

SWOT Analysis of China's Smart Pension Industry

Yao He, Huidan Zhan

School of Economics and Management, Southwest Petroleum University, Chengdu, Sichuan Province, China

Abstract: China's smart pension industry is a sunrise industry, is an organic combination of information technology and traditional service industry emerging industry. To analyze the strength, weakness, opportunities and threats of the industry is conducive to a comprehensive understanding of the development status of the industry and grasp the development trend of the industry.

Keywords: China's smart pension industry; SWOT model; Aging

Publication date: October, 2020

Publication online: 31 October, 2020

***Corresponding author:** Yao He, heyao9521@foxmail.com

1 Introduction

China's population aging shows a trend of rapid growth. In China, by the end of 2019, the number of elderly people aged 60 and above was nearly 254 million, accounting for 18.1% of the total population, among which the number of elderly people aged 65 and above was nearly 176 million, accounting for 12.6% of the total population (Data source: Statistical Bulletin of the National Economic and Social Development of the People's Republic of China 2019). The family planning policy makes the aging of China come ahead of time^[1], showing the social characteristics of 'getting old before getting rich'. And China's dependency ratio for the elderly will continue to grow for the foreseeable future, due to the declining willingness of young people to have children.

Smart pension is an effective way to cope with the rapid aging in China. Smart pension industry refers to the general term of related industrial forms that enable the elderly to enjoy intelligent, informatization

and modern elderly care services and products by using intelligent information technologies such as the Internet, the Internet of Things and big data^[2]. In fact, globally speaking, the smart pension industry is not a new industry. Due to the fact that developed countries entered the aging society earlier than China, with the development of Internet technology, there have been more in-depth studies on intelligent elderly care in developed countries^[3-5].

However, due to the different national conditions, the smart pension industry is a sunrise industry in China and has a good development prospect. This paper will use SWOT model to comprehensively analyze China's smart pension industry from the industrial strengths, weaknesses, as well as the opportunities and threats faced by the industry, to provide certain references for all sectors of society to comprehensively understand China's smart pension industry.

2 The strength of China's smart pension industry

2.1 Reducing the burden of human resources

With the rapid increase in the demand for elderly care services, the burden of human resources will also rise rapidly if we continue to rely on the mode of traditional elderly care service^[6]. The development of intelligent technology and information technology can reduce the burden of human resources faced by China's pension industry. Capital and labor have a strong substitution effect in the smart pension industry, and under the current technological conditions, the marginal cost of capital is lower than the marginal cost of labor. And it can be predicted that, with the development of technology, the marginal cost of capital will continue to decrease; on the contrary, the marginal cost of labor will gradually rise due to the gradual disappearance of

China's demographic dividend.

2.1.1 Convenient service and management

Community-based and home-based pension will be the main pension service mode in China's future smart pension industry, which is interspersed with institutional pension^[7]. The use of intelligent devices can make it more convenient and effective for the government, community or institution to manage the elderly population^[8]. For children who cannot accompany the elderly at their side, intelligent devices can also enable them to understand the living conditions and physical conditions of the elderly at home more quickly and effectively.

2.1.2 Data sharing and resource integration

With the continuous development of the new generation information technologies, the government, enterprises, communities, families and other parties can be effectively integrated by establishing a unified service information platform^[9]. Therefore, a unified database can be established to realize data sharing of all parties and integrate various resources of the Internet and the Internet of things together, which is conducive to the further development of smart pension products. The sharing of data and the integration of resources will involve the interest adjustment of all stakeholders. Therefore, in order to share and integrate the data and resources of all parties, there need to carry out in-depth cooperation and consultation among all parties.

3 The weakness of China's smart pension industry

3.1 The lack of relevant talents

There are only about 30 higher vocational colleges and about 25 secondary vocational colleges in China offering old-age service related majors, with a total enrollment of about 2,500 students annually (Data source: Report on The Development of China's Health and Pension Industry: Talent Article). The above data shows the shortage of service-oriented talents in China's old-age care industry. Although informatization and intelligentization can reduce the demand for low-skilled labor force to a certain extent, the smart pension industry not only needs related technical and service talents, but also needs related compound talents^[10]. Without relevant talents, it is impossible to promote the development of old-age care projects and solve related problems in the operation of projects continuously and

effectively.

3.2 The characteristics in the early stage of the formation of the industry

The development of new generation of general information technologies make the traditional pension industry gradually develop towards the direction of intelligence and information, and finally develop into the smart pension industry. That is to say, the smart pension industry is a technology-intensive or knowledge-intensive industry. According to the industry life cycle theory, a large amount of capital and time are often needed to research and develop related products in the early stage of the formation of such an industry, thus forming the industrial characteristics of long investment return cycle and low profit margin.

3.3 The low acceptance of the elderly to the concept of intelligence

On the one hand, the elderly is different from consumers of other age groups. One of the features is that the elderly generally has a lower acceptance of new things, which leads to the low understanding of the elderly on intelligent elderly care and the low penetration rate of intelligent elderly care products^[11]. On the other hand, due to the relatively backward level of economic development and education development before the reform and opening up in China, the overall education level of the current group of elderly people is not high, which makes it difficult for the elderly to understand the operation of intelligent products.

4 The opportunities of China's smart pension industry

4.1 The low ebb of the growth of the elderly population

The first peak of the growth of the elderly population in China is from 2016 to 2018. The number of people aged over 60 increased by about 27.49 million in the three years. After that, the growth rate of China's elderly population will slow from 2019 to 2021 due to a sharp decline in the number of births from 1959 to 1961. It is estimated that the elderly population will increase by 3.16 million in 2020 and 3.33 million in 2021 (Data source: China Smart Pension Industry Development Report). This was followed by the ageing of the second baby-boom of 1962-75, meaning that a second peak in the ageing population was just around the corner. Therefore, it can be seen that the period from 2019 to

2021 is a relatively low ebb in the growth of China's elderly population. These three years are also a strategic opportunity period for China's smart pension industry.

