

Research on the Digital Transformation of Midea Group's Finance

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Abstract: With the continuous development of artificial intelligence, big data, cloud computing and other technologies, the digital economy has gradually become the main artery of the economy. This article explores Midea's digital transformation process through case studies. The study found that Midea Group closely connects the internal enterprise through digital systems, combines internal data with the Internet, and establishes a middle financial office, ultimately realizing the digital transformation of finance. The digital transformation of finance has brought significant improvements in Midea Group's operating and management costs, thus affecting the enterprise's overall performance to a certain extent. At the same time, the transformation process of Midea Group still has shortcomings, which can be used for reference for enterprises planning to carry out digital transformation in the future. Digital financial transformation is not achieved overnight. It requires enterprises to combine their own conditions, give full play to the systematic and comprehensive nature of digital finance, achieve the effect of improving the efficiency of enterprise operations, and ultimately improve enterprise performance.

Keywords: digitalization, financial transformation, Midea Group

1. Introduction

With the rapid development of the digital economy, China has shifted from high-speed development to high-quality development, and paying attention to the development of the digital economy has become the key to China's economic development. As an important part of China's manufacturing industry, the home appliance manufacturing industry must follow the trend of the times and actively carry out digital transformation. Cui and others believe digital transformation must closely integrate the enterprise and make decisions around customers [1]. Zhang proposed that digital financial transformation should first ensure data authenticity, integrity, timeliness and effectiveness [2]. Dou found through research that the key to digital financial transformation is to realize financial "interconnection" and "sharing" [3].

At present, the development of the digital economy in China's home appliance manufacturing industry is still in its infancy, and people's understanding of the value of data is still shallow. There are still questions about why and how enterprises should conduct digital transformation. Therefore, this paper will divide the digital transformation of Midea Group since 2013 into the financial computerization stage, financial informatization stage and financial digitalization stage through the

case study method. In addition, this study aims to answer the questions of how Midea Group's digital transformation is done, how Midea Group's digital transformation affects its performance, and what implications Midea Group's digital transformation has for the development of China's home appliance manufacturing industry.

To sum up, this paper focuses on the digital transformation path of Midea Group, provides some reference value for manufacturing enterprises to explore the digital transformation path, and answers the question of "how to carry out the digital transformation in the home appliance manufacturing industry, and how to improve enterprise performance through digital transformation".

2. Introduction to Financial Digital Technology

2.1. ERP System

ERP system refers to enterprise resource planning, the next-generation manufacturing system and resource planning software of enterprise manufacturing resource planning. At present, the scope of ERP in China has been expanded, and all kinds of software used in enterprises have been included in the scope of ERP.

ERP systems can be configured according to different enterprise needs and implement supply chain information management. The use of an ERP system can improve the enterprise's management system and uniformly manage the data of different departments to facilitate the comparison and analysis of data, improve management efficiency, and promote the rapid development of enterprises [4].

2.2. Dazhiyunwu

"Dazhiyunwu" refers to the general term of big data, artificial intelligence, mobile Internet, cloud computing and the Internet of Things, and is a unified body of interconnection and integration [5].

"Dazhiyunwu" can go beyond the traditional result data, incorporate the process data into the information base, and effectively reflect the business status of the enterprise, so as to reasonably anticipate and make valuable decisions [6]. At the same time, the combination of Smart Cloud and ERP systems can optimize resource allocation, compress non-value-added services, expand value-added services, and effectively realize enterprise value-added.

3. Analysis of Midea Group's Financial Digital Transformation

3.1. Reasons for Case Selection and Background Introduction

This report adopts the case study method, selecting Midea Group Co., Ltd. (hereinafter referred to as Midea Group), the leading enterprise of traditional household appliance enterprises, as the research object, and takes its digital financial transformation since 2013 as an example for research.

Midea Group was founded in 1968 and listed on the Shenzhen Stock Exchange in 2013. Midea Group has established an independent financial company, providing good preparation for the digital financial transformation. Since 2013, Midea Group has officially started the transformation of financial digitalization.

