

Research on the Key Technical Index System for the Construction of High-Quality Industrial Enterprises

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Abstract: The efficient operation of industrial enterprises requires coordination of many factors. In order to increase the production capacity of industrial enterprises and explore the key technical issues and difficult issues for improving the production and operation of enterprises, this article takes coal enterprises as an example to analyze the key elements of industrial enterprise construction and build a conceptual model of key technologies for high-quality industrial enterprise construction. On this basis, a key technical indicator system for the construction of high-quality industrial enterprises will be formed to provide reference and reference for the operation of industrial enterprises.

1. Introduction

My country's industry has a good foundation for development and is constantly facing new challenges. During the "14th Five-Year Plan" period, it is necessary to adjust the positioning of industry in the national economy in a timely manner in accordance with changes in development conditions and the environment, further clarify the development tasks and key areas of industrial enterprises, cultivate and strengthen new industrial competitive advantages, and accelerate progress at a higher level Industrial modernization. At the same time, enhancing the core competitiveness of enterprises and building high-quality enterprises are effective means to build a modern and powerful country. Therefore, digging out the key technical points for the development of industrial enterprises is essential for improving the production efficiency of industrial enterprises and accelerating the development of industrialization.

2. Analysis of Factors Affecting the Construction of High-Quality Industrial Enterprises

2.1 Framework of Key Technical Indicators System

Due to the particularity of the industry, in addition to the characteristics of ordinary enterprise production and operation, industrial enterprises also have some unique attributes of industrial production, such as complex production environment, large number of personnel and equipment, high incidence of production accidents, strong technical expertise, and production The operating system is huge and so on (take the coal industry as an example, as shown in Figure 1). These influencing factors are numerous and complex. If you want to achieve sustainable development and improve core competitiveness, these complex factors must be reasonably classified and systematically managed, and a theoretical system must be constructed scientifically. Many production factors of industrial enterprises can be classified in different ways, and there is no absolute limit. However, the conceptual model must follow the principles of operability, rationality, simplicity, etc., to ensure that resources can be allocated rationally, and the internal coordination of the enterprise can be enhanced, so as to obtain a lasting competitive advantage in the market and achieve the goal of building a high-quality industrial enterprise.

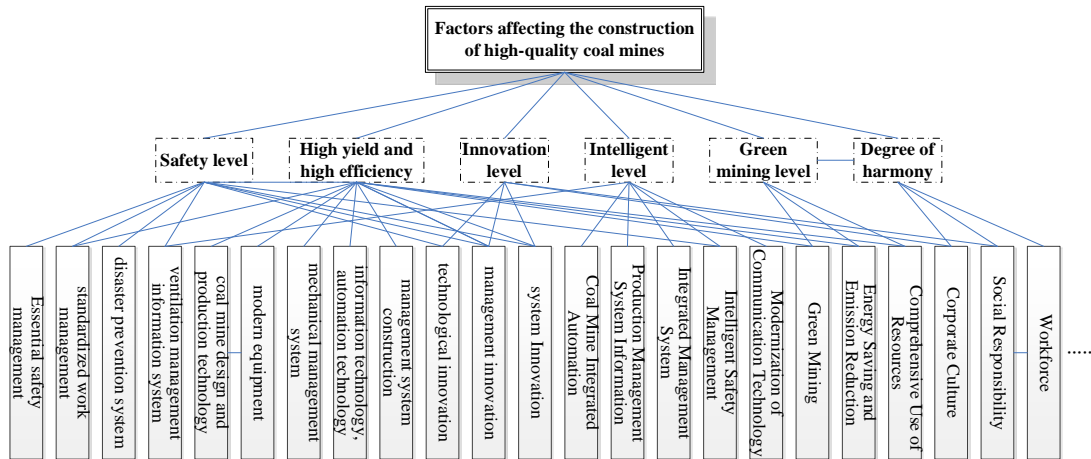


Fig.1 Analysis on Influencing Factors of Construction of High-Quality Coal

2.2 Conceptual Model of High-Quality Industrial Enterprise Construction System

The construction of high-quality industrial enterprises is a complex and huge system of overall coordination process, and its construction system has multiple levels and components. The construction system of high-quality industrial enterprises mainly has the following characteristics:

