Application and Development of Digital Technology in Financial Sharing Center – a Case Study of TCL Technology

Wenting Zhang*

College of Business & Public Management, Wenzhou Kean University, Wenzhou, China

*Corresponding author: 1195202@wku.edu.cn

Abstract. With the rapid development of science and technology, digital technology is changing every aspect of people's lives. In order to find new opportunities in the fierce market competition, companies have begun to find more ways to make themselves more competitive in the marketplace, and the innovation of financial management systems has become the breakthrough of each company. Therefore, companies began to combine the existing financial sharing system with digital technology and then create distinctive financial sharing centers to help their work. This paper is based on the financial sharing center of TCL Technology to analyze the combination of digital technology, which is the main application of financial sharing centers, and financial sharing and analyze the feasibility and challenges it will face providing companies with a reference sample.

Keywords: Financial sharing; Financial sharing center; Digital technology.

1. Introduction

With the further development of economic globalization and the rise and development of digital technology, data and technology have changed people's daily lives in many fields. They make the already challenging market become more competitive, which means that it is more difficult for companies to have more advantages than others in the new market. In order to deal with this problem, companies have to look for a solution. In this situation, the change and innovation of the financial management system, which is the indispensable part of a company, has become the focus of all companies. The traditional financial management in companies is usually decentralized financial processing as the main way, and this management mode caused by low efficiency, high cost and waste manpower disadvantages are obvious. However, with the development of digital technology, people are not satisfied with it. People are beginning to pursue more convenient and efficient solutions, and companies are also starting to implement digital transformation. Therefore, the financial sharing center, which is built on the basis of companies' actual situation with digital technology, appears. In fact, there has also been some research about the financial sharing center in recent years. For example, Yao Li analyzes the development and problems of the financial sharing center at that time and puts forward suggestions [1]. In addition, there also have research on cost management of financial sharing centers. In 2020, Yu and Gao wrote a paper about cost management optimization of financial sharing centers to analyze the current deficiencies and make suggestions [2]. Therefore, this paper will adopt the way of a case study, taking TCL Technology as an example to study the construction and development of the financial sharing center under the background of the development of digital technology and analyze and elaborate on the current problems and future prospects. First, this paper will introduce the meanings and development of financial sharing centers. Then, this paper will analyze how it works and what it affects TCL Technology. Finally, this paper will point out the weaknesses of financial sharing centers and make some suggestions.

2. Development of financial sharing center

A financial sharing center (FSSC) is a business management method supported by a number of digital technologies, such as cloud computing, big data and artificial intelligence. This makes the company highly centralized finance, reduces labor costs, and improves the efficiency of data collection, sorting and analysis [3]. The idea of a financial sharing center can be traced back to the research of financial sharing services. Robert Gunn et al. thought that shared service is new

management that can help staff solve the problems of decentralized accounting staff management and improve staff efficiency [4]. In addition, the financial sharing service has experienced the first stage of reducing the cost, expanding the scale and centralized management, and the second stage of improving the service and introducing new technology. They combine financial sharing with corporate strategy and gradually develop a variety of financial sharing centers [5]. Ford set up its financial sharing service center in Europe in the 1980s, but the financial sharing center in China was a little late. The concept of shared services was introduced to China in the late 20th century and spread among multinational companies and large enterprises [1]. After 2005, Huawei and Ping An established sharing service center successively. Since 2013, China's financial sharing service center has developed rapidly, and more and more large enterprises have begun to use financial sharing services [3].

3. The research of the financial sharing center for TCL Technology

3.1 The introduction of TCL technology

TCL Technology is an extremely large state-owned holding enterprise involved in household appliances, electronic products, information communication and other fields. It has 5 listed companies, including TCL Technology, TCL Electronics, Kone Electronics, TCL Huaxian Optoelectronics and Hanlinhui. TCL has 80,000 employees and sales offices in more than 80 countries and regions, with business in more than 160 countries and regions. TCL has 28 R&D centers, more than 10 joint laboratories and 22 manufacturing and processing bases. Since 2018, TCL Corporation, with semiconductor display and material business as the core, and TCL Industrial, with intelligent terminals as the core, have become the world's leading intelligent technology group and high-tech industrial group [6].

