

Innovation and Practice of Talent Training Mode under the Background of Sugar Industry Transformation and Upgrading

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Abstract: With the continuous development of the global economy and technological progress, the sugar industry is facing important opportunities for transformation and upgrading. In this context, the innovation and practice of talent cultivation models have become the key to promoting the sustainable and healthy development of the sugar industry. This article analyzes the current situation and challenges of the sugar industry, explores talent training models that meet the needs of industrial transformation and upgrading, and analyzes the practical effects of innovative talent training models. The research results indicate that innovative talent training models such as industry education integration and school enterprise cooperation can effectively improve the quality of talent training and meet the needs of the sugar industry's transformation and upgrading.

Keywords: Sugar Industry; Transformation and Upgrading; Talent Cultivation Mode; Integration of Industry and Education; School Enterprise Cooperation.

1. Introduction

As an important component of the national economy, the development level of the sugar industry is directly related to the country's food safety and the stability of the agricultural economy. However, with the intensification of global market competition and the diversification of consumer demand, the traditional sugar industry is facing severe challenges. To address these challenges, the sugar industry must undergo transformation and upgrading to enhance its competitiveness. The innovation and practice of talent cultivation mode are the key to achieving this goal.

2. Background and Demand Analysis of the Transformation and Upgrading of the Sugar Industry

(1) Overview of the Domestic and International Development of the Sugar Industry

In recent years, the global sugar industry has undergone a profound transformation, with its development trend becoming increasingly diversified, intelligent, and green. Behind this transformation is the rapid advancement of technology and the constantly changing demands of consumers.

In terms of technology, with the arrival of the industry 4.0 era, sugar production processes and equipment have undergone unprecedented updates and upgrades. The application of automation and intelligent technology has greatly improved production efficiency while also reducing production costs. In addition, emerging sugar processing technologies such as membrane separation and ion exchange have brought revolutionary changes to the sugar industry, significantly improving the purity, taste, and nutritional value of sugar products.

In terms of consumer demand, with the improvement of living standards and the enhancement of health awareness,

consumers' requirements for food safety and health are also increasing day by day. This has forced the sugar industry to develop towards high quality and health. For example, the emergence of low sugar and sugar free products has met the needs of diabetes patients and people pursuing healthy diet; The promotion of green sugar products such as organic sugar and natural sugar caters to consumers' pursuit of environmental protection and sustainable development.

At the same time, the increasingly fierce competition in the international market has posed unprecedented challenges to sugar companies. In order to remain invincible in the market, sugar companies need to continuously improve product quality and service levels to win the trust of consumers and market share. This not only requires enterprises to put effort into technology research and development, product innovation, but also efforts in marketing, brand building, and other aspects.

In summary, the global sugar industry is in a period of rapid development and change, and its future development trend will pay more attention to technology, environmental protection, and health to meet the diverse needs of consumers.

(2) Analysis of the Motivation for Transformation and Upgrading

The transformation and upgrading of the sugar industry is driven by multiple profound factors, mainly including changes in market demand, technological innovation, and increased environmental requirements.

Firstly, the changes in market demand are the core driving force behind the transformation and upgrading of the sugar industry. With the awakening of consumers' health awareness, their preference for traditional high sugar foods is gradually weakening, and they are now pursuing healthier, low sugar or sugar free alternatives. This trend is not only reflected in the general consumer group, but even professional nutritionists and health experts are advocating for low sugar diets. Therefore, sugar companies have to adjust their product strategies and develop new low sugar and sugar free products

to meet the new market demands and maintain competitiveness.

Secondly, technological progress has provided strong technical support for the transformation and upgrading of the sugar industry. The widespread application of intelligent production technology not only greatly improves production efficiency and reduces costs, but also significantly improves the quality and taste of sugar products. At the same time, the introduction of emerging technologies has opened up new development directions for sugar companies, such as biotechnology, nanotechnology, etc., providing unlimited possibilities for innovation in sugar products.

Finally, the increase in environmental protection requirements is also an undeniable factor in promoting the transformation and upgrading of the sugar industry. With the increasing global awareness of environmental protection, governments around the world have introduced strict environmental policies, which have put forward higher requirements for emission standards and resource utilization efficiency of sugar enterprises. This forces sugar companies to increase their investment in environmental protection, adopt more environmentally friendly production processes and equipment, in order to achieve green production and reduce their impact on the environment.