4.2 The improvement of the average education level of the elderly and the change of their consumption concepts

On the one hand, the education level of the elderly in China will be significantly improved as the new generation of elderly has higher education level. According to the survey report, 30 percent of the middle-aged and elderly respondents surf the Internet for more than three hours a day, with more than 95.6 percent of them using mobile phones(Data source: Internet Survey Report on Internet Access and Risks of Middle-aged and Elderly People). On the other hand, with the improvement of China's economic development level, the demand for the consumption of elderly products, especially smart pension products, will increase significantly. This will create a lot of effective market demand for the development of China's smart pension industry.

4.3 The powerful government's policy support

China's smart pension industry in the growth period is characterized by long investment return cycle and low profit margin. Moreover, old-age service has the dual nature of private product and public product. Therefore, the development of China's smart pension industry needs government policy support and guidance. In fact, the government has introduced a number of measures to support the development of China's smart health pension industry (see Table 1).

Table 1. The relevant policy on the smart pension industry released by the Central Government in recent years

Year	Department	Policy
2013	The State Council	Several Opinions on Accelerating the Development of Old-age Care Service Industry
2013	Ditto	A number of Views on the Promotion of health Services
2015	Ditto	Guidelines on Actively Promoting the "Internet Plus" Initiative
2017	The Ministry of Civil Affairs, the Ministry of Industry and Information Technology, and the Health and Family Planning Commission	Smart Health Pension Industry Development Action Plan (2017~2020)
2017	Ditto	Notice of Carrying out Pilot Demonstration of Smart Health Elderly Care Application

5 The threats of China's smart pension industry

On the one hand, more real-time and intensive

monitoring of the elderly means that their personal privacy may be at risk. While introducing concept of intelligence in the pension services to better serve the elderly, intelligent equipment can help nurses or medical personnel for the elderly more efficiently provide medical services, but also should see is at the same time, the better the service is through the intelligent equipment "monitor" the action of old people.

On the other hand, the open sharing of data means that the availability of data information is enhanced, which also increases the risk of data and information leakage. If the information and data of the elderly can be shared among pension service institutions, government departments and their internal departments, the speed of information flow and the efficiency of resource integration will be greatly improved. However, the data integration also brings "convenience" to criminals, who can steal information on a larger scale and use it for criminal activities. If the event of information leakage, it will also have a greater impact on the smart pension industry.

6 Conclusion and suggestion

Developing the smart pension industry is one of the ways to solve the weakening of the traditional family pension function and the relative shortage of social pension service supply in China. At present, China's smart pension industry is still in the growth stage of its industrial life cycle. Although it has its advantages as a sunrise industry, it also has many problems. The following are some policy suggestions.

First, to cultivate and attract talents. On the one hand, more colleges and universities should set up majors related to the intelligent elderly care service to train a group of professional talents. On the other

hand, a number of professionals related to the smart pension industry will be attracted into the smart pension industry through preferential policies. The development of industry and the cultivation of talents complement each other.

The second is to promote the concept of intelligence for the elderly. Through advertising, trial, explain and other ways to promote the concept of intelligence to more elderly people.

Third, relevant laws are introduced to define the functional scope of intelligent pension products. Intelligent devices will inevitably interfere with the privacy of the elderly^[12]. Therefore, the government needs to introduce relevant laws and regulations to regulate the smart pension market.

References

- [1] Min R, Ma XM. Research on Intelligent Elderly Care Services in the Context of "Internet +" [J]. *China Market*, 2019(2): 189-190.
- [2] Zhu Y. Report on the Development of China's Smart Pension Industry (2018) [M]. Social Sciences Academic Press, 2018.
- [3] Biljana L. Risteska S, Kire VT. A Review of Internet of Things for Smart Home: Challenges and Solutions[J]. *Journal of Cleaner Production*, 2017: 1454-1464.
- [4] Karl A.P, Margaret MA, Rosalie SW. Services to Families with Dependent Elders [J]. *Journal of Aging & Social Policy*, 1989: 67-88.
- [5] Yin WQ, Luo RD. Innovation and Reference of Japanese pension Model in the Context of Aging[J]. *Zhejiang Journal*, 2016(1): 174-179.
- [6] Liu GB. Research on the Model of Intelligent Community Pension Service[J]. *Economic Research Guide*, 2019(9): 46-48.
- [7] Liu Q, Zhang JM. Bottleneck Analysis of the Realization of urban Community Smart Pension Model [J]. *China Collective Economy*, 2018(34):150-151.
- [8] Yang L. Research on interaction Strategies of Intelligent Products for the Elderly [J]. *Beauty & Times*, 2018(1): 74-75.
- [9] Hu W. Construction and Path Selection of China's Intelligent Pension Model[J]. *Journal of Shanxi Economic Management Cadre Institute*, 2018(4): 60-63.
- [10] Zuo MY, Chang SY. Smart Pension Model to help the elderly enjoy their old Age [J]. *WTO Economic Guide*, 2015(10): 69-70.
- [11] Lei YC, Xiong ZF. Demand Survey of Wuhan Community Intelligent Elderly Care[J]. *Nursing Research*, 2019(8): 1425-1428.
- [12] Lu D. Legal Characteristics and Institutional requirements of China's smart pension Model -- An Investigation Centering on Smart Pension Policy[J]. *Jiangnan Academic*, 2018(6): 50-59.