Research on Reconstruction and Strategy of Enterprise Business Model in the Digital Age

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Abstract

In today's digital age, business is also undergoing drastic digital transformation. With the entry of information technology into one industry after another, the barriers between industries are constantly being broken. Big data, the derivatives of the digital age has become a new factor of production that every enterprise must attach importance to. On the one hand, it is deconstructing the corporate culture, development strategy and business model that traditional enterprises have successfully practiced, making the current leading enterprises in danger of losing their competitive advantages and falling behind in the whole track at any time. On the other hand, it also provides a lot of opportunities for those who can adapt to the digital era in terms of development strategy and business model. Therefore, rebuilding the business model of an enterprise has become the only way for every enterprise to develop in the digital era. Based on the literature of digital economy, platform economy and business model reconstruction, this paper mainly analyzes the current situation and bottleneck of enterprise business model, and gives corresponding reconstruction approaches and strategies combined with the content, aiming at the long-term healthy development of enterprise business model reconstruction in the whole social atmosphere.

Keywords

Digital Economy; Information technology; Business Model Reconstruction

Research Background

As early as 2017, China is undergoing a huge transformation from traditional economy to digital economy. At present, China's digital economy has entered the stage of rapid development. In fact, the digital economy is the fastest growing part of the global economy, not just in China, but in every other country in the world. According to a survey report on the development trend of global digital economy by The National Institute of Information and Communications, the average annual growth rate of digital economy in developed G20 countries was about 8.47% in 2016-2017, while that in China exceeded 16.83%. In 2017, the digital economy in the United States surpassed the $10 trillion mark for the first time, while China's reached about $4 trillion in the same year. The digital economy volume of European and American countries has accounted for nearly

60% of the GDP of developed countries, while the digital economy scale of many developed countries has also accounted for more than 20% of the GDP of developed countries.

Table 1. The size of China's digital economy and its proportion in total GDP from 2018 to 2020

Year	Scale of Digital Economy (Trillion yuan)	Proportion of GDP
2018	31.3	34.8%
2019	35.8	36.2%
2020	39.2	38.6&

Note: Data are obtained from China Institute of Communications and National Bureau of Statistics

About the concept of the digital economy, at present to be accepted by most people is in Hangzhou, the G20 summit explicitly put forward: the concept of "digital economy refers to the professional knowledge and to apply the Internet digital information technology as an important element, the modern Internet as the main carrier, to the Internet information technology of the high efficiency application as a benefit to improve the structure optimization of the main driving force of the national economy A series of social events." There are many types of digital economy, and there are two major ones that attract the highest social attention, namely sharing economy and platform economy. The following will introduce the status quo and background of the two economic models separately.

Sharing economy is the most widely used digital economy model with the largest number of participants in China. The core of sharing economy is to utilize big data, cloud computing and other information and communication technologies to realize the repeated utilization of limited resources and improve the utilization rate of resources. Compared with traditional consumption mode, sharing economy can be called a "subversive" product under the digital background: it completes the two-way sharing of goods, services and information data with the help of big data operation platform through simple leasing, pledge and sharing.

Table 2. The scale of China's shared economy and the total number of participants in 2018-2020

Year	Scale of Sharing Economy (Trillion yuan)	Total number of participants (Hundred Million)
2018	3.0	7.6
2019	3.2	7.9
2020	3.4	8.3

Note: Source comes from 2019-2021 China Sharing Economy Development Report

After 2000, numerous platform economic entities emerged in the world, such as Google Baidu, a search engine platform; Alibaba amazon, an e-commerce platform; Ride-hailing platform Didi Uber. Among the world's top 10 companies by market capitalization, seven have a platform economy as their main business model. Especially since the outbreak of COVID-19 in 2020, in order to prevent the spread of the virus, people's lifestyles have changed dramatically and they have started to reduce offline activities. For enterprises, the mode of operation of enterprises must also be changed. Therefore, while most traditional industries have suffered a huge blow and economic losses due to the epidemic, the role of network platform has become

prominent, and many enterprises in traditional industries have begun to draw closer to the network platform to carry out their own internal platform economic evolution.

In the tide of digital era, digital economy, platform economy and sharing economy have emerged and become popular one after another, and the business models that have been proved feasible in practice are gradually being eliminated one by one. Therefore, for almost every enterprise, studying the digitalization and digital economy of the era and rebuilding the business model of the enterprise are the top priority of the current enterprise development.

