

Research on Business Model Innovation based on Big Data Analysis in Internet Plus

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Abstract. Business model is considered to be the integration of enterprise economic structure, operation management and strategic management. Through the operation of business system, it can improve performance, create consumption value, build internal structure and finally form a unique competitive advantage in the market. Because the information that a natural person can use to choose investment projects is limited, the decision-making under the condition of limited information seriously affects the rational level of his investment and reduces the efficiency of his investment decision-making. As far as the development of big data in China is concerned, the Internet is the fastest field for the development and application of big data technology. Operators such as Baidu and Taobao have begun to take shape, and the services provided by them have also become the main source for the public to experience and know about big data. Based on the analysis of big data under the background of Internet, the process of enterprise value creation has been changed, and data-driven production and operation activities have been realized. At the same time, the mobile Internet has changed the interactive way among members of the value network, and made real-time and interactive value transfer possible.

Keywords: Internet Plus; Big Data Analysis; Business Model Innovation.

1. Introduction

With the development of the Internet and the popularity of mobile Internet, massive data connectivity has become a reality, and the big data industry will usher in an explosive climax. Big data has become an important manifestation of national competitiveness. Enterprises engaged in big data collection and owning data resources will get the opportunity of high-speed expansion. Generally speaking, business model is considered as the integration of enterprise economic structure, operation management and strategic management. Through the operation of business system, performance is improved, consumption value is created, and internal structure is built, which ultimately forms a unique market competitive advantage. Because the information that natural persons can use to select investment projects is limited, the decision-making under the condition of limited information seriously affects the rational level of their investment and reduces the efficiency of their investment decision-making [1]. The growth rate of global data is unprecedented, and the types of data are becoming more and more. Big data, which has a wide variety, a large number, and an increasing rate of generation and updating, contains unprecedented social and commercial value, and has great development potential. Generally speaking, "Internet plus" means "Internet plus in all traditional industries", but this is not simply a combination of the two, but the use of information and communication technology and Internet platform to make the Internet and traditional industries deeply integrated and create new development ecology [2-3]. The business model is an enterprise operation management model. It describes the transaction mode, operation process and management process of the product by using the transaction content, structure process and governance structure of business opportunities to create value.

From the perspective of the development of big data in China, the Internet is the fastest growing field of big data technology development and application. Operators such as Baidu and Taobao have begun to take shape, and the services provided by them have also become the main source of the public's experience and understanding of big data. The competitive advantage gradually formed in the operation of the business model, together with market development, capital operation, profit

acquisition, etc., finds value, creates value, transmits value and obtains value. Through the huge advantages of information transmission and sharing through online channels, we can realize the rapid integration of upstream and downstream industrial chains, and leverage the potential consumption, service, medical and other markets of elderly users. The channels and user resources accumulated by the traditional business model for many years will be quickly occupied, and the existing advantages will disappear [4]. "Expanding foreign trade, cultivating new forms and models of trade, and promoting the building of a powerful trade country" has clearly defined the goal of China's foreign trade development, and also pointed out the path to achieve this goal. With the deepening of globalization, as a new form of foreign trade development integrating the characteristics of "Internet plus foreign trade", it has gradually developed into a new trading point of current international trade. Based on big data analysis under the Internet background, the process of enterprise value creation has been changed, and data driven production and operation activities have been realized. At the same time, the mobile Internet has changed the interaction mode between members of the value network, and made it possible to transmit real-time and interactive value.

2. Impact of Big Data on Economic Life

In the future production and life, the bringing of big data will definitely drive the improvement of new economic benefits and have a far-reaching impact. In addition to the financial field, the achievements of big data in other fields are also very remarkable. Big data deeply affects people's production and life and has become an indispensable part. All kinds of information inside the financial market that affects the price of financial products can be fully disclosed, and all investors can obtain the same quality and quantity of effective information in the same time without any difference, thus helping them to make correct decisions [5]. In this case, people have a brand-new understanding of data and the world. Before making corresponding decisions, they are all based on certain theories, instead of doing things by feeling at will. This is the important influence of big data on economic life.

Under the new situation, the operation mode of foreign trade enterprises has become more complicated and diversified due to the openness and flexibility of the network. In order to adapt to the changing market environment of information technology and Internet, foreign trade enterprises must constantly adjust their business strategies, change the original traditional business model, and change from the traditional model to the new business model under the background of "internet plus Foreign Trade" [6]. It is reconstructing many traditional industries, and its limited knowledge and skills determine that they are not completely rational economic agents. Although investors can make basic technical analysis of investment target products in the field of Internet finance according to their self-interest, and make prudent trade-offs and choices between risks and benefits, in the process of sorting out the data, they can further understand the relevant data information, select a part that is beneficial to themselves, and make use of it, so as to obtain more effective value [7].

