

A Research of the Paths and Challenges of Digital Transformation in Corporate Finance

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Abstract. At present, large group enterprises around the world have carried out the process of financial digital transformation, which is conducive to improving the operational efficiency of group enterprises and achieving cost reduction and efficiency. Whether digital transformation can be successfully implemented and achieve the desired results is determined by a number of factors, the company how to choose suitable for their own digital transformation path, how to determine the digital transformation programme and other aspects, are to ensure that the digital transformation can be successfully implemented important elements. In this regard, it is necessary to study the financial digital transformation of enterprises. Especially under the impetus of the digital economy, this paper focuses on combing the research literature of scholars at home and abroad on the value of digital transformation of corporate finance, transformation path, challenges and coping strategies, pointing out the current shortcomings and development trends of the research in this field, hoping to inspire the theory and specific practice in the field of digital transformation of corporate finance.

Keywords: finance digital transformation; large group enterprises; transformation path; transformation challenges. coping strategies.

1. Introduction

At present, traditional enterprises are urgently seeking new development opportunities under the e-commerce squeeze, which has prompted traditional enterprises to embark on the road of digital transformation in order to survive and develop. As China's economy enters a new normal, digital development and digital technology have also highlighted their important advantages. After the digital transformation of manufacturing enterprises, the enterprises will be more competitive and the competition will be more intense. Due to the epidemic in recent years, trade friction and other unfavourable factors superimposed on the overall growth of the retail and consumer goods industry has slowed down, and more personalized and diversified consumer demand has emerged. In this environment, China's government is highly cognizant of the important role of digital technology in various fields, and since the introduction of the concept of the digital economy in 2000, accompanied by the parallel advancement of technology and industry, the digital transformation of enterprises has gradually moved from a macroscopic strategy Since the introduction of the concept of digital economy in 2000, along with the parallel progress of technology and industry, the digital transformation of enterprises has gradually moved from a macro strategy to a concrete operational level. For enterprises in the retail and consumer goods industry, they need to digitally reshape the three elements of 'people, goods, and venues', tap new growth points, and accelerate the innovation of their business and operation models.

The study aims to explore the path of digital transformation, challenges and strategies faced by enterprises in finance, analyse the challenges of enterprises in digital mode of operation, and put forward targeted recommendations for improvement, as well as provide reference for other enterprises that are about to undergo digital transformation. As a hot topic in recent years, digital transformation has received extensive attention from the academic community. But from the point of view of existing academic research on digital transformation at this stage has not yet matured. The digital transformation of enterprises is not only conducive to meeting the new needs of consumers, but also can accelerate the transformation and upgrading process of traditional industries and lay a

solid foundation for the mature development of the industry. Therefore, this paper focuses on an overview of the paths and challenges of digital transformation of enterprise finance by combing and summarising the relevant literature, so as to enrich the case studies in this field. This review thus has certain theoretical significance.

2. The positive value of digital transformation in corporate finance

2.1. Innovative financial management approaches

With the rapid development of information technology, financial digital transformation is a new type of financial management, which improves enterprise management in the information age by centralising simple and repetitive work in enterprises, changing management concepts, increasing management efficiency and improving the internal control environment [1]. Financial digital transformation will strengthen the ability of enterprises to innovate in terms of financial staff, managers and internal control environment. For example, a finance digital transformation centre is an effective way for Chinese enterprises to manage innovation in the era of 'finance cloud' [2]. In the context of the digital economy, the implementation of digital transformation in enterprises is mostly accompanied by the use of networks to implement Internet business models. Significant changes in the enterprise marketing approach, upstream and downstream relationships, sales channels, profitability, etc., usually means that the enterprise's business model has changed. The implementation of digital transformation of enterprises leads to changes in business models, which have a global, holistic and long-term impact on enterprises, and the implementation of digital transformation of enterprises, an important purpose is to form a differentiation. Through digital transformation, enterprises can easily, efficiently and cost-effectively obtain feedback from all aspects. Enterprises differentiate their production based on the feedback to meet different user needs [3]. The urgent need for enterprises to innovate financial management methods

2.2. Enhancing digital financial performance

According to IDC, 75 per cent of the world's top 2,000 companies in 2018 have established a practical digital transformation model based on their own characteristics and needs. It can be seen that most industry-leading enterprises are actively implementing digital transformation in order to improve their financial performance and maintain their leading position in the industry. Specifically, companies change and optimise their production and operation methods through the application of big data, as well as the implementation of intelligence and networking, in order to improve their financial performance [4]. Gullkvist's results show that there is a significant difference in business performance between companies without a financial digital transformation centre and a matched sample of companies that have implemented financial digital transformation. As firms become proficient in financial digital transformation, their business performance such as profitability, operational capability and growth can steadily improve.

