

Overview of Background and Methods for Green Transformation of Yunnan Province's Big Health Industry

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Abstract: Through the efforts of the 13th Five Year Plan, the health level of the Chinese people has continuously improved. Guided by policies such as the 14th Five Year Plan and Healthy China 2030, China's major health industry has flourished. While paying increasing attention to health issues, China also emphasizes the improvement of its living environment and adheres to the path of sustainable development. Yunnan Province has made outstanding achievements in the construction of the big health industry due to its geographical environment and other advantages, and the green transformation and upgrading of the big health industry in Yunnan Province has also played a leading role. In this context, this article studies the background and methods of the green transformation of the big health industry in Yunnan Province, China. By studying the necessity of the big health industry in Yunnan Province, it summarizes the current situation of the big health industry in Yunnan Province, analyzes the obstacles to its green transformation, and summarizes the successful ideas for the green transformation of the big health industry in Yunnan Province, providing reference for the transformation and upgrading of other enterprises.

Keywords: ESG, big health industry, Healthy China 2030, green transformation

1. Introduction

With the continuous enhancement of China's health awareness and the proposal and implementation of a series of health policies, China's big health industry has flourished. This article analyzes the background of the green transformation of the big health industry in Yunnan Province, combines policies, systems, and environmental conditions to explore the significant significance of enterprises' green transformation, and summarizes the main ideas for green transformation.

2. Current Situation of ESG Rating for Chinese Enterprises and Overview of the Big Health Industry

2.1. The Development and Current Situation of China's Big Health Enterprises

The big health industry in China is a part of the pharmaceutical and health industry, involving a series of products and services such as health management, rehabilitation treatment, and health enhancement. The big health industry revolves around various aspects of human life, implementing comprehensive care for life, and pursuing physical and psychological health in all aspects. The big

health industry has changed the traditional medical industry's model with treatment as its main purpose, transforming it into a disease prevention and health management model, bearing social responsibility and playing a huge role in promoting social health management. At the same time, the production and research of pharmaceutical products, the development and utilization of natural Chinese herbal medicines, and the maintenance of the ecological environment are also important links in China's double carbon action.

2.2. ESG Enterprise Introduction

ESG is an investment philosophy and corporate evaluation standard that focuses on corporate environment, social responsibility, and corporate governance performance. ESG is the acronym for three English words: Environmental, Social, and Governance. It is an indicator and framework for evaluating corporate sustainability. The big health industry is an important component of Chinese ESG enterprises due to its industry content.

3. The Course of China's Green Transformation

For thousands of years, the Chinese nation has respected and protected nature, lived and multiplied, and advocated the "Unity of Heaven and humanity" as a distinctive feature of Chinese civilization. Since the reform and opening up, China has established resource conservation and environmental protection as its basic national policies, sustainable development as its national strategy, and vigorously promoted the construction of socialist ecological civilization [1]. Over the past forty years, China has achieved a series of achievements in the construction of ecological civilization, and the living environment has continuously improved.

4. Reasons for the Green Transformation of Enterprises in Yunnan Province

4.1. Economic Development Requires Attention to Environmental Issues

In the process of China's economic development, environmental pollution has become an important factor restricting economic development. The environmental and resource problems in China are mainly manifested in the tightening of resource constraints, severe environmental pollution, and ecosystem degradation. A series of resource and environmental issues also pose great harm to China's economy, manifested in excessive use and waste of resources, resulting in resource shortages; Using relatively scarce resources for low yield and unsustainable purposes rather than high yield purposes; Light up Renewable resource suitable for sustainable growth at one time; Using a multi-purpose resource for a single purpose; Not investing in resource protection and so on [2].

According to the environmental Kuznets curve, With the development of the economy, the environment undergoes large-scale destruction; When the economy reaches a higher level of development, people begin to pay attention to environmental protection, allocate more funds to environmental protection, and the environmental situation improves. At present, China is at the turning point of the environmental Kuznets curve, while Yunnan Province is in a stage of stable economic growth, with its economic growth rate at the forefront of the country. It is also paying more attention to the ecological environment.

