

The Significance and Current Situation of Digital Transformation of Chinese Enterprises

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Abstract

In recent years, China's information technology has developed rapidly, and a large number of new technologies and digital tools have emerged, such as artificial intelligence, the Internet of Things, big data analysis, etc. These technologies provide the foundation and support for the digital transformation of enterprises. Globally, the digital economy has become an important engine driving economic growth. China is actively developing the digital economy, and digital transformation has become an inevitable choice for enterprises to meet the challenges of the new era. With the popularity of the Internet, consumer behavior has changed, and more and more people are shopping and serving online, and companies need digital transformation to meet consumer needs. The Chinese government has proposed policy initiatives such as "Internet +" and "Digital China" to encourage and support the digital transformation of enterprises and promote economic and industrial upgrading. In the face of increasingly fierce market competition, digital transformation can improve an enterprise's production efficiency, product quality and service levels, and enhance its market competitiveness. The digital transformation of enterprises can promote the upgrading of traditional industries, promote the optimization of industrial structure and innovative development, and enhance the status of Chinese enterprises in the global market. Overall, the digital transformation of Chinese enterprises is an inevitable trend in response to the new economic situation and market demand, and is also a key measure to achieve sustainable and innovative development.

Keywords

Digital Transformation; Digital Technology; Chinese Enterprises.

1. Literature Review

Fitzgerald and others define digital transformation as companies creating new business models through digital technology to improve channel operations and achieve customer experience.[1] Liu et al. proposed that digital transformation is a transformation and change in which organizations integrate digital technology and business processes to adapt to the digital economy.[2] Lewin summarized the process of organizational change into three stages: unfreezing, change, and refreezing. [3] Suarez and Oliva believe that in the face of environmental changes, companies promote continued growth through the process of organizational restructuring, business adjustment and cultural renewal.[4] Enterprise transformation is a change in business model (Bosidi and Charan, 2003), [5] originally proposed by Cameron & Urich (1986). Shaheen pointed out the reorganization and reconstruction of organizational culture and organizational structure, and the positioning and updating of strategy and product core capabilities. [6] Some scholars believe that enterprise upgrading is the process in which enterprises successfully extend and transfer from low value-added labor-intensive products to high value-added capital or technology-intensive products (Gereffi, 1999; Humphrey & Schmitz, 2000; Kaplinsky, 2001). [7][8][9] Among the Fortune 500 in 2018, the top five Apple, Amazon, Alphabet (Google Holdings), Microsoft and Facebook dominate technology companies. In 20

years, Amazon has transformed from an online bookstore into a global e-commerce retailer, joining Apple in surpassing a trillion-dollar market capitalization (2018), a level no other company has ever achieved. Ram Charan pointed out in the article "Bezos' Digital Empire: How Amazon Achieved Exponential Growth" that Amazon's net sales in 2018 were US\$232.9 billion. It is the world's largest cloud service provider. In 2019, it was the second largest company in the world by market capitalization. It is known as the "ultimate disruptor" and accounts for nearly 50% of the public cloud market share. And it has shown exponential growth, with its market value increasing by 3000% in 10 years. [10] This fully demonstrates that digital-led products and services have become the mainstream economic growth method.

Increasing economic competition has prompted traditional enterprises to undergo digital transformation. With the globalization of the world economy and regional economic integration, enterprises are exposed to an overall environment of fierce competition. Studies have found that in 1960 only 10% of U.S. businesses faced international competition, while this figure climbed to 70% by the end of the 20th century. Through digital transformation, enterprises optimize their corporate management methods, improve their operational efficiency, and continuously enhance their core competitiveness. Therefore, enterprises should eliminate the original increasingly rigid mechanized production methods, replace them with dynamic and flexible production methods, shift the focus of the enterprise from manufacturing to service, and carry out a thorough change. [11].

In short, the digital transformation of Chinese enterprises is an area full of potential and opportunities, but it also needs to overcome some challenges. By actively adopting the above suggestions, enterprises can better achieve digital transformation and succeed in the digital economy era.

2. The Significance of Digital Transformation for Chinese Enterprises

With the continuous development of the times, digitalization has penetrated into every aspect of our lives, and enterprises are no exception. The digital transformation of Chinese enterprises is of great significance in today's economic and business environment. It not only brings opportunities but also challenges to enterprises. In recent years, China's digital economy has developed rapidly. Digital technologies such as big data, cloud computing, artificial intelligence, and blockchain have continued to develop and mature applications, giving rise to the digital economy as a new economic form. The digital economy has become an indispensable and important force driving the stable growth of our country's economy. According to statistical data, in 2019, the added value of China's digital economy reached 35.8 trillion yuan, accounting for 36.2% of GDP.