In the study of digital financial performance, some scholars have analysed the impact of digitalisation on financial performance and business management, and domestic scholars generally agree that digital transformation is conducive to promoting the improvement of business performance. For example, Cheng points out that digital transformation is difficult to change the endowment of the enterprise, but it is still a driving force in improving the innovation ability of the enterprise. Digital transformation is conducive to the use of advanced digital technology in manufacturing, daily management and operation and sales processes, timely collection of feedback on consumer opinions on products and services, and improvement of shortcomings. In addition, the implementation of digital transformation, the enterprise through the product built-in sensors, processors and APP software, such as the collection of product use in the process of data for a variety of mining analysis, so as to better, more targeted improvement and innovation, to provide more differentiated products [5].

2.3. Driving Management Change and Innovation

The expansion of corporate assets and other financial process reengineering to promote financial digital transformation has become a demand, promoting technological and institutional innovation, which includes four phases of simplicity, standardisation, shared services and outsourcing, and is a new institutional arrangement, while the digital transformation of the enterprise business model change, is an important strategic behavior, can help enterprises to form a differentiation, the essence of the strategic shift, but also change the corporate organisational structure, improve the management efficiency and cost savings, networked to intensify competition also provides development opportunities for enterprises, third-party platforms to build ecosystems can improve the financial performance of enterprises [6]. In today's environment of profound changes in the business environment, most enterprises tend to adopt a variety of big data tools and mobile platforms to achieve the digitisation of business activities in order to build a competitive advantage position. According to IDC statistics, 75% of the world's top 2,000 enterprises in 2018 have established practical digital transformation models based on their own characteristics and needs. This shows that most industry-leading companies are actively implementing digital transformation in order to improve their financial performance and maintain their leading position in the industry.

3. A study of the path to digital transformation in finance

3.1. Macro Path Strategy

Based on the platform strategy, the introduction of advanced intelligent information systems, the implementation of digital operation mode. For example, enterprises in intelligent manufacturing should apply intelligent technology to achieve transformation, intelligent manufacturing is the product of the organic integration of advanced digital technology and manufacturing, with which a new production and management model different from the traditional one is gradually formed in the process of continuous production practice. The production mode of intelligent manufacturing is highly concerned by the decision-making level of each country. Enterprises in the production process should fully apply the intelligent technology suitable for their own needs, which is beneficial to the company's transformation in the direction of intelligence [7]. Enterprises must actively explore and implement intelligent management of production equipment as well as intelligent enterprise management [8]. And intelligent manufacturing is subdivided into product intelligent manufacturing mainly for products and production intelligent manufacturing mainly for production [9]. And adhere to the principle of 'people-centred', while digital transformation can reduce bargaining costs and other transaction costs, internal and external resources and capabilities have a key role in the success of the transformation and financial performance, and strengthen customer value and digital operating model can promote the transformation [10].

3.2. Transformation Critical Path

There is a general emphasis on data-driven management and the introduction of advanced information systems. For example, comprehensive collaboration of internal elements is achieved through unified data chain standards [11], digital transformation in the retail industry is affected by multiple factors such as production technology capabilities and information system construction [12], successful digital transformation enterprises have the ability to analyse big data, digitize processes and enterprise platforms [13], and digital strategic cognitive mapping and behaviours of science and technology start-ups have distinctive contents and build specific driving paths. Internal and external resources and capabilities are key to determining the success of digital transformation, especially external capabilities, which are related to the financial performance of digital transformation [14]. Strengthening customer value and digital operating models can improve interaction with customers, and both approaches, alone or in combination, can drive a company through digital transformation.

Currently, there is a lack of research on the performance impact of data in the digital transformation of companies [15].