4.2. Background of Yunnan Province's Great Health Industry

Due to its unique geographical advantages, Yunnan Province has rich and diverse plant and climate resources, as well as the uniqueness of ethnic culture and the development of tourism. In recent years, the infrastructure construction, especially the medical service capacity, has been continuously

improved, which has enabled the development of Yunnan's major health industry. During the 14th Five Year Plan period, the construction center was oriented towards Southeast Asia, and the geographical advantages of Yunnan Province were constantly highlighted. The development space of Yunnan's big health industry was broader, but development meant the need for more efficient and environmentally friendly methods. Against this backdrop, the demand for green transformation of Yunnan's big health enterprises became increasingly urgent.

4.3. Policy Requirements for Green Transformation of Yunnan Province's Big Health Enterprises

China has proposed the 2030 carbon peak target and the 2060 carbon neutrality vision, and has successively issued two top-level designs: the "Opinions of the Central Committee of the Communist Party of China and the State Council on Completely, Accurately, and Comprehensively Implementing the New Development Concept to Do a Good Job in Carbon Peak and Carbon Neutrality" and the "Action Plan for Carbon Peak before 2030". The starting green Low-carbon economy collides with the accelerating digital economy, pointing out a new direction for the construction of a Dual circulation, and also putting forward new requirements for high-quality sustainable development of enterprises [3].

During the 14th Five Year Plan period, the improvement of ecological environment quality entered a critical period from quantitative to qualitative change, and the complexity and difficulty of ecological environment governance became more prominent. Faced with the management demand of "strengthening the ecology by increasing gas and reducing carbon emissions, increasing water and soil fixation to prevent risks", ecological environment monitoring faces new challenges [4]. Currently, the Chinese government has issued a series of policy requirements for the environment, accelerating the green transformation of enterprises. For example, stricter environmental regulations have been promulgated, which has put effective regulatory pressure on enterprises. A series of systems, such as the pollution discharge system, are currently fully implemented in China [5]. With the establishment of a core regulatory system for fixed pollution sources, forcing enterprises to undergo green transformation; China insists on implementing environmental subsidies, focusing on important ecological and environmental factors, improving the classification compensation system, focusing on national ecological security priorities, improving the comprehensive compensation system, playing the role of market mechanisms, accelerating the promotion of diversified compensation, and promoting enterprises to fully tap into green innovation resources [6]. Haze control is also an important reason for promoting green transformation of enterprises. Haze control requires the improvement of production technology and efficiency, which is of great significance for promoting green transformation of enterprises.

4.4. Environmental Reasons for the Green Transformation of Big Health Enterprises in Yunnan Province

Thanks to China's series of efforts in the field of environmental protection, the environmental governance of various provinces in China has been effective. However, the environmental problems caused by rapid industrialization still have some remnants, and it is necessary to continue to promote environmental governance. Due to the dependence of Yunnan's big health industry on natural environmental resources, environmental reasons are also an important reason for its green transformation. In terms of atmospheric environment, 2023 is the eleventh year for China to conduct haze control. Over the past eleven years, China has achieved remarkable results in haze control, with a national GDP growth of 69%, a 57% decrease in average PM2.5 concentration, and a 92% decrease in heavy pollution days [7]. In terms of water resource utilization, there is still a lack

of wastewater treatment, and the removal rate of pollutants still needs to be improved. Further efforts from sewage discharge enterprises are needed. The low utilization rate of biological resources, insufficient protection of biological resources, and various environmental reasons have all strengthened the necessity of green transformation for big health enterprises in Yunnan Province.

4.5. Other External Reasons

Green credit is a new credit policy jointly proposed by China in 2007 to curb the blind expansion of high energy consumption and high pollution industries. It aims to achieve environmental regulation through financial leverage, mainly including establishing credit environment access thresholds and adjusting industrial structure through credit issuance. Yunnan Province continuously promotes the development of green finance, establishes a series of assessment indicators, and strives to increase green financing. During the loan process, banks establish corresponding green lending standards and make loan decisions based on the environmental information of the enterprise. Banks may reduce the loan limits for companies with poor environmental performance in order to avoid environmental risks. The requirements of the green credit system have further promoted the green transformation of big health enterprises in Yunnan Province.

