

Current Development Status and Analysis of Group Standards

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Abstract: Group standards are an important component of China's standard system. This article first analyzes and introduces the background of the group standard, and proposes the purpose and significance of formulating group standards, involving innovation, standardization, applicability, branding, and other contents; Secondly, based on the national group standard information platform and relevant materials, the current development status of group standards is elaborated from the aspects of group organization, standard quantity, industry distribution, etc; Then, based on the current development status of group standards in China, an in-depth analysis was conducted on the existing problems; Finally, suggestions were put forward for the high-quality development of group standards: increasing the guidance of administrative authorities; enhancing the standardized professional technical capabilities of social organizations; strengthening the normative management of organizational standards; promoting the dissemination and application of organizational standards; advancing the coordinated development of organizational standards with metrology, certification and accreditation, inspection, and testing; protecting the intellectual property rights of organizational standards.

Keywords: Group Standards; Social Organizations; Current Development Status; Standardized Management; High-quality Development

1. Introduction

In today's rapidly evolving technological environment, standardization has become a crucial element in promoting industrial development and improving market efficiency. With the deepening of globalization and market economy, group standards, as an

important tool for industry self-regulation and market competition, have garnered widespread attention from various sectors of society. Group standards, which are standards independently formulated, published, and adopted by social organizations and voluntarily adopted by society, have become a significant means to promote industrial technological innovation, optimize resource allocation, and improve the quality of products and services.

With the advancement of globalization and the intensification of market competition, the role of group standards in promoting international trade, enhancing product quality, and regulating industry behavior has become increasingly prominent. However, the development of group standards also faces numerous challenges, such as ensuring the scientific nature, fairness, and applicability of standards, balancing the interests of various parties, and enhancing the international influence of group standards. Therefore, in-depth research on group standards not only helps us better understand their nature and mechanism of action but also provides a scientific basis for the formulation and implementation of relevant policies.

This paper will comprehensively analyze group standards from multiple dimensions, including their purpose and significance, current development status, problem analysis, and development suggestions. Through data collection and case analysis, we will explore the important role of group standards in modern society in depth, with the aim of contributing to the healthy development of group standards.

2. Purpose and Significance

With the rapid development of the economy, industries, and technologies, group standards have emerged as an important component of the standard system, garnering significant public attention and holding broad and

important significance.

2.1 Leading Technological Innovation and Development

Industry associations and chambers of commerce can leverage their advantages and formulate and publish group standards that exceed existing basic or mandatory standards based on market demand. This helps regulate enterprises' production, operation, management, and services, thereby promoting technological innovation. Moreover, the formulation of group standards can promptly incorporate technological innovations, facilitating the marketization and industrialization of scientific and technological achievements, allowing consumers to quickly benefit from safer and more advanced products. The combination of high-quality products and group standards will play a leading and supportive role in promoting high-quality social and economic development.

2.2 Seizing Market Opportunities for Enterprises

Actively participating in the formulation of group standards is crucial for enterprises to gain competitive abilities and lead development. In the process of standard formulation, group standards do not require approval or filing with administrative management departments, making it a voluntary act by social organizations. Additionally, government-led standard formulation has a longer cycle, whereas the cycle for group standards is shorter, better meeting the needs of a rapidly evolving innovative era, thus helping enterprises seize market opportunities. Formulating group standards can promote industry development, technological progress, and market competitiveness, thereby seizing market opportunities.

2.3 Regulating and Constraining Corporate Behavior

Though not mandatory, group standards formulated by industry associations and chambers of commerce still have certain legal binding force. Member units of social organizations that formulate group standards generally agree to adhere to them, and other enterprises in society are also allowed to join. Group standards can stipulate the legal

responsibilities that enterprises should bear if they violate the standards. In some respects, a well-known group standard may have a stronger binding effect on enterprises than mandatory national standards. When enterprises violate relevant group standards, they should naturally bear corresponding legal responsibilities. Thus, the formulation of group standards can further regulate and constrain corporate behavior.