In summary, changes in market demand, technological advancements, and increased environmental requirements collectively constitute the main driving forces for the transformation and upgrading of the sugar industry, driving sugar companies to continuously move forward to adapt to new market environments and development trends.

(3) Analysis of Talent Demand for Transformation and Upgrading

The transformation and upgrading of the sugar industry not only changes the production mode and product structure of the industry, but also puts forward new requirements for talent demand. The thirst for talent in this transformation process is mainly reflected in the following aspects:

Firstly, highly skilled talents with innovative spirit and research and development capabilities have become valuable resources for sugar enterprises. In the context of transformation and upgrading, enterprises need to continuously develop new products and technologies to adapt to changes in market demand. Therefore, talents with innovative thinking and research and development capabilities can drive enterprises to continuously carry out technological innovation and enhance product competitiveness.

Secondly, technical workers who master advanced production technology and equipment operation skills are also indispensable talents for transformation and upgrading. With the widespread application of intelligent and automated production technology, the production lines of sugar enterprises have undergone earth shaking changes. Therefore, enterprises need a group of skilled technical workers who can proficiently master these advanced technologies and equipment operation skills to ensure smooth production and efficiency improvement.

Finally, composite talents with marketing and brand building capabilities are also important forces in the process of transformation and upgrading. In the context of increasingly fierce market competition, enterprises need to strengthen marketing and brand building to enhance brand awareness and market share. Therefore, talents with marketing and brand building capabilities can help companies

better understand market demand, develop effective marketing strategies, and enhance brand image.

In summary, the demand for talent in the transformation and upgrading of the sugar industry has undergone significant changes, providing clear directions for the innovation of talent training models in the sugar industry. Enterprises need to strengthen talent cultivation and introduction to adapt to the new requirements of transformation and upgrading, and promote the sustainable and healthy development of the industry.

3. The History and Current Status of Talent Training Models in the Sugar Industry

(1) Review of Traditional Talent Training Models

In the past, the talent training system in the sugar industry mainly revolved around two pillars: traditional academic education and vocational education. At the level of academic education, many universities have established majors such as sugar engineering, food science and engineering, aiming to cultivate future industry elites with solid professional knowledge backgrounds through systematic theoretical learning. These courses not only cover basic theoretical knowledge such as sugar production technology, equipment operation, and product quality control, but also focus on cultivating students' experimental skills and research abilities, providing a large number of composite talents with professional knowledge for the sugar industry.

At the same time, vocational education has also played an important role in the cultivation of sugar talents. Technical schools, vocational training institutions, and internal training centers of enterprises have trained a large number of frontline technical workers for the sugar industry through short-term vocational skills training. These training courses are closely tailored to the actual production situation, emphasizing the training of practical operational skills, enabling trainees to quickly adapt to job requirements and become capable assistants for enterprise production.

However, with the transformation and upgrading of the sugar industry, the traditional talent training model has gradually revealed its limitations. On the one hand, the disconnect between theory and practice has become a key factor restricting the quality of talent cultivation. Although both academic and vocational education emphasize the combination of theory and practice, in practical operation, it is often difficult to apply what is learned, resulting in students needing a long time to adapt after entering the workplace. On the other hand, the lack of innovation capability has also become a bottleneck restricting the development of the industry. In the context of transformation and upgrading, the demand for talent in the sugar industry has shifted from single skilled talents to compound talents with innovative thinking and research and development capabilities, and the traditional talent training model is clearly inadequate in this regard.

(2) The limitations of the current talent cultivation model

At present, the talent cultivation model in the sugar industry faces a series of challenges and limitations in adapting to industrial upgrading and market demand, which are specifically manifested in the following aspects:

Firstly, the mismatch between curriculum design and industry demand is becoming increasingly prominent. With the transformation and upgrading of the sugar industry, the demand for talent in the market has undergone significant

changes. It not only requires talents with solid professional knowledge, but also composite talents with innovative thinking and practical abilities. However, the curriculum of many universities and vocational schools still focuses on traditional sugar making techniques, lacking courses closely related to emerging technologies and market demand, which makes it difficult for graduates to adapt to new market demands when seeking employment.

