

The Digital Transformation of Enterprise Accounting: Big Data, AI and Financial Sharing

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Abstract: Digitalization is the most significant change occurring in the field of accounting. With the advancement of science and technology applications, the digital transformation of enterprise finance is gradually becoming a reality. Big data, machine learning, and artificial intelligence-based digital technology lay a solid foundation for transforming and upgrading enterprise accounting. The demands for scientific, forward-thinking, and data-driven enterprise financial management are increasing in an era of deep Internet of Things integration and digitalization. It is no longer necessary to rely on traditional module administration, manual decision-making, and one-way operation, but rather to improve data analysis, data application, and financial value improvement. Financial sharing will become a critical component of corporate operation, providing solid financial backing for strategic enterprise choices, departmental operations, and organizational change. To achieve true financial transformation, enterprises must continue integrating financial resources, increasing technology research and development, and transforming and upgrading their systems. Financial departments and personnel must accelerate their adaptation to the development requirements of digitalization, which necessitates technological iteration, functional transformation, and reform.

Keywords: digital transformation, enterprise accounting, financial sharing

1. Introduction

With the rapid development of the Internet of Things, e-commerce, and social networks, the volume of data has ushered in explosive growth, and big data is becoming the most important data in the world. In the era of big data, the traditional manual financial management mode and means can no longer meet the needs of contemporary financial management. Financial digitalization and intelligence have become the main trend in financial management development and an inevitable choice for transforming and upgrading financial management [1].

Traditional financial management focuses on bookkeeping, data processing, and report preparation. Still, under the background of big data, the scope of corporate finance work has gradually expanded, and its connotation has also developed in a deeper direction. The digital accounting transformation can integrate the financial resources of an enterprise or organization into the monitoring system in real time and achieve meaningful transformation, thereby guiding relevant decision-makers to effectively monitor the accounts and even make important decisions on the company's strategy.

After this introduction, Section 2 presents the case description. Section 3 describes the necessity of accounting digital transformation and the schema of financial shared service centers. Section 4 presents the process of accounting digital transformation. Section 5 describes the impact of accounting digital transformation on enterprise decision-making. Finally, the main conclusion and the limitations of this study are described in the final section, in addition to future research opportunities on the topic.

2. Case Description

The management accounting domain may be impacted by digitalization. It may have an impact not only on the organization's digital landscape and associated business models, but also on management accounting and control methods, as well as the job of the controller. New kinds of collaboration among firms, suppliers, customers, and employees are enabled by digitalization, resulting in new product and service offers. Simultaneously, incumbent firms face a challenge as digitalization compels them to evaluate their existing strategy and seek new business prospects. Automation and robotization of routine procedures, the introduction of business intelligence, and the application of data analytics in the finance function have all come from digitalization [2].

Firm digitization and the quantity of regional digital industry innovation, according to Silin Li's experiment on firm innovation, can both promote company innovation. On the other side, the regional level of digital industry innovation might have a negative moderating influence on the business digitalization innovation effect. Furthermore, the influence of company digitalization on innovation is particularly noticeable in the digital-related service industries. The "competitive effect" boosts the marginal innovation efficiency of firms in surrounding regions when the degree of growth of digital industrialization in the region where a firm is located is higher, implying that digital automation has a geographical spillover effect. As a result, the digital industry should be given more attention and funding [3].

Companies with higher digital maturity improve their talent management processes. Talent management benefits from Big Data, people analytics, or HR Analytic systems. Companies invest less effort in attracting talent than retaining talent [4].

Digitization, as a new firm growth paradigm, is vital to the economy's and society's progress. The panel measurement technique is used to investigate the link between digital transformation and corporate performance utilizing data from relevant listed organizations from 2012 to 2020 to uncover if digital transformation promotes innovation momentum. According to the findings, digital transformation has improved business performance dramatically and has the potential to drive company innovation. Cost reduction, revenue growth, efficiency improvement, and encouraging innovation are the key pathways for digital transformation to promote company development, with the policy effect of enterprise innovation being the most significant [5].

Robotic Process Automation (RPA) is a new technology that uses software bots to automate rule-based business processes and tasks. Securing technological competency is only one aspect of RPA implementation. Organizations standardize and optimize operations, develop scorecard-like tools for task rating, adapt governance structures to accommodate digital employees, and redefine internal controls. Organizations benefit from automating only systematic, repetitive, rule-based activities using digital inputs. In addition to cost savings, organizations gain from improved process documentation, fewer error rates, more precise measurement of process performance, and higher report quality [6].

