

Research on Business Model of Digital Social Entrepreneurship

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Abstract

Digitization plays an important role in promoting the sustainable development goal of social enterprises. If the existing social enterprises are not transformed, the future economic and environmental challenges can not be solved sustainably. Digital technology has a profound impact on the identification and development of entrepreneurial opportunities and the acquisition of entrepreneurial resources. More and more studies show that the development of digital technology promotes the digitization of social entrepreneurship in opportunities, processes, resources, governance and other aspects. How to transform the digital business model into the driving force of social enterprises and realize sustainable development has important practical significance. Taking Water Drop Chip (WDC) enterprise as an example, this paper obtains the constituent elements of enterprise commercialization, namely value proposition, key resources, key processes and profit formula. Taking key resources and key processes as the main analysis object, this paper studies the operation mechanism of enterprise business model in digital society among various elements.

Keywords

Digital social enterprise; Business model; WDC.

1. INTRODUCTION

All over the world, large companies are undergoing excavation transformation and organizational change. Digitization, a new combination of digital and physical components for the production of new products [1], enables companies to enhance their competitive advantage by differentiating themselves from their competitors. Digitization means implementing digital technologies and innovative business models to create value and improve organizational performance; Therefore, the change of digital business model and the upgrade of value chain have a positive impact on the company's reputation [2]. Through self-functionalization, companies have had the greatest success in implementing digital technologies in the areas of customer experience and operations. Digital change can start with the customer, and the improvement of the customer experience is one of the main drivers of digital transformation. The rise of the Internet and tech-savvy customers has changed consumers' expectations of businesses. On the consumer side, digitization has fundamentally changed the way consumers find, buy, consume, talk about and share experiences with products and services. From the perspective of the enterprise, digitalization reaches "inform, engage, sell, understand, and serve customers" in new ways [3]. Digitization is changing business models and industries [4]. The development of Internet, big data, cloud computing and other related information technologies has promoted the transformation of business model, so that enterprises have to consider this new business environment. Under the digital business trend, enterprises gradually take advantage of digital advantages to strengthen communication and

interaction with customers, business partners and other stakeholders, presenting a business model with digital characteristics [5]. To business model innovation in the digital age, the enterprise needs to assess the opportunities and threats of digital, integrated, responsive and flexible and customizable key elements, the content of the digital platform, customer experience, and reinforcement, thus forming a new value proposition and value creation process, realize the business model transformation of the digital age [6]. Therefore, as a major platform for public fundraising, WDC is a typical social enterprise, and also a unique feature of social 1 entrepreneurship. It is necessary to study the operation mechanism of its business model.

2. DIGITAL SOCIETY ENTREPRENEURSHIP AND BUSINESS MODELS

The 21st century is an era of globalization and information technology. Digital technologies represented by cloud computing, big data, Internet of Things, Internet and artificial intelligence are gradually affecting all aspects of society and economy. In the context of digitalization, digital technology has become an important factor leading the transformation of social and economic systems. As a new form of entrepreneurship, Digital Entrepreneurship promotes the identification and development of entrepreneurial opportunities through digital technology, optimizes the entrepreneurial process path, explores the access to resources, improves the performance of digital enterprises, and constantly improves and enriches traditional entrepreneurial methods. New forms of entrepreneurship represented by digital technology also provide carriers for open technology co-construction, building sharing platforms, shaping intelligent interaction scenes and coordinating dynamic distribution of values [7]. In the solution of social problems to enrich the way and way. Relying on digital technology, a large number of digital start-ups have emerged in China. Didi Chuxing, Meituan, Douyin and other digital enterprises have developed into industry newcomers and mainstream digital industries in just a few years by using digital technology and China's huge digital user base. At the same time, many traditional enterprises also use digital technology for business model innovation, create competitive advantages, occupy the market position. The entrepreneurial enthusiasm caused by digital technology is promoting the vigorous development of China's digital economy.

In under the influence of digital technology, social entrepreneurship has had a boom, with the help of digital technology in the development of society, there are many such as water droplets to raise and easy to raise the use of digital platform, in health care, poverty alleviation, such as save the children on social problem solving is widely used, such as water droplets to raise public interest and the raise of network platform, with the help of the Internet platform of technology, Crowdfunding platforms break through the constraints of geographical location on financing activities and optimize the effective allocation of social resources [8].

