

Research on the Transformation of Enterprise Financial Personnel in the Era of Big Data

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Abstract. The advent of the big data era is both an opportunity and a challenge for financial personnel. It has changed the accounting process and strengthened the function of accounting posts to a certain extent. Financial transformation has become an important topic for enterprises to improve their management level and competitiveness. It is necessary to explore the trend and path of financial transformation. Taking the big data application of Handu Group as an example, this paper analyzes the impact on financial organizations and financial personnel, and provides a reference for the transformation of enterprise's financial personnel. Big data will cause changes in organizational structure and personnel structure. Accountants should not only change their ideas, but also constantly improve their work quality and efficiency with the help of informatization. Enterprises should promote the transformation and development of accountants to meet the new requirements of enterprise's financial management in the context of cloud computing. Financial personnel of enterprises should comply with the development of the trend of the times and make full use of various learning channels to supplement the skill requirements of big data and cloud background for financial work.

Keywords. Big data, financial staff, transformation

1. Introduction

Big data is developed on the basis of communication technology. In recent years, with the widespread popularization of network technology, the concept of big data has been well known by all sectors of society. Big data, also called massive amounts of data, is made up of many types of quantity huge, complicated structure, data structure of data collection, the amount of data involved are too large to through the current mainstream software tools, in a reasonable time to capture, manage, process, and through finishing can become enterprise management and decision-making information. With the advent of the digital era, enterprises begin to pay attention to the acquisition and integration of basic information, and constantly increase the analysis and application of financial big

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data. In the era of big data, financial work is also facing both opportunities and challenges.[1] In order to ensure that enterprises always occupy a dominant position in the market competition, it is necessary for the financial and accounting departments to keep pace with the development of The Times, deeply understand the essential characteristics of big data, actively change the work management mode, effectively improve the internal fund management level of enterprises, so as to speed up the transformation of financial functions to their extended functions. According to statistics, there are about 40 million financial employees at present. By 2025, automation and a new division of labor between humans and machines will disrupt 85 million jobs across 15 industries worldwide. With automation and digitization, employment demand for skills such as data entry, accounting and administrative services is decreasing (report on Future Employment 2020).

2. The Impact of Big Data on Financial Work

2.1 The form of financial report shall be transformed from post hoc report to real-time report

At present, accounting personnel of enterprises usually prepare financial reports after the completion of their production and business operations, such as the annual financial report is completed within 4 months of the next year, which has a certain negative impact on the timeliness and efficiency of accounting information. Driven by the development of science and technology, people gradually realize the importance of real-time financial reporting, and the era of big data is the basic guarantee for real-time financial reporting. Based on the background of big data era, the construction of real-time financial reporting system of enterprises includes but is not limited to: the establishment of a unique central database of enterprises, and timely update the business data of economic activities in the central database. In order to better share and synchronize the central database and external data of the enterprise, the enterprise should also build and improve the enterprise real-time financial reporting system website, to achieve the effective connection between the central database of the enterprise and the external Internet.

2.2 The working mode of accounting changes from reflecting the past to predicting the future

For a long time, the basic function of corporate accounting is to reflect and supervise, and forecasting is just an extended function. However, in the era of big data, accounting personnel can make full use of the data advantages of big data to predict the future financial risks of enterprises and take targeted countermeasures. At the same time, big data can change the way accountants work and give full play to the forward-looking role in the development of enterprises. In this process, enterprise accountants collect, transfer and store a large amount of information, and gradually change the focus of accounting work. Through the analysis and mining of accounting data, enterprises can provide predictive information, so as to lay the foundation for making reasonable decisions. [2][3]

2.3 Financial management concept from single to comprehensive transformation

In traditional mode, the only enterprise financial management work in the field of corporate finance, financial information users have largely focused on the related personnel of the enterprise, such as enterprise owners, managers, creditors, etc., in the financial report users, the need for final financial data (typically a financial report) to meet the need of secondary processing before they can read their financial information, And take this as the decision basis of investment and financing. In the era of big data, financial management should involve the formulation of production plans, product sales, research and development, human resources and other fields. From the enterprise comprehensive budget preparation starting point - sales budget, production, inventory, manpower, the essence of enterprise management into the financial management work. In short, the core work of enterprise financial management should be to analyze, collect and manage the data involved in enterprise production and operation. In the era of big data, the scope of enterprise financial management has been expanded, also known as “comprehensive financial management”. [4]

