

Research on Enterprise Profit Model of "Internet + Medical Service"

- Taking Jingdong Health As an Example

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Abstract: Internet medical enterprises are developing rapidly in the context of the epidemic, and the importance of the Internet medicine industry is increasingly reflected. At present, most of the Internet medical industry is in the early stage of development, and the profit model of many enterprises is still relatively vague. Many enterprises are faced with difficulties in making profits or even in long-term losses. Therefore, it is the top priority for enterprises to find their own profit model. By studying the profit model of Internet medical enterprises, it is of great significance to help enterprises optimize and adjust their own profit model and realize a corporate profit. In this paper, case analysis and comparative analysis are used to select Jingdong Health as the research object, analyze and classify the profit model based on its development history and leading business, and analyze the profit model through its constituent elements. Through research and analysis, it is found that Jingdong Health has problems such as too single profit points, the low viscosity of profit objects, and low efficiency of fund utilization. At the same time, it puts forward some suggestions for the existing problems. The research results show that continuous improvement of the profit model is crucial for the development of enterprises. It is hoped that this paper can provide a reference for other Internet medical enterprises in the early stage of growth in the optimization of the profit model.

Keywords: Jingdong Health, profit model, elements of profit model

1. Introduction

The rapid development and progress of network technology are constantly changing the daily lifestyle of the public. The high degree of integration of "Internet + traditional industry" in China has become a significant trend in the development of the Internet. The mutual integration between the Internet and traditional industries is not a simple superposition. Its essence is the use of traditional industries on the network media platform. The use of data information technology generated a new industry development state. In real life, in addition to food, clothing, housing, and transportation, the public is also concerned about the development of medical treatment. Many Internet companies seize this development opportunity to combine the Internet with the medical service industry, which is the so-called "Internet +." After years of development and with the strong support of government

departments and the treatment of commercial enterprises, "Internet + medical services" has been continuously optimized and improved, playing an important role in changing the daily lives of ordinary people. In 2015, with the proposal and promotion of the national "Internet +" action plan, the development of the Internet entered a new stage, and the Internet medical industry also entered a period of rapid development. In order to alleviate the contradiction between the supply and demand of medical resources, The General Office of the State Council issued the Guiding Opinions on Promoting the Development of "Internet+ Medical and Health Care" in 2018, proposing to promote the development of the new business form of "Internet + Medical and Health Care" from three aspects: service system, support system, and regulatory guarantee. The guideline lists a series of policies and measures to show its support for the vigorous development of "Internet + health care." In 2020, due to the impact of the novel coronavirus outbreak, the Guiding Opinions on Promoting "Internet +" medical insurance Services during the prevention and control of the novel coronavirus Outbreak further promoted the development of the Internet medical industry. The guideline states that online referral services for ordinary and chronic diseases provided by qualified Internet medical institutions can be covered by the medical insurance fund. It is the government's strong support for Internet health care that guarantees the subsequent development of Internet health care.

As a sub-group of Jingdong Group focusing on health-related business, Jingdong Health's products and services have initially realized the coverage of the whole pharmaceutical industry chain, the whole medical process, the entire health scene, and the whole life cycle of users, building a complete "Internet + medical health" ecology in the industry layout. In addition, Jingdong Health is the largest enterprise in the domestic Internet medical industry by market value and the first large Internet medical enterprise to make a profit. Therefore, the profit model of Jingdong Health is worth studying. Therefore, this paper chooses Jingdong Health as the research object to explore its profit model. Based on the development background of Internet medical, this paper takes Jingdong Health as a case to discuss its profit model, summarizes the problems existing in its profit model, and puts forward corresponding optimization suggestions.