Chinese consumers are paying increasing attention to environmental protection. Due to the deeply rooted concept of environmental protection, consumers in the current Chinese market may be more inclined towards green products in their product choices. At the same time, the exposure of external media also has a certain driving effect on the green transformation of enterprises.

4.6. Internal Development Needs of the Enterprises

The green transformation of big health enterprises in Yunnan Province is also a need for internal development. Green innovation can enhance a company's image, and green innovation and technology development can also improve production and environmental efficiency, improve ESG rating, and gain a green competitive advantage. At the same time, more environmentally friendly production methods can reduce the burden of pollution treatment on enterprises, which is more beneficial for business operations.

5. Current Situation of ESG in Yunnan Province's Big Health Industry

In the 14th Five Year Plan, Yunnan Province takes medical and health care as its two wings, creating six integrated platforms including cultural tourism and health tourism, and making it a "world-class healthy living destination" as the core strategy for the province's economic development [8]. Yunnan also has outstanding advantages in developing the pharmaceutical industry with abundant resources. Despite its numerous development advantages, there are still many problems with the overall ESG situation of Yunnan's major health industry.

5.1. Environmental

Sewage treatment problem: In recent years, the urban sewage treatment capacity in Yunnan Province has steadily improved, and under various policy guidelines, the sewage treatment rate has continuously increased. All indicators of urban and rural sewage have decreased, but there are still problems. For example, in June 2023, the second round of the second batch of the second ecological environment protection supervision team of Yunnan Province found that some counties and districts in Zhaotong City did not act or slow to act, the construction of urban sewage treatment facilities was seriously lagging behind, sewage was discharged directly, overflow occurred frequently, and water environment problems were prominent [9]. This is also a problem in the health industry in

Yunnan region. Some pharmaceutical production enterprises have limited sewage treatment capacity during their production process, which has caused certain pollution problems to the local water resources and environment.

Industrial waste treatment issues: Some pollution control facilities in some treatment sites are not operating for a long time, and some leachate is discharged directly, resulting in serious environmental pollution and prominent risk hazards [10].

The problem of ecological protection zone destruction: China's biopharmaceutical industry has a significant clustering effect, forming industrial clusters represented by Kunming High tech Zone, Kunming Economic Development Zone, Yuxi High tech Zone (Hongta Industrial Park), Chuxiong High tech Zone, Dali High tech Zone, and Wenshan Sanqi Industrial Park. Among them, Kunming High tech Zone was listed in the top 50 comprehensive competitiveness of China's biopharmaceutical industrial parks in 2019. Yunnan Province has established five major planting bases for traditional Chinese medicine, including Southeast Yunnan Panax notoginseng, Northeast Yunnan Gastrodia elata, Northwest Yunnan alpine medicinal herbs, Central Yunnan ethnic medicinal herbs, and Southwest Yunnan southern medicinal herbs. Build a standardized base for traditional Chinese medicine of 1.26 million mu, with a green certified base area of 45000 mu and an organic certified base area of 32000 mu. The utilization of the ecological environment is a huge challenge faced by the health industry in Yunnan Province [11].

5.2. Social Responsibility

In recent years, Yunnan has insisted on strengthening the creation and dissemination of traditional Chinese medicine culture in Yunnan. Starting from relevant themes such as authentic medicinal materials, trading customs of medicinal herbs, history of Yi medicine and Miao medicine, famous pharmaceutical enterprises, historical and cultural relics of traditional Chinese medicine, and cultural characteristics of traditional Chinese medicine, exquisite "Yunnan" promotional videos are shot from the perspective of history, culture, and cultural characteristics. Cooperation with media such as television stations and online platforms is strengthened to promote domestic and international culture, and traditional Chinese medicine is transformed into a business card of Yunnan.

Yunnan Province has established a demonstration project for the traceability system of the entire production process of Chinese herbal medicine, with a focus on supporting eligible Chinese herbal medicine planting enterprises. We will carry out a demonstration project for the traceability system of the entire production process of characteristic Chinese herbal medicine varieties, comprehensively improving the quality and market share of Chinese herbal medicine [12].