The concept of digital social entrepreneurship has gradually emerged. At present, the definition of digital social entrepreneurship is not clear, the relevant content is scattered, and the research perspective is more focused on the macro social impact [9]. The theory is far behind the practice. Digital technology refers to the products or services embedded in or supported by ICT, which play an important role in enabling innovation and entrepreneurship [10]. Digital entrepreneurship reflects the large-scale transformation of digital technology in the entrepreneurial process and results and the precise positioning of the entrepreneurial market and user needs, which is of great significance to the transformation of demand opportunities and the evolution of social system [11]. The influence on the evolution of social system makes digital technology spread to social entrepreneurship, and digital social entrepreneurship has extensive public policy significance at home and abroad. For example, big data analysis in areas such as public health, transportation and education can help citizens and non-profit organizations discover social problems, which in turn bring entrepreneurial opportunities [12]. Later, Liu Zhiyang et al. (2020) defined digital social entrepreneurship as a

new entrepreneurial activity with the mission of solving complex social problems, integrating digital technology into the process of social entrepreneurship, and realizing the mixed value of economy and society. In practice, social entrepreneurship aims to create social value and solve social problems. The integration of digital technology and social entrepreneurship has promoted the digitalization of social entrepreneurship in opportunities, processes, resources, governance and other aspects. Compared with traditional social entrepreneurship, digital social entrepreneurship is time-oriented, intelligent and data-oriented in solving social problems.

The concept of business model (BM) dates back to the 1960s [13]; However, with the development of economic digitization, it is no coincidence that its popularity has increased. Since the emergence of e-commerce in the 1990s, the research of business model has become the mainstream; Digital business model, in the current digital economy [14]. Business model can be described as an interrelated and interdependent activity system, which determines how the company conducts business with stakeholders. It specifies which parts are interrelated, or how these activity relationships are interrelated when partners are aware of which activities.

The impact of digital change exceeds people's expectations, which requires enterprises to evaluate the threats and opportunities brought by digitization, and design the business model of the digital age around the business design platform and the cognition of end consumers. The business model in the digital age challenges the entity model in three aspects: internal power, business process and customer data. Enterprises must strengthen their digital business model around the content, customer experience and platform of digital empowerment. The core of the business model is to clarify who creates value and how to create value. First of all, to whom to create value focuses on customer value proposition. Digitization and big data help enterprises acquire the ability to establish in-depth relationships with customers and cultivate customer insight and customer loyalty. Therefore, customers are highly empowered by information, which has become the primary motivation to drive the digital transformation of enterprises. Based on the deepening understanding of customers, in order to better interact and cooperate with customers, enterprises need to use digital technology to transform customer value proposition. As a result, customer value propositions are increasingly data driven. Secondly, how to create value focuses on the process of enterprise value creation. Digital power enables unprecedented connectivity, which will fragment the value chain, aggregate industries and produce a new ecosystem. As a result, the mechanism of value creation and distribution will be changed. On the one hand, the process of enterprise value creation enabled by digitization is changing from value chain to commercial system. On the other hand, digital transformation requires enterprises to change the old operation and business model and be agile to achieve a unique and smooth customer experience.

Others believe that business model is to create value and get return from this value. They define business model as the potential core logic and strategic choice for enterprises to create and obtain value in a value network. Business model is a conceptual tool that helps to understand how companies conduct business and can be used for analysis, comparison, performance evaluation, management, communication and innovation. Many scholars deconstruct the business model of enterprises from the constituent elements of business model, so as to refine a clearer business operation logic. Different scholars have different views on the constituent elements of business model. At present, there is no unified view, but the more representative theories are three factor theory, four factor theory and nine factor theory [15]. When the organization is viewed from the perspective of more elements of business model, the business model will be more comprehensive and delicate, but it will also appear complex and elusive; When we examine organizations with fewer elements of business models, although it is relatively simple, it is easier for us to grasp the essential differences of business models of different organizations. Under the digital business model, enterprises and other stakeholders such as customers and suppliers show the characteristics of diversified interaction and network

collaboration. The enterprise boundary is gradually blurred, gradually carry out cross-border integration strategy, and move towards the road of win-win cooperation with competitors. For example, the convergence of fresh e-commerce business models based on the Internet has led to vicious competition among industries. Yiguo fresh has carried out cross-border cooperation with Haier, utilized and integrated the model of Haier smart refrigerator, innovated the business model of value proposition, core resources, key processes and profit model elements, and realized the provision of heterogeneous fresh agricultural products, And meet customer needs [16]. According to the viewpoint put forward by the modular school, the business model structure is regarded as a combination of several construction modules. The school believes that a successful business model includes four locked elements, namely customer value proposition, profit formula, key resources and key process, and the four elements jointly create and transmit value.

