

# Research on the Influence Mechanism of Digital Finance on the New Quality Productive Forces of Enterprises

Yuan Chen \*

School of Finance, Shanxi University of Finance and Economics, Taiyuan, Shanxi, 030032, China

**Abstract.** Digital finance and new quality productive forces (NQPFs) are hot issues in current research. Researchers have found that digital finance can effectively promote the development of NQPFs of enterprises. The purpose of this paper is to explore how digital finance can promote the development of NQPFs of enterprises. NQPFs are innovation-driven, efficient, and sustainable. NQPFs are an important factor in promoting the high-quality development of enterprises. Digital finance can affect the supply chain resilience of enterprises, relieve financing constraints, and expand the inclusive scope of financial services. These characteristics of digital finance provide paths for the development of NQPFs of enterprises. This research finds that digital finance affects NQPFs of enterprises by affecting enterprise supply chain resilience. Digital finance promotes the development of NQPFs of enterprises by alleviating financing constraints and promoting technological innovation of enterprises. Digital finance expands the inclusive scope of financial services through spatial spillover effects, and then promoting the development of NQPFs. Accordingly, this paper also puts forward corresponding policy recommendations.

## 1 Introduction

In September 2023, new quality productive forces (NQPFs) were proposed during local investigation and research [1]. NQPFs are productivity generated by deepening the application of technology. NQPFs have driven new industries, formats, and models. In 2023, the Central Financial Work Conference proposed digital finance (DF) for the first time, reflecting the great importance attached by the central government to DF. As an important deployment of China's financial strategy, digital finance will provide financial strength for the development of enterprises. In January and March 2024, the National Development and Reform Commission issued the first and second batch of research topics in 2024. From published topics, NQPFs have become an important research field in the '15th Five-Year Plan'.

NQPFs' development is a huge, lasting, and complicated systematic project. On this basis, we have the following questions: how can DF accurately and effectively promote the development of NQPFs of enterprises?

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\* Corresponding author: [a82387@correo.umm.edu.mx](mailto:a82387@correo.umm.edu.mx)

The research of this paper will help DF to empower the development of NQPFs of enterprises in a more accurate and effective way, reduce enterprise financing costs, optimize the allocation of resources, promote the economy, and provide a theoretical basis for policy formulation.

Today, with the development of digital technology, improving NQPFs is a top priority. According to the existing research, scholars have different interpretations of the connotation of NQPFs. Cui Geng Rui explains NQPFs from two dimensions of "new" and "quality". "New" is explained from new technology, new economy, and new formats. The connotation of "quality" is high-quality and high-quality High-quality state [2]. Zhang Xiling and Zuo Lu believe that the "new" of NQPFs is "innovation" [3]. Compared with traditional productivity, Chen Yizao believes that the improvement of NQPFs depends on emerging factors such as technological innovation [4]. Others also explain the NQPFs from three dimensions of labor force, labor materials, and production objects based on Marxism productive force theory.

DF is a new form of financial activity generated by the development of digital technology [5]. Different from traditional financial services, DF, with the support of the Internet and information technology, breaks through the regional restrictions of financial services, so that financial services can cover more people [6]. At the same time, compared with traditional financial services, DF also has certain advantages in reducing transaction costs and alleviating information asymmetry [7]. DF can promote the technological innovation of enterprises, and this view has been confirmed by domestic scholars [8]. On this basis, the technicality and inclusiveness of digital finance also provide support for the improvement of enterprise supply chain resilience and inject vitality into long-term stable development [9].

The development of DF provides an innovative path for the improvement of NQPFs of enterprises. In existing research, scholars mainly analyze the characteristics of DF when studying the impact mechanism of DF and NQPFs, and mainstream ideology is that digital finance can promote NQPF. After coverage, use depth, and digital support of DF, it is found that DF can still effectively promote the improvement of NQPFs of enterprises. NQPFs are advanced productivity with high technology, high efficiency, and high quality [10]. NQPFs pay attention to technological innovation and efficiency improvement [11], while digital finance can provide such support for NQPFs of enterprises.