3. The Necessity of Digital Accounting Transformation

The internal and external environment that enterprises face in purchasing, production, operation, sales, and other behaviors is undergoing profound changes as a result of the continuous development and maturity of digital technologies such as big data, the Internet of Things, cloud computing, and artificial intelligence, which also has an impact on enterprise financial work. The core of digital transformation is to use modern information technology to establish a new dynamic digital business model. Consider the typical financial business, such as intelligent audit, which is accomplished by digitizing the original financial document information and employing machine learning technology to achieve automatic audit and accounting, so establishing a new financial operating mode. Accounting digital transformation makes use of cloud computing, big data, and other financial technologies to rebuild financial portfolios and business processes, improve financial data quality and efficiency, and better empower finance, management, operations, and decision-making [7].

Only by staying current, seizing the opportunities brought by big data to their development, improving core competitiveness, and seizing development opportunities can enterprises strive for a larger market share. Financial management is essential if organizations are to thrive in the future information economy. Businesses are concerned about how to innovate the financial management paradigm. As a result, corporate management should increase substantial data management awareness as soon as feasible, train intermediate managers and even front-line staff to actively respond to future information difficulties, and build the idea of big data management [7]. Additionally, in the general business environment, enterprise financial management requires broad participation from all enterprise employees. As a result, the corporate financial department should eliminate departmental boundaries, achieve cross-departmental cooperation with production, sales, and other departments, improve communication and contact with business departments, and diversify the types and sources of financial data.

More traditional financial work frequently occurs when accounting information is delayed, less accurate, and has a heavy workload, resulting in more time and energy for those involved in financial work. It will demolish the original traditional financial system and replace it with a more scientific and reasonable intelligent financial system that can not only solve various financial problems the first time but also continuously optimize the financial plan based on the enterprise's actual situation, laying a solid foundation for the enterprise's digital development.

Enterprises gradually use the unified management mode to reduce unnecessary financial expenditure, promote the realization of real-time financial information sharing, optimize the financial management objectives of each branch, and use the unified financial management software to understand and master the financial accounting information. Even though some enterprises have developed more explicit financial management systems, they need help to achieve unified and standardized financial information management, leading to poor accuracy of financial data and inefficient use of financial information. As a result, in the digital economy, the digital transformation of corporate finance should establish a financial shared service center to ensure that enterprise centralized management meets the unique requirements.

4. Accounting Digital Transformation Process

During the digital transformation of enterprises, the financial department of enterprises should transition from the traditional basic accounting mode to the financial management mode, which integrates strategic finance, business finance, and shared service. The financial organization structure focuses on the overall financial policy, planning path, rules and regulations, capital assets, human resources, and business risks of the enterprise in the strategic financial field, based on the principle of taking strategic finance and shared finance as the centralized field and business finance as the

decentralized field. Each subsidiary's essential financial accounting personnel are focused on the transferred financial center and the unified business work process to reduce tension and waste of human resources and improve accounting work efficiency. Decentralized business finance, which includes individualized and specialized related businesses, results from business and financial integration. Its work goes beyond simply contributing to the enterprise's background financing; it also includes providing financial pre-forecasting, in-process control, and post-feedback to the enterprise in various business projects. As a result, each project's decision-making process is supported in a timely and efficient manner.

For financial transformation to occur, industry and finance must be integrated. Business, accounting, and management processes are the three main enterprise processes underpinning the day-to-day management and growth of the entire firm. Industry-finance integration is the process of naturally integrating these three based on information technology to achieve a single data source and internalize the whole process for financial digitalization. The need to incorporate industry and finance in the whole production process and operation of the enterprise is required to give the idea of digital financial transformation a significant role within the organization [8]. Specifically, the finance department should focus on the following two areas.

On the one hand, data integration is required to establish a data asset database through horizontal integration of industry financial data, ensure that the only data source can be located, and form a comprehensive understanding of real-time, detailed, and multi-dimensional business information by finance. The integrated information processing mechanism of architecture and business formats is used to complete the compelling connection between business processes and information systems and integrate and synchronize financial and business data to guarantee authenticity, integrity, and timeliness of business and financial data interaction. Simultaneously, the acquisition, collation, and management of non-financial data information are critical. It helps to feedback on the enterprise's internal and external information interaction and provides objective and accurate information reports related to decision-making for business departments. On the other hand, budget management must be prioritized. Budget management can predict the operation situation, coordinate the interests of all business parties, control cost expenditure, and reduce business risks; it can also implement the division of labor, clarify the rights and responsibilities of each department, and distribute all parties fairly.

Platformization, cooperation, automation, and intelligence are the foundations of digital transformation. Financial sharing can achieve efficiency improvements based on scale effects and play a key role in digital financial transformation, so optimizing further, integrating financial sharing, and building a financial sharing platform is necessary. The financial sharing management support platform must meet the construction goals of management platformization, information flattening, flexible business configuration, automatic task allocation, and efficient service operation. The realization of digital financial transformation necessitates implementing the financial sharing management model.

