

Design of E-commerce Platform Based on the Construction of Intelligent Pension Service

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Abstract: At present, China has entered the stage of aging population, and the proportion of the elderly is gradually rising, which has brought great pressure to the cause of old-age care in China. With the progress and development of science and technology, China began to use modern science and technology to develop the cause of old-age care, intelligent old-age care came into being. But from the current development situation, China's intelligent pension is still in its infancy, which needs further improvement and in-depth research. This paper mainly discusses the construction of intelligent pension service e-commerce platform, and expounds the design strategy of the platform.

1. E-Commerce Platform Architecture for Smart Pension Service

Statistics show that the proportion of the elderly population in China is rising, the speed of aging in China is accelerating day by day, with the expansion of the elderly group, the demand for pension services in China is also increasing. In order to meet the increasing demand for the aged, it is necessary to innovate and improve the ways and strategies of the old-age service, actively use modern science and technology, including the Internet, big data and other technologies, to build a smart old-age model, and to solve the pension problem in our country quickly and effectively. From the current development situation, there are still many problems to be solved in China's intelligent pension model, including information asymmetry, waste of resources and so on. In view of these problems, we need to take effective measures to ensure the continuous improvement of the level of intelligent pension services.

E-commerce platform for intelligent old-age care (figure 1) is a service platform based on intelligent old-age care, which can connect the elderly, relatives, service providers and so on. All parties can participate in the old-age care service or interact with each other through the interface of azimuth platform, and then construct a intelligent old-age care system.[1]. Among them, there are many third parties, such as housekeeping, catering and so on, which can provide various kinds of products for pension work and thus improve the quality of pension services.



Figure 1 E-commerce platform for smart pension services

2. Content of E-Commerce Platform for Intelligent Pension Service

2.1. Service Requirements

Human needs are diverse and hierarchical. In Maslow's hierarchy of needs theory, the hierarchy

of human needs is arranged from high to low, followed by self-actualization needs, respect needs, sense of belonging needs, security needs, physiological needs. From the perspective of the elderly, because the physical and living characteristics of the elderly are different from those of young people, the needs will also be different. In terms of age, because the elderly are older, so the body function has aged, self-care ability is poor, easy to suffer from disease, so we should not only take care of the life of the elderly, but also do a good job of medical care for the elderly, such work can meet the physiological and safety needs of the elderly, has been widely concerned by practitioners. At work, the elderly are generally retired, have more free time, because there is nothing to be busy, so they are prone to loneliness, need to accompany or participate in social activities, through various activities to seek spiritual comfort, so as to meet the needs of the elderly belonging and respect[2]In terms of experience, the elderly have relatively rich life experience, although they are no longer in the job, they can also use their own knowledge to contribute to society, which can meet the self-actualization needs of the elderly, but this part of the needs received less attention. According to the needs of the elderly at different levels and the physical and mental characteristics of the elderly, the needs of old-age service can be divided into four needs parts: life care, medical care, spiritual comfort and self-realization.

2.2. Platform Content

E-commerce platform for smart pension can create a corresponding APP(such as figure 2), open to third-party suppliers and business developers, including domestic, catering, medical and other service content, build a perfect business system, so that all kinds of elderly people's needs can be met. On the basis of intelligent old-age service, the e-commerce platform should include a number of contents, according to the demand content, positioning, quality and other automatic push of service programs, so that the elderly or family members can self-select service programs, and place orders online, the platform can provide order services for the elderly after receiving orders, and then better care for the life of the elderly. In the aspect of medical care, the elderly or their families can also choose the service content in the platform. After the platform obtains the instruction information, according to the current health situation of the elderly, the elderly can be treated remotely or graded to meet the nursing needs of the elderly in time. In terms of spiritual comfort, the platform can provide virtual communities such as interest and making friends for the elderly, and the elderly can communicate socially in the community, or create online or offline entertainment, education and other activities in the platform.[3]In terms of self-realization, the platform has set up a "question center" for the elderly, users can ask questions or answer questions, after being adopted, they can obtain "gold coins" or "experience ", which can fully show the self-worth of the elderly and make the elderly have a sense of achievement and pride. Although some old people have retired from their original posts, their enthusiasm for the pursuit of life value has not diminished. In this way, it can help the elderly to show their self-worth, make the elderly constantly pursue their self-improvement, at the same time, it can improve the problem of insufficient human resources in our country to a certain extent, and fully display and utilize the value of the elderly.