The reasons for choosing Midea Group are as follows: First, Midea Group currently occupies a leading position in China's home appliance industry, with typical achievements; Second, Midea Group, as a listed company, is easy to obtain various financial data, so as to reflect the impact of digital financial transformation and facilitate our analysis and explanation. Therefore, this report selects Midea Group as a case enterprise for research.

3.2. Midea Group's Financial Digital Transformation Process

3.2.1. Financial Computerization Stage

From 2013 to 2015, Midea enterprises entered information through the ERP system, standardized standards and established a unified control system to effectively promote enterprise finance's computerization.

Firstly, Midea Group implemented a unified information management system. In financial information technology, financial personnel got rid of the traditional manual accounting method and implemented the financial system function with the ERP system as the core. This measure, which eliminated the information island within the system, realized the real-time transmission of information and improved the transparency of information data and the operational efficiency of the financial center [7].

Second, Midea Group established unified financial management standards. In terms of fund management, Midea Group implemented unified management and arrangement of various funds through ERP systems, including unified business processes, unified data standards, unified accounting policies, etc., and realized a comprehensive concentration of funds.

3.2.2. Financial Information Stage

Since 2014, Midea Group has begun using digital as the driving force to realize the interconnection between internal data and the Internet, transforming the decision-making mode into "data + experience".

First, Midea Group promoted the in-depth use of digital equipment. Midea Group has established three major management platforms and two major technology platforms to realize software guarantees for enterprise financial operations. At the same time, Midea Group has increased the research and development of digital equipment and constantly improved the efficiency of financial personnel, as shown in Figure 1.

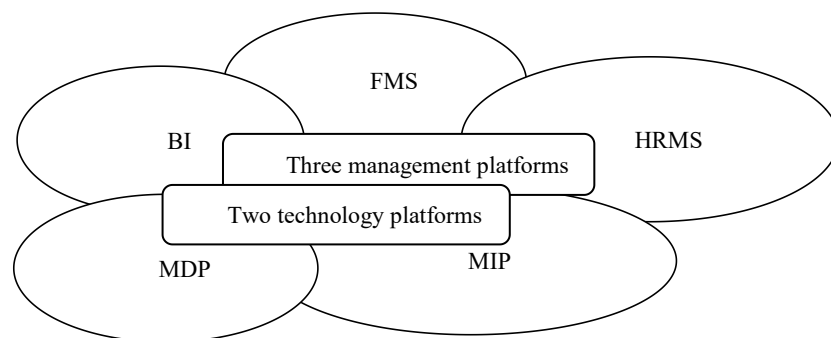


Figure 1: Three management platforms and two technology platforms of midea group (www.midea.com).

Secondly, intelligent decision-making was realized through data. Midea Group's technology platform is based on the "T+3" technology, analyzes market demand through big data, and forms a consumer-oriented sales system [8]. Through digital technology, equipment, materials, and core parts are connected to form the integration and unification of "Dazhiyiyunwu", from result-oriented to process-oriented, as shown in Figure 2.

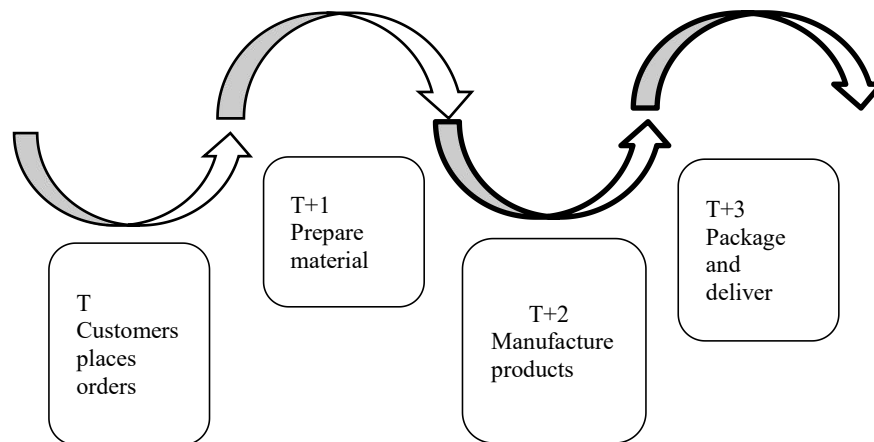


Figure 2: "T+3" system of midea group (www.midea.com).