3. Main Forms of Enterprise Business Model Innovation in the Context of "Internet Plus"

Foreign trade enterprises produce and purchase products in a unified way, and display and trade through websites developed and operated by themselves. The whole transaction of this mode is completed on the self-built e-commerce website, which has advantages in product quality control, transaction process and risk control. Today, with the rapid development of the Internet, enterprise operations are inseparable from the Internet. The trend of "Internet plus" has encouraged the combination of traditional industries and e-commerce. The research on the theory of enterprise dynamic capabilities has also incorporated the impact of the Internet. The model represented by Global Resources and Alibaba is a business model that is widely used at present. The platform collects and sorts information by classifying products and services, and provides it to corresponding customers so that customers can obtain professional procurement information. Traditional enterprises

provide more "products" and "services". After the advent of the Internet economy, "information" has been added to provide users and added value on the original "products" and "services"; The partnership includes upstream production suppliers, service providers, downstream distributors, customer feedback, and the cooperation mode of parallel partners [8]. Under the background of "Internet plus+foreign trade", the main forms of enterprise business model innovation can be divided into the main types of enterprise business models and the status quo of Suzhou foreign trade enterprise business models, as shown in Figure 1.

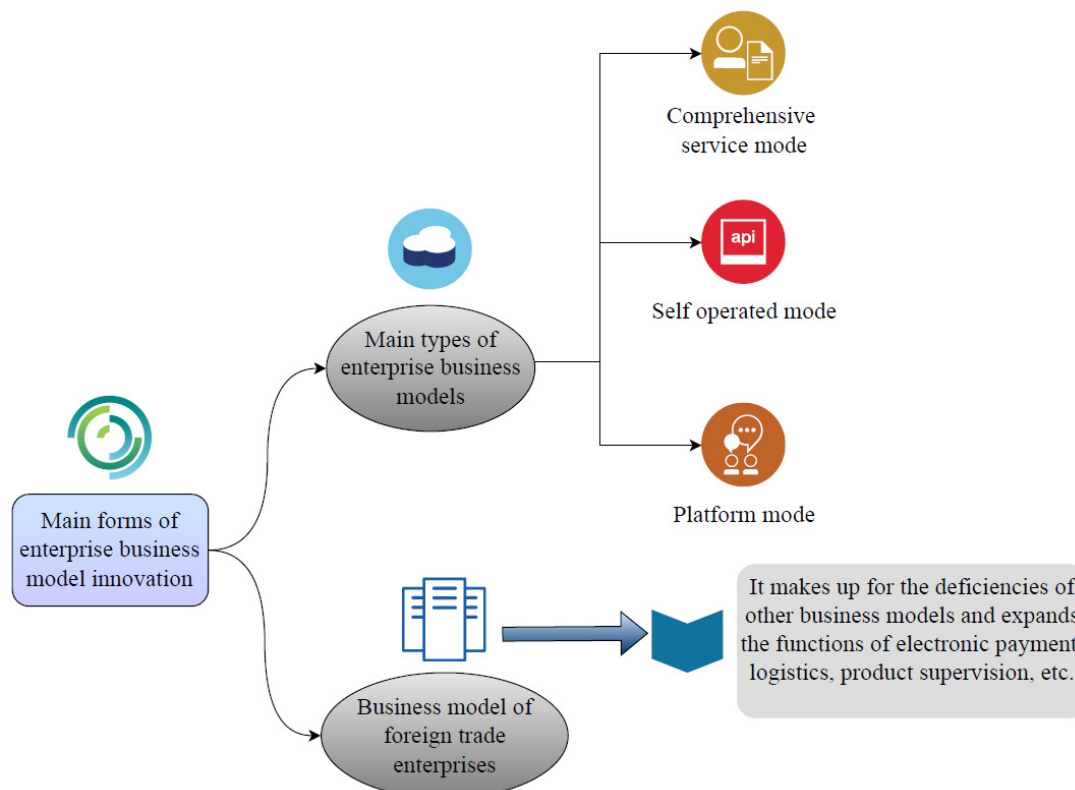


Figure 1. "Internet plus foreign trade" under the background of the main manifestations of business model innovation

Comprehensive service enterprises provide information, reporting, logistics, foreign exchange and financing services for foreign trade enterprises through the Internet. Through the data analysis of the capital usage habits and bad debt rate of these groups of users, it is found that they are the high-quality loan users, and the bad debt rate is extremely low; However, this kind of market segment gold mine is ignored by our traditional experience. On the surface, it seems that the "barbaric growth" of Internet companies depends on huge capital flows, but often these companies are driven by the huge data resource collection, which makes them hesitate to invade across borders and promote the perfection of their own ecosystem [9]. Foreign trade enterprises can realize overseas direct sales of products through comprehensive service platform, realize diversification and convenience of marketing channels, and reduce transaction costs.