Figure 2 APP of smart pension e-commerce platform

3. E-commerce Platform of Intelligent Old-Age Service

3.1. Business Platform Interaction

The intelligent elderly service system should first do a good job of intelligent construction, provide intelligent wearable devices for the elderly, use these devices to grasp the health situation of the elderly, realize the implementation of health dynamic monitoring and recording, at the same time transfer the collected health data to the database, store and mark according to the user's ID, users can query data information, including mobile phone end, PC end and so on (figure 3). After obtaining the health data, the platform can analyze the data, and then monitor the health of the elderly in real time. If there is a health problem, the equipment will issue an alarm. Moreover, the platform can also analyze the health situation, vital signs and so on of the elderly, and then push more targeted health knowledge, service programs according to the results of the analysis, so that the elderly can be more scientific in health management. The elderly can also use the platform to socialize, make the elderly make more like-minded friends through virtual social activities, at the same time, they can also increase and share the knowledge and experience of the elderly, so that the spiritual needs of the elderly can be met. For example, some older people share some of their own health knowledge, disease management experience into the platform, older people with similar health problems will participate in the discussion, and their own experience and methods will be summed up for exchange and sharing, in the process, not only the spiritual life of the elderly is enriched, but also the platform's disease management knowledge base will become richer. Some new users can search for problems that have been raised and find the best solution for themselves by looking at solutions for different people.



Figure 3 All kinds of intelligent old-age service electronic commerce platform terminal equipment

3.2. Interaction of Medical Institutions

The physical function of the elderly is degraded, it is easy to appear all kinds of disease problems. In the process of seeking medical treatment, medical institutions can obtain the health data of the elderly through the platform as long as they obtain the authorization of the elderly, and then grasp the health situation of the elderly more quickly and accurately, and then make accurate diagnosis to improve the medical efficiency of the elderly. Medical institutions can also make electronic medical records and store them in the platform's database or cloud disk to facilitate the next visit. After the application of intelligent old-age service system, doctors and patients can communicate online, remote diagnosis and treatment, patients can feedback the effect of the current treatment plan to doctors, help doctors adjust the treatment plan, so as to further improve the treatment effect.

3.3. Third-Party Interaction

In terms of interaction with third parties, the platform can allow all kinds of old-age service merchants to enter, and then provide more rich and diverse service content for the elderly, so that

the elderly have more space to choose goods and services, but also can directly carry out quality evaluation feedback. Using big data technology, the platform can carry out personalized service and commodity recommendation, so that the matching accuracy can be effectively improved, and fully meet the personalized needs of the elderly. In addition, the platform can also set up recruitment, job search, question and answer modules to provide more channels for the elderly to share their experiences and apply knowledge, and also to help the elderly to re-employ, so that the capable and aspiring elderly have more opportunities to play the remaining heat.

3.4. Family Interaction

The intelligent old-age e-commerce platform can also provide more opportunities for interaction between the elderly and their relatives. Some reminding functions will be set up in the platform to remind relatives to care about the health of the elderly, to understand the physical and mental state, interests and hobbies of the elderly by checking the health data of the elderly, browsing history, purchasing records, etc., so that relatives can communicate with the elderly, so that relatives can care more about the elderly and provide more comprehensive care. The relatives of the elderly can send the doctor's instructions to the elderly through the platform, so that the elderly can take medicine on time, take blood pressure on time, and so on, at the same time, they can communicate remotely with the elderly to reduce the loneliness of the elderly. In addition, relatives can also communicate with service providers to purchase service products for the elderly according to the needs of the elderly to ensure that the needs of the elderly are met.

4. Conclusion

To sum up, in order to improve the quality of intelligent old-age service, we can create the corresponding e-commerce platform, take the platform as the medium, make the communication between the elderly, family members, service providers, medical institutions and other third parties more unobstructed, and then better solve the needs of the elderly, so that the physical and mental health of the elderly can be guaranteed.

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