

Research on the Impact of Financial Technology on Enterprise Digital Transformation

-- Based on the Perspective of Enterprise Life Cycle

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ABSTRACT

Based on the perspective of enterprise life cycle, this study deeply explores the impact of financial technology on enterprise digital transformation. By comprehensively using literature research method and theoretical analysis method, the characteristics of each stage of enterprise life cycle are used to systematically analyze the impact of financial technology on enterprise digital transformation. The focus is on the specific mechanism of financial technology in providing financial support, promoting business model innovation, and improving operational efficiency and market competitiveness in the growth stage in the entrepreneurial stage of enterprises. The study found that financial technology provides key support for the digital transformation of enterprises at different stages of the life cycle, broadens financing channels and stimulates innovation vitality in the entrepreneurial stage, and optimizes operational processes and enhances market advantages in the growth stage. This study not only enriches the theoretical system of financial technology and enterprise management, but also provides valuable theoretical basis and practical guidance for enterprises to reasonably use financial technology in the process of digital transformation, helping enterprises to achieve sustainable development in the digital economy era.

KEYWORDS

Financial technology; Enterprise digital transformation; Enterprise life cycle

1. INTRODUCTION

In today's global economic landscape, financial technology is rapidly developing and reshaping the financial ecology, becoming a key force in promoting economic development. From 2015 to 2022, the market size of China's financial technology industry has rapidly expanded to 1.49 trillion yuan. This explosive growth can be attributed to favorable policies and core technology upgrades. From a policy perspective, the government has vigorously supported the development of financial technology, created a relaxed and positive policy environment for industry innovation, encouraged the deep integration of finance and technology, and promoted the emergence of a series of innovative financial products and services. From the technical perspective, the rapid development of cutting-edge technologies such as big data, cloud computing, artificial intelligence, and blockchain has provided solid technical support for the breakthrough of financial technology, enabling it to innovate traditional financial models at an unprecedented speed. However, with the further development of financial technology, the digital transformation of enterprises has become an unstoppable trend of the times. For enterprises, digital transformation is a key path to improve operational efficiency, optimize customer experience, and enhance market competitiveness. In this process, financial technology plays a vital role. It not only provides strong technical support for enterprises, but also helps enterprises

break through traditional development bottlenecks and achieve leapfrog development through innovative financial products and services. Studying the impact of financial technology on the digital transformation of enterprises from the perspective of the enterprise life cycle has unique theoretical and practical value. Enterprises often face very different development challenges and needs at different stages of their life cycle. For example, enterprises in the start-up stage are often trapped in the dilemma of capital shortage and weak credit foundation, and they urgently need innovative financing channels to start and develop their business. Fintech can tailor financial solutions according to the characteristics of enterprises at different stages, accurately meet the needs of enterprises, and promote enterprises to move forward steadily on the road of digital transformation. In-depth analysis of the impact mechanism from this perspective will help enterprises better grasp the opportunities brought by fintech, formulate scientific and reasonable digital transformation strategies, and achieve sustainable development.

2. THE APPLICATION AND IMPACT OF FINTECH ON THE DIGITAL TRANSFORMATION OF ENTERPRISES AT DIFFERENT STAGES OF THE LIFE CYCLE

2.1. Start-up Stage: Financial Support and Business Model Innovation of Fintech

2.1.1. Enterprise Characteristics and Digital Transformation Needs at the Start-up Stage

Enterprises at the start-up stage have some distinct characteristics. Enterprises will face a serious shortage of funds in terms of resources, making it difficult to meet the needs of product development, market promotion, etc., as well as insufficient technology and talent reserves, lack of mature technical teams and professional talents, and many other problems. In addition, the market awareness is extremely low, consumers know little about the products or services of the enterprise, and market development is extremely difficult. In this case, the digital transformation of enterprises is of great significance. Through digital transformation, enterprises can use the Internet platform to promote products, reduce marketing costs, increase market reach, and solve the problem of low market awareness. Digital technology can also help enterprises optimize operational processes, improve production efficiency, and alleviate the pressure of resource scarcity to a certain extent. At the same time, with the help of digital means, enterprises can more accurately understand market demand, provide direction for product research and development, and enhance market competitiveness.