3.2.3. Financial Digitization Stage

Since 2018, Midea Group has taken data as its core driving force to realize the transformation to financial digitalization.

In general, Midea Group's financial digitalization combines all previous transformation achievements. In terms of research and development, Midea Group uses digital technology to improve the efficiency and quality of enterprise research and development, and promote the high standardization of product attributes; In terms of manufacturing, Midea Group uses artificial intelligence to replace traditional human resources to carry out production processes, greatly improving manufacturing efficiency; In terms of marketing, Midea Group transfers the data generated in the sales process to the big data center to visualize the market demand and provide the basis for budget and operation analysis; In terms of decision-making, Midea Group fully integrates big data, artificial intelligence, mobile Internet, cloud computing and the Internet of Things based on the technology of "big intelligence and cloud computing" to promote the comprehensive transformation of information and explore the deep value of data, so as to realize the digitalization of financial budget and the simplification of operation, and gradually transform from controlled finance to strategic finance, as shown in Figure 3 [9].

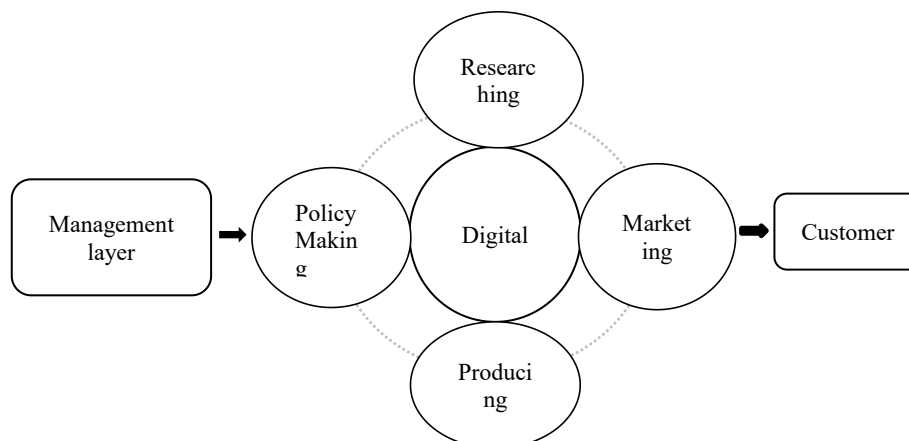


Figure 3: Digital process of midea group (www.midea.com).

3.3. The Impact of Digital Financial Transformation on Midea Group

The digital transformation of Midea Group has effectively saved the production, operation and management costs of enterprises to a certain extent. Therefore, the impact of Midea Group's digital transformation on performance is mainly reflected in the operating cost rate and management expenses.

3.3.1. Analysis of the Operating Cost Rate

Since 2013, the operating cost rate of Midea Group has declined as a whole, which shows that the digital transformation of Midea Group has brought great changes to the internal operating conditions of the enterprise, and has continuously promoted the reduction of the operating cost of the enterprise [10]. Among them, in 2017, Midea Group carried out a series of mergers and acquisitions, which improved its operating cost rate to a certain extent; In 2020, due to the impact of the epidemic on the whole household appliance industry, Midea Group's operating cost rate rebounded to a certain extent. However, it was still lower than the operating cost rate in 2013. This shows that digital transformation can slow down the rise of the operating cost rate to a certain extent and make its operating cost relatively stable when enterprises are affected by the outside world, as shown in Figure 4.

