

# ***Business Model Analysis under the Silver Economy***

## ***- A Case Study of Vishee Medical in China***

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**Abstract:** In recent years, as China transitions into an aging society following Japan and South Korea, interest in leveraging opportunities within what is commonly referred to as “the silver economy” has grown significantly among various industry stakeholders. Many Chinese enterprises are now at a stage where they are actively exploring potential markets associated with population aging trends, notably within healthcare sectors, which are adapting their strategies towards addressing needs specific to elderly populations, thereby reshaping their current business models accordingly. However, there is still a lack of comprehensive studies that examine how such shifts impact overall corporate frameworks. This paper takes Vishee Medical Company as an example to analyze the existing business model of Vishee Medical and its transformation and innovation under the "silver economy" context. The long-term strategic planning for the "silver economy" has led to a gradual increase in Vishee Medical's sales data. The results also indicate that Vishee Medical's business behavior changes include expanding its own product market, prioritizing research and development of products related to aging, and actively promoting a customer-centric corporate philosophy. Building upon the discourse on the “silver economy”, this paper aims to investigate potential business opportunities, advances theoretical research within the context of China's “silver economy”, and offers a solid theoretical foundation and recommendations for the market development of China's “silver economy”.

**Keywords:** Silver economy, Business Model, Aging society, Business analysis, Silver market.

## **1. Introduction**

Since the beginning of this year, the concept of the “silver economy” has gradually emerged in people's awareness. The development of the silver economy unquestionably would be one of the expected economic trends. The silver industry, social innovation and geriatric science and technology activities are the conditions for improving the living standards and quality of the elderly. Following neighboring countries such as South Korea and Japan, China is gradually entering this stage. According to UN World Population Prospects [1], Chinese population dynamics illustrate that the number of young people is gradually decreasing and the phenomenon of aging is gradually intensifying. During the 14th Five-Year Plan period, the elderly population aged 65 and above in China is expected to account for more than 14% of the country's total population, and China will enter a moderately aging society. It is predicted that from 2021 to 2050, China's population aging will

continue to advance rapidly. China's elderly population will continue to grow in the coming decades. It is expected that in 2035 and 2050, the elderly population aged 60 and above in China will reach 412 million and 480 million respectively, and the proportion of the elderly population in the total population of China will reach about 30% in 2035 and even reach about 38% in 2050 [2]. From a macro perspective, the research and commercialization of the silver market in China is still in its infancy, especially in the existing literature. The definition of the "silver hair" industry has not been clearly defined, and various similar definitions are commonly mixed, which not only causes confusion to the public, but also affects the accuracy of the company's business implementation. Previous studies have also illustrated the importance of the silver market industry, which is also the core focus of future national strategic policies. However, the previous research lacked commercial thinking and did not consider the market from a commercial perspective.

This paper employs Vishee Medical as a case study to examine the company's current business model, and subsequently delves into the comprehension of the "silver economy" within the impending "aging" demographic trend. Vishee Medical, established in 2001, maintains its corporate headquarters in Nanjing, China. The company is a leading force in the medical device industry, driven by technological innovation. It has been recognized as a national high-tech enterprise and is listed on the Science and Technology Innovation Board of the Shanghai Stock Exchange. The company has strategically positioned itself in the emerging "blue ocean" market and has steadily increased its market share through leveraging its patented technologies and research and development capabilities. This paper initiate with an extensive review of the corporate business model and an in-depth analysis of its strategic approaches within the "silver economy" framework is conducted. Building upon these findings, the paper proffers insights into the "silver hair" industry and market, enhancing the comprehension of services specific to "aging" that distinctly differ from "elderly care services", providing a valuable theoretical foundation and conceptual perspectives for China's impending aging society.

## 2. Literature Review

As the inevitable phenomenon of the aging society gradually occupies the attention of the society, scholars have studied the silver market, which is strongly correlated to this phenomenon from different angles. Some scholars point out that the emergence of the "silver economy" is mainly due to two reasons: "time" and "money". Due to these factors, more business opportunities are found through the results of the questionnaire survey. For example, according to the survey data, Liu Run found that Japanese women over 50 are very concerned about the problem of urinary incontinence. Based on this phenomenon, businesses can hold lectures and design underwear to solve this problem and sell it [3]. In this way, an industrial chain is formed. In previous studies, the definition of the "silver economy" has been examined in various countries. Some scholars have proposed that in China, the definition of the "aging" industry and "elderly care service" industry will be blurred. In Japan, in response to the evolution of the "silver market", the definition is constantly improved and refined, and "silver hair" services in Japan are first defined as for the elderly especially. Over time, the "silver economy" includes not only labor, housing, food, and health care-related services, but also financial, health management, education, and leisure-related services. In 2015, Europe officially defined a "silver economy" as "economic opportunities arising from spending by the public and consumers associated with an aging population and those over 50, as well as spending related to specific needs" [4]. EU member states view aging as an opportunity and are focusing on the changes in household consumption within the national economy that are caused by population aging. Both consumption and changes in consumption structure should be the drivers of the so-called "silver economy". This is a set of economic activities related to the production of goods and services designed to target the elderly population. This part of the economy is expected to grow due to an aging population [5].

