

# A Study of the Impact of Digital Finance on the High-Quality Development of Manufacturing Firms

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Abstract: Driven by the wave of globalisation and informatisation, digital finance, as a revolutionary financial service model, is profoundly affecting the development pattern of traditional industries. In this study, we explore in depth the impact of digital finance on the high-quality development of manufacturing enterprises, focusing on how digital finance can be used to analyse how digital finance can, through modern information technology-such as big data, cloud computing, artificial intelligence, promotes the improvement of innovation and industrial upgrading of manufacturing enterprises, promotes green development and transformation, and at the same time effectively reduces financing constraints and promotes the growth of economic benefits. Through in-depth empirical research and theoretical analysis, this paper aims to provide a new development path for manufacturing enterprises and contribute to the sustainable development of the economy.

Keywords: digital finance; manufacturing firms; high quality development; impacts

### **1. Introduction**

With the advancement of technology and the improvement of policies, digital finance will play a more important role in promoting the high-quality development of the manufacturing industry and even the entire economy. For manufacturing enterprises, actively embracing digital finance and continuously exploring the integration path of innovation and transformation is the key to the future. The goal of this study is to provide strategic guidance to manufacturing enterprises on how to effectively leverage digital finance through in-depth analyses and practical explorations, as well as to provide valuable insights for digital finance service providers to better serve the high-quality development of the manufacturing industry.

## 2. Connotation of digital finance

Digital finance, as a revolutionary evolution in the financial field, marks the arrival of a new era of high integration of traditional finance and information technology. It is a comprehensive and deep-level ecosystem change that reflects the depth and breadth of the innovative application of information technology in the financial field, which transcends the physical boundaries of traditional finance and realises the immediacy, borderlessness and personalisation of financial services through the application of digital technologies, such as big data, artificial intelligence and blockchain.

The first major characteristic of digital finance is that it breaks the time and space constraints of traditional financial services. Under the digital finance model, users can access financial services across geographical boundaries, anytime and anywhere. At the same time, this model also makes the supply of financial services more flexible and able to respond more quickly to changes in the market and customer needs.

Digital finance enables the precision and personalisation of financial services through efficient data processing and analysis capabilities. Financial institutions can use big data technology to analyse user behaviour and needs in depth and provide more precise and personalised products and services. This enhances customer experience and also improves the efficiency and effectiveness of resource allocation. The development of digital finance has lowered the cost and threshold of financial services. By digitising their operations, financial institutions are able to provide more cost-effective services while reducing labour and physical infrastructure investment. This makes financial services more inclusive and broadens their audience base.

## 3. Impact of digital finance on the high-quality development of manufacturing enterprises

### 3.1 Digital finance promotes innovation in manufacturing firms

In the current context of economic development, digital finance has become an important force in promoting the high-quality development of manufacturing enterprises. Digital finance makes use of modern information technology,

such as big data, cloud computing and artificial intelligence, to transform and upgrade traditional financial services and provide manufacturing enterprises with more efficient, accurate and diversified financial services, thereby promoting the enhancement of manufacturing industry's innovation capacity and industrial upgrading.

From the perspective of technological innovation, through the digital financial platform, manufacturing enterprises can obtain financial support more quickly, accelerate R&D investment, and promote the development and application of new technologies and products. Digital finance can also provide technical services such as big data analysis and artificial intelligence to help manufacturing enterprises accurately grasp market demand and guide product R&D and technological innovation, thus improving their innovation ability and market competitiveness.

In terms of innovation in the form of industrial organisation, digital finance promotes the optimisation and restructuring of the manufacturing industry chain by providing new types of financial services such as supply chain finance and crowdfunding. Manufacturing enterprises can use the digital financial platform to cooperate more closely with upstream and downstream enterprises, achieve complementary advantages, and promote the enhancement of the overall efficiency of the industrial chain and the maximisation of value. This innovation in the form of industrial organisation helps manufacturing enterprises to reduce operating costs, improve production efficiency and enhance the industry's risk resistance. From the perspective of improving the efficiency of information use, digital finance provides manufacturing enterprises with rich and accurate information services through powerful data processing and analysis capabilities. Enterprises can use this information to conduct market analysis, consumer behaviour research, accurately position products and services, and optimise the decision-making process. At the same time, digital finance can also improve the efficiency of internal management, enhance the efficiency of capital use, reduce financial costs, and enhance the internal control and risk management capabilities of enterprises through intelligent financial management systems.