3.2 Reasons why TCL build a financial sharing center

With the development of science and technology, cloud computing, big data, artificial intelligence and other digital technologies continue to emerge and develop, the speed and efficiency of transactions and accounting have been greatly improved, and digital transformation is also followed. Wang Xuejia, general manager of TCL Financial Sharing Center, said, first of all, from the technical level, the low cost, fast speed and high efficiency of digital technology lay the foundation for TCL's digital transformation. Secondly, from the perspective of corporate strategy, TCL continues to develop its strategy from traditional to the "double +" strategy of "intelligence + Internet" and "product + service". Finally, from the perspective of financial positioning, TCL needs to realize the transformation from traditional accounting and financial reporting to operation support, value creation and risk management [7]. To realize the above three basic reasons, TCL needs to carry out digital transformation and build a TCL financial digital framework centering on the integration of strategy execution and evaluation, risk control and management, business and financial collaboration, and financial accounting management [7]. In order to realize this framework, TCL combines the financial standardization system with new technologies and builds a TCL financial sharing center with a service center, processing center, data center, talent center and knowledge center as the framework to ensure the implementation of digital transformation.

3.3 Technology used in TCL's financial sharing center

In the construction of the TCL Financial Sharing Center, TCL mainly uses four new technologies: distributed microarchitecture, OCR technology, RPA technology and Zhi Xiang customer service.

The first one is distributed microarchitecture. TCL financial sharing center is mainly supported by a small front desk, a large data center and a stable background. The small front desk is flexible to iterate and update and can quickly respond to customer needs. It is mainly the operation platform of TCL Financial Sharing Center, including task pool, order acquisition, order distribution, audit, performance, image, file, credit, service, etc. [7], making the sharing operation highly standardized

and process-based. In addition, the "small front desk" is also reflected in TCL's 124 project, which includes organizational culture as a core, new technology introduction and new business development as two projects, payment and settlement system, analysis and early warning system, internal operating system and hierarchical service system as four systems, to provide unified hierarchical service system for external users [6]. The smooth and orderly operation of TCL's front desk is also dependent on its data center. The data center is an enterprise-level capability reuse platform. By integrating big data operation, big data research and development and big data analysis, it realizes data intelligence. The data center of TCL includes a simple, fast, professional and efficient payment and settlement system, an analysis and early warning system with accounting management as the main line, and an internal operation system that proposes visualization, quantification, efficiency and self-drive for the internal operation of the sharing center. In addition, TCL has also innovated its user data radar system, which analyzes customer data to derive product preferences and combinations [6]. These systems process data, which not only simplifies and meets the internal needs of enterprises but also provides information support for the front desk and supports the architecture and operation of the entire shared platform.

The second one is OCR technology. OCR technology, namely optical character recognition, scans books, newspapers, magazines and other paper publications into image information through optical recognition technology and then inputs them into the computer through word recognition technology. It is mainly used in data entry, storage and integration. TCL adopts an OCR technology scenario-style financial solution to conduct intelligent audits, examine invoices' authenticity, and extract data. It is mainly used in the mobile reimbursement scheme in the mobile office scenario, the pure electronic invoice reimbursement scheme in the electronic invoice reimbursement scenario, the intelligent receipt robot in the document submission scenario, the intelligent document review scheme in the financial sharing audit scenario and the shared ecosystem in the corporate travel business scenario, creating scenario-based financial solutions [7]. TCL uses OCR technology, which not only simplifies the daily work of employees but also shortens the time of information collection and improves work efficiency.

The third one is RPA technology. RPA, also known as Robotic process automation, is a technology that uses pre-recorded templates to interact with customers through artificial intelligence and automation technologies. The financial robot is one of the examples of RPA technology in the economic field. In the financial sharing platform, RPA technology is mostly used in the process of receiving reimbursement documents, purchasing and payment, making sales and collection statements, etc., which changes the original financial working methods and promotes the innovation of financial organization structure. TCL mainly adopts a cooperative mode in the application of RPA technology. RPA technology will be used only when the system cannot be integrated and coordinated, the integration cost is too high and the integration cycle is too long [7]. In addition, TCL also uses RPA technology as a connection between different systems for the exchange of multiple data [7]. At present, the COE ability based on the TCL, RPA application in TCL's financial Shared scene mainly includes bank reconciliation robot, financial process automation, reporting automation, intelligent month knot, exchange rate evaluation, automatic invoice calibration, suitable number to print documents, etc. [6], realize system according to the rule execution, improving the efficiency and the liberation of human.