3.3. Digital Operations and Collaboration

Enterprises need to collect and analyse data throughout the product lifecycle and supply chain to work together, optimise production, business, management and decision-making through data value innovation, improve operational efficiency, and integrate business strategy with operational strategy to create a flexible, intelligent, ecological financial shared services platform, and to achieve the sharing of data, information and resources to help transformation. Digital transformation is based on the implementation of the enterprise digital, the application of relevant digital technology, build a network sales platform, which will make the price of enterprise products and services more transparent, easier to analyse and compare prices, with the help of online timely communication and exchange platforms, these advantages brought by the digital transformation will promote the reduction of bargaining costs [16]. Data-driven lies in collecting and analysing data throughout the product lifecycle and supply chain to achieve inter-departmental collaboration and optimise production, business, management and decision-making through data-value innovation to improve operational efficiency [17].

4. Challenges of Digital Transformation in Corporate Finance

4.1. Inadequate philosophy and capacity

Aspects such as backward concepts of financial personnel, insufficient financial sharing, and insufficiently advanced management modes are the main elements of the challenges in terms of financial digital transformation. Enterprises should focus on technological innovation and talent cultivation, as well as strengthening management and cultural integration, adopting advanced financial management technologies and building solid data and security policies in order to achieve a smooth transformation of digital financial management [18]. With the rapid progress and popularity of digital information technology, enterprises generally agree on the importance of digital transformation of finance and have begun to implement this transformation, with the aim of enhancing the economic efficiency of enterprises and improving enterprise value. Advanced information systems should be introduced and the relevant training of financial personnel should be strengthened. It aims to help enterprises successfully promote financial digital transformation and ensure the healthy and sustainable development of enterprises [19].

4.2. Financial Sharing Construction Deficiencies

Financial sharing is not perfect, there is insufficient planning, personnel positioning bias and other issues, such as the lack of overall planning in the construction of the financial shared services platform, the role of financial personnel in the shared platform is not accurately positioned, making it difficult to give full play to the financial sharing of its role in the integration of data, process optimisation etc.,and cannot effectively support the digital transformation of corporate finance.

4.3. Technical and management challenges

It faces challenges in technology, human resources, security and compliance. In terms of technology, the information system is not advanced enough to meet the complex data processing and business collaboration needs of digital transformation; in terms of human resources, there is a lack of relevant professional training system; in terms of security and compliance, there is a risk of data leakage and difficulty in complying with the increasingly stringent regulatory requirements of digitalisation, etc., which are constraints to the successful realisation of the digital transformation of corporate finance. Enterprises face key issues such as technology, human resources, security and compliance on the road to digital transformation, and the study analyses these issues and proposes

optimised solutions, such as the adoption of advanced financial management technologies, comprehensive employee training, and the construction of robust data and security policies [20].

Table 1. The main Challenges and Countermeasures

Literatures	Challenges	Countermeasures
Przychocka (2024)	Challenges of technology, human resources, security and compliance	It also strengthens management and cultural integration by adopting advanced financial management techniques, conducting comprehensive staff training and building robust data and security policies.
Zhang (2024)	Insufficiently advanced information systems and inadequate capacity of corporate finance staff	Advanced information systems should be introduced and relevant training for finance staff should be strengthened
Liu (2024)	Inadequate planning and misalignment of personnel encountered in the process of finance transformation	It is recommended that enterprises should pay attention to finance transformation work, avoid transformation risks, use big data technology to build a sharing platform, and accelerate the transformation of finance personnel's roles
Bostan (2020)	Key issues of technology, human resources, data security and compliance	Adoption of advanced financial management techniques, comprehensive staff training, and robust data and security policies

5. response strategy

5.1. Conceptual and team level

Enhance management's drive to refresh the mindset of the finance team to adapt to the digital transformation and overcome the conceptual lag. It is widely recognised in the business community that digitalisation of finance is a key way to enhance competitiveness. Nevertheless, the road to transformation is full of thorns, such as lagging concepts of the finance team, outstanding data silos, and constraints of management structure. However, the journey of transformation is also paved with opportunities, such as the policy environment provides a solid backing for the digital transformation of finance, the rise and application of emerging technologies injects a strong impetus for the transformation, and the practice of business-finance integration promotes the deep integration of finance and business. In order to effectively overcome the challenges and grasp the opportunities, enterprises must enhance the driving force of management, refresh the mindset of the finance team, and actively use new technologies to deepen the process of business-finance integration, so as to accelerate the pace of finance digital transformation and occupy a favourable position in the competitive market [21].