In China, the Internet healthcare industry is an industry as the rising sun, and each enterprise's business model and profit model are not mature. Research on the profit model of Internet medical enterprises is also relatively few, and a complete research system has not been formed for its profit model. Taking Jingdong Health as an example, the analysis of the corporate profit model of "Internet + medical service" can enrich the theoretical research on the profit model of Internet medical enterprises. The network medical service, characterized by high efficiency, diversification, and resource agglomeration, is developing steadily. In the Internet medical industry, people gradually focus on the profit model of enterprises and pay more attention to the development of enterprises. Judging from the current situation, Internet healthcare is still in its infancy, which requires cooperation between the government, medical institutions, platform enterprises, and, more importantly, the cooperation between consumers so as to promote the development of the Internet healthcare industry. Most Internet medical companies have not yet achieved the purpose of making profits, so it is particularly important to have a profit model suitable for the company in future development. In terms of research methods, the case analysis method is adopted; taking Jingdong Health as an example, the financial information and business data of Internet medical enterprises are summarized, and the profit model and defects of Jingdong Health are analyzed. On this basis, the enterprise development strategy is explored to help enterprises optimize and adjust their profit model so as to provide a reference value for the development of other industries. This paper first discusses the business operation logic of Jingdong Health, analyzes the profit model of "Internet + medical service," including its main profit direction and profit model composition, and then discusses the profit model defects of Jingdong Health. On this basis, the future development strategy of the enterprise is proposed.

2. Summary of Jingdong Health's Business Operation Logic

2.1. Overall Development Situation of Jingdong Health

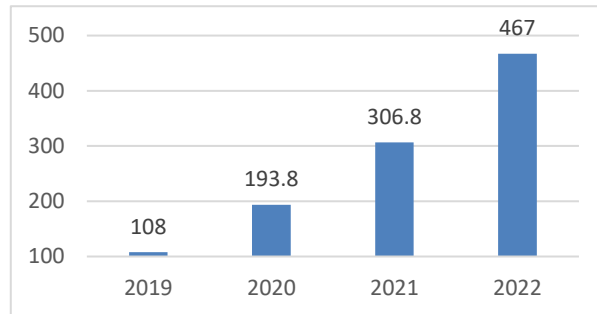


Figure 1: Jingdong Health revenue.

Jingdong Health is the third strategic independent business created by Jingdong Group after Jingdong Technology and Jingdong Logistics. The company is committed to creating a digital-driven health management platform with the pharmaceutical and health product supply chain as the core and medical service as the starting point. Jingdong and its affiliated companies have made extensive layouts in the medical and health field through cooperation, investment, self-establishment and strategic investment, which is of great significance for Jingdong Health to establish and improve its own ecological system. According to statistics of Zero One Think Tank, at least 12 enterprises and companies related to medical production and service have been invested in and acquired by Jingdong Health, involving intelligent hardware, electronic prescription, medical information, Internet hospital, Internet medical, artificial intelligence, and other segments. As the data shows in Figure 1, Jingdong Health's revenue showed an apparent growth trend from 2019 to 2022.

Jingdong Health's products and services have initially realized the coverage of the whole pharmaceutical industry chain, the entire medical process, the whole health scene, and the whole life cycle of users, building a complete "Internet + medical health" ecology in the industry layout. On December 8, 2020, Jingdong Health was officially listed on the main board of the Hong Kong Stock Exchange, and its market value exceeded HK\$ 344 billion on the first day, surpassing Ali Health's HK\$ 321.6 billion [1].

2.2. Main Business Lines of Jingdong Health

2.2.1. Online Retail Pharmacy

The retail pharmacy business mainly sells drugs and non-drugs. Drugs mainly include over-the-counter and prescription drugs, and at present, the sales of over-the-counter drugs account for the majority of drug sales revenue. Non-pharmaceutical products, which include health products as well as medical supplies and devices, currently account for a larger proportion of revenue from non-pharmaceutical sales. Jingdong Health's retail pharmacy business adopts three operating modes: self-management (1P), online platform (3P), and omni-channel layout (O2O).