## **2 The characteristics of new quality productive forces**

As a clear symbol of the progress of the times, the core driving force of NQPFs comes from the deep application and wide penetration of new technologies. NQPFs are not only characterized by the rapid emergence of new industries, new formats, and new models. NQPFs have profoundly reshaped and constructed a new social production relationship and institutional system to meet the needs of the new era. NQPFs are innovation-driven, efficient, and sustainable.

NQPFs emphasize scientific and technological innovation as its core driving engine. Through in-depth research and development and wide application of cutting-edge new technologies, NQPFs promote the optimal combination of workers, means of labor, and labor objects. NQPFs have achieved a significant improvement and leap in productivity. This optimization not only improves production efficiency and quality, promotes the continuous emergence of new industries, new formats, and new models, but also promotes the upgrading and transformation of industrial structure. NQPFs have injected a strong impetus into the sustainable development of the economy.

NQPFs are an advanced production paradigm emerging in the wave of innovation. NQPFs are a comprehensive display of innovative forces deeply involved in and leading the fundamental change of production methods, the systematic reorganization of production

processes, and the substantial leap forward of production results. The essence of NQPFs is deeply rooted in the concept of high-quality development[12]. Through automation, intellectualization, and digitalization, NQPFs realize the optimization of the production process and the rational allocation of resources. NQPFs enhance the level of productivity from quantity to quality. At the same time, the breakthrough and iteration of digital technology have spawned a new generation of intelligent, unmanned, and digital production tools. The application of these production tools in production has greatly improved labor productivity.

Compared with traditional productivity, NQPFs have undoubtedly set off an unprecedented profound change. NQPFs have decisively abandoned the traditional production mode that relies on high energy consumption, high emissions, and low efficiency. NQPFs have resolutely moved towards a new production system with scientific and technological innovation as its soul and deep integration of cutting-edge technologies such as data science, network technology, and artificial intelligence[13]. The innovation-driven characteristics of NQPFs also bring about the enhancement of sustainable development ability for enterprises. NQPFs focus on the improvement of long-term competitiveness and maintain the leading position and competitive advantage of enterprises through continuous technological innovation, management innovation, and market innovation. The improvement of long-term competitiveness not only helps enterprises to achieve sustainable development but also brings greater value to the whole industry and society.

### **3 How digital finance affects new quality productive forces**

#### **3.1 Improve enterprises supply chain resilience**

DF can improve the NQPFs of enterprises by enhancing their supply chain resilience. DF can enhance the resilience of enterprises' supply chains from two aspects of supply chain resistance and resilience. DF helps to identify financing entities' credit, improve financing efficiency, alleviate financing pressure, improve the stability of the supply chain, and enhance the enterprise supply chain resilience [9]. At the same time, through digital technology, digital finance can reduce information asymmetry, build a stable cooperative relationship between upstream and downstream enterprises, and enhance the resilience of enterprise supply chains in the face of emergencies, market fluctuations, supply chain disruptions, and other risks. The supply chain network relationship of enterprises can also improve the efficiency of information flow between enterprises, optimize the efficiency of resource integration, and promote the improvement of NQPFs of enterprises [14,15].

The boost of supply chain resilience can also promote technological innovation. The promotion of supply chain resilience of enterprises depends on digital technologies. The process of applying these digital technologies can also promote technological innovation and intelligent production and also promote the digital transformation of enterprises and improve core competitiveness. Supply chain resilience can also promote cooperation between enterprises in the industrial chains, to enhance the whole supply chain and promote the technological innovation of enterprises. These can create conditions for the progress of NQPFs of enterprises.

#### **3.2 Alleviation financing constraints**

DF can improve NQPFs by easing financing constraints. There is information asymmetry between enterprises and investors, which leads to restrictions on external financing. DF can relieve the financing constraints of enterprises. Through its service mode, digital finance

reduces the threshold for investors to enter the financial market and broadens the financing channels and methods of funds [3]. DF can quickly evaluate the credit rating of enterprises through digital technologies such as big data, effectively alleviate the information asymmetry between capital supply and demand, improve the financing efficiency, reduce the financing cost of enterprises, to stimulate the innovation vitality of enterprises, thus promoting the efficient and high-quality development and growth of enterprises.