Secondly, the weakness of practical teaching is also a major limitation of the current talent cultivation model. Practical teaching is an important way to enhance students' practical abilities and innovative thinking. However, many schools currently have limited resources or insufficient cooperation with enterprises, and the practical teaching process often becomes a formality, lacking close connection with the actual production of enterprises. This makes it difficult for students to apply their learned knowledge to practical work, which affects their employment competitiveness.

Finally, the uneven level of the teaching staff also hinders the cultivation of high-quality talents. Teachers are the key to talent cultivation, and their teaching level, research ability, and practical experience directly affect students' growth. However, many professional teachers in the sugar industry currently lack practical production experience, making it difficult to integrate the latest technology and market trends into teaching, resulting in difficulty in improving teaching quality.

In summary, the current talent cultivation model in the sugar industry has limitations in curriculum design, practical teaching, and faculty, which restrict the innovation and development of talent cultivation models and also affect the transformation, upgrading, and sustainable development of the sugar industry.

4. Innovation of Talent Cultivation Mode Under the Background of Transformation and Upgrading of Sugar Industry

(1) Construction ideas for innovative talent training models

Faced with the limitations of the current talent training model in the sugar industry; in order to better adapt to industrial upgrading and market changes, this article proposes the following innovative ideas for constructing talent training models, aiming to comprehensively improve the quality of talent training and promote the sustainable development of the sugar industry.

Firstly, guided by industrial demand, emphasis should be placed on cultivating practical and innovative abilities. In the process of talent cultivation, close attention should be paid to the development trend and market demand of the sugar industry, adjusting the curriculum and teaching content to ensure a high degree of alignment between talent cultivation and industry demand. At the same time, we will strengthen the practical teaching process and provide students with more practical opportunities through school enterprise cooperation, industry university research integration, and other means to cultivate their practical abilities and innovative thinking. In addition, students should be encouraged to participate in scientific research projects and practical activities to stimulate their innovative potential and provide a continuous source of innovation power for the transformation and upgrading of the sugar industry.

Secondly, the integration of industry and education, school

enterprise cooperation, and joint cultivation of talents. The integration of industry and education is an effective way to improve the quality of talent cultivation. The sugar industry should strengthen cooperation with universities and vocational schools, jointly develop talent training programs, and achieve resource sharing and complementary advantages. Enterprises should actively participate in school teaching activities, provide internship and training bases, professional and technical personnel, and other resources to help students better understand industry trends and corporate culture. At the same time, schools should adjust their curriculum and teaching content according to the needs of enterprises, and provide more high-quality talents that meet market demands for enterprises. Through the integration of industry and education, as well as school enterprise cooperation, we aim to achieve a deep integration of talent cultivation and industrial development, and promote the transformation and upgrading of the sugar industry.

Finally, diversify the training path to meet the needs of talents at different levels. The demand for talents in the sugar industry is diverse, with both a demand for professional skilled talents and a demand for versatile and innovative talents. Therefore, in the process of talent cultivation, diversified training paths should be constructed to meet the needs of talents at different levels. For example, students can be provided with diverse learning options and development space through setting different professional directions and implementing hierarchical teaching. At the same time, it is necessary to strengthen interdisciplinary training, encourage students to learn across disciplines, broaden their knowledge horizons, and enhance their comprehensive qualities.

In summary, the construction of innovative talent training models should be guided by industry demand and focus on the cultivation of practical and innovative abilities; Strengthen the integration of industry and education, school enterprise cooperation, and jointly cultivate talents; Build diversified training paths to meet the needs of talents at different levels. The implementation of these ideas will inject new vitality into the talent cultivation of the sugar industry, promote the transformation and upgrading of the industry, and promote sustainable development.

(2) Implementation strategies for innovative talent cultivation models

1. Optimize curriculum design and teaching content to assist in the transformation and upgrading of the sugar industry

In the face of the transformation and upgrading of the sugar industry, optimizing curriculum design and teaching content has become the key to improving the quality of talent cultivation. Firstly, courses and practical activities closely related to the industry should be added based on changes in industry demand. For example, cutting-edge courses such as intelligent production technology, automation control systems, environmental protection and sustainable development can be added to help students master the latest industry technologies and concepts. At the same time, strengthen the practical teaching process, through school enterprise cooperation, internships and practical training, etc., to enable students to learn and practice in practice, enhance their practical ability and innovative thinking.