# **3.2** Digital finance to promote green development and transformation of the manufacturing industry

Against the backdrop of the current global economic transformation and green development trend, manufacturing enterprises are facing the urgent need for transformation and upgrading. Digital finance, as an important part of the modern financial system, provides new impetus and possibilities for the green development and high-quality transformation of manufacturing enterprises through its deep integration with manufacturing enterprises. Digital finance promotes the green development and transformation of the manufacturing industry, which is reflected in the financial support, but also in its comprehensive impact on the manufacturing ecology, industrial structure, technological innovation and enterprise management.

Digital finance provides financial support for environmental technology innovation and green transformation in the manufacturing sector through the provision of green financial products and services. This includes providing financial products such as special loans, green bonds and green funds for green product research and development, energy-saving and emission reduction projects, cleaner production and the circular economy. Such financial support reduces the financial pressure on enterprises and encourages manufacturing enterprises to invest more resources in green innovation and sustainable development paths.

Digital finance helps the manufacturing industry to improve the digital and intelligent level of the industrial chain and promote the optimisation and upgrading of the industrial structure. Through the digital finance platform, manufacturing enterprises can more effectively connect the upstream and downstream industrial chain to achieve information sharing, optimal allocation of resources and maximise synergies. Digital finance can also help enterprises better carry out market forecasting and risk management, and improve their market adaptability and competitiveness. Secondly, with the help of digital financial tools, manufacturing enterprises can realise the automation and intelligence of financial management, and improve the efficiency of capital use and management efficiency. In addition, digital finance helps manufacturing enterprises better participate in the global green industry chain and achieve international advanced green technology and management experience, and also facilitates the development of international markets and enhances the global competitiveness of enterprises.

In short, digital finance provides financial support and a technological platform for the green transformation of the manufacturing industry, and also promotes the optimisation of the manufacturing ecosystem, the upgrading of the industrial structure, the innovation of management modes and the expansion of international cooperation. With the promotion of digital finance, the manufacturing industry will be able to achieve greener, smarter and more efficient development, and make greater contributions to the sustainable development of the economy.

# **3.3** Digital finance reduces financing constraints and contributes to the growth of economic efficiency in the manufacturing sector

In the traditional financial system, manufacturing enterprises, especially small and medium-sized enterprises (SMEs), often face the problems of difficult and expensive financing, which limits their development potential and economic efficiency. The rise of digital finance is becoming an effective way to alleviate this problem, and its role in enhancing the economic efficiency of the manufacturing industry cannot be ignored.

Digital finance has significantly improved the efficiency of manufacturing financing through the use of technologies such as big data, cloud computing and artificial intelligence. These technologies enable financial institutions to quickly and accurately assess the credit status of enterprises and reduce the time and cost of credit approval, thereby accelerating the flow of funds. For manufacturing enterprises, the ability to obtain the necessary financial support more quickly helps accelerate product development, market expansion and technological upgrading, which in turn improves the economic efficiency of enterprises. Secondly, the breadth of coverage of digital finance has greatly improved the accessibility of financial services. Traditional financial services are often limited by geographic location, and digital finance breaks this limitation, so that more manufacturing enterprises, can enjoy convenient financial services. This not only improves the availability of funds, but also promotes the balanced development of the regional economy.

The digitisation of digital finance also directly reduces the cost of finance. Numerous intermediate links and procedures in the traditional financing process make the cost of financing high. Digital finance provides manufacturing enterprises with more economical financing channels by simplifying the financing process and reducing transaction costs. Reduced financing costs enable enterprises to invest more funds in their core business, improve the efficiency of the use of funds, and promote the growth of economic efficiency. Finally, digital finance also promotes innovation and transformation in the manufacturing industry. By providing customised, flexible and diverse financial products and services, digital finance supports manufacturing enterprises to carry out technological innovation and business model innovation, and promotes the development of the manufacturing industry in the direction of high value-added and high technology content. Such innovation and transformation not only enhances the competitiveness of enterprises themselves, but also contributes to the high-quality development of the manufacturing industry as a whole.

#### 4. Conclusion

In summary, we have deeply analysed the positive effects of digital finance on manufacturing innovation, green transformation, ease of financing, and improvement of economic efficiency. Through empirical research and theoretical discussion, this paper reveals how digital finance promotes the efficient, intelligent and green development of the manufacturing industry through the expansion of financial support, technological platform, management mode innovation and international cooperation. This not only provides a new development path for manufacturing enterprises, but also makes an important contribution to the sustainable development of the economy. It is not noting that although digital finance provides strong support for the high-quality development of the manufacturing industry, it is necessary to pay attention to issues such as data security, privacy protection, and financial risk management in the actual application process to ensure the healthy development of digital finance. In the future, with the progress of technology and the improvement of policies, digital finance will play a more important role in promoting the high-quality development of the manufacturing industry and even the entire economy. For manufacturing enterprises, actively embracing digital finance and continuously exploring the integration path of innovation and transformation will be the key to the future.

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