4. Innovation of Business Model Brought by Internet Industry under the Background of Big Data

4.1 Transform Traditional Industries and Accelerate Integrated Development

The Internet is part of the infrastructure and has the characteristics of universal service. But more important than the Internet is industry applications. First of all, the popularization of big data technology in the industry is the process of upgrading the traditional economic form, which has a more direct role in promoting social transformation and upgrading; Secondly, the overall scale of

industrial customers is far more than that of the Internet, which is a major part of the market [10]. For quite a period of time, the economic development cannot be separated from the support of the Internet, and it has been moving forward and backward with China's traditional industries. On the one hand, it has created new opportunities for the reform of traditional industries, on the other hand, it has also driven the rise of emerging industries, creating a wider space for China's economic development, which is the development and change brought about by the Internet.

Although the improvement of informatization level is helpful to enhance the operation efficiency of enterprises, it puts forward higher requirements for the robustness and security of big data information system operation of financial institutions. Information technology is developing towards universality, integration, intelligence and green. Group breakthroughs have been made in the fields of network communication, computing, software and services, which have produced destructive, subversive and revolutionary innovation effects on the information industry, and are reshaping the new pattern of global information industry development. The business model of "Internet plus+foreign trade" has become a new model for foreign trade transformation and upgrading. From the traditional trade model to the new business development model of "seller - international logistics distribution system - buyer", its advantages are increasingly prominent. The comparison between the traditional foreign trade model and the new business model is shown in Table 1.

Table 1. Comparison between traditional foreign trade model and new business model

| Category | Trading hour | Intermediate link | Logistics mode |
|--------------------|---------------------|-------------------|--------------------------|
| Traditional mode | Workday | Multi-middleman | Container transportation |
| New business model | Weekend and weekend | Less middlemen | International logistics |

At present, the effective operation of the financial system depends on the security of the network system. The convenience of wireless network access and the lack of effective regulatory measures make illegal people provide wireless network access services for financial customers by setting up free wireless networks. Traditional industries and the Internet are integrated with each other, and they are developing towards a more intelligent direction on the basis of retaining the original model, Major changes have taken place in the industrial structure, and in the future development process, the Internet will develop faster and faster. Only by seizing this opportunity and applying Internet related technologies in every link, can the traditional industry develop forward.

4.2 Prospect Forecast of Big Data-Driven Internet Industry

The Internet has entered the era of mobile internet in an all-round way, and "self-media" represented by WeChat, Weibo and clients is becoming the new focus of online public opinion field. Cloud computing and the development of mobile Internet provide technical support, and the "self-service" era of personal self-service is coming. Furthermore, Internet financial institutions should strengthen the formulation and implementation of big data usage rules, clarify the application business process, usage rights rules and data processing rules of Internet financial institutions and business stakeholders when using the database information, strictly limit the use boundary of customers' private information, and strictly control the risk of private information leakage of financial customers. Big data is used to improve customer relationships, expand marketing channels to achieve indirect profits, accurately mine customer characteristics, predict potential demand, and enhance customer service differentiation capabilities; Create new relevant user relationships and realize profit point expansion. The framework of big data analysis business model in the context of internet plus is shown in Figure 2.