Operational model 1: Self-operated business is mainly carried out through Jingdong Pharmacy. Jingdong Health and Jingdong Group make use of Jingdong Logistics' nationwide distribution infrastructure network. Under this model, Jingdong Health gains profits mainly by selling products and obtaining product price differences.

Operational model 2: The online platform business mainly provides services for third-party sellers. As of December 31, 2022, the Jingdong Health Online platform has more than 20,000 third-party merchants. Under this model, it makes profits by charging commissions and platform usage fees.

Operational model 3: Omni-channel layout, mainly O2O business, providing fast drug delivery services through offline stores and instant delivery services. In order to meet users' emergency drug use needs, it can provide users in 300 cities in China with 7×24 same-day, next-day, and 30-minute delivery services. In this model, Jingdong Health also makes profits mainly by charging commissions.

2.2.2. Online Medical and Health Services

Online medical and health services are mainly Internet hospital services, including online consultation and prescription renewal, chronic disease management, and family doctor services. The other part of online health services is consumer health services, which provide a physical examination, medical cosmetics, oral and dental services, vaccine appointments, and genetic tests.

"Jingdong Medical" provides users and their families with a series of heart-warming, intimate, and relaxing family doctor services, such as 7×24 hours health consultation, unlimited specialist consultation, prescription service, hospital outpatient appointment, 48-hour online consultation with famous doctors, active follow-up service, health information collection and documentation, and health plan formulation.

3. Jingdong Health Enterprise Profit Model Analysis

Jingdong Health is backed by Jingdong Group, a large-scale e-commerce enterprise. Therefore, Jingdong Health chooses to focus on the medical track and integrate a variety of tracks for multi-business development. At present, Jingdong Health mainly adopts the "B2B+B2C+O2O" business model to obtain sales price differences, transaction commissions, advertising fees, and other ways to receive income [2].

3.1. Sales Price Difference Model

The sales price difference mode refers to the mode in which Jingdong Health earns an intermediate price difference by buying and selling products. The sales price difference model is the one that contributes most to the revenue of Jingdong. With its own power supply chain system, Jingdong Health connects upstream pharmaceutical companies' drugs or medical devices directly to downstream individual consumers and pharmacies. As a result, Jingdong Health users can buy quality goods at lower prices. On the Jingdong Health platform, the two most important business modules are retail pharmacies and online medical services. The products and services cover the whole pharmaceutical industry chain, the whole medical process, the whole health scene, and the whole life cycle of users. Among each business sector, a situation of resource sharing and coordinated rapid development has been farmed, and a relatively complete "Internet+ medical" industrial ecosystem with one body, two wings, and one two-wheel drive has been formed. The business model of retail pharmacies is mainly self-management, third-party cooperation, and Omni-channel layout. The platform purchases drugs from suppliers and directly sells drugs in the platform's self-run Jingdong pharmacy. It primarily relies on Jingdong Logistics and third-party express delivery companies in logistics and distribution so as to obtain drug marketing revenue. Jingdong Health platform uses the online medical business sector to carry out comprehensive drainage for the retail pharmacy business sector and can fully connect with the considerable user group resources of the retail pharmacy and other sectors in the whole cycle, forming a benign interaction and cyclical promotion mode.

3.2. Platform Commission Sharing Model

The platform commission-sharing model refers to the cooperation of Internet medical enterprises with hospitals, doctors, pharmaceutical enterprises, and other enterprises to provide a platform for them to communicate with consumers. When they complete the transaction, enterprises can get profits from their operation commission and sales commission. This model processes the data collected by enterprises and provides them to hospitals and insurance companies so as to make profits. In this model, Internet medical enterprises play a similar role to the intermediary, using their own traffic base and technical support to establish a platform to attract enterprises and users, and the revenue of this model is related to the transaction amount of the forum. Jingdong Health provides relevant services or products to users through its own medical service platform or pharmaceutical platform and receives a commission. In addition to providing a sales platform for other pharmacies, Jingdong Health also extracts a certain percentage of transaction fees or consultation fees from hospitals, pharmaceutical companies, offline pharmacies, health institutions, doctors, and other institutions or groups that use the Jingdong Health platform. The platform has reached 123 million annual active users, and engagement continues to increase. Jingdong Pharmacy's self-operated business continues to develop rapidly, mainly with prescription drug sales, and 80% of self-operated drug orders' "next day delivery" service has been realized. The online trading platform has constantly updated its digital system to provide convenience for merchants, with 18,000 third-party merchants.