5.2. Technology application level

We actively apply emerging technologies such as big data, cloud computing, artificial intelligence and blockchain to deepen the process of integrating business and finance and utilise technology to innovate production and business models. With the rapid advancement of information technology, the global economy has entered the information age, and digital change has become the core of addressing many challenges, as well as a key strategy and way for companies to enhance their competitive advantages and promote sustainable growth. As a core part of business operations, digital change in financial management is crucial and indispensable. Driven by the trend of digitalisation, cutting-edge technologies such as big data, cloud computing, artificial intelligence, and blockchain continue to penetrate into various industries and levels, dramatically changing production and business models. Financial management as the core link of enterprise management, its digital change

is not only a necessary path for enterprise development, but also a strategic choice to adapt to market changes and enhance enterprise competitiveness. The study comprehensively explores the background environment of digital change, the improvement of the financial management system, the challenges faced, and the countermeasures, aiming to provide valuable references for the improvement of the financial management model in the context of digital change [22].

5.3. Risk management level

Build a multi-faceted financial risk management framework encompassing data collection and analysis system, risk identification and assessment, decision support system, risk prevention and control, and continuous optimisation and improvement to deal with the financial risks of investment, operation and compliance brought about by digital transformation. The link between new forms of productivity and financial risks in the process of enterprise digital transformation. With the advancement of digital transformation, enterprises have achieved innovation in production methods, efficient allocation of resources, and innovation in business models through new technologies, but they also face financial risks in investment, operation, and compliance. The article describes the specific manifestations of new forms of productivity in the digital transformation of enterprises, and discusses the benefits of enterprise financial risk management in the context of digital transformation. Ultimately, the article proposes a financial risk management framework for enterprise digital transformation that includes five aspects: data collection and analysis system, risk identification and assessment, decision support system, risk prevention and control, and continuous optimisation and improvement, aiming to promote the simultaneous development of enterprise digital transformation and financial risk management [23].

5.4. Financial internal control level

To formulate a clear strategy for new financial internal control issues, such as data security, privacy protection, and information system integration, to ensure the sound and sustainable development of the financial management system. Driven by the wave of the digital era, companies are encountering unprecedented opportunities and challenges. Digital change has brought efficient and intelligent management tools to companies, but with the evolution of digitalisation, enterprises have encountered a series of new issues in the field of financial internal control, which include data security, privacy protection, information system integration, etc., which have a direct impact on the stable operation of the enterprise's finances. Therefore, it is especially crucial to develop a clear response strategy. The study will analyse in detail the financial internal control problems encountered by enterprises in digital change and propose a series of practical solution strategies, aiming to help enterprises smoothly promote digital change and guarantee the sound and sustainable development of the financial management system [24].

5.5. Data and system level

Centralise data governance, migrate and consolidate systems, conduct anomalous data monitoring, implement dynamic monitoring for compliance and design visualisation and monitoring, as well as integrate financial strategy with digital transformation to make the most of digital opportunities. Digital transformation presents opportunities for internet businesses to leverage data to drive decisions, improve efficiency, optimise operations and explore fintech and innovation. Firms must integrate their financial strategy with digital transformation to achieve sustained growth and leverage the potential of the digital age [25].

6. Conclusions

This paper provides a literature review of the path and challenges of the digital transformation of enterprise finance, in general, domestic and foreign researchers on the impact of digital transformation on enterprise financial performance of the research results are significant, clarified the

mode of digital transformation and the study of the economic consequences of the impact, but still insufficient places. At this stage, there is not much literature on whether the implementation of digital transformation of enterprises can improve the financial performance of enterprises, and the impact of digital transformation on enterprise financial performance, although some scholars' empirical analyses have concluded that digitalisation has a positive role in promoting enterprise financial performance.

Throughout the above domestic and foreign related research literature can be seen: first of all, in the path to explore the research, there are also different perspectives, but more are macro-path research, less for the specific industry or company transformation initiatives. So, case studies analysing the digital transformation of an industry or a company are complementary to their research. Finally, existing research mainly discusses the challenges of digital transformation in terms of information technology, human resources, financial management model, internal control, and so on. However, the current research lacks specific case data analysis to illustrate the effect of digital transformation on the impact of manufacturing enterprises, while the impact of digital transformation on manufacturing enterprises is not a single perspective of the impact of the need for multi-dimensional and multi-faceted discussion and analysis, breakthroughs in the traditional set of performance analysis. Now the case base is not very sufficient, so it is necessary to further supplement the digital transformation path and performance of case-based research to further improve the relevant case studies.

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