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The Practice of ESG in Wenzhou Enterprises' Op-eration and Management

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Abstract

This paper takes Wenzhou private enterprises as the research object to explore the localized practice path of ESG (Environmental, Social and Corporate Gov-ernance) concepts in their operation and management. Through case studies, it is found that Wenzhou enterprises integrate ESG elements into their devel-op-ment strategies through innovative modes such as green technological reform, collaborative governance of industrial clusters, and governance transformation of family-owned enterprises, realizing a win-win situation in terms of economic benefits and social values, which provides a reference for the private economy of small and medium-sized cities in practicing sustainable development.

Keywords

ESC; Wenzhou private enterprises; practice

1. Definition and core dimensions of ESG

ESG (Environmental, Social, Governance) is a comprehensive framework for measuring the sustainable development capability of enterprises, which contains three major dimensions. They are Environment, Social and Governance. Environment is the enterprise concern about climate change, resource utilization, pollution control and biodiversity protection. Such as carbon emissions, resource utilization, pollution control. Social is the enterprise's relationship with employees, customers, and communities, including labor rights, supply chain management, product safety, and community development. Governance includes the company's internal management mechanism, such as board structure, anti-corruption policy, executive compensation and shareholder rights.The ESG concept originated from the 2004 UN Global Compact report, accelerated in popularity after the 2015 Paris Agreement, and has now become a core standard for global investment decisions.

2. The Core Values of ESG for Enterprises

2.1. Enhancing Financial Performance and Intrinsic Value

By fulfilling its social responsibilities, such as improving employees' working environment and establishing a perfect talent training mechanism, a company can enhance employees' sense of belonging and recognition, thereby increasing production efficiency and achieving higher financial performance, which ultimately helps to boost the company's intrinsic value.

2.2. Reducing Risks and Costs

Companies that focus on ESG management are more likely to have their potential risks identified in advance and intervened in a timely manner by relevant regulatory authorities, thus avoiding the accumulation of risks. Enterprises that actively disclose ESG-related reports have higher transparency in information disclosure and lower default risks. They are usually assigned higher credit ratings, which in turn enable them to obtain lower financing costs. For example, companies with higher environmental ratings can also obtain green certification and issue green bonds, further expanding their financing channels and reducing financing costs. By adopting measures such as energy conservation and emission reduction in environmental management, companies can not only reduce their impact on the environment but also lower energy consumption and resource waste, thereby reducing operating costs.

2.3. Enhancing Brand Value and Market Competitiveness

Enterprises with excellent ESG performance have the opportunity to gain a better reputation and shape a more "robust" brand value, thereby enhancing their market position and long-term competitiveness. As consumers' and society's attention to corporate social responsibility continues to increase, companies that focus on ESG are more likely to win the recognition and trust of consumers, thus standing out in market competition.

2.4. Promoting Innovation and Sustainable Development

By formulating a clear and comprehensive ESG strategy and integrating it efficiently with the overall corporate strategy and business development strategy, companies can inspire business model innovation and optimize operational efficiency. This can ignite a new engine for value growth, help companies layout new markets, and attract new investments and customers. The ESG concept also urges companies to accelerate the green and low-carbon transition, establish an environmental management system, and provide an important means for the green development of new productive forces.

2.5. Strengthening Corporate Governance

The governance concept in ESG requires companies to establish transparent, fair, and efficient governance mechanisms, focusing on transparency, ethical business practices, and effective governance structures to ensure that companies follow the highest ethical and regulatory standards in decision-making and execution. Good corporate governance helps companies better cope with internal and external challenges and ensures the rationality and fairness of corporate decision-making.

2.6.Attracting Talent and Enhancing Employee Loyalty

In today's society, more and more job seekers tend to choose companies that have a sense of social responsibility and pay attention to employee benefits and working environment. The ESG concept emphasizes people-oriented practices, focusing on employees' rights and well-being. By supporting community projects, improving employee benefits, and promoting diversity and inclusion, companies can build a more humanistic corporate culture, enhance employees' sense of belonging and loyalty. By implementing the ESG concept, companies can provide a healthier and more sustainable working environment for employees, as well as more development opportunities, thereby attracting more outstanding talents.

3. The Fit between ESG Concept and Wenzhou's Economic Pattern

The private economy in Wenzhou accounts for more than 95% of the GDP, and private enterprises make up over 99.5% of the total number of enterprises in the city. Over the years, Wenzhou has developed characteristic industrial clusters such as leather and footwear, clothing, electrical appliances, pump valves, and auto parts. The region has a high dependence on foreign trade, with exports accounting for 45% of the GDP in 2022. The main export markets are the European Union, the United States, and the Association of Southeast Asian Nations, with products such as footwear, eyewear, and lighters holding significant shares. Most private enterprises are family-run with relatively closed governance structures. In recent years, they have gradually been transitioning to modern corporate systems. In recent years, the digital transformation of Wenzhou enterprises, the green transformation, the upgrading of traditional manufacturing clusters such as leather and footwear, clothing, and electrical appliances, and the Wenzhou business culture have all promoted the integration of ESG into corporate management.