3. CASE STUDIES

3.1. Enterprise Profile

Waterdrop financing was established in April 2016, is China's leading personal medical provider of funds, is dedicated to the broad masses of the people and efficiently to provide health funds, accumulated for tencent, Meituan reviews, blue ventures, ficus altissima, innovation works, IDG capital investment 210 million yuan, very serious funds and valuation of nearly 1 billion yuan. As of March 2018, Waterdrop financing has more than 100 million paying users, and its three major businesses are Waterdrop Mutual Aid, Waterdrop Funding and Waterdrop Insurance, making it the fastest growing Internet health insurance platform in China. Water company is a leading platform for the health insurance, the droplets insurance mall and water droplets peer into droplets of business module, WDC and raise water drop commonweal formed droplets company social responsibility module, two modules together make up the perfect "advance security and afterwards relief" insurance system, using the Internet to booster the people have confirmed to the medical science and technology, Realize the enterprise's mission of "protecting hundreds of millions of families".

3.2. Elements of Digital Business Model

Value discovery. In the process of organizing the company to raise money for colleagues, founder found that medical treatment for serious diseases is a difficult problem for ordinary families in China. His parents, who are engaged in related work in the medical and insurance fields, realized long ago that most families could not afford high medical expenses for serious diseases, poverty caused by illness was very common, and the donation process took too long, which tended to delay the best treatment opportunity. Therefore, founder felt that if he could make people from ordinary families get adequate medical expenses in time in case of serious illness, the effect would be more significant than donation or reimbursement after treatment, which would improve people's livelihood and improve the existing insurance mechanism.

Value proposition. Waterdrop financing advocates providing a free fund-raising platform and platform operation guarantee for the families of patients who lack money to cure serious diseases. Since the first day of its birth, waterdrop financing has emerged to solve a social problem. Waterdrop's initial intention is to use Internet technology to help promote the insured and medicable people, focus on the field of Internet health insurance, and hope to provide pre insurance protection for the majority of Internet users, as well as post illness relief and protection.

