Ghasemi is of the view that, 'Industrial companies may efficiently exchange electronic information among related departments' (162). As a result, the developing of digital accounting system on cloud computing is necessary and sheds new light on the research conversation.

**Digital Accounting Development Process:-** The waterfall model was used in the Software Development Life Cycle (SDLC) in order to address and redress some new innovation in the world of computers. The waterfall model includes requirement phase, analysis phase, design phase, implementation phase, testing phase and system maintenance phase, used in the system development.

**Requirement Phase:** this is the first phase of this domain and In this phase, users' are in need and requirement of accounting software which gathers the source of information for the purpose. However, it kin to know that execution of accounting process is very specific and has many steps and details for proper function. we also got in touch with some accounting specialist for help in providing the timely accurate, reliable and relevant information for this new domain of computer science. Further we interviewed three specialists in accounting systems to ensure that we will have accurate and efficient of analysis and design of the DAC.

**Analysis Phase:** System analysis is actualized by observing and studying literature on accounting theory, accounting book and the available financial reports. After conducting a proper literature review about the apropos topic, the authors found that there are many problems in manual accounting process such as the calculation in each step take long time and may be inaccurate due to human errors or user interface. With the development of DAC, the financial reports can be prepared rapidly and more accurately without any errors and omissions.

**Design Phase:** The process of system design of accounting software on the domain of cloud computing includes many steps like ER-diagram, flowchart, algorithm for data flow account, database relationship, data dictionary and designing the interface of the program.

**Implementation Phase:** System implement process includes create MySQL database and develop an application which must be based on system designs stage. This application program at this juncture was coded using Adobe Dreamweaver 2018 version 18.2 software with the PHP programming language. After completion of this process, File Zilla and Putty File software was used to upload application on the cloud service for trial versions and testing.

**Testing Phase:** Functional testing was the first step in software testing of each module. The test was conducted only to found whether it was running currently follow system design state or not. Testing was using black-box solution focuses on algorithm, functionality and to minimize or zero of errors and make sure the resulting output is accurate.

**Maintenance Phase:** at this juncture where we were close to our mission system maintenance under the observation and guiding supervision of an accounting system analyst who is readily available to modify various programs in case any changes occur or even fix the errors of the program that may occur was intuited and executed. Hence after that we got successful to create a new accounting software on cloud computing.

## Conclusion

The result of this study met with all the research objectives and added a new technological innovation in the accounting software web which is beneficial for both the rich profile as well as poor profile business partners. Therefore, we designed the algorithm includes algorithm of assets registration and the computation of their depreciation calculated monthly and annually for users' usage, algorithm of chart of designated account

follows double-entry bookkeeping and also algorithm of beginning of balance record. After the trial process and testing, we developed the digital accounting system on a cloud service as the final product of this study. Currently, SMEs can register and gain access to the service free of charge, resulting in saving costs for the millions of companies. SMEs can use DAC for financial planning especially for revenue and expenses planning in order to gain the profit.

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