4. Wenzhou large-scale enterprise ESG practice path

Table 1. ESG practice path of Chint Group

ESG	Chint Group
Environmental dimension	1.Construction of Rooftop Distributed Photovoltaic Power Plants； 2.Research and development of graphene
Social Dimension	1. “Covered 100 poor villages in central and western China, with an average annual income increase of 3,000 RMB per household 2.Implemented the “Housing Project”, providing 2,000 employees with zero-interest housing loans.
Governance Dimension	1.Established the Sustainable Development Committee under the Board of Directors, which reports directly to the General Meeting of Shareholders. 2.ESG-related technology research and development accounts for 5% of annual revenue (about 1.8 billion RMB).
Effectiveness of Implementation	1.Wenzhou headquarters reduces carbon by 23,000 tons every year. 2.Energy-saving conductors reduce transmission losses by 15%

	3.Received MSCI ESG rating of A for five consecutive years (peer group average BBB).

Table 2. ESG practice path of Huafeng Group

ESG	Huafeng Group
Environmental dimension	1.Building a "park-level" recycling system. 2.waste materials from upstream enterprises are used as raw materials for downstream. 3.Tail gas recycling technology is developed.
Social Dimension	1.Co-established the "Huafeng College" with Wenzhou University to provide orientation and training for its employees. 2.Established an ESG support fund for small and medium-sized enterprises, providing a total of 200 million yuan in low-interest loans. 3.Launched the "Medical Checkup Program for Residents of Chemical Industry Park", covering 50,000 people in the surrounding area.
Governance Dimension	1.Establishment of the Institute for Sustainable Development with 20 full-time researchers. 2.Quarterly ESG progress briefings with real-time updates of key data.
Effectiveness of Implementation	1.Industrial water recycling rate of 98.5%, water consumption per ton of product reduced to 1.8 tons (industry 3.5 tons). 2.Green finance: Issued the first "carbon neutral" ABS in China, with financing cost as low as 3.2%.

Table 3. ESG practice path of Semir Group

ESG	Semir Group
Environmental dimension	Launched the ECO series of apparel (over 60% recycled polyester fiber), certified by the global recycling standard GRS.
Social Dimension	"Warm Winter Action" donated 500,000 pieces of down jackets to children in mountainous areas. "Ouyue Love" Education Fund (accumulated donations of more than 500 million yuan)
Governance Dimension	On-line supplier map to publicize the ESG performance of 200 core factories.
Effectiveness of Implementation	Supplier ESG Display

Table 4. ESG practice path of Kangnai Group

ESG	KangNai Group
Environmental dimension	Developed coffee residue fiber shoe materials, using 200g of recycled materials for a single shoe.
Social Dimension	1."Happiness Productivity Program" (Employee shareholding + children's education fund) 2.Implemented the "Connaught II" program to subsidize college tuition for employees' children. 3.Care for special groups: Customized "easy-on/easy-off" functional shoes for people with disabilities, with a cumulative donation of 50,000 pairs. 4.Conducted ESG training for suppliers, covering 200 factory managers
Governance Dimension	1.Established the ESG Inheritance Committee to ensure a sustainable intergenerational transition. 2.Passed the annual audit of BSCI (Business Social Compliance Initiative). 3.Developed ESG big data platform for the footwear industry to monitor the indicators of the whole industry chain.
Effectiveness of Implementation	1.Recycling of footwear materials 2.Conduct ESG training programs for suppliers 3.Digital Transformation

Table 5. ESG practice path of Dexerials Group

ESG	Dexerials Group
Environmental dimension	1.Low-carbon products: R&D of intelligent power-saving systems. .helping customers save 15% energy on average (500,000 tons of CO_2 emission reduction by 2022). 2.Green factory: Wuhu base was awarded the national “green factory” energy consumption per unit of output value dropped to 0.08 tons of standard coal per ten thousand yuan. 3.Waste management:98% recycling rate of electronic components and 100% of lead-acid batteries were entrusted to qualified enterprises for disposal.
Social Dimension	1.Implement the “1,000 technicians program” and invest 30 million yuan in 2023 for automation training. 2.Donated 20 million RMB to set up the “Sudden Disaster Electricity Protection Fund”.
Governance Dimension	1.Implemented the Employee Stock Ownership Plan, covering 30% of core technical staff. 2.Obtained ISO 27001 certification, and the number of customer data leakage incidents has been zero for three consecutive years. 3.Established an anti-corruption “whistle blower” system, with an internal report handling rate of 100% by 2022.
Effectiveness of Implementation	1.“Sunshine Procurement Platform (Supplier Bribery Blacklist System) 2.Establish a “red and yellow card” system for suppliers, and eliminate 12 suppliers due to ESG non-compliance in 2022.

