A Review of the Literature on Fintech and Enterprise Digital Transformation

Yihao Yang*

China School of Banking and Finance, University of International Business and Economics, Beijing, 100029, China

*Corresponding author: 202242050@uibe.edu.cn

Abstract. As global digital technology advances, digital transformation of businesses has emerged as a crucial step in the growth of multinational corporations. A large number of enterprises lacking strong economic strength urgently need the help of financial technology, a product of the digital economy era. This article summarizes and generalizes existing relevant literature from three aspects: The way that financial technology facilitates businesses' digital transformation, The degree to which various business types can adjust to financial technologies, and the external factors that influence the mechanism. Specifically, the article first clarifies the mechanism by which financial technology promotes Businesses' digital transformation by investigating the connection between enterprise digital transformation and financial technology, as well as the elements that influence this process. Examine further how various business models and financial technology might work together, and group businesses based on five factors: ownership, lifespan, age, size, and industry. Similarly, in the external factors section, external influencing factors are also divided into five aspects: geographical factors, degree of marketization factors, financial regulatory factors, media supervision factors, and economic policy factors. All things considered, this paper thoroughly develops a preliminary framework for fintech to support businesses' digital transformation from angles including time, location, and enterprise qualities. The financial sector's ability to support the real economy and foster its growth in the digital economy has significant practical implications.

Keywords: Fintech; Digital Transformation; Corporate Governance.

1. Introduction

Digital technologies, such as blockchain, cloud computing, big data, artificial intelligence, etc., are developing at an accelerated rate in the worldwide wave of technological innovation. Utilizing the digital economy effectively has also emerged as the catalyst for a new wave of economic expansion and a new level of national and business competitiveness. The "2024 Edgers on China Enterprise Digital Transformation Index Research" points out that global entrepreneurs have expected to varying degrees the driving role of new digital technologies such as generative AI in the development of enterprises, with Chinese entrepreneurs having a leading global perspective. However, Chinese companies engaged in digital transformation are lower than the global average, and a crucial reason is the lack of economic strength to reshape their businesses. Any economy seeking technological change cannot do without the support of finance, and urgently needs the assistance of fintech, a fusion product of traditional finance and digital technology.

In recent years, research on the theme of financial technology and enterprise digitization has gradually become rich. According to research by Xiang et al., there is heterogeneity among businesses with varying ownership structures, and financial technology can greatly propel an organization's digital transformation [1].

Wu et al. found that financial technology can assist enterprises in digital transformation by improving their financial situation, optimizing risk allocation, and empowering digital innovation [2]. They also concentrated on examining how these driving effects have spatial spillover consequences. Financial technology significantly contributes to the digital transformation of businesses, according to Tang et al.'s study [3]. The direction of the effect stays the same, even though the effect size varies for businesses in different life cycles. Of these, the incentive effect of failing businesses is negligible, whereas the driving effect of expanding and established businesses is more significant. Wu et al.

verified that financial technology may support businesses' digital transformation more effectively in a market-oriented setting [4].

By reviewing relevant literature, it can be found that global scholars are committed to answering the following question: What connection exists between fintech and businesses' digital transformation? Why might financial technology propel businesses toward digital transformation? What process does financial technology use to propel businesses toward digital transformation? How well are different types of enterprises adapted to fintech? What impact do different external environments have on this driving force? Is there a difference in the driving force between space and time? This article will also focus on the research of the above six issues, summarize a relatively complete mechanism of action, and construct a relatively comprehensive impact framework, in order to provide reference for research and practice in related fields.

2. The Financial Technology Mechanism Encouraging Digital Transformation in Enterprises

Sorting out the relationship between financial technology and enterprise development, as well as the elements that propel corporate digital transformation, is a prerequisite to elucidating the mechanism of action.

2.1. Financial Technology and Enterprise Development

Using information from Chinese listed firms between 2011 and 2020, Tang & Hou investigated the connection between corporate risk-taking and fintech [5]. The findings of the study show that the evolution of financial technology affects the connection between agency expenses, financial limitations and the level of corporate risk. encouraged taking risks as an enterprise. According to Jing et al.'s research, the advancement of financial technology can increase investment efficiency through lowering information asymmetry, minimizing financing limitations, minimizing financial resource misallocation, and improving internal controls [6].