2.4 Enhancing the Applicability of Standards

Group standards are an effective supplement to national and industry standards. Compared to national and industry standards, group standards have a shorter formulation cycle and higher market requirements. They can fill gaps in national standards, flexibly incorporate high-quality new products and technologies within the industry, and promptly reflect industry characteristics, demonstrating greater advancement and industry leadership. Therefore, group standards better meet the demands of a rapidly developing market and have higher adaptability in practical applications.

2.5 Establishing Industry Leadership Brands

As the saying goes, "First-class enterprises set standards." The inherent practicality and market relevance of group standards determine their unique mission of supporting the economic and social development of standardization services in China. After continuous market validation, group standards can be adopted by other standard organizations through relevant mechanisms and have the opportunity to be upgraded to industry standards or national standards, and even international standards, thus achieving the best order on a larger scale. This effectively enhances enterprises' market competitiveness and industry influence, granting them industry discourse power.

3. Current Status of Group Standards Development

With the support of a series of national policies for the development of group standards, significant historical progress has been made in this area. The relevant data are as follows:

3.1 Increase in the Number of Registered Social Organizations

According to the National Group Standards Information Platform, as of March 2024, a total of 8,823 social organizations had registered on the platform. Among them, 1,034 were registered with the Ministry of Civil Affairs, and 7,789 were registered with local civil affairs departments. Social organizations from 31 provinces, municipalities, and autonomous regions, including Guangdong, Zhejiang, Shandong, and Jiangsu, registered on the National Group Standards Information Platform. As shown in Figure 1, Guangdong Province has the highest number of registered social organizations, with 1,266, accounting for 14.3% of the total. Based on the issuing authority of the social organization legal person registration certificate, 1,034 social organizations registered with the Ministry of Civil Affairs, accounting for 11.7% of the total number of registered social organizations.

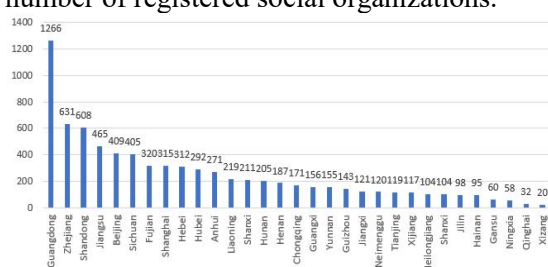


Figure 1. Registration Volume of Social Organizations by Province

3.2 Increase in the Number of Published Group Standards

As of March 2024, social organizations had published a total of 79,629 group standards on the platform. Among these, 31,293 were published by social organizations registered with the Ministry of Civil Affairs, and 48,336 were published by those registered with local civil affairs departments. In terms of the national economic industry classification, the group standards published by social organizations covered all 20 categories. The manufacturing industry had the highest number of group standards, with 30,445, accounting for 38.23% of the total, followed by agriculture, forestry, animal husbandry, and fishery, as well as information transmission, software, and information technology services, as shown in Figure 2.

Combining the relevant statistical data, the

contribution index for the development of group standards by province shows that Beijing, Guangdong, and Zhejiang are in the first tier, Shandong, Jiangsu, and Shanghai are in the second tier, and other provinces are in the third tier.

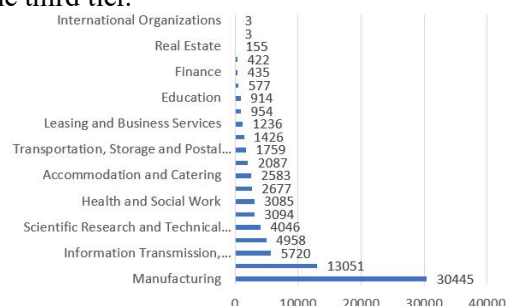


Figure 2. Distribution of Group Standards by Industry Category

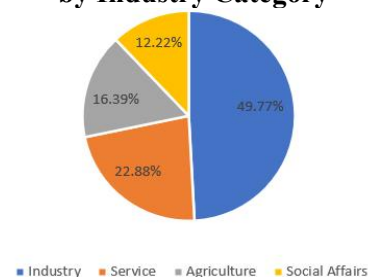


Figure 3. Distribution of Group Standards by Industry

4. Analysis of Issues in Group Standards

Currently, group standards in China are developing rapidly, but there are still numerous issues that need to be addressed.