Table 6. ESG practice path of Weiming Environmental Protection

ESG	Weiming Environmental Protection
Environmental dimension	operates 32 waste incineration plants, with a power generation capacity of 450 kWh per ton of waste (industry average of 380 kWh).
Social Dimension	Environmental Protection Services Implemented the “Zero Injury” program, with an injury rate of 0.12 per million man-hours in 2022 (industry average of 0.35).
Governance Dimension	1.Developed “AI Waste Incineration Optimization System” to improve power generation efficiency by 8%. 2.Awarded “AAA grade credit enterprise” for ten consecutive years. 3.Possesses 623 environmental protection patents, 45 of which are related to ESG technology.
Effectiveness of Implementation	Waste-to-Energy Environmental Protection Patent

5. ESG Indicator Construction System for Manufacturing Industry

Table 7. Three indicttor

	Indicator	Content
Environmental dimension (weighting 40%)	R&D and use of green materials Low-carbon product R&D	Carbon emission intensity,industrial water recycling rate, energy saving and emission reduction
	Waste Management	Dangerous Waste Compliance Disposal Rate
Social Dimension (35% weighting)	Employee rights and interests	Employee safety (injury rate) Employee Cultivation Employee treatment and care
	Supply Chain Responsibility	Supplier ESG Audit Coverage
	Community Impact	Public Welfare Investment as % of Operating Revenue
Governance Dimension (25% weighting)	Board Diversity	Percentage of Female Directors, Percentage of Independent Directors
	Anti-corruption mechanism	Coverage of reporting channels
	Data security	Data leakage incidents
	Technology innovation	Investment in R&D capital
	Data governance	Construction of data platform

	ESG Special	Assessment Departmental and Employee Incentives

6. The Path of ESG Integration into Enterprise Management

6.1. Integration of Environmental Dimension (E)

1)Manufacturing and Circular Economy

Promote clean production technologies such as water-based glue and waterless printing and dyeing in traditional industries such as shoe leather and garments.

Construction of shared pollution control facilities for industrial clusters, such as the centralized waste gas treatment center in Ouhai Shoes and Leather Park.

2) Energy structure optimization

Encourage enterprises to install distributed photovoltaic power generation system, such as Chint Group's photovoltaic + energy storage mode.

Promote energy-saving technologies such as heat pump and waste heat recovery to reduce energy consumption per unit of output value.

3)Green Supply Chain Management

Establish a supplier environmental performance evaluation system, such as Ruili Group's green procurement standards.

Promote collaborative emission reduction among upstream and downstream enterprises to create a low-carbon industrial chain.

6.2.Integration of Social Dimension (S)

1)Employee rights and interests protection

Improve the employee welfare system, such as Delixi Group's “five insurance and one gold” full coverage.

Strengthen vocational training to improve the skill level of employees.

2)Community participation and public welfare

Encourage enterprises to participate in the revitalization of rural areas, such as the “rural school uniform program” of the Newspaper Bird Group.

Support education, healthcare and other public welfare programs, such as Senma Group's “Charity Fund for Education”.

3) Consumer Protection

Improve product quality and safety standards, such as KangNai Group's “healthy shoes” research and development.

Strengthen the construction of after-sales service system to enhance customer satisfaction.

6.3.Integration of Governance Dimension (G)

1) Modernization of family business governance

Introduce professional managers, such as the board reform of Huafeng Group.

Establish a special ESG committee to incorporate sustainable development goals into strategic planning.

2)Digital transformation

Utilizing big data, artificial intelligence and other technologies to improve operational efficiency, such as AoKang Footwear's intelligent warehousing system.

Develop an ESG data management platform to visualize environmental and social performance.

3) Risk Management System

Improve the compliance management system to ensure compliance with domestic and international ESG regulatory requirements.

Establish an ESG risk warning mechanism to respond to potential challenges in a timely manner.

7.Cultivation of “Finance + ESG” Composite Talents in Colleges and Universities

As an important position for talent training and academic research, universities play an important role in promoting the application of ESG in enterprises. Colleges and universities need to work together with enterprises to cultivate composite financial talents with ESG vision.

1)Reform of curriculum system of colleges and universities

Open the core courses “ESG Financial Analysis”, “Sustainable Finance” and “Accounting for Corporate Social Responsibility”. Integrate ESG content into the current financial management courses.

2)School-enterprise joint training mode

School-enterprise cooperation and ESG research projects with enterprises. Provide ESG financial diagnosis and optimization suggestions for enterprises. Establish ESG practice bases (e.g. Chint Group PV power plant data analysis post) to provide students with internship opportunities. Corporate ESG director and school teachers jointly supervise graduation thesis (e.g. supply chain carbon footprint research).

3) Professional Certification System

The qualification of “ESG manager” is recognized.

4)Case Study Teaching Resources

Develop teaching cases, write ESG practice cases of Chinese enterprises, and establish ESG financial analysis case library.

In 2024, China released a flurry of policy in the ESG domain. The Ministry of Finance issued relevant standards, mandating the establishment of a unified national sustainability disclosure framework by 2030 to bolster corporate ESG information disclosure. In response, many private enterprises in Wenzhou began to prioritize and release sustainability reports. These reports encompass the relationships between enterprises and employees, customers, society, and the environment, showcasing corporate practices in compliance, low-carbon green development, innovation promotion, green supply chain construction, and employee rights protection. By publishing these reports, companies not only demonstrated their achievements in fulfilling social responsibilities but also enhanced their social image and market competitiveness.

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