Accounting in Cloud Computing: The Conceptual Issues

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Abstract

This study examines the conceptual issues of accounting in cloud computing. The adopts explanatory research design. The study uses mainly secondary source of data. The study concludes that accounting in the 21st century cannot be imagined without the support provided by information technology. The innovative cloud computing phenomenon has proven its value not only in the information technology industry, but also in the accounting field. Thus, a new concept has emerged: cloud accounting is the next big thing that is promising to reshape the accounting function. By using this service-based model, a company will be able to access its financial data over the internet, through a web browser.

Keyword: Cloud Computing, Conceptual, 21st century, ICT

1.0 INTRODUCTION

Today, technological development affects every aspect of human life. The developing technologies also affect the access of organizations to information, speed of processing information, and communication ways. Beginning to use computers and internet enables the data to be formed and stored in digital media and also allows for the information and data kept in data storage area to be shared and used all over the world. Thanks to the developing technology and internet, the users shifts from the infrastructure of classical information technologies, which gives local scale and constricted service opportunities, to cloud information technology, which is flexible and economic and gives opportunity to reach from everywhere. Cloud computing is defined as a technology, which provides remote access by a network and is used by ten thousands of customers (Marešová and Kuča, 2015)

Accounting for many centuries has been considered a discipline that did not give up fashions, and ensure the stability of the accounting system and the ability to perform the basic function of which is to provide information to help the settlement of the ongoing management of their activities. In recent years, the pace of development accelerated accounting. Accounting principles and practices have been advancing rapidly in today's business world and while the rules of the global economy are more or less constant, the advancement in technology, the emergence of cloud accounting, has made the accounting system more potent than it

was . Cloud accounting is a modern concept processing accounting data with a set of information distribution system and applications in the framework of the concept cloud without needing for the users to know physical position and system structuring (Mihalache, 2011).

A cloud based accounting solution enables the possibility to respond numerous and complex demand and activities by means of integrated online system and, in turn, reduces the amount of labor that is necessary for accounting department (Dimitriu and Matei, 2014). Cloud accounting requires to access to the accounting software and data through an internet browser. Software is

provided on the basis of subscription and data is stored in a remote server. Cloud accounting is usually managed by Cloud service providers (CSPs). Cloud services are accounts stored on a server. Companies can either choose dedicated cloud services or shared cloud services depending on their budgets. Cloud accounting software is generally believed to be faultless since it allows the access of cloud-based software from any device with an internet connection without excluding small business owners. With a software that can fit into a whole ecosystem of adjuncts, cloud accounting appears to be quicker, more consistent, and cost-friendly (Rao, Jyotsna and Sivani, 2017).Therefore, this study examines the conceptual issues of accounting in cloud computing. In addition to this introductory section, , the paper contains three sections .Section two reviews literature relevant to the topic, section three presents the research methodology, while section four concludes the paper.

2.0 LITERATURE REVIEW

This section examines the conceptual issues of accounting in cloud computing along the following line: concept of cloud computing, features of cloud computing, benefits of cloud accounting, cloud accounting software, cloud accounting software providers and deployment models for cloud in business.

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2.1 Concept of Cloud Computing

Kavzoğlu (2012) views cloud computing is a service getting model through desktop computer,

tablet or smart devices by being connected to the other servers via internet without needing any software or storage units. According to Mell and Grance (2011) cloud Computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (for example networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. Kim (2009) defines Cloud Computing as "being able to access lies, data, programs and third party services from a web browser via the Internet that are hosted by a third-party provider" and "paying only for the computing resources and services you used. Youseff et al. (2008) postulated that Cloud Computing inherits its concepts from

peer-to-peer architecture, autonomic computing, virtualization and service-oriented architecture (SOA). While Aymerich et al. (2008) state that the nascence of Cloud Computing as a new distributed computing paradigm a subset of grid computing technologies, which itself is an extension of cluster computing. Fox (2009) concludes that Cloud Computing is an extension of the client – server architecture introduced in the 1980s.

2.2 Features of Cloud Computing

Stamford (2009) documented five features of cloud computing as follows:

2.2.1. Service-based: It is summarized with an interface well defined by consumer. Interfaces hides the details of application and enables to response by service providers to consumer of service in fully automated way

2.2.2. Scalability and Flexibility: Service can scale up or down capacity just as customer demands on the basis of full automation (it can take a few seconds for some service and hours for others). Customer has a flexibility to add and take out capacity

2.2.3. Share: The resources of information technologies can be accessed as a service shared by more customers.

2.2.4. It is measured according to the use: Service provider has an accounting system that can form different pricing plans and models. Such a system offers pricing options to consumers according to the amount of service they use.

2.2.5. It uses internet technologies: Service is provided by using internet definers, formats, and protocols such as URLs, http, and IP. Many web technologies can utilize internet – based services such as book selling by Amazon and Gmail by Google.