The last one is Zhi Xiang customer service. Zhi Xiang customer service belongs to artificial intelligence. Artificial intelligence is a branch of computer science in which computers acquire knowledge to imitate the way humans think and do things instead of human brains. AI has certain self-adaptive characteristics and self-learning functions. It can digitally connect with cloud, terminal and human, and cooperate with humans to work. It is mainly used for data collection and analysis in the financial sharing platform, which speeds up people's work speed and efficiency. TCL introduced Zhi Xiang technology to combine Zhi Xiang robots with humans. Zhi Xiang robot answer 80% of questions and improves its ability to learn independently, collect and analyze questions raised by customers better, carry out targeted improvement, improve the efficiency of data collection and

analysis, but also save costs and liberate manpower. And the human customer service is responsible for cooperating with the robot to deal with the problem, leading the problem analysis and knowledge precipitation. The Call Center, on the other hand, is to improve the problem feedback channel and conduct user return visits and guidance. The three are interdependent and cooperate with each other. Finally, the data will be analyzed and precipitated and uploaded to the knowledge database for reference and extraction.

3.4 The impact of financial sharing platform on TCL Technology

First of all, TCL Technology's financial sharing center has improved the work efficiency of employees. TCL through the image of science and technology management, network reimbursement, financial accounting and other accounting information processing system, realizes from the original documents to proof of charge to an account to the financial statements and the transformation of file management, simplifying the working processes, reduce the workload of staff, avoid the overlapping work, improve the speed of TCL information collection and acquisition and improve the employee's work efficiency. Then, the build of TCL Technology's financial sharing center made the unification of management realized. TCL has streamlined the traditional financial business process with advanced technology and reconstructed a convenient and efficient financial process system, such as the general ledger, accounts receivable and payable, expense reimbursement and other processes. In addition, TCL has unified the accounting language, accounting and reporting of its subsidiaries to achieve consistency and standardization of the process and ensure the validity and standard of data [8]. The unified management of TCL can save not only the cost of management but also reduce the risk of management. For example, carry out budget management in advance, carry out information sharing in the process, and record the account synchronously after the event [8]. These three steps achieve a reasonable allocation of resources through process reengineering and reduce management risks. Finally, the financial sharing center of TCL Technology has promoted TCL's digital transformation and the development of value-creating finance. Through continuous innovation and the application of new technologies, TCL Financial Sharing Center has improved its operational capability and innovated its operation mode. Then, with the improvement of operational efficiency and the liberation of the workforce, TCL shifted its focus from transaction and business processing to value-added data services. Finally, TCL has enhanced its risk management and control capabilities, provided global business support and enhanced its capital management and tax planning capabilities, creating more financial value and promoting digital transformation.

4. Current situation and problems of financial sharing center

4.1 The integration of digital technology and financial sharing

As a new innovative management mode, a financial sharing system derived from the combination of digital technology is widely used in the field of financial accounting. Financial sharing services are mainly characterized by decentralization, centralization, sharing and outsourcing. So far, the development has reflected cost-saving, highly concentrated financial work, reasonable distribution of work, avoiding manpower waste and improving customer satisfaction and other advantages. In addition to the above advantages, financial sharing under the background of digitalization also includes three features: paying more attention to quality and satisfaction, strengthening enterprise control, forming data centers and transforming to digitalization and intelligence. And the corresponding financial sharing center supported by digital technology is the integration of digital technology and financial sharing. Its high efficiency and low cost make the business processing speed and efficiency of enterprises constantly strengthen and lay a solid foundation for the digital transformation of enterprises. Currently, many enterprises in China have realized the importance of digital technology and started combining cloud platforms and company business, which has unlimited future development space.