3. Case analysis of big data application in Handu Group

3.1 A Brief Introduction of Handu Group

Shandong Handu E-Commerce Group Co., Ltd. (hereinafter referred to as “Handu Group”) was founded in 2006. It is an Internet e-commerce group with clothing, home textiles, cosmetics, shoes and bags, sports and other products as its main business scope. It has more than 70 brand clusters, and is favored by the majority of consumers with the characteristics of “many styles, fast update and high cost performance”. Headquartered in Jinan high tech Zone, Shandong Province, the company has more than 40 departments, including supply chain center, warehousing center, marketing center, information center, product research and development center, vision center, and Handu University, with more than 2600 employees. From 2012 to 2018, it ranked first in the industry for seven consecutive years. In 2020, it became the first brand in the “Tmall” women's clothing category, and has now become one of China's largest Internet ecological operation brand . [5]

3.2 Solutions of big data

Handu Group will launch thousands of products every quarter with tens of thousands of different sizes and colors. The fast updating of clothing styles and a large number of brands make it difficult to allocate enterprise resources and manage the finance. The poor information transmission between departments also puts pressure on the Group's timely financial prediction and analysis.

Before using big data to carry out financial management, Handu Group carried out transactions on the e-commerce platform, but its accounting records were mainly manual bookkeeping. The data used in financial analysis were mainly clothing sales and prices. Due to the low efficiency, time-consuming and high error rate of manual bookkeeping, it could not adapt to the increasing competitive pressure of the e-commerce industry and the demand of frequent update of the product. Therefore,

Handu Group has successively adopted a series of digital systems, such as OA (office automation) office system, Kingdee financial system, Enterprise Resource Planning (ERP) system, Warehouse Management System, Business Intelligence (BI) system, Supplier Relationship Management (SRM) system, to replace the original manual accounting method and realize the digitization of the Group information. In addition, combined with the characteristics of its own clothing products and business processes, it has independently developed a sample clothing review system, commodity release system, commodity clearance management system and other big data analysis systems that adapt to the Group's operating environment. Through these information systems, Handu Group has realized the digital record of the whole operation process, including product design, supplier selection, production, warehousing, delivery, inventory management, product marketing and consumer evaluation. Handu Group adopted big data technology to improve the efficiency of the Group's financial management. [6]

The big data analysis system of Handu Group is mainly composed of three modules, [7] which are the Business Intelligence (BI) responsible for data collection and label management, the Business Analyst (BA) responsible for data classification and storage, algorithm and analysis, and the artificial Intelligence Module (AI) responsible for visualizing data information to assist financial and production decisions.

After applying big data for analysis, in addition to financial information, the Group also added some non-financial information, such as competitor's sales information, into the influencing factors of budget analysis. At the same time, the information integrated by different data sources has also greatly increased the amount of information and data of the Group. The Group can obtain previously undiscovered data trends. The increase of the type and quantity of input data can make the financial budget of enterprises more suitable for the business environment, and make the enterprises' profit forecast more reliable. Through the application of big data to assist the budget, the accuracy of sales forecast of Handu Group increased from 38% in 2013 to 72% in 2017, the budget of gross profit margin and actual variance rate decreased by 5%, and the budget of net profit margin and actual variance rate decreased by 6%.

At the same time, the function of big data system to update enterprise operation data in real time also strengthens the Group's budget process control. Although the budget is formulated by the financial department, it is the front-line business personnel who can really find the deviation between the budget and the actual effect. Under the traditional budget mode, there will be a long delay when the deviation in the implementation of the budget is transferred from the business department to the financial analysis department. However, the Group introduced the big data system and integrated the enterprise's information system. The actual budget implementation data of the front-line business departments will be directly fed back to big data, and the financial personnel can obtain the operation information of the business departments in real time. Through the risk early-warning model, the system will warn the financial department when the data deviates greatly from the budget, and further trace and analyze the reasons for the deviation. Compared with the traditional budget management mode, the budget management supported by big data can better control the budget process. At the same time, it is easier to find and improve the causes of problems in the Group's operation.

After the introduction of the big data system, the Group's financial data and business data have been integrated. The Group can incorporate some indicators of business process specification into the employee's performance appraisal. The system will record the employee's non-compliance operations and link them with the

employee's bonus. This can make the Group's business process more standardized, thus making the budget assumptions set by the Group more reliable.

3.3 Common problems of accounting staff in the era of big data

Through the above big data on the changes in financial work, combined with the current work of financial staff feedback problems, this paper is summarized as follows.