2.3 Benefit of Cloud Accounting

According to practitioners, online accounting can benefit both accounting professionals and the

business itself. Nowadays companies are moving beyond seeing cloud technology only as a means to reduce IT costs; many organizations are now aware of other important capabilities of cloud computing like *elasticity, scalability and its self-service nature.*

Gartner (2014) opined that the most significant advantage of cloud technology is the ability to access resources remotely and based on request, thus enhancing *business agility* and impacting the entire economic field. Due to the actual location of financial data (on the provider's data centre) and because it is accessed over the internet, cloud accounting enables users to operate their data at any time and from any location. Both large and small enterprises have the opportunity to acquire high-end technology for a low price; they only pay a periodic subscription fee, based on their needs (usage) instead of investing in expensive hardware and applications. One of the most noted benefits of cloud technology is related to substantial *cost savings* in information technology budgets.

Computerworld (2014) considered that by adopting the cloud model, businesses can easily scale up and down and immediately

adapt to the increasingly dynamic and challenging economic context. Given the fact that cloud software is delivered as a service, companies have the possibility to adapt their financial application depending on the necessary level of service or volume of work. In addition, by adopting a cloud accounting solution, users can automatically perform repetitive and resource-consuming activities, hence *optimizing the business workflow*. Other important characteristics of cloud accounting are the *ease of use and the intuitive design*; cloud accounting applications can be approached by both financial experts (accountants, auditors) and non-experts (business owners, business partners). Another useful feature refers to the companies' possibility to *use a trial version* of the cloud accounting solution. By doing so, companies are able to decide whether the cloud accounting model is suitable for them, before making a long-term commitment.

The cloud model enables *collaboration and communication* between users and different business

associates, who are able to simultaneously and remotely access accurate and real-time financial

information, no matter their location. A simple example of cloud-based collaboration feature refers to the online payment of clients' invoices that can be made effortlessly. This shift from paper-based accounting reports to timely financial dashboards can ensure greater insight into the business profitability.

Another relevant aspect that is noted by Osintsev (2013). should be considered by organisations is the increased *level of security* ensured by cloud applications. Users have got restricted and specific levels of access to the cloud solution. The company's financial data, hosted in the cloud, is regularly backed up and closely protected though encryption and complex security protocols

2.4 Cloud Accounting Software

Cloud Accounting Software was mainly developed to solve the problem of portability of data. Earlier, a file required to be accessed later was stored on hard drives or USB flash drives. Devices like Hard drives, USB flash drives and other portable storage devices made transporting information between multiple machines an easy process. However, these traditional methods of storage had significant drawbacks. For example, data stored on hard drives are susceptible to loss of data through different situations such as fire accidents, non-functioning of any of the tiny mechanical parts of the drive among others. In case an important document is stored on a USB flash drive there is always a chance of losing the data during travel or due to damage occurring to the drive. The working of Cloud based accounting software is similar to the other cloud based software. Files which are generally stored on a hard drive are stored online. This ensures that the information is easily accessible. With the development of mobile devices, especially the smart phones, cloud based accounting enables the users to manage their finances from wherever they are. Thirmal Rao,

.Jyotsna and Sivani (ND) noted the basic steps which can be followed to use Cloud based accounting software:

2.4. **1. SCAN To scan or photograph documents:** The first step is to scan or take a photograph of the required financial documents **digital** versions of financial documents can be made through a variety of devices such as a Mobile Phone Camera and Office Scanner.

2.4. **2. UPLOAD Upload files to the cloud:** The cloud accounting service provider gives the client a Login ID and a Password so that the client can access his In cloud account, upload the documents to the cloud and immediately the documents become a part of the service provider‟s records.

2.4.3. VIEW Access the documents whenever required: By the use of Cloud accounting, there is access to a flexible service which allows the users to view their business accounts wherever and whenever required and through any device.

2.5 Cloud Accounting Software Providers

The issue of software provision is at the heart of the cloud accounting. The software sets in motion the wheels behind the whole cloud accounting concept. Over time, technological advancements have seen new software make way into the market, each with its own unique element that sets is aside from competitors. This paper identifies the following software providers;

2.5.1 Xero

Du and Cong (2010) considered that Xero, founded in New Zealand, has grown to become one of the most preferred accounting software providers, having amassed great influence in the business world to garner over 250,000 active users on the global scale. The software providers have laid emphasis on the small business sectors availing efficient accounting services to more than 100 countries. Christauskas and Miseviciene (2012) Referred to it as the "Apple of cloud accounting," Xero has displayed massive potential and capacity to surpass geographical limitations growing to become one of, if not the best cloud accounting Importantly also the accounting software provider has remained true to its mission and showcased objectivity to achieving its vision, which is, to "be the global leader in matters cloud accounting." In line with this, the company has availed a number of cloud solutions, key ones being; facilitating client-centered accounting options that ensure business goes on as usual, anywhere and anytime. Significantly also, by facilitating report and final management the business has created a brand for itself in the cloud computing industry.