4.2 Problems that financial sharing center face

While the convergence of financial sharing and digital technology has brought many benefits to companies, it still has its drawbacks. First, in the digital age, information security has become a big challenge. Whether a company's cyber security system can protect the data of the entire financial sharing system, how to strengthen firewalls and how to optimize their cyber security system are among the first challenges that companies face. For example, Sichuan Changhong Electronic Holding Group has a high probability of bing intercepted and stolen in the transmission of financial data [9]. Therefore, the company's regular network security check is also essential. Secondly, more operational risks lead to increased costs. Digital technology is in the stage of vigorous development, new technologies emerge in endlessly, but the consequent operational risks are also increased. The imperfection of new technology leads to the need for frequent operation risk maintenance, resulting in a large amount of financial expenditure. Therefore, how to balance their own financial situation and the application of new technology is also one of the problems faced by enterprises. In addition, with the continuous improvement of the financial sharing system, the workforce is gradually replaced by science and technology, and the release of a large number of the workforce leads to layoffs in the company, and employees are passively eliminated by the industry because they do not adapt to the new technology, which leads to the rise of the unemployment rate. Although the current job transfer in large companies can solve this problem as far as possible, with the popularization of financial sharing platforms in small and medium-sized enterprises, the limited job transfer will not be realized, which will lead to a rise of the unemployment rate, which is also one of the challenges faced by the country and enterprises. Finally, for the country, the establishment of the financial sharing center of each company makes the business process change, and with it, the national tax policy needs to be adjusted [10]. Therefore, in the face of this situation, the country should make corresponding adjustments to its own policies to cooperate with and promote the development of the company. To sum up, although the integration of financial sharing and digital technology has driven the rapid development of the economy and improved the efficiency of enterprises, there are still shortcomings and challenges. Companies should consider carefully before adopting this plan and make the right decision according to their own situation.

5. Conclusion

In conclusion, this paper is based on the financial sharing center for TCL and analyzes the current situation and problems of financial sharing system in present. First, this paper writes the development of the financial sharing center. Then, this paper uses the example of TCL technology to analyze the application of financial sharing center in TCL and the impact of financial sharing center. TCL uses distributed microarchitecture, OCR technology, RPA technology and Zhi Xiang customer service to build its own financial sharing center which is suitable for their company’s current situation and facilitates TCL’s digital transition. Finally, this paper describes the current situation and challenges that the financial sharing center faces. In short, although the financial sharing center has been used in some large companies, it still has some problems in information security, cost and skills demand for jobs. Therefore, companies should find their own position, find more reference to the experience of other companies and establish a financial center sharing center according to own situation.

References

[1] Li, Yao. "Study on optimization of financial sharing service center." Modern Economy 7.11 (2016): 1290.

[2] Qiu, Yu Lian, and Guo Fang Xiao. "Research on cost management optimization of financial sharing center based on RPA." Procedia Computer Science 166 (2020): 115 - 119.

[3] Peng Juan, Chen Hu, Wang Ze Xia, and Hu Yu Ren. (2020). Digital Financial. Tsinghua Press. Beijing.

[4] Gunn R W, Carberry D P, Frigo R, et al. Shared Services: Major companies are re-engineering their accounting functions [J]. Management Accounting (USA), 1993, 75 (5): 22 - 29.

[5] Yao, Bojin. "Discussion on the Management Mode of Enterprise Financial Sharing Services." 2019 Annual Conference of the Society for Management and Economics. Vol. 4. The Academy of Engineering and Education, 2019.

[6] FSSC Financial Sharing Service Center. TCL Financial sharing person in charge: user-oriented financial sharing innovation practice. April 3, 2020. Retrieved on September 13, 2022. Retrieved from: https://www.sohu.com/a/385331297_100139516.

[7] ACCA Huabei. Exploration of financial digital Transformation in multiple scenarios of industry and finance integration -- Practice of financial digital transformation in TCL. June 28, 2020. Retrieved on September 13, 2022. Retrieved from: https://www.sohu.com/a/404560396_658500.

[8] Zhou Wei, Wu Xiaohan. Research on Financial Sharing Center under Digital Background -- Based on the comparative analysis of Haier and TCL [J]. Business accounting, 2022 (04): 76 - 79.

[9] Qi, Hui. Information Security Issues of Enterprise Group Financial Sharing in Cloud Environment [J]. Value Engineering, 2022, 41 (22): 20 - 22.

[10] Wang, Hao, and Lei Chen. "Research on the Application of Information-based Financial Sharing Center in Enterprise Financial Management." 2021 4th International Conference on Information Systems and Computer Aided Education. 2021.