4.1 High Registration Volume but Low Activity of Industry Associations and Chambers of Commerce

As mentioned in section 2.1, the number of registered industry associations and chambers of commerce has increased to 8,823. However, many social organizations have limited standardization activities after their establishment. The main reasons are: First, some social organizations lack understanding of standardization-related policies and do not place enough emphasis on standardization, thus not supporting the development of group standards. Second, some social organizations have incomplete organizational structures and lack professional knowledge in standardization, with no professional standardization teams. Third: some social organizations face financial constraints and have no budget for relevant expenditures, barely meeting basic operational needs, which is insufficient to support

standardization-related activities.

4.2 Insufficient Quantity and Varied Quality of Group Standards

The overall quantity of group standards is showing a good upward trend, but compared to other countries, the absolute number of group standards is still relatively small, with fewer high-quality group standards and few high-level technical standards with independent innovation. The main reasons are: First, some social organizations have low technical levels in group standards and lack professional standardization mechanisms, without forming expert teams in standardization. Second, some social organizations aim solely for economic benefits, expecting to collect high intermediary fees from enterprises by issuing standards, thus seeking personal gains. Third, some social organizations lack strict procedures for the formulation and revision of standards. In the pre-research phase, there is insufficient market demand research, and during the project approval review stage, the necessity and feasibility of the group standard projects are not thoroughly evaluated. During the standard compilation process, the opinions of relevant stakeholders are not fully solicited, and there is a lack of review for content standardization and scientific validity during the standard approval review process.

4.3 Uneven Development and High Repetition of Group Standards

On one hand, China's standardization reform has proposed a series of measures such as "integrating and simplifying mandatory standards," "optimizing and improving recommended standards," and "cultivating and developing group standards"[1]. The difficulty of initiating national and industry standards has increased, leading many enterprises to flock to the development of group standards. Social organizations in China blindly follow hot topics, resulting in severe repetition in standard formulation. Group standards are market-driven standards and indeed need to respond to market demands promptly, but blindly clustering may lead to rough standard content. For example, after the outbreak of the COVID-19 pandemic, the use of serving chopsticks became a new advocate for dining etiquette. Soon, industry associations and chambers of commerce actively responded,

issuing ten similar standards with highly redundant content [2]. Since 2022, with strong policy support and active participation of social capital, the pre-prepared food industry has made significant progress. More than 300 related standards in the pre-prepared food sector have been published, with a high degree of content repetition among the standards in different provinces and cities.

4.4 Incomplete Mechanism for Promoting and Implementing Group Standards

The implementation, application, and promotion of group standards are critical for their effectiveness. However, social organizations often struggle to conduct publicity, implementation, and related demonstration and promotion activities after the publication of group standards. The application scope is relatively limited. Additionally, as group standards are not mandatory, their acceptance by enterprises and the market may vary, making the promotion and implementation of group standards more challenging.

5. Suggestions for the Development of Group Standards

5.1 Strengthening Guidance and Support from Administrative Departments

Administrative departments should provide comprehensive guidance and support for group standards in terms of policy systems, talent cultivation, exchange and cooperation, publicity and promotion, and financial support [3]. This will enhance the importance and activity level of social organizations in standardization work. When formulating policies, regulations, and normative documents, applicable group standards can be referenced based on specific situations. Encouraging and promoting the active adoption of group standards with independent innovative technologies and competitive advantages in government procurement, bidding, and other work will help implement group standards. Additionally, actively exploring mechanisms for converting group standards into industry and national standards, clarifying conditions and procedural requirements for such conversions, and supporting and guiding enterprises to convert high-tech, effectively implemented group standards in key industrial

development areas into industry and national standards are essential. Formulating and issuing policies, regulations, and norms related to group standards will guide and regulate their development. Facilitating social organizations' participation in international standardization activities, promoting the linkage between international standards and diverse standard types such as group standards, and encouraging the conversion and export of group standards into international standards are also crucial.