2.1.2. Ways for Financial Technology to Provide Financial Support

The development of financial technology can bring new opportunities for equity financing of start-ups. Equity crowdfunding platforms have broken the geographical and personal connections of traditional equity financing with the help of Internet technology. Start-ups can display project business plans, technical advantages, market prospects and other information on equity crowdfunding platforms to attract investors around the world. These investors can make small investments in entrepreneurial projects based on their own risk preferences and investment capabilities, bringing together many small investments and providing important start-up funds for start-ups. With the help of financial technology, angel investment platforms have also more efficiently connected angel investors and start-ups. Through big data analysis and intelligent matching technology, angel investment platforms can accurately recommend suitable angel investors to start-ups based on factors such as industry characteristics and development stages, thereby increasing the success rate of financing. Compared with traditional financial institutions, when providing debt financing for start-ups, they often set higher thresholds due to the high risk and lack of collateral of start-ups. Fintech has changed this situation through big data risk control technology. Fintech companies can collect multi-dimensional data of start-ups, including the company's operating data, financial data, market data and the personal credit data of entrepreneurs, and use advanced data analysis algorithms and models to accurately assess the credit risk of start-ups. Based on more accurate risk assessment results,

fintech companies can provide start-ups with more reasonable loan amounts and interest rates, and launch innovative credit products, such as loans based on accounts receivable and intellectual property pledge loans, to meet the diverse financing needs of start-ups.

2.1.3. Fintech Helps Business Model Innovation

When an enterprise is in the start-up stage, accurately grasping market demand and target customer groups is the key to the success of the enterprise. Fintech's big data analysis technology provides strong support for start-ups. Start-ups can collect massive market data through Internet platforms, social media and other channels, including consumer behavior data, preference data, demand data, etc. By using big data analysis tools to deeply mine and analyze these data, companies can understand consumers' potential needs and pain points, and discover market gaps and market segmentation opportunities. Through the analysis of consumer behavior data, it is found that a certain group has a high demand for a certain personalized health product, and such products are in short supply on the market. Startups can develop products for this market segment, achieve precise positioning, and improve the market adaptability and competitiveness of products. In addition, trust mechanisms and new business models can be built by using blockchain technology. Since blockchain technology has the characteristics of decentralization, immutability, and traceability, it provides startups with the possibility of building trust mechanisms and innovative business models. In the field of supply chain finance, startups can use blockchain technology to record transaction information on the supply chain to ensure the authenticity and integrity of the information. When startups need financing, financial institutions can quickly obtain the company's real transaction data through the blockchain platform, accurately assess its repayment ability, reduce financing risks, and thus be more willing to provide financing support to startups. In the field of cross-border trade, blockchain technology can solve the trust problem in cross-border transactions, simplify transaction processes, and reduce transaction costs. Startups can build cross-border e-commerce platforms based on blockchain technology to achieve global commodity transactions and payment settlements, expand international markets, and innovate business models.

2.2. Growth Stage: Fintech Improves Operational Efficiency and Market Competitiveness

2.2.1. Characteristics of Enterprises in the Growth Stage and the Need for Digital Transformation

After entering the growth stage, enterprises begin to show a series of new characteristics. The business scale of enterprises expands rapidly, their product lines continue to enrich, and their market coverage gradually expands. With the growth of business, the management complexity of enterprises increases significantly, and it is necessary to coordinate the operations of multiple departments and multiple business links. Market competition is becoming increasingly fierce, and peer companies are vying for market share. At this time, the demand for digital transformation of enterprises is becoming more urgent. Through digital transformation, enterprises can use information systems to achieve centralized management, improve decision-making efficiency, and cope with the problem of increased management complexity. Use digital technology to optimize supply chain management, reduce procurement costs and inventory costs, and improve operational efficiency. With the help of digital marketing methods, we can deeply understand customer needs, provide personalized services, enhance market competitiveness, and stand out in the fierce market competition.