However, studies have also shown that aging is only used as a backdrop for policies that are essentially designed to stimulate economic growth and technological innovation, rather than for the elderly [6].

From the perspective of China's national policies, some Chinese scholars have pointed out that the "silver economy" has become one of the most important concerns of the Central Economic Conference, and conducted commercial and demographic analysis methods on the upcoming new situation of population, indicating that the upcoming aging society will be a new business opportunity [7]. The "silver economy" will encompass more than just traditional health goods. This means that the range of businesses catering to the elderly will also include a variety of new services, such as travel and fitness programs at universities. These services, which once had little relevance to the aging population, will soon become the focus of future commercial socio-economic development.

### 3. Methodology

#### 3.1. SWOT Model

The SWOT analysis model is a strategic tool used to assess the internal strengths, weaknesses, external opportunities, and threats of an enterprise in order to formulate corresponding development strategies, plans, and countermeasures. This paper applies an analysis of these four components to evaluate the business status of Vishee Medical. The method aims to draw a decision conclusion that helps readers fully understand the enterprise's situation and comprehend the reasons for the company's formulation of corresponding business activities.

##### 3.1.1. Strengths

Vishee Medical continues to increase investment in project research and development. It has formed a rich matrix of silver economy-related rehabilitation products because of years of effort and planning. The company continues to strengthen the accumulation of independent intellectual property rights in key areas, and excavates the depth and width of its own "moat". According to the 2023 Vishee Medical financial report, 36 new patents were applied for, including 16 invention patents, 9 utility model patents and 11 design patents; 47 new patents were authorized, including 12 invention patents, 23 utility model patents, and 12 design patents [8]. In addition to consolidating its basic services and products, it also focuses on the development of products related to aging diseases such as Parkinson's disease, insomnia, and mild cognitive impairment; the company's intelligent sports rehabilitation products can assist elderly patients with paraplegia, hemiplegia, brain trauma or other motor dysfunction to carry out upper and lower limb sports rehabilitation training [8].

##### 3.1.2. Weaknesses

Vishee Medical primarily serves a diverse range of domestic medical institutions, including general hospitals, obstetrics and gynecology facilities, psychiatric institutions, and pediatric hospitals. The company has adopted a sales model with "distribution as the primary focus and direct sales as a supplementary channel". The proportion of revenue from distribution has remained stable, consistently exceeding 98% [8]. The company mainly conducts its operations through indirect interactions with its ultimate clients - the patients. As a result, the public's perception of Vishee Medical, especially among laypeople, is somewhat limited. It is also important to note that the issue of product homogeneity presents a significant challenge in this industry. There is a substantial time investment required for updating and iterating products due to technological innovation cycles and bottlenecks so that there would be noticeable slowdown in product upgrades trajectory, which limits companies' ability to introduce new features and exacerbates the problem of product homogeneity.

### 3.1.3. Opportunities

Under the influence of China's "14th Five-Year Plan" policy, the government has listed the “silver hair” market as one of the most important economic priorities. Under the general trend of aging, to occupy the market share in advance is what a leader company would be expected to do, establishing its own unique advantages to become more competitive in the market.

### 3.1.4. Threats

At present, China's silver market is still in an embryonic stage, the market has not yet begun standardized management. The market is fragmented and chaotic and therefore the market has not produced synergy yet. Macroscopically speaking, the market still lacks a complete supporting medical policy from the government, which creates some unnecessary trouble for companies that start layouts in advance. The company may encounter some obstacles in implementing its own industry behavior, and the cost of combining medical and nursing care is very high. Concurrently, market participants offering analogous products encompass Intco Medical Technology and Yuwell, among others. These entities specialize in providing physiotherapy medical supplies, health equipment, and physiotherapy care services. Their products are used in medical institutions, elderly care facilities, and home settings, as well as other relevant industries.

## 3.2. STP Model

The STP analysis framework includes market segmentation, target market selection and product positioning, which help entrepreneurs find the right direction to make differentiated products and services. Through this model, the business behavior of Vishee Medical can be analyzed from the perspective of commercial marketing, and the market segmentation, product positioning and target market selection related to "silver hair" made by Vishee Medical in order to improve the company's core competitiveness and commodity sales.

### 3.2.1. Segmenting

Vishee Medical is a medical device company and a high-tech enterprise. With the continuously increasing number of the elderly population and the transformation of the consumption of the elderly population, products and services involving elderly services have gradually become an important part of the life of the elderly population. Vishee Medical has extensive business and divides the market into several specific categories, including products that improve the quality of life of patients, such as magnetic stimulation, electrical stimulation, electrophysiology, rehabilitation robots, pelvic floors and other products related to the aging population. Relying on the company's patents and high-tech technologies, Vishee quickly seized the “silver hair market” and realized the matrix of rehabilitation products related to the silver hair economy [8].