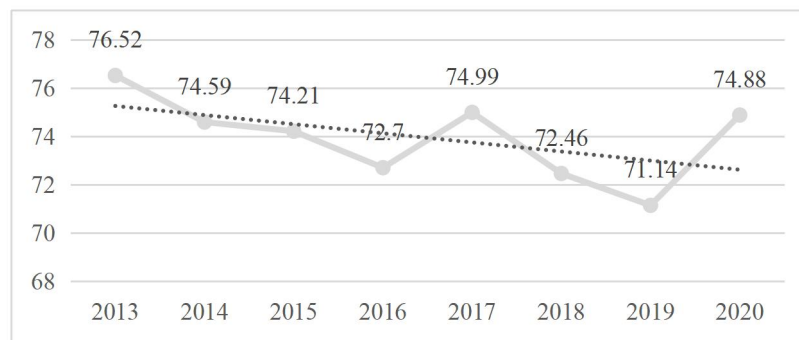


Figure 4: Analysis of the operating cost rate of midea group from 2013 to 2020 (www.eastmoney.com).

Despite the epidemic's impact in the past two years, the operating cost rate of Midea Group has increased. Still, Midea Group has continuously adapted to new challenges and opportunities by virtue of its digital advantages. As of September 30, 2022, the operating cost rate of Midea Group is in a small decline.

3.3.2. Analysis of Management Cost and Management Cost Rate

Since 2013, the management expenses of Midea Group have declined in a fluctuating manner. Among them, there were mergers and acquisitions in 2017. As a result of the expansion of new businesses, management expenses rose in the short term [10]. In addition, the rate of administrative expenses also showed a downward trend. It can be seen that Midea Group has greatly reduced the management cost by virtue of the enterprise's digital transformation, thus affecting the enterprise's overall performance, as shown in Figure 5.

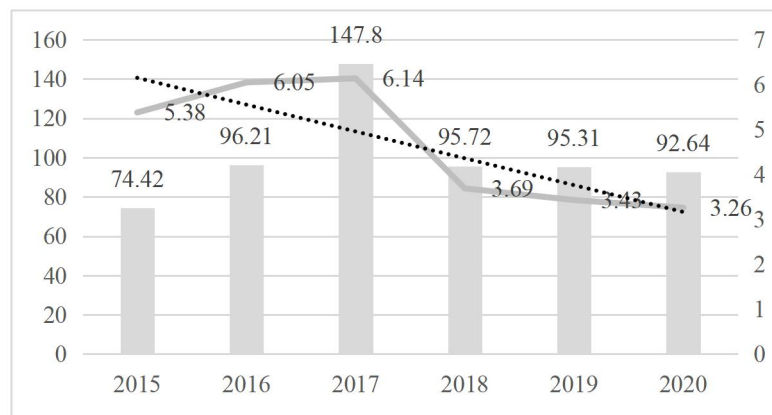


Figure 5: Analysis of midea group's management cost and management cost rate from 2015 to 2020 (www.eastmoney.com).

4. Discussion

4.1. Problem Identification

4.1.1. Midea Group's Focus on Digital Financial Transformation Is Unclear in the Early Stage

From 2012 to 2015, Midea Group invested 2 billion yuan in digital transformation, involving more than 5000 people. Its huge volume is not conducive to the refinement of business processes. In addition, acquiring a series of robot enterprises by the management of Midea Group is even more costly. These decisions are unclear in terms of the focus of digital transformation, resulting in little effect at the initial stage of transformation and low overall cost performance [7].

4.1.2. Poor Integration of Industry and Finance

The management focused on transforming of industrial digitalization; instead of promoting the work in various departments such as finance, procurement, and sales simultaneously, it implemented each process as a single process. This practice reflects the lack of a unified control strategy and internal control system in the Group. Each department's business cannot be closely linked with finance, and it is difficult to realize resource sharing, resulting in lower overall business efficiency and increased management costs [7].

4.2. Optimization Suggestions

4.2.1. Define the Focus of Digital Financial Transformation

Midea Group should grasp the advantages of resources in the process of digital financial transformation, learn from the precedents of other financial digital transformation enterprises, draw lessons from their transformation process, and avoid detours. At the same time, people should pay more attention to improving the management's learning of digital transformation technology, establish and master the core financial information platform as soon as possible, and clarify the purpose of transformation. Only in this way can the enterprise management design the transformation plan that is most suitable for the enterprise itself, so that the enterprise can save the transformation cost to the maximum extent during the transformation period, and adapt and grow rapidly [7].