2.2.2. Ways for Fintech to Improve Operational Efficiency

On the one hand, enterprises can improve operational efficiency by widely applying automation and intelligent technologies. With the help of natural language processing and machine learning technology, the intelligent customer service system can automatically answer customers' common questions, quickly resolve customer inquiries, reduce the work pressure of manual customer service, and improve customer service response speed. Automated processes play an important role in the

financial approval, order processing, inventory management and other aspects of an enterprise. By setting up automated rules, the system can automatically complete relevant business processes, reduce manual intervention, reduce human errors, and improve process processing efficiency. In the financial approval process, when the expense reimbursement application meets the preset approval rules, the system automatically approves it without manual review one by one, which greatly shortens the approval time. On the other hand, financial technology enables enterprises to collect and analyze massive business data, realize data-driven decision-making and optimization, and thus improve the operational efficiency of enterprises. Enterprises can integrate data from sales, production, finance, customers and other aspects by establishing a big data analysis platform. Use data analysis tools and algorithms to conduct in-depth analysis of these data and explore the laws and trends behind the data. In terms of precision marketing, by analyzing customer purchase history, preferences and other data, enterprises can formulate personalized marketing strategies, push products and services that meet their needs to different customers, and improve marketing effects and customer conversion rates. In terms of risk management, the risk warning model based on big data analysis can monitor the company's financial risks, market risks, etc. in real time, issue warning signals in a timely manner, provide a basis for the company to take risk response measures, and optimize the company's risk management strategy.

2.2.3. Ways for Fintech to Enhance Market Competitiveness

Fintech promotes enterprises to improve their market competitiveness by providing a strong impetus for product and service innovation. Enterprises can use the technical advantages of Fintech to develop more innovative and competitive financial products and services. With the help of artificial intelligence technology, enterprises can launch smart investment products and provide customers with personalized investment portfolio recommendations based on factors such as customer risk preferences and investment goals to meet customers' diverse investment needs. Using blockchain technology, enterprises can develop decentralized financial service platforms to provide more secure, transparent and efficient financial services to attract more customers. By cooperating with Fintech companies, enterprises can also integrate financial services into their own products and services to achieve innovation in business models, such as the consumer financial services launched by e-commerce companies, which provide consumers with conveniences such as installment payments, improve customer experience and market competitiveness. At the same time, the supply chain management and ecological synergy capabilities of enterprises have an important impact on market competitiveness. The application of Fintech in supply chain finance has strengthened the cooperative relationship between enterprises and upstream and downstream suppliers and distributors. Enterprises can provide suppliers with accounts receivable financing services through supply chain financial platforms to help suppliers solve capital turnover problems and ensure a stable supply of raw materials. Provide inventory financing services to dealers, support dealers to expand their business scale, and improve the stability and efficiency of sales channels. Through the role of supply chain finance as a link, enterprises and upstream and downstream enterprises form a close ecological synergy relationship, realize resource sharing, complementary advantages, and enhance the competitiveness of the entire supply chain. Enterprises can also use financial technology to build an industrial ecological platform, integrate various resources in the industrial chain, promote information sharing and business collaboration between enterprises, promote the innovative development of the industrial ecology, and further enhance the competitive advantage of enterprises in the market.

2.3. Mature Stage: Financial Technology Promotes Strategic Layout and Global Layout

2.3.1. Financial Technology Promotes Strategic Layout

For mature enterprises, the core advantages of traditional financial services may be threatened by financial technology. For example, traditional businesses such as payment, lending, and wealth

management can be innovated through financial technology tools to reduce operating costs, improve efficiency, and provide more personalized services. Mature enterprises can improve their business processes and enhance user experience by introducing technologies such as blockchain, artificial intelligence, and big data, thereby optimizing their strategic layout. Financial technology provides mature enterprises with a more flexible business model. For example, traditional banks can quickly enter emerging fields such as digital payment, online lending, and insurance technology through cooperation or mergers and acquisitions with financial technology start-ups. In addition, financial technology companies themselves can also expand their business scope through platform-based and ecological operation models, such as opening digital banks or launching open API services to enhance customer stickiness and market competitiveness.