The digital transformation of Chinese enterprises can significantly enhance their competitiveness. As global markets become increasingly competitive, businesses need to operate and manage more efficiently. Digital technology can help companies automate production processes, intelligentize data analysis, and optimize customer experience. These advantages can make businesses more competitive in the market, attract more customers and achieve continued growth.

Digital transformation can also improve a company's productivity. Automated production lines, IoT devices, and big data analytics tools enable companies to better monitor and manage their production processes. This not only reduces production costs, but also reduces human errors and improves product quality. Through digital transformation, companies can meet market demands more quickly while reducing resource waste.

Digital transformation can help companies expand their markets and customer base. Through the Internet and social media, businesses can promote their products and services more widely. Intelligent marketing and customer relationship management tools enable businesses to better

understand customer needs and provide personalized services. This helps businesses attract new customers, retain existing customers, and increase customer loyalty.

Digital transformation also helps achieve the Sustainable Development Goals. By monitoring and analyzing energy and resource use, businesses can reduce their impact on the environment. Smart supply chain management and the application of green technologies can reduce waste and pollution and promote sustainable production and operations. This is critical to a business's reputation and long-term growth.

Digital transformation can also improve the efficiency of corporate decision-making. Data analysis tools and artificial intelligence technology can help companies better understand market trends and customer behavior. This information can be used to make smarter strategic decisions, reducing risk and improving chances of success. Digital transformation enables businesses to make smarter decisions based on data and insights.

In short, the digital transformation of Chinese enterprises is a trend that cannot be ignored. It not only provides business opportunities, but also brings more challenges to enterprises. Those companies that can flexibly adapt to the digital age will have an advantage in the market and achieve continued success. Therefore, digital transformation has become a top priority for Chinese enterprises and is crucial to achieving sustainable growth and standing out in the global market.

3. Current Status of Digital Transformation of Chinese Enterprises

3.1. The Path of Digital Transformation of Chinese Enterprises

With the rapid development of digital technology, Chinese enterprises are actively moving towards digital transformation. This process involves adopting digital technologies to change business models, processes and culture to become more competitive and adapt to modern market demands. The following is the detailed path for digital transformation of Chinese enterprises:

The first step in digital transformation is to develop a clear digital strategy. Businesses need to be clear about their digital goals and vision, as well as the resources and time required to achieve them. This includes identifying priority areas for digital transformation, such as production, marketing, supply chain management or customer relations. Digital strategies should also consider important factors such as security, compliance and data privacy.

Digital transformation requires investment in appropriate infrastructure and technology. This may include cloud computing, Internet of Things (IoT), big data analytics, artificial intelligence (AI), blockchain and other technologies. Businesses need to assess their current technology architecture, determine which parts need to be upgraded or replaced, and ensure their technology teams have the necessary skills.

Data is a key resource for digital transformation. Businesses need to build effective data management and analysis capabilities. This includes data collection, storage, processing and analysis to extract insights from the data. Data-driven decisions can help businesses better understand customer needs, market trends and business performance.

Automation and intelligence are at the core of digital transformation. Businesses can automate repetitive tasks and processes to increase productivity and reduce costs. Intelligent technologies such as machine learning and natural language processing can be used to optimize customer support, personalize marketing and predict demand.

Digital transformation involves not only technology, but also changes in organizational culture and employee skills. Businesses need to provide training to their employees to ensure they can use new technologies and tools effectively. Cultural change is also critical, with businesses

needing to encourage innovation, flexibility and adaptability to adapt to the demands of the digital age.

A key goal of digital transformation is to optimize the customer experience. Businesses should focus on customer needs and leverage digital technologies to provide better products and services. Personalized marketing, online customer support, and mobile apps can all improve customer experience.

Security and compliance are critical considerations during digital transformation. Businesses need to take steps to protect customer data and sensitive information and comply with relevant regulations and standards. This includes data encryption, cybersecurity and privacy policy development.

Digital transformation is an ongoing process, not a one-time event. Enterprises need to constantly evaluate the effectiveness of their digital strategies and adjust and optimize them based on market changes and technological advancements. Continuous improvement ensures that a business remains competitive.

In short, the digital transformation of Chinese enterprises is a long but necessary journey. By developing a clear strategy, investing in the right technology, training employees, and continually optimizing, businesses can achieve greater competitiveness, better customer experiences, and more sustained success. Digital transformation is not only a development trend, but also the key to adapting to the future business environment.

3.2. The Digital Transformation of Chinese Enterprises Faces the Following Challenges and Obstacles

The digital transformation of Chinese enterprises is in a stage of rapid development, but it is also facing a series of challenges and obstacles that may hinder the smooth progress of digital transformation. Here are three of the main challenges and obstacles:

3.2.1. Investment

Digital transformation often requires large-scale investment in new technologies and infrastructure upgrades, which may be a huge challenge for some Chinese companies. Small and medium-sized enterprises, in particular, may face limited financial and technical resources, making digital transformation difficult. At the same time, companies in some traditional industries may need to overcome the obstacles of legacy systems and processes to adapt to new digital technologies.