2.5.2 Sage One

Treves (2017) posited that cloud accounting software Provider Company lays emphasis on making the experience more efficient through the introduction of smarter services day after day. Among the areas the service provider focuses on is enhancing organization-consumer conversation made possible through the creation of interactive cloud software, where clarifications between the two parties can be made instantly . Alali and Yeh (2012). noted also, Sage One enhances

the management of finances by availing secure channels, which are not only user friendly but also fluid to consumer needs, meaning a single organization for instance, a hospital can create a working software that can facilitate storage and processing of patients' records as per the Wings or type of treatment they require.

2.5.3 KashFlow

Feuerlicht (2010). Opined that KashFlow depends on the preface of making it simple to manage large and smaller businesses alike weighing in on the advantage that the individuals harnessing and taking charge of the idea need not have deep accounting skills. In order to achieve this, the software provider company KashFlow has incorporated almost a hundred systems including inventory management, branch monitoring, User Interface virtual interactions and e-commerce just to mention a few .On the other hand, Youssef (2012) documented that the developers have created email oriented and cloud and crypto store systems which induce all operations giving the company a major advantage as compared to its vicious competitors in this line of business. Importantly also, KashFlow has invested a lot of resources in their products is investing in hosting, where an emphasis is put on enhancing system's multiple data integrations hence making it a preferred choice for large organizations.

2.5.3 Free Agent

Christauskas & Miseviciene (2012) positioned that the Software provider company was set up in 2007, and sought to bridge the gaps that the original creators had identified in cloud accounting. The company grew to become multinational company specializing in not just the normal inventories and payrolls but as well as developing time track systems, which execute operations as programmed automatically. These services coupling up with the way that their services are easy to use has allowed the company garner positive feedback from consumers growing to become a multinational company estimated to be offering services to over 40, 000 freelancers alongside other small and large businesses Located in Edinburg. Youssef (2012)considered Free Agent has traversed local business operations leading in microbusiness management which have made it a preferred choice amongst small business enterprises, and finally, the fact that their team is consumer needs driven, where they show concern in growing the business has given it a good brand name amongst customers .

2.5.4 QuickBooks

Dimitriu and Matei (2014) noted that this company poses a big competition to the small-scale software company rivals as it is driven towards enhancing account on small-based businesses. Boasting in peer to peer (P2P) connectivity the company has taken slow but sure strides and builds up a reliable software provider partner that meets HM Revenues and Customs (HMRC) requirements. This certification has made it a consumer base as people are assured that their information and data is kept safe .In addition, by offering an easy setup process

where new users receive systematic guidelines have facilitated its brand development, as it is renowned for its user-friendliness.

2.6.0Deployment models for cloud in business

In this context, models are used to represent the various channels through which the incorporation of cloud accounting into organizations can be achieved. According to Arsenie-Samoil (2011) , there are four models include;

2.6. 1Private Cloud Accounting. In this model, Zissis and Lekkas (2012) documented that cloud resources are directed towards creating cloud services, which are sourced and operated within the constrictions of a single organization. In other words, the single premise structuring permits only internal access and management of the information stored over specific channels. Significantly also, this method is regarded as the most secure as chances of third-party compromise are limited.

2.6.2 Public Cloud Accounting Model: As suggested by the name, this model evokes capacity for the larger public to access the cloud services, which is made possible for organizations aiming to get more consumers as well as giant institutions to efficiently manage accounting operations for instance; government agencies, schools, hospitals and public service provider centers just to name a few.

2.6.3 Community Cloud Accounting Model: The cloud service avails interconnections between different organizations. This enhances exchange and storage of information over cloud channels which is critical in the creation of vertical markets. Zhang and Gu (2013) noted For like driven organizations cloud connectivity that mothers accounting makes it easier for idea sharing, in turn boosting businesses as organizations get to learn to utilize market analysis grasping want is working for the organization and what is not.

2.6.4 Hybrid Cloud Accounting Model: Pacurari and Nechita (2013) viewed it as the combination of two or more of the aforementioned models, which, is designed to avail a wider scope of services to organizations. By use of cloud computing, it becomes easier for organizations to manage portable media and other virtually enabling platforms.

3.0 METHODOLOGY

The explanatory approach was adopted in this study. The study uses mainly secondary data through review of relevant literature on the conceptual issues of accounting in cloud computing.

4.0 CONCLUSION

Accounting in the 21st century cannot be imagined without the support provided by information

technology. The innovative cloud computing phenomenon has proven its value not only in the information technology industry, but also in the accounting field. Thus, a new concept has emerged: *cloud accounting* is the next big thing that is promising to reshape the accounting function. By using this service-

based model, a company will be able to access its financial data over the internet, through a web browse. Thus, Cloud accounting can be highly beneficial for business as it offers efficient technology and accounting service at a lesser cost. The customization offered by cloud accounting is a great benefit to any business adopting it, which enables every business whether small, medium or large to customize cloud software according to their requirements .In the near future, access to on-demand, actionable business data will be a daily necessity for an enterprise.

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