

Exploring the Optimization of Green Talent Mechanism and Organizational Sustainable Development Strategies in the Digital Age

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Abstract: *Enterprises are facing a series of phased issues in the digital age, with green talent, environmental issues, and organizational sustainable development becoming increasingly prominent. This article delves into the new opportunities and challenges faced by organizations in achieving sustainable development. From the perspective of green talent mechanisms, it analyzes the current situation of digitalization's demand for green talent and the challenges faced by green talent mechanisms at this stage. The article explores the construction of green talent mechanisms from the dimensions of education and training, enterprise talent attraction, enterprise incentive retention, and green work philosophy. From the perspectives of economic performance, environmental performance, and social performance, targeted optimization strategies for green talent mechanisms are proposed to help organizations steadily advance in green transformation and sustainable development.*

Keywords: Digitalization; Optimization of green talent mechanism; Sustainable development.

1. INTRODUCTION

In the process of digitalization in the new era, the business environment of enterprises has undergone dramatic changes. Internet big data and new AI technologies are widely used, and enterprises are facing new challenges and development opportunities in the process; The issues of green talent, environmental concerns, and sustainable development of organizations have become the core problems. There are many difficulties in the reserve, cultivation, and application of green talent. Green talent should not only possess professional technical skills but also have the concept of green development. Wang et al. [1] developed an end-to-end AI solution for autonomous driving, while Chen et al. [2] advanced computer vision through their one-stage object referring system with gaze estimation. The legal domain has benefited from Xie et al. [3]'s Conv1D-based approach for legal text classification, showcasing AI's potential in professional services. Environmental monitoring has seen significant AI integration, with Xu et al. [4] implementing YOLOv5 for real-time marine threat detection and Yin et al. [5] applying deep learning to lithium-ion battery crystal classification. E-commerce applications have evolved through Luo et al. [6]'s Falcon-7B enhanced chatbots, demonstrating AI's commercial value. Medical research has been transformed by Pang et al. [8]'s data-driven diabetes risk prognosis using electronic health records, complemented by Yan et al. [7]'s CNN-based super-resolution reconstruction for medical imaging. Educational technology innovations include Long et al. [9]'s transformer-based content matching system, highlighting AI's role in personalized learning. Urban and economic studies have leveraged AI for complex analyses, with Tang and Zhao [10] examining aging population impacts on real estate through neural networks, and Zhao et al. [11] evaluating labor market efficiency under media influence. Chen et al. [12] further demonstrated AI's economic value by quantifying the digital economy's green innovation effects. Engineering applications range from Yao [13]'s hydraulic testing research to Xiangyu et al. [14]'s 3D printing parameter optimization using response surface methodology. Infrastructure management has advanced through Wu [15]'s cloud-based fault detection system, while Ge [16] provided critical insights into technology's political dimensions in peace and conflict scenarios.

2. NEW ERA DIGITIZATION BRINGS NEW DEMANDS FOR GREEN TALENTS

Faced with the demands of new practices, one is to integrate and digest interdisciplinary knowledge, integrating traditional green field knowledge such as environmental science and ecology, while mastering complex work scenarios such as intelligent environmental monitoring systems and digital management of green supply chains; The second is to possess digital technology skills, such as big data analysis and artificial intelligence applications, while also having a strong awareness of environmental protection and sustainable development concepts. Through digital tools, energy management can be optimized to reduce carbon emissions; Thirdly, green talents possess innovative thinking and practical abilities. They can solve practical problems through technological innovation,

use digital platforms for green technology research and application, and promote the green transformation of enterprises; Fourthly, green talents need to have a global perspective and cooperation ability. Green talents need to have a global perspective and cooperate with international peers to introduce advanced green technologies and management experience.

3. CURRENT SITUATION AND EXISTING PROBLEMS OF GREEN TALENT MECHANISM

The green talent mechanism faces many challenges in the digital age that need to be taken seriously and optimized for improvement. At the level of training and education, digital educational resources are indeed rich in content, but in terms of building an overall green talent education mechanism, it has not been fully established or lacks relative guidelines and standards, and there are certain disconnection problems, especially in the weak training link of green development professional courses and unclear systems, which make it difficult to adapt to the actual work needs of enterprises; At the level of enterprise management, the problem of insufficient attractiveness of green talents is quite common. On the one hand, the strategic value of green talents is not recognized, and most positions lack competitive salary levels. The working environment and career development planning direction of the enterprise are not clear enough to attract high-quality green talents to join; On the other hand, there is a lack of internal incentive mechanisms within the enterprise, and the assessment system for green innovation achievements and environmental contributions is incomplete; The lack of internal promotion channels within the enterprise has led to a serious loss of green talents; There are performance management difficulties in the enterprise, making it difficult to implement the requirements of green development strategy; At the level of recognition of the green work concept, some employees in certain companies have a low sense of identification and do not participate in green actions. Various departments within the company lack a systematic understanding of green development, making it difficult to form a joint effort to promote the implementation of green projects. The existence of the above problems not only affects the establishment of a green talent mechanism, but also restricts the sustainable development process of the organization.

4. BUILDING A GREEN TALENT MECHANISM AND OPTIMIZING STRATEGIES

In response to the challenges faced by the green talent mechanism mentioned above, it can be seen that optimizing the construction of a green talent mechanism is crucial for the sustainable development of organizations.