In addition, introducing advanced teaching methods and tools from both domestic and international sources is also an important part of optimizing curriculum design. We can learn from the successful experiences of well-known universities

and enterprises at home and abroad, and adopt advanced teaching methods such as case-based teaching and project-based teaching to stimulate students' interest and initiative in learning. At the same time, modern information technology such as online teaching platforms and virtual reality technology are utilized to provide students with richer and more convenient learning resources and environments, improving teaching effectiveness and learning experience.

By optimizing the curriculum and teaching content, we can better adapt to the transformation and upgrading of the sugar industry, cultivate more high-quality talents with innovative thinking and practical abilities, and inject new vitality into the sustainable development of the industry.

2. Deepen the practical teaching process, strengthen school enterprise cooperation to cultivate practical talents

In order to effectively enhance students' practical and innovative abilities, it is particularly important to strengthen the practical teaching process. To this end, we should actively cooperate with enterprises to jointly establish internship bases and research and development centers, providing students with a real production environment and research and development platform.

Through internship and practical training, students can personally experience the actual production process of enterprises, understand the operating principles and skills of equipment, and deepen their understanding of professional knowledge. At the same time, companies can also discover potential talents from interns, laying a foundation for future recruitment and reserves.

Project collaboration is another effective practical teaching method. Students can participate in actual R&D projects of enterprises under the guidance of teachers, from requirement analysis, scheme design to implementation and implementation, and participate and contribute their own strength throughout the process. This experience not only enhances students' teamwork skills, but also stimulates their innovative thinking, providing new ideas and solutions for solving practical problems.

In short, strengthening practical teaching and deepening school enterprise cooperation are important ways to improve the quality of talent cultivation and promote the transformation and upgrading of the sugar industry. We should constantly explore and practice to contribute to the cultivation of more high-quality talents with practical abilities.

3. Build a platform for school enterprise cooperation and deepen the integration of industry, academia, and research

In order to effectively promote the transformation and upgrading of the sugar industry, we need to build a stable platform for school enterprise cooperation to achieve resource sharing and complementary advantages. This platform will build a bridge between enterprises, universities, and vocational schools, promoting deep cooperation in talent cultivation, scientific research project cooperation, and academic exchanges between the two sides.

In terms of talent cultivation, both schools and enterprises can jointly develop talent cultivation plans to ensure that curriculum design and teaching content are highly aligned with industry needs. At the same time, companies can provide students with internship and practical training opportunities to help them better understand industry trends and corporate culture, enhance their practical abilities and professional qualities.

In terms of scientific research project cooperation, both schools and enterprises can jointly apply for scientific

research projects, share experimental equipment and research resources, and carry out research and innovation of cutting-edge technologies. This kind of cooperation can not only accelerate the transformation and application of technological achievements, but also bring new growth points to enterprises.

In addition, the school enterprise cooperation platform can regularly hold academic exchange activities, invite industry experts and scholars to give lectures and exchange ideas, promote the deep integration of industry, academia and research, and provide intellectual support for the transformation and upgrading of the sugar industry.

4. Diversified training paths to fully meet the talent needs of the sugar industry

The transformation and upgrading of the sugar industry has increasingly diversified the demand for talents, which requires us to adopt diversified training paths to fully meet the needs of the industry.

At the level of academic education, we should not only continue to strengthen undergraduate education to cultivate basic talents with solid professional knowledge and basic skills for the industry, but also add higher-level academic education such as master's degree to meet the demand for high-end R&D and management talents. These high-level talents will be able to play a key role in technology research and development, strategic planning, and other aspects, promoting sustained innovation and development of the industry.

Meanwhile, vocational education is also an indispensable part. Through vocational skills training, on-the-job education, and other means, we can provide the industry with more talents with practical experience and professional skills. These talents can quickly adapt to job requirements and become the backbone of enterprise production.

In addition, we should encourage enterprises to independently cultivate and introduce high-end talents. Enterprises can develop personalized talent development plans based on their own needs, and enhance employees' comprehensive qualities and professional skills through internal training, project practice, and other methods. At the same time, actively introducing outstanding talents from home and abroad, injecting new vitality and innovation into the sugar industry.

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