3.3. Advertising Revenue Model

Online health companies provide a platform that connects users to advertisers, and the customers behind the advertisers invest in the platform and use it to direct users to their companies. Advertising is the simplest traffic realization mode. Hospitals or other related enterprises invest funds in Internet medical enterprises and use users to insert advertisements in the search process of the platform so as to achieve the purpose of diversion and realization. Through the guidance of the platform, information about doctors can be accurately transmitted to the audience. Since the Jingdong Health platform has a large customer base and significant platform traffic, it will attract other merchants to advertise and then promote itself and improve its popularity. Merchants will generally advertise in more evident and prominent positions on the platform and pay specific advertising fees to Jingdong Health. The platform has built a complete medical service ecosystem, and the company continues to conduct in-depth research on particular diseases and has more specialized centers. Now there are 27, with more than 190,000 inquiries a day. Jingdong Health will continue to improve to meet the needs of more users. Consumer medical services have now been extended to a variety of outpatient clinics, including vaccine examinations, medical cosmetology, and oral dentistry. Overall, online platforms have proliferated and provided a favorable environment for advertising revenue models of Jingdong Health.

4. Components of Profit of Jingdong Health

4.1. Profit Object

Jingdong Health's primary customers include consumers, hospitals, doctors, pharmaceutical companies, and consumer medical and health institutions. The essential profit target of Jingdong Health is its consumers. On August 23, Jingdong Health released its 2022 interim performance report: The number of active users in the year up to June 2022 exceeded 131 million; According to Jingdong Health's public prospectus, Jingdong Health's primary users are in China's first - and second-tier cities, and they are mainly composed of on-the-job personnel. This shows that employees who are easy to accept new things are the main force to buy Jingdong Health products and services, as well as the most critical profit target of Jingdong Health.

4.2. Profit Point

Jingdong Health's revenue mainly comes from the sales of medicine and health products, as well as platforms, advertising, and other services, according to its 2021 interim report. Among them, the sales of medicine and health products have always taken up the majority of the revenue. Since 2017, the sales revenue of medicine and health products has always taken up about 87% of the total revenue of Jingdong Health. Therefore, the sales of medicine and health products are the main profit point of Jingdong Health. Online medical and health services account for a small proportion of revenue, making Jingdong Health's profit point too dependent on the sales of medicine and health products at present.

4.3. Main Profit Sources

1)Consumers: Consumers pay fees to Jingdong Health through online medicine purchases, online consultation, and consumer medical treatment; 2)Online Medical institutions and Pharmacies: Jingdong Health mainly obtains this part of profit through the commission model and advertising revenue model [3]; 3)Online doctors: Jingdong Health's online platform has recruited more than 110,000 licensed physicians, licensed pharmacists, and dietitians. Jingdong Health charges doctors who sign up a membership fee.

5. Main Problems of Jingdong Health's Profit Model

5.1. Low Viscosity of Profit Objects

At present, Jingdong Health's main profitable business is the medical e-commerce business, which is highly substitutable due to its numerous competitors. Once a competitor launches a platform with better prices, Jingdong Health's customers are highly likely to stop using Jingdong Health. Therefore, if the medical e-commerce business is not effectively connected with other businesses, it is easy to cause the loss of a large number of customers. However, as can be seen in Figure 2, there is a considerable gap between Jingdong Health's commodity sales income and its platform, advertising, and other service income in 2020. Therefore, according to the current income structure of Jingdong Health, Jingdong Health has not successfully built a compelling connection between its medical e-commerce business and other online medical businesses. Most customers only use medical e-commerce businesses in Jingdong Health and rarely use online medical health services [4]. This makes Jingdong Health unable to strengthen customer loyalty further, resulting in the easy loss of old customers.