Theoretical Review and Prospect

Digital Economy

Of course, for enterprises that have not yet entered the stage of digital economy, the digital transformation of enterprises is undoubtedly a long and difficult process that needs to be started from all aspects. But digital economy also provides enterprises with a traditional economy can not give the company development 'fast lane' (Jing, Liu & Xu, 2017). A research report from AliResearch on China's digital economy enterprises shows that according to the most popular concept of "unicorn" (enterprises born less than 10 years ago, the company market value of more than $1 billion), 95% of unicorns are digital economy enterprises. The average time for digital economy companies that eventually become unicorns to reach the $1 billion mark is just four years, and nearly half of the total do so within two years. Compared with the decades and hundreds of years of development of enterprises in the traditional economy, it takes much less time for enterprises in the digital economy to develop to a certain scale.

For digital economy, Hui Zhang and Lin Shi (2019) summarized the development process of digital economy: from 1970 to 1990, the invention of personal computer and the progress of network technology created the start of digital economy. Around 2000, along with the birth and development of the Internet, the IT industry began to develop rapidly. Most of the leading Internet companies today were born in that era, and the digital economy began to take off. Around 2016, with the progress of cloud computing, Internet of Things, big data and other new technologies, the digital economy has once again seen great development. For example, cloud computing has driven the digital transformation of the vast majority of enterprises, making the business models of many companies move towards the digital economy. Through the above historical research, Hui Zhang (2019) believes that digital economy has a strong dependence on science and technology. It can even be said that without technological progress, there would be no digital economy. Other students hold similar views: Every development of the digital economy is inseparable from technological innovation, which shows that scientific and technological progress and innovation in the digital economy are also very frequent and concentrated. This is significantly different from the traditional economy outside of the digital economy: In the traditional economic industry, whether it is the development of the enterprise or industry itself is a long is too long, in this process, the progress of science and technology will happen, but most will show a gradual process—not often appear in the digital economy of "subversion" science and technology innovation (Li, 2018).

Xiaohua Li (2018) also added that, on the contrary, the technological progress under the digital economy not

only has a subversive change on the entire industry in which an enterprise is involved, but also has a dimension reduction effect on industries outside the industry in which an enterprise is involved.

Platform Economy

Platform economy, one of the branches of digital economy, is a new type of organization and business model that makes full use of information technology under the basic environment of digitalization. Between the providers of goods or services and consumers, the platform usually acts as an information intermediary, realizing the two-way transmission of information and giving both sides the opportunity to win communication and cooperation (Yi, Chen & Yu, 2020). Including the sharing economy mentioned above, the operation of this mode also requires an online service platform. Therefore, sharing economy is also a category of platform economy in a broad sense.

From the perspective of business model, the basic model of platform economy is to charge fees to the providers of goods or services, and then provide consumers with lower prices to obtain the goods and services they need, and in this way, improve the transaction volume. In this business model, consumers save money while the platform makes money. Although the sales unit price of products or services decreases, merchants also gain profits due to the increase in sales volume. The three parties gain profits at the same time, forming an "all-win" situation. In the traditional market, there is only the provider of goods or services unilaterally to sell goods and services to consumers, and there is no platform of blessing, the suppliers and customers here is relatively separate individuals, if the deal is not smooth, both also need to start matching, laborious (Chen, Zhang & Liu, 2019).

It is also worth noting that Xianrong Yi, Yingying Chen and Wei Yu (2020) highlight another key point of platform economy: In addition to bringing a win-win situation, platform economy actually involves an important concept in economics -- decentralized decision-making from its essence. It means that decision-makers in economic activities are independent individuals without overlapping each other. Such a decision-making mode is defined as decentralized decision-making. The benefit of this approach is that it increases the efficiency of economic activity, increases returns, and increases the incentive to ensure policy makers. For platform economy, economic activities in the definition are the allocation of social resources, and relatively independent decision makers are individual businesses and consumers in platform economy. Therefore, platform economy can also optimize the allocation of social resources, improve the operation efficiency of the economy, and has significant social value.