### 3.2.2. Targeting

Due to the impact of an aging population, Vishee Medical's business scope is expanding to target common diseases prevalent among the elderly. The company has launched a number of high-tech products for different categories of diseases for the elderly. For example, gravitomagnetic products can be used in rehabilitation, psychiatry and neurology to treat Parkinson's disease and insomnia; the application of cognitive dysfunction treatment software products in the adjuvant treatment of mild cognitive dysfunction; intelligent sports rehabilitation products can assist the rehabilitation training of elderly patients with paraplegia and other motor dysfunction; the company's extracorporeal shock wave series products can effectively relieve a variety of musculoskeletal pain in the elderly population.

At present, the company's target customers are not only domestic medical institutions, but also overseas customers are now included in the company's business plan.

### **3.2.3. Positioning**

Vishee Medical now defines itself as a "high-tech enterprise", using its own patent advantages and excellent science and technology team to continuously transform scientific research results and build its own business empire. As a medical device company, Vishee Medical provides high-tech rehabilitation products to target customers. As a "leader and explorer" in the medical device enterprise, it would continue to explore new markets while stabilizing its basic business.

## **3.3. Results**

### **3.3.1. Findings from SWOT Analysis for Vishee**

Through SWOT analysis, Vishee Medical has established obvious advantages through patents and scientific research. The company continues to improve and increase the company's key resources, enriching commodity types. At the same time, in order to establish a good business relationship with customers in the long term, the company provides customers and dealers with discounts, as well as annual investor relations conferences, lectures and academic events to keep customers and investors aware of the company's trends.

### **3.3.2. Findings from STP Analysis for Vishee**

Vishee Medical has clearly positioned itself and segmented its target market through its own patents and products. Concurrently with the ongoing consolidation of its core business, the company is also proactively investigating the international medical device market. Its product range is tiered, with a portion of its resources allocated to the advancement of premium products, thereby enhancing the quality and standard of service provision. In conjunction with this, a comprehensive after-sales service policy is in place to cater to high-end products, thereby increasing consumer incentives. Vishee Medical mainly provides professional services and products to medical institutions, actively cooperates with distributors, and maintains customer relationships through academic salons, medical lectures and other ways. The company takes "customer-centric" as the strategic guideline, cultivating high-loyalty customers as the basic goal.

### **3.3.3. The Current Financial Position of Vishee through the Financial Report Combined the Findings**

According to the financial report of Vishee Medical in 2023, the company achieved operating revenue of 462.223 million yuan, an increase of 43.72% over the previous year; net profit attributable to listed shareholders was 136.2586 million yuan, an increase of 45.22% over the previous year [8]. During the reporting period, the company implemented a stock incentive plan and incurred share-based compensation expenses (after tax) of 16.7049 million yuan [8]. In 2024, although the company's revenue in the first quarter of the year showed a slight decline, its business has not been affected. In the second half of the year, the company would further consolidate and enhance its market share in the cornerstone business of the pelvic floor market (common in elderly women), and step up efforts to expand new business markets such as the urology market, steadily improving the company's revenue level and creating new performance growth points. It is worth paying attention to that the R&D expenses of Vishee Medical increase year by year due to the rise of R&D investment and share payment of R&D personnel. In 2023, the R&D expenses increase again to 57,654,199.29 yuan, an increase of 31.83% year on year, which is related to the company's corporate strategy of improving



R&D advantages and focusing on strengthening its own R&D - the total R&D investment accounts for 16.97% of the operation revenue [8].

#### 4. Conclusion

The aging of the population not only poses a challenge to socio-economic development, but also creates additional opportunities in various sectors to expand employment opportunities by expanding jobs or creating new jobs in health and social services, developing adult education, strengthening family institutions, etc. Analyzing global trends in the development of the "silver economy", it is appropriate to compare the level of employment of older people with the length of their retirement and the current amount of their pensions [9]. The term "silver economy" is still relatively new in China, and the market is experiencing rapid growth. However, the market is still an attractive topic for scholars and entrepreneurs with different backgrounds to explore. This paper takes Vishee Medical as an business example, combined with the company's business behavior, applying SWOT and STP methods to analyze the company's success model from the perspective of external opportunities and threats as well as internal strengths and weaknesses, and summarizes the behavior measures of Vishee Medical as an industry leader under the background of silver economy. Vishee Medical reports that the company continues to focus the advanced technology research and development and expand the product matrix in order to be more diversified. The traditional cornerstone business at the same time was iterated and updated, achieving remarkable results, significantly enhancing the product market competitiveness, and the core product business scale and market share represented by magnetic stimulation grew rapidly. At the same time, emerging products have made expected progress, accelerating the formation of new growth sectors. More importantly, the company not only effectively manages its own key resources but also places a strong emphasis on nurturing relationships with key partners. This ensures that both upstream and downstream activities are able to experience positive development. Considering the entire elderly population, it is clear that this is a huge market segment with currently untapped potential [10]. In conclusion, the silver market in China is still a blue ocean market, which is a potential rising trend of future development.

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