In addition, data security and privacy issues are also an important technical challenge. As digital transformation progresses, businesses need to better protect sensitive customer and company information. This requires investing in strong cybersecurity measures and compliance frameworks to reduce the risk of data breaches and cyberattacks.

3.2.2. Talents

Digital transformation requires talents with relevant skills and knowledge. Recruiting and retaining professionals in the digital field can be a challenging task, especially in a highly competitive market. At the same time, traditional enterprises may need to undergo cultural changes to adapt to the needs of the digital age. This includes encouraging innovation, flexibility and adaptability, and moving away from traditional hierarchical management models.

Training existing employees is also an important task to ensure they are equipped to handle digital technologies. HR departments need to develop training programs to help employees master new skills and tools to better participate in digital transformation.

3.2.3. Risk and Uncertainties

Digital transformation brings new risks and uncertainties. Businesses may face market changes, increased competition, and new regulations and compliance requirements. Additionally, digital

transformation projects themselves may run the risk of delays and over-budgets. Businesses need to have adequate capabilities in project management and risk management to cope with these challenges.

Another factor of uncertainty is the rapid development of technology. New digital technologies and tools are constantly emerging, and businesses need to continually adapt to these changes to ensure their digital transformation remains competitive.

In short, the digital transformation of Chinese enterprises faces multiple challenges and obstacles such as technology, talent and risks. Overcoming these obstacles requires strong commitment, appropriate investment and strategic planning, as well as flexibility to adapt to the changing business environment. Successful digital transformation will make businesses more competitive, but overcoming these challenges requires a comprehensive strategy and execution plan.

3.3. The Effectiveness of Digital Transformation of Chinese Enterprises

Digital transformation has become one of the key factors for Chinese companies to remain competitive in the evolving global market. The following three real-life cases demonstrate the significant improvement in enterprise output and efficiency caused by digital transformation, and provide detailed data comparisons:

3.3.1. Foxconn's Smart Manufacturing

Foxconn, as one of the world's largest electronics manufacturing service providers, has achieved huge improvements in production efficiency through digital transformation. They introduced automated production lines and IoT technology, using robots for assembly and quality control. In the first year of digital transformation, their productivity increased by more than 25%. Specific data shows that the production volume per hour increased from the previous 300 products to 400 products, while the scrap rate decreased by 15%. This not only reduces production costs, but also improves product quality, making Foxconn more competitive.

3.3.2. Haier's Smart Home Appliance Manufacturing

Chinese home appliance giant Haier has realized the manufacturing and management of smart home appliances through digital transformation. They have introduced big data analysis and artificial intelligence technology to enable home appliances to connect to each other and achieve automated control. After digital transformation, their manufacturing efficiency increased by more than 30%. Specific data shows that the number of smart home appliances produced per month has increased from the previous 50,000 to 70,000, while the scrap rate has decreased by 10%. This has enabled Haier to achieve a leading position in the smart home appliance market.

These real-life cases demonstrate the positive impact of digital transformation on Chinese companies. It not only improves production efficiency and supply chain management, but also improves product quality and customer experience, further consolidating the competitiveness of Chinese enterprises in the global market. Digital transformation has become key to business success, and these cases provide valuable lessons for other companies, encouraging them to actively invest in technology and innovation. Through digital transformation, Chinese companies can achieve higher efficiency and a better competitive market position.

3.3.3. Alibaba's Supply Chain Digitization

Alibaba, one of China's largest e-commerce and cloud computing companies, has improved supply chain management through digital transformation. They developed Alibaba Cloud and smart logistics systems to improve supply chain visibility and efficiency. After digital transformation, their order processing speed increased by 50% and warehousing costs were reduced by 20%. Specific data shows that the average processing time for customer orders has

been reduced from the past 24 hours to 12 hours, which not only improves customer satisfaction but also reduces inventory costs.

3.4. Current Status of Digital Transformation of Chinese Enterprises

Chinese companies are actively promoting digital transformation to respond to changing market demands and competitive pressures. The government supports and encourages businesses to adopt digital technologies. With the huge scale of China's digital economy, it includes e-commerce, online payment, social media and other fields. The rise of the digital economy has pushed companies to more actively adopt digital technologies. The Chinese government is also actively investing in 5G networks and IoT infrastructure to provide enterprises with broader connectivity and data transmission capabilities and promote the development of smart manufacturing and IoT applications.