The Reconstruction of Business Model

The essence of the business model is that companies, with existing resources, solve three big problems for entrepreneurs: how to make money, how much money, and how to make money sustainably. Therefore, the most important content in the reconstruction of business model is the remodeling of enterprise value chain in the digital era. Value chain refers to the integration between enterprise main body and auxiliary activities. The traditional value chain thought of our country pays attention to the advantage of enterprise resource integration, but pays attention to the management mode from inside and outside. However, the traditional

value chain companies tend to use their internal resource advantages and invest a lot in the fierce competition of the 'Red Sea market', but fail to break through and create more efficient benefits. But at the same time, consumers often have the disadvantage of information asymmetry in the transaction, the cost of consumer information collection is high, and they do not have the absolute dominance in the transaction. And the digital revolution in the business world solve these problems, mainly reflected in three aspects: one is reflected in the center of power, due to the large data, the development of information technology makes the user's information transparency, so in the economic activity from the past are now dominated by merchants become to the user as the core, focus on customer experience. Second, due to the development of network technology, economic activities gradually from offline entities to online. Third, some newly established digital economy enterprises, whose business model is fully adapted to the digital era, have formed a strong competitive relationship for many traditional enterprises, and some of them are hit by dimensionality reduction. To some extent, it promotes the reconstruction and optimization of business models of these enterprises.

Comprehensive Review

In general, one of the most important pillars of the digital economy is technological progress. It is precisely because the digital economy has significant science and technology attributes, and science and technology is the first productive force of enterprise development, so the development speed of digital economy enterprises far exceeds other general traditional enterprises. In such a digital era, whether it is rapid exaggeration for newly established enterprises, Or has a certain market size for the enterprise to seek further development have provided a valuable opportunity. In the digital economy, the most important and most widespread type is the platform economy. The birth of digital economy has promoted the process of business model reconstruction of enterprises. Meanwhile, platform economy, which is precisely based on the progress and breakthrough of science and technology in digital economy, has become an important way of business model reconstruction.

Bottleneck of Business Model Reconstruction

Most of the enterprises that are reconstructing their business models are still in the process of digital transformation, and many of them have not yet rushed to establish a management system corresponding to the digital economy. In the commercial activities of these enterprises, the protection of the rights and interests of customers and merchants only depends on the credit records of customers and merchants in big data and the trust between customers and merchants. However, in the long run, in order to maintain the long-term healthy development of enterprises, enterprises need to clearly divide the scope of responsibility of enterprises, distinguish the subject of responsibility, and introduce relevant internal supervision rules and regulations. Without clear rules and regulations, it will be difficult for enterprises to gain the trust of customers.

As digital economy, platform economy and other new industries are booming today, even the corresponding legislative departments can not keep pace with The Times to regulate such emerging things, so there is a vacancy of legislative supervision. The didi ride-hailing accident in 2018 more deeply highlights the huge social consequences caused by legislative problems and the government's defects in supervision. In addition, many enterprises operating on the basis of digital economy are in touch with the legal edge in the development process, and all these things have become the company's business model reconstruction, enterprise digital

transformation encountered obstacles. Of course, as the digitalization process continues to advance, these problems will gradually be supervised by the law, and it is only a matter of time before these two problems are solved. But at the same time, there are two major bottlenecks in the reconstruction of enterprise business model.

Firstly, as mentioned above, due to the obvious scientific and technological attributes of digital economy, it has a strong dependence on digital technology, which enables the enterprises that enter the market first to rapidly expand and build their own network of interest relations, which makes it difficult for the latecomers in the digital economy to enter the market. There are three main barriers among them: one is scale barrier. For enterprises entering the market, how to expand the number of users is the biggest problem. For enterprises that have already entered the market, the larger the scale of the platform, the higher the barrier it will build, and it will be difficult for new enterprises to obtain users. Second, cost barrier. After some enterprises of a certain size already exist in the market, the probability of failure of new enterprises to enter the market is obviously greater. At this time, enterprises will bear huge cost investment risks, so many enterprises that want to carry out business model reconstruction are discouraged. Third, price barriers. The enterprises that have completed the reconstruction of the new business model pose a competitive threat to the enterprises that have completed the reconstruction, so that the enterprises that enter the market first can prevent the new entrants by charging transaction fees rather than registration fees.

Secondly, the current enterprise business model reconstruction, there is a high degree of similarity, homogeneity. In this regard, some scholars put forward the argument that the enterprises undergoing business model restructuring have obvious exclusive attributes. They believe that as the process of business model restructuring continues, the final market may present three structural models of exclusivity: monopoly, competition and competition obstruction. The research finds that due to the high similarity of business model reconstruction, the competitive pressure among enterprises is increased. Therefore, enterprises that complete business model reconstruction first sign transaction agreements with buyers and sellers (or both buyers and sellers) immediately after entering the market, thus prohibiting them from cooperating with other enterprises. Since these enterprises are the first to complete the reconstruction of their business model and enter the market, they have an obvious first-mover advantage. In addition, they use exclusive trading agreements, and it is difficult for the enterprises that enter the market later to find partners. As the digital economy and platform economy are still in the “blue ocean market”, many enterprises hope to complete the transformation quickly, seize the market position, and even achieve the effect of monopoly. Therefore, the current business model reconstruction carried out by many enterprises has strong exclusivity, which will seriously hinder the process of business model reconstruction from the macro perspective.