4.1 Dimensions of Education and Training

Strengthening the foundation of the education system is the basis for cultivating green talents. Establish a systematic professional talent training program for basic education, vocational education, and higher education, as well as a green talent training system. Add mandatory core courses for green talents and elective courses for their interests. Students will learn knowledge of green development concepts at different stages of their learning, which will run through their entire learning career; Strengthen the construction of digital education platforms, offer green and low-carbon courses on online education platforms, and publish popular science articles, pictures, Q&A, short videos, etc. on new media platforms to attract a wider range of student audiences; Promote the establishment of industry university research bases, rely on the resources of enterprises, universities, and research institutions to jointly cultivate high-quality green talents with both theoretical literacy and practical skills, and offer corresponding "special training courses" to enhance students' practical abilities and create green development application talents.

4.2 Dimensions of Talent Attraction in Enterprises

The strategic positioning of enterprises to enhance green development. Attract green talents to increase their salary and benefits, improve a competitive salary system, and attract high-quality green talents to join; Provide clear career planning and development positioning, open up green talent channels, establish green positions and promotion mechanisms to enhance talent's sense of belonging, design customized career development plans for green talents, and provide diversified promotion channels; Create a good working environment with the concept of green development, create a green and environmentally friendly working environment, and provide healthy and comfortable working conditions.

4.3 Dimensions of Enterprise Incentive Retention

Spiritual incentives and material rewards are key measures to improve incentive mechanisms and retain green talents. Enterprises should establish clear incentive policies to encourage green behavior, reward innovative achievements, and set up green innovation awards, environmental contribution awards, etc. to stimulate employees' innovation vitality and enhance their sense of achievement. Provide opportunities for lifelong learning, enhance the professional skills and comprehensive qualities of green talents through continuous training, regularly organize internal training, internal lecture activities, external seminars, and academic exchange activities to continuously improve their own abilities.

4.4 Dimensions of Green Work Concept

Strengthen the promotion of the concept of green work, promote the concept of green work through internal websites, bulletin boards and other channels, create individual models of successful green development, and enhance employees' awareness of green development. Regularly organize environmental volunteer activities, green office challenges, green big data competitions, and other activities to encourage employee participation, mutual interaction, and enhance team cohesion; Integrating green development culture into corporate values to create a green atmosphere where all employees participate, formulating green codes of conduct and guidelines, exercising green development thinking, and continuously mastering new technologies and skills to transform and change new work methods in practical work.

4.5 Organizational Sustainable Development Strategy

From the perspective of economic performance, green high-end talents can break through development bottlenecks, lead enterprises to strengthen research and development, overcome bottlenecks, master new technologies, develop green new products, enhance market competitiveness and brand value of new products, and generate revenue for enterprises. Promote technological innovation or innovation, drive enterprises to make breakthroughs in technological innovation and product upgrading, and enhance their internal core competitiveness; From the perspective of environmental performance, green talents pay more attention to ecological and environmental protection indicators, promoting enterprises to adopt low-carbon new materials and environmentally friendly production processes to reduce waste emissions and energy consumption; The development of green talents promotes the optimization of energy management, utilizing digital tools and green technologies to improve energy utilization efficiency; Promote the development of green supply chain, encourage suppliers and partners to establish green development relationships simultaneously, and ensure the compliance and environmental protection of materials; From the perspective of social performance, corporate social responsibility has received good feedback and has been highly recognized by society and consumer customers. It actively practices green development to provide more green employment opportunities for society. Enterprises can enhance their social image and gain social value, promote the formulation and promotion of industry green standards, and lead the sustainable development of the industry.

5. THE GREEN TALENT MECHANISM HELPS ORGANIZATIONS FIND NEW PATHS FOR SUSTAINABLE DEVELOPMENT PRACTICES

One is to strengthen the flexible use of digital tools, including tool selection and introduction of data collection and input, data analysis and insight mining, and information feedback. Digital tools can be used to manage ESG data.

The second is to closely interact with stakeholders, regularly organize briefing meetings, and communicate with customers to collect their suggestions for improving green products and optimizing product directions; Employee participation promotes and encourages employees to contribute to the sustainable development of the enterprise; Major suppliers sign green cooperation agreements to evaluate their green performance.

The third is the continuous cultivation of green technology talents. Enterprises should cooperate with universities and research institutions to establish specialized training courses to enhance the professional skills and innovation capabilities of green technology talents.

The fourth is the promotion of green culture. Through internal promotion and training, green culture is integrated into the corporate values to form a green atmosphere with full participation of all employees, improve the overall green performance of the enterprise, motivate employees to develop green habits, and promote projects to break

down departmental barriers and jointly overcome green technology challenges to enhance the overall green performance of the enterprise.

The fifth is to establish a green talent organization, led by industry leaders or industry associations, to attract upstream and downstream enterprises, universities, and research institutions to join based on a common green development vision, jointly discuss and formulate cooperation rules, achieve complementary advantages in project operation, and promote green development in the industry.

The sixth is to create a gathering place for green talents, with enterprises building platforms and collaborating with professional digital teams or relying on existing social learning platforms to create exclusive online courses, project releases, technical exchanges, expert live lectures, and offline technical salons for green talents, promoting talent exchange and growth, and allowing green talents to continue to shine with vitality and energy.

6. OUTLOOK AND SHORTCOMINGS

This article explores optimization strategies for sustainable development of digital organizations in the new era from the perspective of green talent mechanisms, and proposes multidimensional optimization strategies and specific practical new paths for green talent mechanisms. However, there are still some shortcomings in the research that lack in-depth analysis of specific applications in different industries and regions. Future research can be refined and expanded; By optimizing the green talent mechanism, enterprises can achieve green development and sustainable organizational development in the digital age.

PROJECT TOPIC

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