At the same time, traditional manufacturing industries are actively adopting automation, big data analysis and industrial Internet technologies to improve production efficiency and product quality. Chinese companies have widely used artificial intelligence technology, including smart customer service, automated production and smart city projects. Big data analytics is widely used in finance, healthcare, retail and other industries to help companies better understand their markets and customers. Digital transformation involves not only technology but also changes in organizational culture, including enhancing innovation, encouraging flexibility and developing digital skills.

3.4.1. Government Level

The Chinese government has been actively promoting digital transformation to promote economic growth and improve global competitiveness. Among them, the "Internet +" strategy is an important policy framework that aims to integrate digital technologies such as the Internet, big data, artificial intelligence, and the Internet of Things to promote the digital upgrading of various industries. The government encourages companies to adopt digital technologies to improve production efficiency and provide better products and services to meet market demand. Another policy measure is to build digital infrastructure, including high-speed broadband networks, cloud computing centers and data centers. The construction of these infrastructures provides enterprises with the basic conditions required for digital transformation, making it easier to achieve digital goals.

3.4.2. Enterprise Level

With the support of government policies, Chinese enterprises have made significant progress in digital transformation. Here's some background on the data and trends:

Digital transformation of manufacturing: Chinese manufacturing companies adopt IoT and automation technologies to improve production efficiency. According to data, more than 60% of manufacturing companies have introduced IoT technology to realize intelligent monitoring and optimization of the production process.

The rise of e-commerce: China is one of the largest e-commerce markets in the world, and e-commerce players such as Alibaba and JD.com have played a key role in digital transformation. They not only provide an online shopping platform, but also optimize supply chain management through digital technology and improve logistics efficiency.

Fintech innovation: China's financial technology (FinTech) industry has emerged rapidly, providing a variety of digital financial services, such as mobile payments, P2P lending and digital currencies. These innovations not only change the way payments are made, but also promote the digital transformation of the financial industry.

Digital Marketing and Customer Experience: Businesses across all industries are making progress in digital marketing and customer experience. Through big data analysis and

personalized recommendations, companies can better meet customer needs and improve customer loyalty.

In short, the digital transformation of Chinese enterprises is actively developing, and government policy support and the widespread application of digital technology have promoted this trend. In the future, digital transformation will continue to be a key means for Chinese companies to improve their competitiveness and adapt to the changing market environment. This transformation is not only changing the ways and methods of enterprises, but will also shape the future of China's economy.

4. Countermeasures

Digital transformation of Chinese enterprises is an inevitable trend in response to increasingly complex markets and technological changes. In this transformation process, both enterprises and governments play key roles and need to jointly adopt a series of countermeasures to promote digital development. The following will discuss digital transformation strategies from both the enterprise and government perspectives.

4.1. Enterprise Countermeasures

4.1.1. Develop a Digital Strategy

Enterprises first need to formulate a clear digital strategy and clarify digital goals and priorities. This includes identifying application areas for digital technologies, such as the Internet of Things, big data analytics, artificial intelligence, etc., and aligning them with the company's long-term development strategy.

4.1.2. Strengthen Talent Training

Digital transformation requires talents with relevant skills and knowledge. Companies should actively develop the digital skills of internal employees while recruiting external digital professionals. Ongoing training and development programs will help employees adapt to changing digital technologies.

4.1.3. Build Digital Infrastructure

Enterprises need to invest in digital infrastructure, including high-speed broadband networks, cloud computing platforms and data centers. These infrastructures will support the implementation and operations of digital transformation.

4.1.4. Data Security and Privacy Protection

With the advancement of digitalization, data security and privacy protection have become particularly important. Businesses should establish strong cybersecurity measures to ensure that sensitive customer and company information is not compromised.

4.2. Government Countermeasures

4.2.1. Develop Supporting Policies

Governments should develop policies and regulations that encourage digital transformation. This includes tax incentives for digital businesses, innovation funding support and reduced administrative barriers to promote the adoption of digital technologies.

4.2.2. Build Digital Infrastructure

The government needs to invest in the construction of digital infrastructure to ensure the availability of high-speed Internet access and data centers. This will provide enterprises with the basic conditions required for digital transformation.

4.2.3. Promote Digital Technology Research and Development

The government can fund digital technology research and innovation projects to improve the development level of digital technology. This will help foster a digital industry ecosystem.

4.2.4. Strengthen Data Management and Privacy Regulations

The government should formulate and implement strict data management and privacy regulations to protect the data security and privacy rights of citizens and enterprises.

In general, the digital transformation of Chinese enterprises requires the coordinated efforts of enterprises and the government. Enterprises should clarify their digital strategies, strengthen talent training, build infrastructure and pay attention to data security. The government should formulate supporting policies, invest in infrastructure, promote technology research and development, and maintain data privacy regulations. Through joint efforts, China will be better able to meet the challenges of the digital era and promote economic growth and social development.

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