The Reconstruction and Countermeasures of Enterprise Business Model in the Digital age

The Reconstruction Path of Enterprise Business Model

In the digital era, digital economy and platform economy are developing rapidly. It is an irresistible trend for enterprises to reconstruct their business models. For enterprises reconstructing their business models, it is

necessary to think carefully about where and in which direction to reconstruct their business models. There are three main ways to reconstruct an enterprise's business model:

First, in value chain perspective, find ways to make the company can obtain more lasting competitive advantage and profitability in the digital age. In the SCP model, Bernscherer believed that :" A successful business model must be able to determine the advantages in the value chain of the enterprise so as to achieve the goal of maximizing customer value, so as to help the enterprise find the market and grasp the core competitiveness, and at the same time to cultivate the company's ability to make lasting profits. Modern enterprise value chain emphasizes that all new value activities should be open to the outside world, so the new value chain should be opened in depth, connecting customers in the front and suppliers of goods and services in the back, thus forming a new commercial value ecosystem of 'commodity and service providers + enterprises + sales channels + customers'. Commercial value ecosystem can help to analyze advantages and disadvantages of the enterprise and facing the opportunities and challenges, is the key to guide corporate strategy development tools, can also act as the business model reconstruction, at different stages of the multidimensional architecture but contact each other's company and stakeholders, through effective division of labor coordination between value-added win-win value net. The theory of enterprise value chain extends from the traditional single and independent value chain to the theory of enterprise value ecosystem, and its evolution process is the process from the traditional value chain to the modern value chain: user demand -- channel -- commodity and service -- resource input -- enterprise resources and core competitiveness. In other words, enterprises take customer value as the first priority, integrate enterprise resource innovation value from outside to inside, define corporate goals, have a keen insight into opportunities, reconstruct processes and operating systems, and reconstruct enterprise business model (Liu & Fan, 2017).

Second, in platform economy perspective, the focus of enterprise business model reconstruction from the perspective of platform economy is to make market. The model of platform economy mainly solves the problem of resource allocation efficiency: namely, the separation of business flow and logistics in time and space, resulting in greatly increased circulation cost and low resource allocation efficiency. Therefore, the reconstruction of enterprise business model from the perspective of platform economy is to realize the unification of business flow and logistics. Enterprises should become market organizers to complete the whole process of commodity circulation organization in the city and provide customers with low-cost, convenient circulation, fair transaction and convenient payment services. In addition, enterprises also need to restructure the business model of supply chain. Enterprises need to make use of platform economy to break the general association of industrial development, rely on virtual platform, achieve collaborative management of supply chain, and create a "horizontal integration" production mode. Supply chain collaboration management mode, from the partners of different industries, different regions, different countries formed around the core enterprise relation chain structure of complex network, the chain of mutual coordination between companies, by integrating business flow, logistics, information flow and cash flow in the supply chain, under the premise of to meet the demand of customers to maximize the overall interests (Cai, 2016).

Third, community perspective. Digital age is a large and complex networks, a lot in many different industries under the specification of blue ocean subdivided market, for the development of content tend to have the potential, has not been excavated from a large number of market value, its special value chain operation is not too expensive, will focus on a target area of gathering in the subdivided market strategy, better scenario asso-

ciated implant. Market share is not the key to the future development of an enterprise, but the market competitiveness is more critical. The choice of business unit strategy should carry forward the core competitiveness of the enterprise to the greatest extent. Enterprises can attract target users through highly detailed service audiences, so as to establish a service community with shared ideas and collective cohesion, and thus expand their customer groups and drive their business activities (Luo & Li, 2017).

The Implementation Countermeasures of Business Model Reconstruction

Due to the complex and changeable market environment and the constant entry of competitors, enterprises need to clarify the path of business model reconstruction. In order to adapt to the business environment and win in the competition, enterprises also need to ensure the efficiency and speed of business model reconstruction. The following several countermeasures for business model can be used for reference. Combined with the above three paths, the implementation countermeasures of business model reconstruction of some enterprises are as follows:

First, in the digital age, the center of commerce is gradually shifting from individual to collective. Companies need to build business models that adapt to the digital economy with four qualities: flexibility, integration, customisation and responsiveness. In the process of business model restructuring, we should always keep a clear mind on two key issues: which part of the society the enterprise provides value to and how the value provided by the enterprise is created. First of all, who to provide value to help enterprises to think about the positioning of business model, target users and other issues, and can also train enterprises to take customer value as the center of profit model. With the support of big data and other modern information technologies, enterprises are more familiar with customers and more closely connected with customers. Therefore, in the construction of business model, enterprises need to pay attention to the cultivation of customers' understanding of enterprises and insight, so as to cultivate customer loyalty.