4.2.2. Optimize the Process and System of Industrial and Financial Integration of the Group

Enterprises should organically integrate the business, financial accounting and management processes in operation, establish a business-driven industry-financial integration processing system, and integrate financial data with business activities. On the one hand, corresponding strategies should be formulated for each department to improve the operational efficiency of business processes; On the other hand, the financial department and the business department should formulate a unified statistical caliber to improve the smoothness of the connection between departments [7].

5. Conclusion

5.1. Summary of Key Findings

In the digital transformation process, Midea Group has given full play to the systematic and comprehensive nature of digital finance and achieved the goal of improving management efficiency and industrial value, which has brought us a lot of enlightenment.

5.1.1. Establish a Data Center to Realize the Combination of Commodities, Funds and Information

With the support of digital technology, the establishment of a data center and the entry of a complete database will not only facilitate the timely sharing of information between enterprises and the outside world, improve the efficiency of production and logistics, but also enable enterprises to grasp market information and timely analyze and improve it quickly. Therefore, enterprises should establish a data center, combine the Internet of Things and ERP system, and realize the interconnection of "Dazhiyiyunwu", to improve production and management efficiency.

5.1.2. Use Information Management System to Optimize the Enterprise Value Chain

The key to optimizing the enterprise value chain is to grasp and analyze all aspects of information, and the information management system can better meet this demand. Enterprises should use the information management system to understand the business dynamics and identify business risks fully, so as to improve weak links, expand value-added operations, and realize the control and optimization of the value chain.

5.1.3. Strengthen Digital Awareness and Broaden Digital Path

With the continuous progress of information technology, mobile Internet, and automation systems are widely used, and the data era has come. Enterprise management should follow the steps of digitalization and implement digitalization in all aspects of enterprise management. Enterprises can use the integrated new information resources to make decisions conducive to the overall development and improve market competitiveness.

5.2. Limitation

This study has certain limitations and deficiencies, mainly reflected in the following two aspects:

In terms of research samples, this study focuses on a single case study, and the scope of the study is limited to Midea Group, which cannot represent all manufacturing enterprises. Due to the lack of time and ability, it is impossible to demonstrate and analyze through multiple case studies to overcome its limitations.

In terms of research content, Midea encountered the special situation of COVID-19 during the digital transformation period, and there were mergers and acquisitions and other impacts, which made it impossible to conduct a strong demonstration in the way of controlling variables, and the data performance at this stage was slightly insufficient.

References

- [1] Cui, S., Yu, L., Zhou, Z. M.: *Research on the influencing factors of enterprise digital transformation. Chinese and foreign entrepreneurs*, 2014(27):90-91.
- [2] Zhang, Q. L.: *Financial digital transformation begins with shared services. Monthly Journal of Finance and Accounting*, 2020(13):8-14.
- [3] Dou, X. X.: *Discussion on Issues Related to Financial Digital Transformation. Chinese Certified Public Accountant*, 2021(08):91-93.
- [4] Lin, P. F., Chen, Y. M.: *The application and improvement strategy of ERP system in enterprise management. Small and medium-sized enterprise management and technology (the last ten-day issue)*, 2021(11):34-36.
- [5] Han, D. M., Liang, Y. C.: *Innovative exploration of enterprise financial management under the background of "big intelligence moving cloud". Journal of Jiangsu Vocational and Technical College of Economics and Trade*, 2022(03):6-9.
- [6] Tian, G. L., Chen, H., Sun, Y. C., Liu, Y.: *Research on financial transformation under the background of "big intelligence moving cloud". Monthly Journal of Finance and Accounting*, 2019(20):3-7.
- [7] Li, J. J., Yuan, D. M., Xu, Y. Y.: *Digital transformation of corporate finance: a case study based on Midea Group. Financial management research*, 2022(05):1-8.
- [8] Yan, K.: *Research on the Digital Transformation of Midea Group. Henan University of Economics and Law*, 2021.
- [9] Tan, Y. X.: *Research on digital transformation and enterprise performance. Yunnan University of Finance and Economics*, 2021.
- [10] Zhu, H. C.: *Research on the impact of Midea Group's digital transformation on enterprise performance. Shandong Business University*, 2022.