Yunnan Province has established a demonstration project for the entire process quality control system of pharmaceutical product manufacturing. For large varieties with stable production processes, strong market competitiveness, and sales exceeding 100 million, we will focus on supporting enterprises with conditions to carry out quality control system demonstration projects for related varieties from pharmaceutical raw materials to the entire production process. Comprehensively improve the digitalization and informatization quality control level of the entire process of pharmaceutical product manufacturing.

5.3. Governance

The internal control of Yunnan's big health industry is continuously improving, and the board of directors and equity structure are also being adjusted. Taking Yunnan Baiyao Company as an example, in 2021, Yunnan Baiyao Company established a new salary management system, adopted new performance evaluation methods, effectively improved the incentive effect of salary, increased

the transparency of new capital mechanism, and enabled employees to share the company's development achievements.

6. Obstacles to the Green Transformation of Big Health Enterprises in Yunnan Province

Currently, China faces many challenges in promoting comprehensive green transformation.

6.1. The Concentrated Release of Pollutants Caused by "Squeezing" Industrialization

Compared with the leading industrialized countries, China's industrialization process has obvious "squeezing" characteristics, with various industrial product production exploding in a short period of time and reaching unprecedented production scales in multiple fields. While China has become the "factory of the world", it has also emitted a large amount of pollutants, greenhouse gases, and waste, which not only puts enormous pressure on the ecological environment but also brings huge governance costs.

6.2. Adjustment of Energy Structure and the Improvement of Resource Utilization Efficiency

The characteristics of China's energy resource endowment make it difficult to change the dominant energy position of coal in the short term. There is still a significant gap in carbon and energy productivity compared to developed countries.

6.3. The Task of Economic Restructuring and Upgrading the Industrial Value Chain

There is still a significant gap in basic manufacturing capabilities compared to leading industrialized countries, and there is still insufficient capacity in key core technology research and development, process innovation, digital management, and other aspects. There is a long way to go for industrial transformation and upgrading. Fourthly, ecological environment governance still faces significant pressure [13]. In general, China is still in the inflection point period of the "environmental Kuznets curve". In recent years, some pollutant emissions have crossed the peak and entered the plateau period, but the scale of emissions is still high.

6.4. Other Issues

In addition to the national issues mentioned above, there are also regional issues that hinder the green transformation of big health enterprises in Yunnan Province. For example, the integration of the biopharmaceutical and big health industries with industries such as healthcare, wellness, and healthcare is poor, and there is a lack of overall planning, which has not yet formed a collaborative force for promoting industrial development throughout the province; The supporting system is not sound, there is a lack of influential and attractive industrial development clusters, research and innovation capabilities are insufficient, the combination of "government, industry, academia, research, and finance" is not close, resource advantages have not been well transformed, the overall development of the industry lacks momentum, and there is a lack of a batch of influential innovative varieties both domestically and internationally; There is a shortage of industry leading talents supporting the development of biopharmaceutical and big health industries, as well as talent in enterprise management, marketing, health management, and health services; The ability of leading enterprises in the industrial chain to become larger and stronger is insufficient, and the environmental conditions for cultivating and growing new enterprises need to be improved. The market promotion and brand cultivation of Yunnan medicine are not enough, and the cultural

excavation, publicity and market expansion of Yunnan's biodiversity, advantageous varieties of traditional Chinese medicine are not enough.

7. Thoughts on Green Transformation of Yunnan Province's Big Health Enterprises

According to the Green Development Plan of Yunnan Province, the green transformation of Yunnan's major health industry mainly starts from the following aspects.

7.1. Create a Sustainable Health Tourism System

Starting from the fields of Yi medicine, traditional Chinese medicine, rehabilitation and conditioning, hot spring health and chronic disease management, Yunnan plans to seize the natural resources of authentic traditional Chinese medicine, hot springs, ecology, and the cultural advantages of ethnic medicine such as Yi medicine, and actively promote the development of off-site medical settlement and commercial medical insurance, enhance the attractiveness of Yunnan's health tourism industry, and ensure that tourists can "travel for a long time" and "live for a long time". Yunnan also plans to seize the trend of consumption upgrading, vigorously promote the membership management of big health products, promote high-end customization, promote new business models such as "O2O", and create a traditional Chinese medicine health service that combines product experience. Through the membership system, Yunnan provides consumers with precise customized health and wellness products and services, and orderly promote a new retail model led by "Cloud Medicine Life+Experience Store".