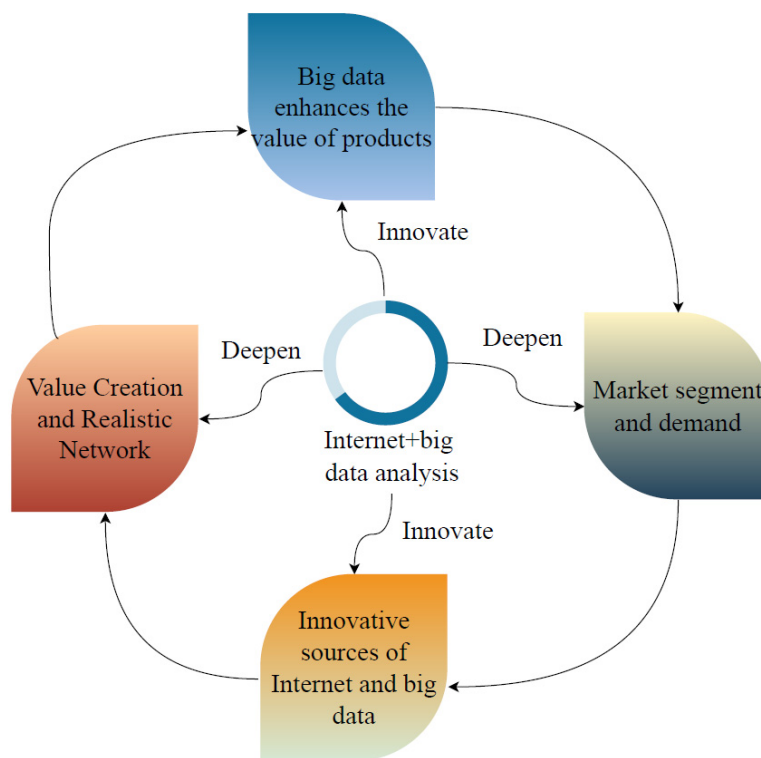


Figure 2. Business model of big data analysis in the context of internet plus

The traditional trade of enterprises is mainly "producer → exporter → carrier → importer → wholesaler → retailer → consumer" mode. This business model has no control over products, and can only add reasonable profits according to the different nature of products. Take the product as the core, and obtain the price difference through the resale of the product. Internet financial enterprises should carry out the top-level design of the big data technology system, re-construct the big data business management process around the needs of the target customer groups of Internet financial enterprises, use big data to integrate the information of multiple statements of enterprises, and make in-depth analysis and design of these statements. In the future, the rule of law will become the new normal of Internet governance. This requires many parties to actively promote the legal construction of network society, adhere to the rule of law, manage the network according to law, run and use the network according to law, and form a network governance system featuring government coordination, industry self-discipline, enterprise participation and social supervision, so as to continuously improve the ability and level of network social governance, purify the network environment, make the network space clear, and make the network a platform for transmitting "positive energy".

5. Conclusion

With the progress of modern Internet technology and the advent of the big data era, the development of the Internet industry has brought opportunities for business model innovation, and big data has become an important driving force for business model innovation. Driven by big data, enterprises collect consumer related consumption data, use big data technology to tap consumers' potential consumption demand or implicit consumption demand, and stimulate consumers to consume. It provides behavior and trend support for enterprise business development, promotes the forward-looking effect of business activities, makes knowledge driven decisions, excavates unknown problems of enterprises, ultimately meets the actual needs of enterprises, and realizes the innovation and value creation of business models. Big data has made market segmentation a new development of enterprise marketing management, which has improved the market competitiveness of Internet enterprises, expanded market share and increased enterprise competitive advantage. Develop a

classified regulatory system suitable for the development of the Internet financial industry, that is, in the process of formulating regulatory measures, deal with traditional financial businesses and Internet financial businesses separately, so as to ensure that the regulatory measures of financial regulators are more targeted and effective. In the context of the Internet, big data technology can provide intellectual support for activities in the fields of scientific research, economic construction, social development and cultural life, and is having a profound impact on human decision-making mode and socio-economic operation mode.

References

- [1] Changbao L U, Wang C. "Internet plus" and Business Model Innovation of Sports Tourism: A Conceptual Framework Based on Time-space-connection Paradigm[J]. *Journal of Shanghai University of Sport*, 2018, 55(16):42-63.
- [2] Liu L Y. How Does Internet Plus Promote the Business Model Innovation in Exhibition Industry[J]. *China Business and Market*, 2018, 38(11):38-61.
- [3] Cheah S, Wang S, Ma J, et al. Big data-driven business model innovation by traditional industries in the Chinese economy[J]. *Journal of Chinese Economic & Foreign Trade Studies*, 2017, 47(33):30-58.
- [4] Xia Q, Lou H. Simulation of business model innovation based on business model rigidity: Comparison between traditional and internet firms[J]. *Xitong Gongcheng Lilun yu Shijian/System Engineering Theory and Practice*, 2018, 38(11):2776-2792.
- [5] Haaker T, Ly P, Nguyen-Thanh N, et al. Business model innovation through the application of the Internet-of-Things: A comparative analysis[J]. *Journal of Business Research*, 2021, 126(52):126-136.
- [6] Bretschneider U, Ebel P A, Leimeister J M. Open Business Model Innovation via the Internet: How Wiki Technologies Can Improve the Quality of Business Models[J]. *International Journal of Innovation and Technology Management*, 2020, 62(3):2040004-2040042.
- [7] KA Flüchter, Kristina A, MA Flüchter, et al. the impact of the internet of things on business model innovation insights from the electric bicycle industry the impact of the internet of things on business model innovation - insights from the electric bicycle industry[J]. 2017, 36(17):38-54.
- [8] Zhang L. Innovation of Business Management Model Based on Big Data[J]. *Journal of Physics: Conference Series*, 2021, 1852(2):022015-022030.
- [9] Yang F. A Research of Knowledge and Technology Innovation on Business Model Innovation: From the perspective of Chinese Pharmaceutical R&D Outsourcing Enterprises[J]. *International Journal of Science and Business*, 2021, 5(3):26-41.
- [10] Song Y, Hua X. Innovation Path of Leasing Trade under Smart Logistics Technology by Big Data Analysis[J]. *Hindawi Limited*, 2021, 16(3):17-26.