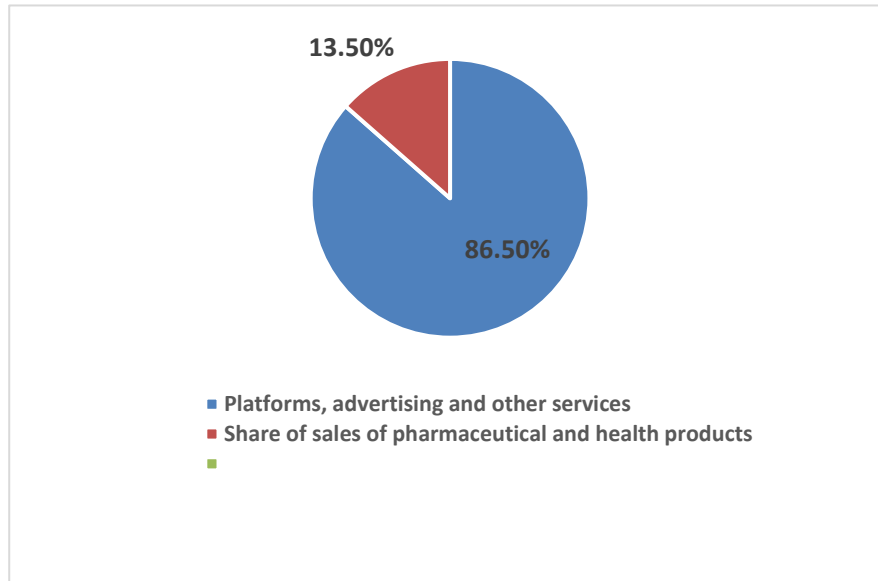


Figure 2: Revenue structure of Jingdong Health in 2020 [5].

5.2. Single Profit Point and Source

Through the analysis of the elements of Jingdong Health's profit model and its financial report, it can be found that Jingdong Health's profit mainly depends on the medical e-commerce business. According to the interim financial statement of Jingdong Health in 2021, its commodity income accounts for about 86% of the total revenue, while its service income only accounts for 14% [6]. It shows that the source of profit of the enterprise is relatively simple, and the development of various businesses is very unbalanced. The current too-simple profit point of Jingdong Health is not conducive to the future profit and sustainable development of the enterprise.

5.3. Inter-enterprise Business Homogenization

Although the current Internet medical enterprises have developed a variety of profit models, and their business scope is constantly expanding, the business of enterprises is becoming more and more diversified, resulting in the problem of homogenization of industry among many enterprises. Among the services provided by Internet medical enterprises, online consultation is the standard part, which is regarded as a free value-added service. Some enterprises attract customers by providing free consultation services, and the products and services they provide are very similar. At the same time, Internet medical enterprises are also restricted by national policies, which limit their market development and expansion of operation scale. The problems faced by Internet medical enterprises themselves are that the conversion rate of user payment is not high, and the homogenization of services will cause the loss of users, resulting in the reduction of profits and profitability of enterprises.

6. Jingdong Health Enterprise Development Strategy Discussion and Suggestion

6.1. Expand Segmented Customer Markets to Increase User Stickiness

Jingdong Health should do an excellent job in customer maintenance, further subdivide customer groups, and provide more precise services so as to improve the user stickiness of the enterprise. Jingdong Health can set up customer files for customers who have purchased products before, use big data analysis technology to sort out consultation and consumption, and divide the group into core

customers, ordinary customers, and potential customers for differentiated operations. Jingdong Health can also classify users according to their potential intentions and adopt different business ideas to provide online medical services and sell products so as to provide better services for customers and make their lives more convenient.