3.3.1 Lack of professional skills

Professional skills are not here refers to the operational skills of accounting treatment, but in the era of big data, through the Python, RPA financial development and financial application development and application of robots on the data of financial information for financial analysis and the application of smart financial and visualization, is the application of specific scenarios digital ability to work. And the existing financial personnel, the mastery of these abilities is relatively weak. There are quite a number of accounting personnel is also adapted to the traditional manual accounting treatment in the past, some accounting personnel only mastered the computerized accounting software operation, such as business module is familiar with accounting software, but if used in the enterprise financial database programming language to extract the required financial data, or more difficult, Only through the low efficiency of the "carpet" search, reduce the processing efficiency of financial work, but also difficult to ensure the accuracy and effectiveness of financial data.[8][9]

3.3.2 Unable to adapt to the transformation of financial functions

From the analysis of the first part of this paper, we can see that the function of accounting will have a greater degree of change. In the past, the two basic functions of accounting were accounting and supervision, while forecasting economic prospects, participating in economic decision-making and evaluating business performance were the extended functions of accounting.[10] At present, the majority of enterprises to accounting post of financial personnel requirements still stay in the basic economic business can deal with the preparation of four tables a note (that is, balance sheet, income statement, cash flow statement, owner's equity changes and notes to financial statements), reflects the accounting of the past has been the reflection of business. In the context of big data cloud computing, accounting should not only reflect the past, but also reflect the value of its work by predicting the future. However, at present, many financial personnel do not have such awareness. They generally believe that predicting prospects, participating in enterprise management decisions and evaluating performance and other behaviors do not belong to the scope of responsibility of accounting. They still think that this belongs to the management or other departments, which is not conducive to the development of accounting work in the future.[11]

4. Conclusions and Suggestions

4.1 Conclusions

To sum up, in the context of cloud computing, the transformation of financial accounting personnel in manufacturing enterprises should be based on the actual development of enterprises and formulate corresponding strategic planning according to the development requirements of enterprises at different stages. For enterprise managers, they should have certain forward-looking thinking and have a correct understanding of the transformation of accounting personnel. Accounting personnel should not only change their ideas, but also constantly improve their work quality and efficiency by means of information technology, so as to promote the transformation and development of accounting personnel from the perspective of innovation, so as to adapt to the new requirements of enterprise financial management under the background of cloud computing.

4.2 Some suggestions on the transformation of financial personnel

Using the technology of artificial intelligence measurement, USES the advanced work force and algorithm (extended) accounting measurement ability, has is the direction of the current development of financial work, Therefore, in this process, financial personnel must carry out transformation.[12]

4.2.1 Supplement knowledge and skills with abundant online teaching resources

Because of the epidemic, online teaching resources are now abundant. For example, open MOOC, learning platform and online teaching resources developed by some enterprises, such as wangzhongwang. On-the-job financial personnel can use their spare time to learn financial development courses on the Internet to supplement their required professional knowledge.[13] In the selection of courses, financial personnel can choose different positions in the big data center according to their actual situation, such as big data business post, big data project post, big data sales post, big data RESEARCH and development post, big data management post, big data analysis post, etc., and then carry out targeted complement of knowledge and skills. So as to cultivate professional skills in intelligent fiscal and tax accounting, tax declaration and management services, and develop professional literacy in fiscal and tax sharing, service sharing and financial cloud intelligent technology application.[14]

4.2.2 Actively change the concept of occupation, better adapt to the change of The Times

Changes in the social and economic environment will also pose significant challenges for all professions, especially in these challenging times. Technological progress and social change has great influence on the financial work, financial personnel should face up to big data cloud computing era brings opportunity and challenge, change the traditional ideas, the accounting personnel to clarify the technical innovation, to a certain extent, to strengthen the accounting functions, implement accounting personnel in the current situation has reached a critical period of transformation, which to the

enterprise's own management, Financial budget and other aspects have a huge impact. In the process of accounting personnel transformation, we should not only start from the financial department, but also strengthen the connection with other departments to ensure that accounting functions can be fully implemented in each link of enterprise operation and management. It can be said that as long as the accounting work is integrated into all aspects, the objectivity and comprehensiveness of data information can be guaranteed to the greatest extent. Once divorced from reality, it can not only provide help for enterprise decision-making, but also affect the scientific judgment of financial affairs, and can not find out the problems in time.[15]

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