Financial technology greatly encourages cross-regional investment by enhancing the quality of information disclosure, removing financing barriers, and fostering the digital transformation of businesses, according to research done by Huang et al., using data from Chinese A-share listed companies from 2009 to 2020 [7]. Li et al. examined panel data from 4195 listed companies in the A-share market between 2011 and 2022 and discovered that financial technology not only directly encourages business innovation but also significantly supports it by lowering financial barriers [8]. Li et al. investigated the effect of financial technology on the performance of small and medium-sized businesses using data from Chinese companies listed on the New Third Board between 2011 and 2020 [9]. The study shown that by increasing financing scale and lowering financing costs, financial technology may greatly enhance the performance of small and medium-sized businesses.

According to Du & Geng's study, they used listed businesses from 2012 to 2022 as their research sample, listed companies' information asymmetry issue can be resolved and their financing limitations can be lessened by raising the degree of financial technology [10]. Tran & Le looked at the connection between Southeast Asia's fintech growth and corporate ESG performance, highlighting the contribution of fintech development to sustainable social and economic development across all industries and scales [11].

2.2. The Elements that Impact Business Digital Transformation

Zhong divides The elements that impact the digital transformation of enterprises into three categories in his research: the first is the external environmental level, including government policies (such as policy uncertainty, local economic growth targets, tax incentives, and government subsidies) and technological development (such as financial technology) [12]. The second is at the enterprise level, including the enterprise relationship network (such as enterprise network power, political connections), enterprise capabilities (such as IT capabilities, operational capabilities, and dynamic capabilities), and organizational structure (such as degree of formalization). The third aspect is at the individual level, including the mindset, social networks, and dynamic management abilities of entrepreneurs and executives. The macroenvironmental background and conditions for businesses' digital transformation are provided by external environmental elements. While individual level factors influence the implementation effect of digital transformation, enterprise level factors dictate the precise implementation path and strategy. While each of the three levels focuses on different aspects, they also collaborate and impact one another to support businesses' digital transformation.

In light of the two points mentioned above, as a technological development product from the external environment, financial technology can reduce financing constraints for enterprises by improving information asymmetry, promote enterprise development across scales and fields, and help enterprises improve their own capabilities and personnel quality through their digital technology attributes. satisfies enterprise digital transformation requirements at the person, corporate, and external environment levels flawlessly.

2.3. Mechanism of Action

According to research by Xiang et al., financial technology satisfies three key requirements in the company digital transformation process: extending the boundaries of available resources, preserving financial stability, and accelerating innovation [1]. According to Su’s study, there are two direct effects of financial technology development: first, it can help create a digital information resource sharing mechanism; second, it can sustainably optimize the financial environment and innovation standards, offering an appropriate environment and boundary conditions for enterprise financing transactions [13]. However, through cost, corrective, and screening effects, financial technology can also have an indirect impact on businesses' digital transformation. According to Gong et al.’s research, financial technology can encourage technological innovation in businesses by easing financing restrictions, lowering transaction costs, and enhancing data exchange [14]. Wu et al. discovered that the advancement of financial technology can lower financing costs and difficulties for businesses, lower innovation risks and encourage risk-taking, improve talent allocation, and boost the degree of innovation in digital patents [2].

In conclusion, the two primary focuses of financial technology are corporate innovation and financing. These two areas also have a significant impact on how businesses are transforming digitally. Financial technology can use its own information advantages at the financing level to lower financing costs, broaden the scope of financing, improve information disclosure, let investors and the market see more businesses, encourage the resolution of enterprise financing needs, and ease financing constraints. Digital technologies like artificial intelligence and big data are the foundation of both fintech and digital transformation at the enterprise innovation level. There are some parallels between fintech, which is the fusion of digital technology with traditional financial, and can be thought of as a digital transformation of traditional finance. Businesses can leverage fintech companies and associated professions as a model to improve the caliber of their workforce and innovation skills.

3. Businesses of All Kinds' Ability to Adjust for Financial Technologies

The existing research on related topics is closely related to practice, but in reality, enterprises often have multiple but not all properties, so the existing conclusions are often mixed and incomplete.