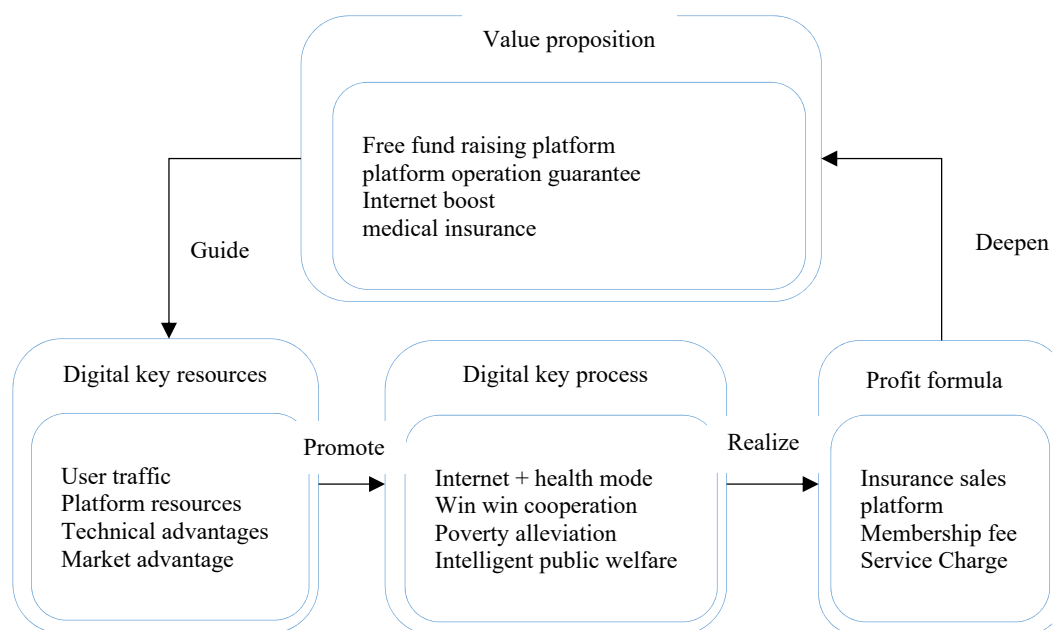


Figure 1. Operation mechanism of business model

Key resources. The operation mechanism of Waterdrop financing mainly depends on the Internet and uses digital technology to realize the implementation of the whole business model. In the process of operation, entrepreneurs first build the digital platform of network public welfare crowdfunding platform as an intermediary connecting various social departments and customers. For customers, through the network public welfare crowdfunding platform, we can break the geographical limitations, quickly spread the platform information, and use the sympathy and social responsibility of the people to gather financial support from various places to provide free medical expenses for seriously ill patients. At the same time, patients will continue to promote the platform, improve the credibility of the platform, and achieve the purpose of online and offline publicity, Expand the scope of the group. For commercial institutions, Waterdrop financing will improve their publicity platform to open up enterprise resource acquisition channels, and use the digital platform to achieve mutual benefit and win-win with some online marketing enterprises. Waterdrop financing integrates AI technology, two patents and multiple platforms, with certain technical support. In 2018, Waterdrop financing and other companies jointly donated and established the blockchain research center of Wudaokou School of finance, Tsinghua University. It provides strategic support for the research of Wudaokou School of finance of Tsinghua University in the fields of targeted poverty alleviation, Internet health and medical security, insurance technology, charity and public welfare.

Key processes. Digital services. With waterdrop financing as the main line, based on wechat system and waterdrop mutual aid and waterdrop insurance as the platform, waterdrop financing has established a guarantee service system of "serious illness fund-raising - medical mutual aid - health insurance". Based on big data technology and combined with the risk assessment data of millions of help seeking projects, waterdrop financing constructs a big data intelligent verification system to cross verify the authenticity of patient identity and other information to assess the project risk. Waterdrop financing has put the risk control technology of "artificial AI" into application, the audit efficiency has been further improved, and patients can raise life-saving money faster. The iteration of risk control measures is only the epitome of the evolution of waterdrop financing business. In early 2019, waterdrop financing combined with Internet technology to provide customers with: wechat one-to-one service, customer service email service, intelligent underwriting and other services, 1v1 guidance for seriously ill

fund-raising users, an "insurance teacher" for insurance "Xiaobai" users to popularize insurance knowledge, and an "underwriting robot" to guide users to purchase insurance products.

Poverty alleviation through science and technology. In order to realize the public interest intention of the general public, since its establishment, the waterdrop financing has persisted in studying and implementing the important strategic thinking of general secretary Xi Jinping's poverty alleviation and development, focusing on the core of the company's business development in the "precision poverty alleviation", focusing on the "three districts, three states" and other deep and impoverished areas, based on early in-depth research and market analysis. Fully combine their own technical and resource advantages in the Internet, big data and AI, firmly grasp the strategic idea of "helping individuals, supporting regions and helping specific groups", carry out targeted project design, R & D, promotion and operation, and vigorously promote the development of core businesses such as healthy poverty alleviation, e-commerce helping agriculture and public welfare assistance, While providing the most direct and practical medical fund assistance to patients with serious diseases in economic difficulties, it has gradually stimulated the endogenous development momentum in poor areas, formed a water drop targeted 7 poverty alleviation model of "little by little, one by one", and effectively contributed to the battle against poverty and the strategy of rural revitalization. With the new idea of "healthy poverty alleviation through Internet insurance", Waterdrop insurance mall has given full play to the role of health education poverty alleviation in blocking the intergenerational transmission of poverty.

Intelligent public welfare. In terms of rural assistance, Waterdrop financing pooled Public Welfare Foundation launched a customized assistance plan to study and formulate characteristic assistance schemes according to the actual situation and personalized needs of poor villages, provide targeted assistance resources for local farmers, solve the current difficulties and effectively improve the effectiveness of targeted poverty alleviation. Up to now, the customized assistance plan has packaged and customized the overall assistance scheme of "toilet revolution" and "courtyard economy" for Zhenlai County, Jilin Province. It uses a variety of assistance means such as direct donation, resource introduction and technical support to strengthen the "hematopoietic" function of local poor farmers, stimulate endogenous motivation and help establish a long-term poverty alleviation mechanism.

Profit formula. As an enterprise, waterdrop financing has three main sources of profit: first, time arbitrage. The fund-raising cycle of waterdrop is generally 30 days, and the applicant will get the fund-raising after expiration. In the cycle, the capital flow is managed by the platform, and a large working capital pool is formed by small accumulation and large accumulation. According to statistics, the monthly fund-raising of waterdrop financing is as high as 470 million yuan. Waterdrop platform can use this fund to invest and make profits. Second, traffic profit. The continuous forwarding of help seeking information and the growth of communication volume have obtained huge traffic for waterdrop financing. Waterdrop financing has also developed other insurance products and mutual aid plans. This huge flow not only opens the market for products, but also earns a lot of advertising and cooperation funds for waterdrop financing platform. Third, distribute insurance and mutual aid products. The dissemination of water drop fund-raising information has enhanced people's risk awareness. When people have risk awareness, their first reaction is often to choose insurance, while waterdrop financing makes good use of people's psychology. It uses traffic to make people frequently exposed to serious illness information and awaken their potential crisis awareness. When people open the fund-raising link, they will pop up relevant insurance and mutual aid products, so as to promote donors to buy relevant products and make profits. The whole process is shown in Figure 1.

