The Impact of Big Data and Cloud Computing on Traditional Accounting Industry

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Abstract. With the development of big data and cloud computing is changing and influencing all aspects of the socio-economic operation, especially in the commercial field. At the same time, it also changes the way people think about analyzing, processing, and using information. Traditional accounting, as a tool and means of providing information, faces a new round of reforms in the era of big data. This article begins with the concept and characteristics of big data and cloud computing, and analyzes the relationship between the two, and then studies how modern companies respond to the impact and challenges brought by big data to the financial system, and proposes the integration of traditional accounting and big data and cloud computing. This will play a role in promoting the transformation of corporate financial models, improving competitiveness, and promoting development.

Introduction

With the rapid development of information technology, our era has changed from the IT (Information Technology) era to the current DT (Data Technology) era. "Big data" and "cloud computing" are hot words that have gradually emerged in recent years. Since the rise of the company in 2009, since the Obama administration announced the "big data research and development plan" in 2012, humanity has entered the "cloud computing" as the "big data era" supported by technology. DT is ubiquitous, a wide variety of sensors, processors, the Internet, social media, etc., are generating vast amounts of data at all times. The handling, storage and analysis of big data have penetrated into all aspects of society and have influenced people's work, study and life. Traditional accounting has been impacted by the wave of big data. Traditional accounting only fully integrates with big data and cloud computing to fully realize its accounting functions.

Concept and Characteristics of Big Data and Cloud Computing

The Concept and Characteristics of Big Data

"Data" is "known" in Latin, or "fact". Big data refers to information that cannot be collected, analyzed, processed, and used by people within the specified time due to the huge amount of information. (Qin Rongsheng, 2014). So big data is information, but it not only contains direct information in the traditional sense, but also includes potential value information hidden in the data. Therefore, in the era of big data, not only the quantity of information is considerable, but also the level and depth of information are unprecedented. Specifically, big data has the following four salient features: huge data size, multiple data types, convenient data processing, and considerable data value.

Big data has become the mainstream of modern data processing technology, and corporate accounting management should cater to the development of the times. In the era of big data, how to make big data for accounting plays an important role in the development of enterprises, and how to effectively use big data is one of the hot topics in the field of accounting.
The Concept and Characteristics of Cloud Computing

Regarding the definition of cloud computing, the National Institute of Standards and Technology (NIST) states that: "Cloud computing is a pay-per-use model that provides available, convenient, and on-demand network access. It is access to a configurable pool of computer resources (resources including networks, servers, storage, applications, services, etc.) These resources can be quickly provisioned, requiring little or no administrative interaction with server vendors. According to this definition, cloud computing has the following characteristics: large scale, virtualization, high quality, good versatility, high scalability, and low cost.

Relationship between Big Data and Cloud Computing

Big data is developed along with the popularity of cloud computing, the Internet of Things, and the application of the mobile Internet. Cloud computing is the technology platform for big data. The relationship between the two is as follows.

First of all, from the overall goal, the overall goal of the two is the same. Both big data and cloud computing are designed to improve the ability of data collection, calculation, storage, and management, so as to collect vast amounts of messy data for information users and help them to mine valuable information.

Second, from the perspective of specific functions, the two have different responsibilities and functions. Big data focuses on the storage of data, and strives to achieve a business-driven shift to data-driven in economic operations; while cloud computing focuses on data value mining, and technology-driven, through the massive data through computing and management, to dig out valuable Information.

Although the two have different emphasis and different functions, the full use of "information" as the valuable resource cannot be separated from the cooperation of the two. There is no cloud computing for big data, and there is no useless space; the lack of cloud computing Big data cannot be used by anyone. The two complement each other and are indispensable.

Influence of Big Data and Cloud Computing on Traditional Accounting

The traditional accounting functions are accounting and supervision. Through quantifiable financial data, the company's current, historical financial status, operating results, and cash flow information are reflected. With the emergence and development of big data and cloud computing technologies, under the background of the continuous improvement of data collection, storage, calculation, and value mining capabilities, traditional accounting lags, less information, and single forms of manifestations have disadvantages. Compared with big data such as strong nature, large scale, and various forms, it faces a crisis that has been eliminated.

The crisis must be "dangerous" and "opportunity" coexists. If we can tap potential opportunities from the crisis and think about the ability to fully integrate with and improve big data and cloud computing in the traditional accounting cycle, we can not only help the traditional accounting success in transition and upgrade, but also adapt to the needs of modern enterprise management and market competition. It will also have a significant impact on improving the efficiency and effectiveness of economic operations.

Improve the Timeliness of Accounting Confirmation and Improve the Approval of Personalization

Traditional accounting paper documents are slow to transmit, resulting in lagging information and a lot of manpower and material resources. With the support of big data and cloud computing, it is possible to reduce paper delivery time by reduplicating the audit process. If you use "electronic scan code" to audit invoices, upload invoice information through scan codes, or upload paper invoice data to the cloud through a dedicated device. The reviewer then opens the view from the cloud and sets a
strict secret key or password. Guarantee information security and truth. Through this integration, the
timeliness of accounting confirmation can be greatly improved, and the timeliness of accounting information can be enhanced.

Only when the products and services are successfully sold to the outside world can an enterprise be said to have achieved the mission of the company. The choice of selling credit policies not only affects the sales of the company, but also affects the sales revenue of the company. Before realizing sales revenue confirmation, customers need to meet the company's pre-established credit conditions; otherwise, they will not be approved. In the big data and cloud computing environment, the transaction record and collection status of the company and each customer are easily recorded. Therefore, the company can develop differentiated personalized credit policies based on the customer's previous credit status and replace it with different customers. The original rough credit policy weighs credit costs and sales revenue to achieve maximum sales revenue for each customer.