From the standpoint of firm life cycle theory, Tang et al. discovered that financial technology generally contributes significantly to the digital transformation of businesses [3]. Despite variations in effect size between life cycles, the influence's direction stays constant. Of these, the incentive effect of decline stage businesses is less clear, but the driving effect of growth and maturity stage businesses is more important. The development of digital finance, according to Zhang’s study, it is important for new businesses but not for the digital transformation of older ones, and it has a far bigger promotion effect on new businesses. From an enterprise-scale standpoint, the growth of digital finance significantly accelerates the digital transformation of small, medium, and big businesses. The growth of digital finance has nearly the same influence on large businesses as it does on small businesses in terms of magnitude. According to Xiang et al.'s study, Fintech significantly accelerates the digital transformation of high-tech and non-state-owned businesses [1]. According to Wu et al.'s paper, financial technology has a more positive impact on the digital transformation of high-tech and non-state-owned businesses than it does on state-owned and low-tech businesses [4]. The digital transformation of small businesses can also benefit more from the advancement of financial technology in other areas. Fu et al. found that there is significant heterogeneity in the role of financial technology in the digital transformation of enterprises, especially for non-high tech and non-heavily polluting enterprises [15].

In summary, in the discussion of adaptability issues, enterprises can be classified according to five criteria: enterprise ownership, enterprise lifecycle, enterprise age, enterprise size, and the field in which the enterprise operates.

At the level of enterprise ownership, Financial technology has a stronger encouraging impact on non-state-owned businesses' digital transformation than it does on state-owned businesses. The results are similar at the age level of enterprises, and the promotion effect of financial technology on the digital transformation of new enterprises is greater than that of older enterprises. At the enterprise lifecycle level, the promotion effect of financial technology on the digital transformation of growing and mature enterprises is greater than that of declining enterprises.

At the level of enterprise scale, there is almost no difference in the compatibility between large, medium, and small enterprises and fintech. At the field level, non-heavy polluting enterprises have a higher degree of adaptation to financial technology than heavy polluting enterprises. For high-tech and non-high-tech enterprises, in response to the seemingly contradictory conclusions given by scholars, the following explanation can be given: high-tech enterprises have a faster acceptance and absorption of financial technology, and can use it more quickly and accurately to enjoy the benefits it brings; For non-high-tech enterprises, financial technology can bring more disruptive changes. Although it may take longer to be accepted than high-tech enterprises, it will greatly improve many aspects of enterprise innovation, digitalization, and talent allocation during the acceptance process.

4. External Factors Affecting the Mechanism of Action

Wu et al. found that financial technology has demonstrated a certain degree of spatial spillover synergy in effectively promoting digital transformation of enterprises [2]. According to He et al.'s study, fintech and enterprise digital transformation are positively regulated by the business environment [16]. From the standpoint of its own characteristics, the external financial regulatory environment, and regional variations, the encouraging impact of financial technology on the digital transformation of businesses is more noticeable in eastern regions with robust financial regulation. Fu et al. discovered that external oversight, such as media oversight and national legislation, has an impact on businesses' digital transformation in addition to internal considerations [15]. The beneficial effects of financial technology on the digital transformation of 1 organizations have been reinforced by the improvement in risk-taking level, the bolstering of media oversight, and the efficacy of national legislation. According to Zhang's research, regulatory uncertainty slows down the progress of enterprise digital transformation by increasing its risks and lessening the beneficial effects of digital finance development on company digital transformation [17].

According to existing research, the external factors that affect the mechanism of action can be summarized as follows: (1) Geographic factors; (2) Marketization level; (3) Financial regulation; (4) Media supervision; (5) Economic policies. Among them, scholars have the richest discussions and research on geographical factors, and it can be said that the analysis of geographical factors dominates the analysis of other elements. In terms of the region itself, in cities and countries with a high degree of marketization, strong financial regulation, adequate media supervision, and stable economic policies, the role of financial technology in promoting digital transformation of enterprises is relatively more significant. At the same time, there are spillover and synergistic effects between regions. The synergy between regional and national level financial technology is stronger than that between regions, mainly because the spillover effects of regional financial technology development will weaken the synergy between regions.