Second, after cultivating customer loyalty, the new business model needs to pay more attention to the value needs of customers, and sometimes it can use cloud computing, big data and other modern information technologies to adjust and guide customers' value propositions. Through such a business model, information data can gradually dominate the value proposition of customers, which is also one of the successful signs of enterprises moving towards digital economy and completing digital transformation of enterprises.

Thirdly, in the reconstruction of business model, we also need to pay attention to how enterprise value is created, and the core is to cultivate the 'digital power' of enterprises. Digital power has strong correlation ability, which can connect enterprises to enhance relatively independent value chain and business system, so as to cultivate the digital business ecosystem of enterprises. The purpose of this is to: on the one hand, in the context of digitization, the value creation of enterprises transitions from a relatively single, independent value chain to the digital business ecosystem. Culture, on the other hand, the digital power of the enterprise, is in the direction of the digital economy in promoting the enterprise transformation, so as to adapt to the digital era, this requires enterprises out of its business model originally used, improve the enterprise for the agile degree of market and customers, which can realize customization, fluent user experience.

According to the above three countermeasures, digital business model transformation mainly have three

kinds of order: the first kind of order focuses on restoring customer value demand, that is, first of all, through the digital content, insight and customer engagement, guide and expand or redefine the value of customer demand, then with the corresponding adjustment of enterprise operation mode; The second sequence focuses on the transformation of enterprise operation mode, that is, first by cultivating the digital power of the enterprise, and then by building the digital business system of the enterprise, so as to develop the value demand of customers; In fact, the main difference between the two paths mentioned above is that enterprises pay different attention to business model reconstruction at different stages. The third order is that while reshaping customer value demands, enterprises also focus on building digital ecosystem to promote digital transformation.

Enterprises must not be uniform in their business model reconstruction. Because the purpose of enterprise reconstruction of business model is to make the company adapt to the current dynamic environment, so according to the company's own development status, according to the change of market conditions, real-time and dynamic adjustment, and finally form the most suitable for the enterprise to adapt to the digital era of unique business model.

Conclusions and Recommendations

Conclusions

This paper mainly takes digital economy and platform economy as the background, and the reconstruction of enterprise business model in the digital era as the main content. This paper analyzes the current situation and bottleneck of business model reconstruction of Chinese enterprises, and also gives the path and strategy of business model reconstruction. In the context of the digital era, the development of digital economy and platform economy forces enterprises to reconstruct their business models, but at the same time, it also provides significant opportunities for enterprises. This paper holds that the birth of digital economy and platform economy and the accompanying revolution of science and technology have promoted the reconstruction of enterprise business model and provided the direction for the new form of business model.

The reconstruction of enterprise business model is after all the way for most enterprises at present. This paper provides three approaches for enterprise business model reconstruction, which are based on value chain, platform economy and community. However, for the current enterprise business model reconstruction, there are still problems that the internal mechanism system of the enterprise is not scientific and perfect, and the external law is not perfect. And the current large-scale enterprise business model reconstruction also caused high industry barriers, strong exclusivity between enterprises development bottleneck.

Recommendations

First, business model is an important guarantee for a company to obtain long-term effective profits. The reconstruction of enterprise operation mode in the digital era is the general trend of the upgrading, innovation and development of Chinese enterprises, and the reasonable and efficient enterprise operation and management mode has important and profound meaning for the development of enterprises. In order to reconstruct the business model, it is necessary to promote the upgrading of the value chain of the company, maximize

the value of consumers, and innovate and develop the business system, which are the most important issues for the enterprise reform at present. Set up the internal system matching the new business model. When the business model of an enterprise has been reconstructed and adapted to the new economic form and era background, the old management system of an enterprise may not be well matched with the new business model and format. In view of the new business model, enterprises need to clarify the subject of responsibility and standardize the division of responsibility, so as to gain the trust of customers.

Second, we need to create a virtuous circle of win-win cooperation. In the process of business model reconstruction, the exclusivity of enterprises should be reduced as much as possible, and the enterprises which originally belong to the competition should be transformed into cooperative relations, so as to realize the efficient integration of resources and complementary advantages.

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