By easing financing constraints, it can improve the financial situation, optimize the allocation of innovative resources, improve the efficiency of capital use, and increase the financial support for technological innovation. Enterprises can use more funds for technology and industrial upgrading of enterprises, accelerate the transformation and application of technological achievements, improve the competitiveness and innovation ability of enterprises, and promote the sustainable development of enterprises, to promote the NQPFs of enterprises.

### **3.3 Expand the inclusive scope of financial services**

DF can improve NQPFs of enterprises by expanding the inclusive scope of financial services. According to the long tail theory, the needs of a large number of small and medium-sized enterprises and low-income investors under traditional financial services cannot be fully met in the market. DF helps to alleviate the problem of insufficient coverage of traditional financial services. DF provides new opportunities for financial inclusion. Emerging digital technology breaks the limitation of time and space, broadens the scope of financial services, and improves the efficiency of financial services through demonstration effect, knowledge spillover, and technology diffusion [7].

DF has expanded the range of financial services, and financial inclusion can also promote the development of new quality productive forces. Financial inclusion provides diversified financial products and services, reduce the financial burden of enterprises. The development of financial inclusiveness can also enhance the liquidity of funds, optimize the allocation of innovative resources for enterprises, and enterprises can make more efficient use of resources, technology, and talents, improve production efficiency and market competitiveness, and then promote the progress of NQPFs.

DF can promote the development of NQPFs of enterprises from the following perspectives: First, financial institutions and supply chain core enterprises should strengthen cooperation, implement supply chain information sharing, and provide rich data resources for enterprises. Second, the government should strengthen the construction of digital financial infrastructure, optimize data centers and cloud computing platforms, strengthen information security protection, and provide a good digital financial service environment for enterprises. Third, we should use digital technology to promote convenient and inclusive financial services such as online lending and mobile payment and reduce the financing threshold and financing cost of enterprises. The fourth is to accelerate the coordinated development between regions, facilitate the optimal allocation of resources between regions, and use the spatial spillover effect of digital finance to promote the economic development of surrounding areas and the industrial upgrading of enterprises. Fifth, the government should strengthen the training of digital financial talents, cultivate compound talents who understand finance and digital technology, and set up talent introduction plans to provide preferential treatment for high-end digital financial talents.

## **4 Conclusion**

This paper explores the impact mechanism of DF on the NQPFs of enterprises. Through the research, the conclusions of this paper are as follows: Digital finance can improve NQPFs

through the supply chain resilience of enterprises, ease financing constraints, and expand the inclusiveness of financial services.

First, DF alleviates the problem of information asymmetry between upstream and downstream supply chains by affecting the resilience of enterprises' supply chains, and then affects NQPFs of enterprises. The enhancement of supply chain resilience can also promote cooperation and collaborative innovation among enterprises, improve the anti-risk ability of enterprises, and provide impetus for innovation and industrial upgrading of enterprises.

Secondly, DF alleviates financing constraints, improves financing efficiency, reduces financing costs, promotes the distribution of innovative resources, promotes technological innovation, and improves the utilization efficiency of innovative resources, thus promoting the development of NQPFs of enterprises and accelerating the research and development, promotion and application of new technologies and products.

Thirdly, through the spatial spillover effect, digital finance breaks regional boundaries, expands the inclusive scope of financial services, promotes coordinated development among regions, drives the economic development of enterprises and regions, promotes cooperation and competition among enterprises, and thus promotes the development of NQPFs.

The research in this paper provides a path for DF to promote the progress of NQPFs of enterprises and offer ideas for other researchers to explore the impact mechanism of DF and NQPFs.

However, the current research in this paper is mainly quantitative analysis, and the application of digital finance not only promotes NQPFs but is also accompanied by information security, risk management, and other related issues. In future research, quantitative analysis can be added to provide some data support for the research. At the same time, when applying digital finance to improve new quality productive forces, we should also pay attention to data information security and enhance risk management capabilities.

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