**Challenge the Safety of Financial Data and Increase the Risk of Corporate Financial Security**

In corporate finance activities, the most important link is to ensure the security of financial data. Mass data is transmitted, stored, applied and serviced through the Internet. Each process must make full use of the powerful computing power of the data center to meet the adaptability of different users' respective financial systems. How to establish a secure and cost-effective network storage system becomes the key to the realization of smart finance under big data. In the big data system, all kinds of important data of the user are stored in the network server, effectively ensuring the safety of the user's data is a top priority. How to avoid illegal access and avoid data leakage are two important issues that the system must solve. Therefore, it is necessary to reflect the scalability, availability, reliability, and manageability of the cloud computing system, as well as the absolute security of the data. These are issues that need to be addressed.

**To Promote Diversification of Accounting Measures and Solve Quantitative Problems**

The current accounting system adopts the historical cost method to reflect the financial status of an enterprise as well as economic transactions and matters, mainly value measurement. Big data and cloud computing provide possibilities for the diversification of measurement attributes. For example, the quantity, time, specifications, and model number are no longer used to categorize the data with the “Yuan” to make the data more vivid and easy to understand and use.

Under the big data environment, everything can be transformed from physical to data, and can be measured, divided, and recorded, that is, data. This technology can not only solve the quantification difficulties such as human capital and intangible assets, but also solve the problem of resource drivers and job dynamism that are difficult to quantify in job-cost accounting methods, so as to optimize the measurement of different product costs and optimize the profitability of different products.

**Promoting the Share Ability of Accounting Records and Eliminate the Phenomenon of "Isolated Islands"**

Under big data and cloud computing, companies can establish information sharing platforms internally and closely link business units or business units to eliminate information “islands” phenomenon, enhance the effectiveness of information transmission, and strengthen the consistency of the company’s highest strategic goals. For example, the production department can know sales information of each product in the sales department, as well as inventory delivery and balance information, in order to formulate a production plan; accordingly, the procurement department can understand the production department's information about the use of materials in real time to formulate a procurement plan. Realize the ideal of timely production; smooth docking of inventory and zero inventories.

**Break through the Regional Restrictions of Corporate Offices and Save Operating Costs**

The secure and encrypted enterprise big data and cloud computing will upload the data existing in the financial department of the enterprise entity to the enterprise cloud, and upload, download and use it
in different places. From the point of view of enterprise development, this is more conducive to changes in the scale of the company, breaking through the regional restrictions of corporate offices, and cooperating in multiple regions. Even for small and micro enterprises, they can even achieve virtual office without physical office locations, and only need to regulate network work monitoring. Strengthening the security of information services and realizing remote attendance and remote consultation can greatly save the company's operating costs.

Enhancing the Forward-Looking Nature of Accounting Reports and Enhancing the Forecast Value

An accounting report is a reconfirmation of accounting information. It refers to the disclosure of the financial status, operating results, and cash flow of an enterprise that can be used by decision makers in the form of financial reports to stakeholders (Tang Guoping, 2007). From the concept, the traditional accounting report focuses on the reaction and disclosure of historical information, while big data, through massive data storage and analysis of related relations, has inestimable potential in mining data potential value and predicting the future. Therefore, Big Data can help enhance the forecasting function of traditional accounting reports through the calculation and analysis at any time, and it can provide prediction reports with a higher degree of fit to the future situation, and realize the transformation of accounting functions from post-accounting to ex-ante forecasting.

Increase the Difficulty of Employment of Financial Personnel, Improve Professional Ethics Requirements

In the traditional value-centric financial system, the financial staff is most concerned about value management and value creation. Financial officers play a very important role in the enterprise. They are not only technical personnel with expertise in the accounting field, but also partners who provide relevant business consulting for management. With the increasing penetration of big data and cloud computing in the corporate finance and accounting fields, it can be predicted that in the future, as long as companies pay related expenses, cloud computing will be able to provide accounting processing services, and companies no longer need to hire internal accounting. Demand for accounting talent turns from enterprise to cloud service platform; centralized and classified processing of big data will help accounting personnel of cloud platform deal with the situation of multiple enterprise accounting services, which greatly impacts that the original single company needs at least one accountant. Demand market. As a result, the development of the accounting profession will present the trend of survival of the fittest. Through fierce competition, more professional accountants will continue to be employed in the industry, while other accountants may be eliminated, and the accounting profession required by the entire society will also be greatly reduced.

However, at the same time, it can be predicted that because the accounting personnel serving on the cloud accounting platform will experience the occurrence of accounting records services for multiple companies at the same time, how to ensure that accounting personnel do not disclose the company’s financial secrets, the society must have professional ethics requirements for accountants. It will make more stringent requirements.

Summary

In the era of information led by big data, traditional accounting from the perspective of confirmation, measurement, recording, and reporting cycles, through the ingenious integration of big data and cloud computing, can not only improve the timeliness of information at the enterprise level, but also enhance the authenticity of information. Improve the decision-making usefulness of information, and it has far-reaching value and significance for improving the optimal allocation of resources and even improving the operating efficiency of the entire economy and society.

We should apply and handle data generated from time to time, conduct in-depth data mining, prevent and control corporate financial network risks, and use good data to bring strong market
competitiveness to enterprises, improve business productivity, and promote long-term high-quality development of the company.

References