5. Conclusion

This article summarizes existing literature from three aspects: the mechanism by which financial technology promotes digital transformation in enterprises, the compatibility between enterprises and financial technology, and external influencing factors. Specifically, fintech helps companies with digital transformation by influencing their financing and innovation. Enterprise ownership, enterprise lifecycle, enterprise age, enterprise size, and the field in which the enterprise operates all affect the adaptability of the enterprise to financial technology. External factors can be divided into the following: geographical factors, degree of marketization, financial regulation, media supervision, and economic policies.

Based on past research, it can be said that there is a two-way rush between fintech and enterprise digital transformation. But as time goes by and real-life cases become increasingly abundant, this relationship may eventually evolve into a two-way choice. Enterprises may tend to choose fintech service providers in developed regions, while fintech institutions also tend to choose companies that are more compatible with fintech. This may lead to regional polarization in the development of financial technology, as well as difficulties for enterprises that are not perfectly adapted to financial technology to receive its assistance. On the other hand, the integration of the digital and physical economies can be seen as a microcosm of the fintech and business digital transformation combo. In the era of the digital economy, a thorough examination of financial technology and enterprise digital transformation can substantially aid in our understanding of the connection between finance and the real economy, serving as a model and point of reference for further research on novel concepts and connections.

References

[1] Xiang, H., Ding, Z., Xu, S., et al. (2023). FinTech and corporate digital transformation. China Soft Science, (05), 207-215.

[2] Wu, F., Fan, Q., Liu, Q., et al. (2024). The impact of FinTech on corporate digital transformation from a spatial spillover perspective. Journal of Shenzhen University (Science and Engineering), 41(03), 303-312.

[3] Tang, S., Su, X., & Zhao, D. (2022). FinTech and corporate digital transformation: A corporate life cycle perspective. Finance and Economics Science, (02), 17-32.

[4] Wu, F., Ding, Z., & Che, D. (2023). FinTech, marketization level, and corporate digital transformation. Securities Market Herald, (11), 15-31.

[5] Tang, M., Hou, Y., Goodell, W. J., et al. (2024). FinTech and corporate risk-taking: Evidence from China. Finance Research Letters, 64, 105411.

[6] Jing, X., & Yu, N. (2024). Does FinTech development affect corporate investment efficiency? Journal of Dongbei University of Finance and Economics, (04), 87-97.

[7] Huang, R., Quan, L., Luo, H., et al. (2024). Can FinTech promote enterprise cross-regional investment? Evidence from China. International Review of Economics and Finance, 96(PA), 103524.

[8] Li, X., Ye, Y., Liu, Z., Tao, Y., & Jiang, J. (2023). FinTech and SME performance: Evidence from China. Economic Analysis and Policy, 81, 670–682.

[9] Li, Y., Chu, E., Nie, S., et al. (2024). FinTech, financing constraints, and corporate green innovation. International Review of Financial Analysis, 96(PA), 103650.

[10] Du, L., & Geng, B. (2023). Financial technology and financing constraints. Finance Research Letters, 60, 104841.

[11] Tran, A. T. X., & Le, T. M. (2024). FinTech development influences on corporate ESG performance: Evidence from Southeast Asia. Journal of Management & Governance.

[12] Zhong, X. (2024). Research review on corporate digital transformation. Finance and Economics, 1-10.

[13] Su, G. (2024). FinTech empowers corporate digital innovation: Theoretical mechanism and empirical test. Statistics and Decision, 40(15), 161-166.

[14] Gong, Y., Yang, K., & Yuan, L. (2024). How does FinTech affect corporate technological innovation? Economic System Reform, (03), 191-200.

[15] Fu, Z., Zhang, H., & Li, D. (2024). Research on the impact of FinTech on corporate digital transformation: The moderating effects of corporate capabilities and external supervision. Academic Exploration, (06), 112-124.

[16] He, Y., & Ling, J. (2024). The multiple effects and heterogeneity characteristics of FinTech-enabled corporate digital transformation. Journal of Chongqing University (Social Science Edition), 1-19.

[17] Zhang, M. (2024). Research on the impact of digital finance on corporate digital transformation (Doctoral dissertation, Qilu University of Technology).