4. DISCUSS

4.1. Research Conclusion

Under the background of "industry 4.0" and "digitization", all walks of life began to transform, and a series of new business models such as social TV and live e-commerce appeared. The availability, generation, variability and other characteristics of digital technology are gradually emerging [12]. The development of social entrepreneurship under digital technology is an inevitable trend that social enterprises will face, accept and improve in the future. Traditional social entrepreneurship will gradually turn to digitization due to scarce resources, difficult process and other problems, and gradually form a digital social entrepreneurship with intelligent connection of social problems, real-time response to social problems, visualization of social value and exponential growth of Social Entrepreneurship [9]. Starting from different perspectives, the research selects waterdrop enterprises on crowdfunding, analyzes the operation mechanism of waterdrop's digital business model from the perspective of business model, and draws the following conclusions:

Digital business model is the process of developing and improving the digital ability of social enterprises. Through the analysis of the business model research of case enterprises, it can be seen that the digital ability of social enterprises plays an important role in the operation of business model. Digital capabilities of social enterprises, including cross channel integration capability, insight brought by big data analysis, data decision-making capability, etc. The development and promotion of these digital capabilities will help to improve the responsiveness and flexibility of social enterprises to rapidly changing customer needs.

The operation of business model in the digital era is a parallel process of social enterprise value proposition reconstruction and operation model reconstruction. It is related to the strategic objectives of social enterprises, industry environment, competitive pressure and customer expectations. The difference is more reflected in the degree of customer value proposition and business model reengineering, but it must be the result of the joint action of the two. The reconstruction of a single dimension can not realize the digital business model.

The result of digital business model is the improvement of competitive advantage of social enterprises. In the digital age, competition is not only a reshuffle in traditional industries, but also a digital age with completely different business models. In order to deal with radical subversion in advance, social enterprises need to create experience and carefully design symbiotic, situational and cognitive business models. By integrating digital technology into the business model, social enterprises can optimize decision-making, improve resource allocation, and better listen to customers, so as to create sustainable competitiveness.

Using digital technology to innovate business model is the core of innovative development model of social enterprises. With the continuous application of digital technologies such as big data, Internet of things and cloud computing, social enterprises in various countries have entered a key stage of development model transformation. Traditional social enterprises should make full use of digital technology to change the value creation process and value realization mode, drive the overall adjustment of development mode through business model transformation, and then create new competitive advantages.

4.2. Practical Enlightenment

For traditional social enterprises, the proposal of digital society entrepreneurship can be a good reference for traditional enterprises. It can not be limited to the previous development mode and change the situation of scarce resources and difficult survival. We should be good at using digital technology to improve resource acquisition channels, broaden entrepreneurship opportunities, build a digital society Entrepreneurship platform, and connect public welfare

organizations, commercial institutions and other social circles, Practice the value co creation mechanism and realize value co creation.

For the government, the rise of entrepreneurship in digital society makes the docking of social problems intelligent and the response of social problems real-time. Digital technology has become a powerful and efficient tool for social entrepreneurship to solve social problems. The support of the government will support the development of digital social entrepreneurship, and its legitimacy has been guaranteed. Conversely, digital social entrepreneurship continues to create social value, and the digital social entrepreneurship platform continues to unite all parties to achieve harmony and win-win results, jointly create economic value and social value, which will also continue to promote social stability.

For commercial institutions, although digital social entrepreneurship has the mission of creating social value and solving social problems, it still needs to rely on economic value to maintain its normal operation. The establishment of digital social entrepreneurship platform also needs a certain cost to support. Co creating value with commercial institutions is an effective way, which can not only promote the market economy, It can also quickly form a unique business model of using economic value to create social value, and the digital society entrepreneurship platform, as the product or service publicity platform of commercial institutions, creates economic value and forms a virtuous circle with each other.

For social entrepreneurs, social entrepreneurs with digital background pay attention to opportunity creation and mission. The combination of digital concept ability and social value proposition helps to understand and grasp the ontology of social problems and provides a clear guidance for the combination of resource 9 Resources and opportunities. At the same time, the positive promotion of social value proposition by digital entrepreneurs is conducive to promoting trust based partnership, and improving the effectiveness of social entrepreneurship opportunity identification and the accuracy of resource acquisition.

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