The information system is the cornerstone of financial management transformation and upgrading. Accounting digitalization requires enterprise financial institutions to establish a complete digital management system as soon as possible. Good infrastructure is the prerequisite for realizing informatization and the first step toward digital financial transformation. Because only by adapting to financial scenarios with new technologies and new systems, recording the tailored operations of businesses by unified accounting accounts on the same information system platform, by the same financial system and principles, and by the suitable business processing process, can data be extracted, sorted, integrated, processed, analyzed, and presented in batches, improving the quality of financial information. Enterprises will need to use IT in the future to enhance their information systems,

connect data islands, and offer more data services to other businesses to complete the digital transformation of finance.

5. The Impact on Enterprise Decision Making

Accounting digital transformation can assist the enterprise management team make more efficient decisions. First and foremost, the accuracy of financial data is the foundation. The operation of enterprise funds is reflected in financial statistics. In-depth analysis and processing can assist determine the weak links of enterprise operations and give an objective basis for management decisions based on the collection of pertinent information. Financial systems such as Yongyou (accounting software) and ERP may collect enterprise data more effectively, allowing for unified enterprise data aggregation for easier management. The system makes corporate data more transparent, and managers may more easily access this data to examine the enterprise's operations. The precision and timeliness of this data can assist organizations in making better decisions, better understanding their financial condition and trends, and better planning the future direction of their business.

Most businesses need to pay more attention to the accounting department because they believe accounting data or reports lag without strong timeliness. The top management team cannot recognize the completeness and accuracy of the financial report. Digital transformation can make every data on the statement trackable in the system, improve the quality of the report, and reduce the mistakes made by humans. Data quality, data accessibility, data visualization, and financial data compliance are all ways to improve the accuracy of financial data. By automating data collection, processing, and analysis to reduce manual operations and errors, digital transformation can improve data accuracy and timeliness. The accounting department can generate financial reports and data more quickly and accurately due to digital transformation, providing better financial information to the business. Financial data storage can be centralized through digital transformation, making it available to management and other departments at any time and location. This real-time accessibility can assist businesses in making faster decisions to adapt to market changes and opportunities. Visual tools can be used in digital transformation to present financial data and help businesses better understand data trends and patterns. This can help companies to identify problems and opportunities more effectively and make better decisions. Digital transformation can assist businesses in developing consistent data rules and standards, resulting in more standardized and comparable financial data [9]. This can assist businesses in better comparing financial data, identifying problems and opportunities, and making decisions. The top management team can rely on the report to create a more accurate and suitable strategy for the company to move forward and adjust the incorrect objectives immediately.

Enterprise accounting departments can benefit from digital transformation by better predicting future trends and opportunities. Digital transformation enables accounting departments to examine enormous amounts of data more quickly, allowing them to predict better market trends, consumer needs, and competitor actions. Companies undergoing digital transformation can utilize various tools to assist the accounting department in performing better analysis and forecasting. Businesses can, for example, use data mining and machine learning techniques to automate data analysis and forecasting, advanced analytics tools to analyze data better, and predictive models to foresee future trends and opportunities. This financial analysis can assist the top management team in confirming the correctness of decisions, control the loss, and reducing the market risk.

The challenge of accounting digital transformation is building a professional financial team. Enterprises need to reverse the inherent thinking mode of financial personnel, adhere to the concept first, enhance the urgency of transformation, let financial personnel actively participate in digital financial transformation, and improve financial personnel's sense of responsibility and mission [10]. Allowing finance employees to focus on long-term growth and to evaluate, analyze, and solve

financial challenges from a digital viewpoint has become the new normal. The finance department must begin the process of personnel transformation by positioning finance in the enterprise, then begin personalized training of financial personnel, and design the organizational structure, responsibility mechanism, ability model, training plan, and career development path for various financial teams.

6. Conclusion

Accounting digital transformation is the general trend in the Big Data environment. For accounting departments and financial managers, accounting digitalization is an essential step from traditional accounting to intelligent accounting and also an essential milestone of accounting function reform. The integration of industry and finance is an inevitable need of financial transformation, as also the integration of management concepts at the business level. The integration of industry and finance is not one-way. It is a two-way integration, accounting should be close to the business, and the business should be close to the accounting.

Looking forward to the future, digital accounting transformation makes every financial person think about how to make more improvements based on functions, how to find those irreplaceable capability advantages in the era of big data so that they can “free their hands” and spend more time and value on business data analysis and decision-making support.

Accounting digital transformation stays on the concepts or methodologies, and case studies are still a minority. The digital transformation process for an enterprise is long term planning. This article limits small size businesses and non-internet companies. We need to find out whether these companies need to rush to start the digital transformation. The better way for them should be digitalization first. Medium and large companies should consider the digital accounting transformation to keep up with the rapid Big Data environment. This article aims at companies with a clear concept of accounting digital transformation and who need help knowing where to begin.

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