The acquisition of Jingdong Health's early profit objects mainly relies on the users of Jingdong Group as the essential traffic. Currently, Jingdong Group still inputs a large number of customers for Jingdong Health. As shown in Figure 3 below, by the middle of 2021, annual active users of Jingdong Health account for about 20% of the group, which still has a certain room for growth. Jingdong Health should make full use of its parent company's traffic advantages, constantly improve its user conversion rate and increase the proportion of annual active users of Jingdong Health in the group. For example, the Jingdong platform can provide corresponding Jingdong Health monitoring services, physical examination services, and other methods for Jingdong Health drainage for its VIP members.

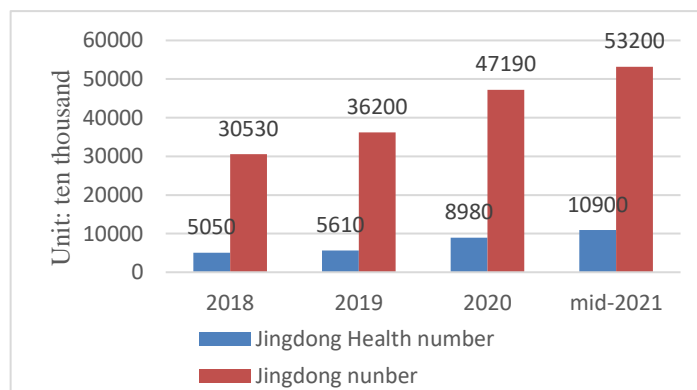


Figure 3: Jingdong Health and Jingdong Group annual active users [7].

6.2. Broaden the Source of Profit

In view of the single main profit point of Jingdong Health, commodity income is its main profit point. Therefore, Jingdong Health needs to vigorously develop online medical and health services to balance its income structure. The development of Jingdong Health's online medical and health services needs the support of emerging technologies. The digitalization of the entire Internet medical industry is based chiefly on online diagnosis and treatment, commodity circulation, and patient medical treatment. In the scene, its digitization level is still in a relatively low state. Therefore, Jingdong Health should continue to increase its investment in research and development, attach importance to its own technological innovation and development, constantly improve its ability of data analysis and development of new products, and seize the opportunity of digital transformation and upgrading of the Internet medical industry.

Internet medical services are the core of Jingdong's online medical and health services. Jingdong Health should mainly focus on the needs of patients and carry out online registration, online consultation, and other medical services. Combined with the unique advantages of its drug supply chain, it is the first online closed-loop system in the industry. Jingdong Health and Hospital should realize data interconnection and build medical services for users and patients in the whole process from online to offline, from pre-diagnosis to post-diagnosis, and from treatment to rehabilitation. Therefore, Jingdong Health should strengthen further cooperation with traditional hospitals and rely on digital development to provide users with a scenario-based experience [8].

6.3. Provide Personalized Service

The profit points of Internet medical enterprises mainly come from online consultation platforms, medical insurance, and wearable devices[9]. While maintaining and developing traditional business, enterprises should actively innovate so as to obtain stable profit sources and create new profit growth points. Internet medical enterprises can focus their attention on the maternal and infant health market, starting from the aspects of pre-pregnancy preparation, pregnancy health guidance, pregnancy medication, pregnancy health care, infant vaccination, and early fetal education, establishing maternal and infant communities, providing a platform for mothers to exchange and interact, share parenting experience, and not only differentiate themselves from the market services but also attract maternal and infant groups. It can also improve user loyalty and enhance user stickiness. With the continuous improvement of medical standards, people's quality of life is also constantly improving. Under the aging trend, Jingdong Health's chronic disease management platform can play a positive role. Internet medical enterprises can seize the opportunity to launch self-examination and self-diagnosis for elderly people with chronic diseases. Employing self-management and monitoring of wearable devices, we can provide adequate medical solutions for the elderly and send patients to the hospital in case of problems [10]. In addition, people's demand for Internet health care is also gradually becoming diversified, not only in the treatment of patients. More and more people have started to pay attention to their health, sleep quality, and other problems. Therefore, enterprises should actively innovate in the field of health care. For example, the company can provide users with wearable devices so as to realize remote personal sleep guidance and provide users with individual health management programs to improve user experience and make them loyal users of Jingdong's health platform [11].