7.2. Accelerate the Green Manufacturing of Chemical Raw Materials

Yunnan Province advocates chemical raw material pharmaceutical enterprises to carry out environmental protection technology business through self construction or cooperation, while meeting their own green transformation needs, and provide green services for similar raw material pharmaceutical enterprises. Encourage enterprises to gradually achieve intelligent manufacturing and green development through the use of information technology and automation methods. Green upgrading of pharmaceutical processing. Promote the green planting and processing of traditional Chinese medicine. In the cultivation process of traditional Chinese medicine, ecological agriculture production mode is adopted, GAP certification is promoted, green pesticides and fertilizers are used to reduce heavy metals such as lead, cadmium, arsenic, mercury, and pesticide residues in traditional Chinese medicine, improve the quality and safety of traditional Chinese medicine from the source, and achieve green development. Conduct clean production audits and comprehensive resource utilization evaluations for key pharmaceutical enterprises, and support enterprises in carrying out green production transformation. Select typical enterprises to carry out green workshop and factory building demonstration. Actively promote the application of new energy-saving and emission reduction technologies and equipment, improve the utilization efficiency of raw materials, reduce waste generation, and combine technological transformation to prevent pollution and achieve clean production

7.3. Continuously Promote the Rational Utilization of Biological Resources

Yunnan continuously carries out the collection, preservation, and research utilization of biological germplasm resources with important economic, ecological, and scientific value; Systematically analyze natural medicinal animal and plant resources, investigate, predict and evaluate species with medicinal potential, and conduct targeted in-depth exploration of animal and plant resources; Deeply study the active ingredients of medicinal animals and plants, build a natural compound

library in Yunnan, discover novel drug source molecules, and provide candidates for innovative Drug development; Continuously promote the rational utilization of Yunnan's characteristic medicinal biological resources. Accelerate the development of biological manufacturing. Focusing on biological vaccine, antibody and other biological medicine products, establish the application and promotion of biological manufacturing technology in fermentation, synthesis and other links, and develop a green low-carbon Bioeconomy based on biomass and new biological manufacturing industry [14].

7.4. Digital Transformation

The green transformation of the big health industry in Yunnan Province is also driven by the Digital transformation. According to empirical research, the Digital transformation of enterprises has a significant positive impact on environmental performance, economic performance and green innovation performance [15]. Taking Yunnan Baiyao Company as an example, in 2020, Yunnan Baiyao established a "digital radices pseudoginseng platform" to reconstruct the industrial chain through digital tracing and upgrade radices pseudoginseng from rough processed agricultural products to high-quality and standardized industrial products. In 2021, benchmarking Industry 4.0, it built what is said to be the world's leading toothpaste smart factory and created a demonstration park for customized research and development, intelligent production, and modern logistics. Reasonably develop and use Internet of Things technology to build a smart medical system. Digital transformation is a huge driving force for enterprises to carry out green transformation.

8. Conclusion

At present, China has made significant achievements in addressing environmental issues, but there are still many problems that need to be solved urgently. The green transformation of various regions and industries is urgent. With the implementation of policies such as Healthy China 2030, in order to ensure the sustainable development of the industry, the necessity of green transformation of big health enterprises in Yunnan Province is becoming increasingly prominent. This study analyzes the policies and economic environment of the green transformation of big health enterprises in Yunnan Province, further exploring the significance of green transformation, and analyzing the green transformation ideas of the big health industry in Yunnan Province based on existing cases. Yunnan Province, with its unique environmental conditions, abundant biological resources, and accumulated industrial foundation, has advantages in the path of green transformation. Further efforts are needed to build a green system and create an integrated green industrial structure; Starting from green manufacturing of raw materials, promoting green manufacturing processes; Strengthen the utilization of biological resources, promote the process of greening, and continuously explore the digital process to create a smart medical system. A series of measures for the green transformation of Yunnan's major health industry not only have reference significance for other local industries, but also for other provinces and regions.

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