2.3.2. Financial Technology Promotes Global Layout

With the acceleration of globalization, the strategic layout of mature companies needs to focus not only on the domestic market, but also expand to the global market. In this process, financial technology plays a vital role. Financial technology innovation in cross-border payments, especially digital payments and blockchain technology, has greatly improved the efficiency and transparency of cross-border transactions. Traditional cross-border payments are usually constrained by high fees and long settlement times, while the emergence of financial technology enables companies to conduct international transactions quickly and at low cost, which provides strong support for the implementation of globalization strategies. In the global layout, compliance issues have always been a major challenge faced by mature companies. The rise of financial technology allows companies to use technology to cope with different regulatory requirements in various countries. For example, blockchain technology can provide companies with more transparent transaction records and help companies comply with various regulations such as anti-money laundering and tax compliance in multiple countries. In addition, financial technology also provides compliance technology to help companies effectively manage risks in the process of globalization.

2.4. Decline Stage: Fintech Helps with Restructuring and Innovation

2.4.1. The role of Fintech in Restructuring in the Decline Life Stage

In the decline stage, companies often need to re-examine their capital structure and financing channels to ensure sufficient cash flow to maintain operations and the restructuring process. Fintech provides companies with more flexible and diverse financing methods. Through new financial instruments such as P2P lending platforms, crowdfunding, and digital currencies, companies can quickly obtain financial support, especially when traditional bank financing channels are limited. In addition, the use of smart contracts and blockchain technology can make the financing process more transparent and reduce financing costs and risks; one of the core advantages of Fintech is its powerful data analysis capabilities. In the process of corporate restructuring, companies can obtain more accurate business restructuring decision support through the analysis of a large amount of historical data, market trends, consumer behavior and other information. Big data analysis helps companies identify business units with low profitability or insufficient potential, so as to adjust or divest resources and focus on more profitable areas.

2.4.2. The Path for Fintech to Help Companies Innovate in Decline

Financial technology provides companies with a variety of technical means to help them innovate in products and services. For example, companies can launch decentralized financial services through blockchain technology, or optimize the performance and functionality of existing products through artificial intelligence. These innovations can not only help companies improve customer experience, but also attract new customers and expand market share. In the recession stage, companies often need to diversify their revenue channels to fight market pressure. Fintech provides companies with opportunities to expand their sources of income. Taking financial services as an example, companies can launch innovative financial products such as smart payment, digital currency, online financial

management, etc. through fintech to obtain new revenue streams. In addition, fintech also enables companies to further increase profit points by establishing open platforms and cross-border cooperation with other industries.

3. CHALLENGES AND COUNTERMEASURES OF FINTECH TO DIGITAL TRANSFORMATION OF ENTERPRISES

3.1. Main Challenges Faced by Fintech Applications

With the widespread application of fintech, companies face pressure on data security and privacy protection in cross-border transactions and global layout; fintech not only brings innovation opportunities to mature companies, but also brings more competitors, especially technology-driven start-ups; the continuous development of fintech requires companies to continuously increase their investment in technology, especially in the research and development of cutting-edge technologies such as artificial intelligence, big data analysis, and blockchain. This places higher demands on the talent pool and technological innovation capabilities of enterprises; innovations in financial technology often take time to become popular and accepted by the market.

3.2. Countermeasures and Suggestions

Enterprises must strengthen their investment in technology security, ensure the security of user data, and comply with international data protection regulations to reduce possible compliance risks; enterprises need to attract and cultivate top talents in related fields to stand out from the competition; as emerging financial technology companies continue to emerge, mature enterprises need to respond more flexibly and quickly to changes in market demand to maintain market share and competitiveness; when promoting innovative products and services, enterprises should focus on market education, especially for customer groups that are not familiar with new technologies, and provide clear guidance and support to help customers adapt to new financial service methods.

4. CONCLUSION

Financial technology can provide financial support for start-up companies and realize business model innovation, which can improve the operational efficiency and market competitiveness of growth-stage companies. Financial technology provides new strategic layout opportunities for mature life cycle companies, which not only promotes the innovation of technology and business models, but also creates a broader space for the implementation of globalization strategies. Fintech provides extremely important support for companies in the recession stage of their life cycle. It promotes corporate restructuring and innovation through technological means. Fintech also provides companies with new opportunities in terms of capital restructuring, income diversification, etc.

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