7. Conclusion

This paper takes the profit model of Jingdong Health, an Internet medical enterprise, as an example, analyzes its ability from four aspects: profit object, profit point, profit source, and profit obstacle, and summarizes the problems existing in the profit process. On this basis, the paper puts forward corresponding suggestions to promote the healthy development of Jingdong.

In the research process, the data used in this paper are all from the public information of enterprises, and the data obtained is relatively simple, which cannot make a more comprehensive analysis of Jingdong's healthy profit model. It is hoped that the subsequent research can make up for the shortcomings of this study and obtain more valuable results.

The medical industry has a firm policy, and its future development faces great uncertainty. In addition, the particularity of the medical industry, even the most minor policy change, will have a considerable impact on the whole enterprise. In order to ensure the healthy and sustainable development of enterprises, it is necessary to establish a product service operation system with better service quality and more professionalism so as to deal with the uncertainty of policies and increase the stickiness of user groups. At the same time, under the premise of ensuring the security of medical information, constantly improve research and development efforts, and promote technological innovation, only in this way, in order to achieve long-term and stable development.

References

- [1] Wu,BW.: *Research on New Media Marketing Strategy of "Jingdong Health" Internet Medical Platform*. The northern industrial university, 2022.
- [2] Du, J., Han, ZH., Jiao, YY.: *Study on the Profit Model Evolution and Realization Path of Internet Financial Services -- Taking Jingdong Supply Chain Finance As an Example*. *Management Review* 31(8), 277-294(2019).
- [3] Li, FF., Sun, SL.: *Research on Chinese Medical Sharing business Model based on value net*. *Health Economics Research* 36(12), 8-10(2019).

- [4] Zhang, XM., Chen, DQ.: *Enterprise business model, value co-creation and Governance Risk in the era of Mobile Internet -- Based on Luckin Coffee financial fraud case analysis. Management World* 36(5), 74-86(2020).
- [5] Baidu Stock Connect, [https://gushitong.baidu.com/stock/hk-06618?mainTab= 财务&sheet= 利润分配表](https://gushitong.baidu.com/stock/hk-06618?mainTab=财务&sheet=利润分配表), last accessed 2023/5/20.
- [6] Fan, ZX., Bi, YF., Wang, S. et al.: *Our country present situation and trend of development of the Internet + health management model. Chinese journal of combining traditional Chinese and western medicine skin venereology* 22(02), 198-201(2023).
- [7] Shan, ZM.: *Research on Jingdong Health's profit model and financial evaluation. Guangdong University of Technology*, 2022.
- [8] Jiang, YJ., Wang, R., Zhang, Z. et al.: *Analysis on Development Drive and Current Situation of telemedicine based on "Internet + Medical Health". China Market* 2023(09), 15-17+34.
- [9] Gong, H., Gu, XY., Yang, YX. et al.: *Analysis of Chinese Internet medical policy text. Journal of Medical Informatics* 44(03), 41-45+79(2023).
- [10] Pan, K.: *Research on smart elderly care service Model under the background of "Internet + Medical". Internet Weekly* 2023(06), 60-62.
- [11] Li, YM., Huang, YS., Ji, J. et al.: *Study on the compliance of diagnosis and treatment services of the third-party Internet medical platform. Health Economics Research* 40(03), 57-60(2023).