5.2 Enhancing the Standardization Technical Capabilities of Social Organizations

It is well known that the quality of group standards depends on the overall standardization technical capabilities of the social organization. Social organizations should first improve their organizational mechanisms by establishing a complete and efficient standardization work organizational structure, equipping professional standardization staff, building an exclusive expert pool for standardization, and formulating a series of clear standardization processes and requirement documents. This will strengthen the standardized management of the entire process of group standard formulation. During the standard formulation process, social organizations should develop a detailed group standard formulation plan and strictly implement the related procedures for drafting and revising group standards. Through these measures, the standardization capabilities of social organizations can be significantly improved.

5.3 Strengthening the Regulation and Management of Group Standards

In the development process of group standards in China, the government has issued a series of laws, regulations, and policy documents to regulate them. High-quality group standards require standardized process management by social organizations. To improve the level of group standardization work, social organizations must strictly adhere to the procedures and requirements for standard formulation during the process, continuously improving the proposal, project approval, drafting, solicitation of opinions, technical review, approval and release, and review

processes for group standards. This will promote the high-quality development of group standards [4].

5.4 Strengthening the Promotion and Application of Group Standards

The government should increase the promotion of group standards by improving awareness and acceptance among enterprises and the public through training, seminars, online platforms, etc. This will enhance the understanding and application capabilities of group standards across various sectors of society. The government should actively guide enterprises and social organizations to apply group standards, thus promoting their widespread application and development. Additionally, the government should strengthen the evaluation and supervision of the application effects of group standards to ensure their effective implementation and positive role in economic and social development. Social organizations should leverage their technical advantages and connections with enterprises, establish a domestic expert database, and involve foreign-invested enterprises and international experts in the formulation of group standards, actively promoting their implementation and application.

5.5 Promoting the Coordinated Development of Group Standards with Metrology, Certification, and Testing

Drawing on international standards working models, efforts should be made to implement an integrated operation mechanism for standards, certification, training, and testing. This will enhance the market influence of independently developed, original, high-quality group standards and promote their effective implementation [5]. The “group standards + certification” value realization model should be advanced [6], involving collaboration between social organizations, certification and accreditation bodies, and testing agencies. This coordinated development will ensure that group standards, metrology, certification, and testing services work together harmoniously, better serving the domestic market.

5.6 Protecting the Intellectual Property of Group Standards

As innovative standards, the technical or managerial innovations of market entities that form group standards should be protected by intellectual property rights [7]. Whether referenced by the government or used by other market entities, the use of these group standards should not infringe upon the intellectual property and interests of the standard-setting entities. The protection of intellectual property rights for group standards requires support from both the government and the market. A stable intellectual property environment can foster healthy competition among group standards. While protecting the intellectual property of group standards, it is important to avoid scenarios where market leaders use nominal "openness" to create "private" standards that dominate the market and build patent barriers, leading to monopolies.

5.7 Encouraging the Integration of Group Standards with Innovation

Drawing on the Shanghai development model [8], the government should encourage the integration of advanced and applicable technological innovations into standards to elevate their level. This includes guiding standard-setting bodies to incorporate group standards as key output indicators within the implementation framework of scientific and technological plans, standardizing the outcomes of scientific projects, and encouraging the formation of standards within the results of major scientific and technological projects. Accelerating research on essential patents for standards and promoting the synchronization of group standards with patented technologies will enhance technological advancement and innovation.

6. Conclusion

Group standards are standards generated through market mechanisms. Developing and nurturing group standards is not only a successful experience of developed countries but also a need to leverage the role of social organizations, strengthen social governance, stimulate the vitality of market entities, and better utilize the market's decisive role in the allocation of standardization resources. Actively guiding and supporting the development of group standards, and

formulating high-quality, high-level group standards will help create a development pattern where "mandatory standards set the bottom line, recommended standards ensure the basics, industry standards fill gaps, enterprise standards strengthen quality, and group standards foster innovation."

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