(1) The construction system of high-quality industrial enterprises carries out internal resource allocation and overall planning from the perspective of “development”, emphasizing both quality and quantity, that is, it is not limited to the improvement of production scale, efficiency, output and quantity, but also focuses on quality and quantity. Strengthening of corporate sustainable development capabilities.

(2) The construction system of high-quality industrial enterprises takes “coordination” as the criterion to reasonably allocate and coordinate the various subsystems of industrial enterprises such as safe production, high production and efficiency, intelligent level, green mining level, innovation ability, and degree of harmony. Seek to achieve complementary and mutually beneficial effects.

(3) The construction system of high-quality industrial enterprises uses the three core driving forces of “technology-economy-management” as a solid support and driving force to enhance the core competitiveness of enterprises, and provides directions and ideas for the construction of high-quality industrial enterprise construction systems and various dimensions.

According to the internal influencing factors of industrial enterprises and the characteristics of the construction system of high-quality industrial enterprises, this article takes coal enterprises as an example to influence factors (such as intrinsic safety management, standardized operation management, disaster prevention systems, ventilation management information systems, coal mines) Design and production technology, modern equipment management system, technological innovation, management innovation, system innovation, etc.) are integrated into six dimensions, namely safety, efficiency, intelligence, green, innovation and harmony. The elements and contents of the internal construction of coal mines can be divided into these six dimensions. The construction level of high-quality coal mines is not only affected by the state and structure of these six dimensions, but also by the interaction and connection between the dimensions. The conceptual model of high-quality coal mine construction level can be expressed as:

$$M = f(u_1, u_2, u_3, u_4, u_5, u_6,) \quad (1)$$

Among them, M represents the construction level of high-quality coal mines, u_1 is the level of safe production (safety dimension), u_2 is the high-yield and efficient level (high-efficiency dimension), u_3 is the intelligent level (smart dimension), u_4 is the green mining level (green dimension), u_5 It is the enterprise's innovation capability (innovation dimension) and u_6 harmony degree (harmony dimension). Therefore, the high-quality coal mine construction system can be regarded as a function of these dimensions (influencing factors).

3. High-Quality Industrial Enterprises Build a Key Indicator System, Taking Coal Enterprises as an Example

In the process of constructing high-quality coal mine construction indicators, this article refers to the relevant standards of the coal industry and the specific actual conditions of coal enterprises, through repeated discussions with experts in various fields, and consults a large number of domestic and foreign production and management experience in related fields of coal enterprises, through theory and practice In combination, a high-quality coal mine evaluation index system was finally determined with the construction of high-quality coal mines as the target layer, high-efficiency, green, safe, intelligent, innovative, and harmonious as the criterion layer, and corresponding specific indicators as the index layer.

The connotation and characteristics of high-quality coal mines determine that its construction and evaluation requirements are relatively high, and high-quality coal mines must meet many necessary conditions. Based on the theory of the development of high-quality coal mines and the above-mentioned general principles for establishing the index system, combined with the operating characteristics of my country's coal mines, the index system for high-quality coal construction is divided into three levels: target level, criterion level and index level. The target layer is mainly designed from the goals to be achieved by high-quality coal mines, including six dimensions of safety, efficiency, innovation, intelligence, green, and harmony; the criterion layer subdivides each dimension into universal and general classification indicators; the indicator layer The index classification for the criterion level further refines the index according to the affiliation. This evaluation index system is designed with 6 first-level evaluation indexes; 17 second-level evaluation indexes; and 65 third-level evaluation indexes.

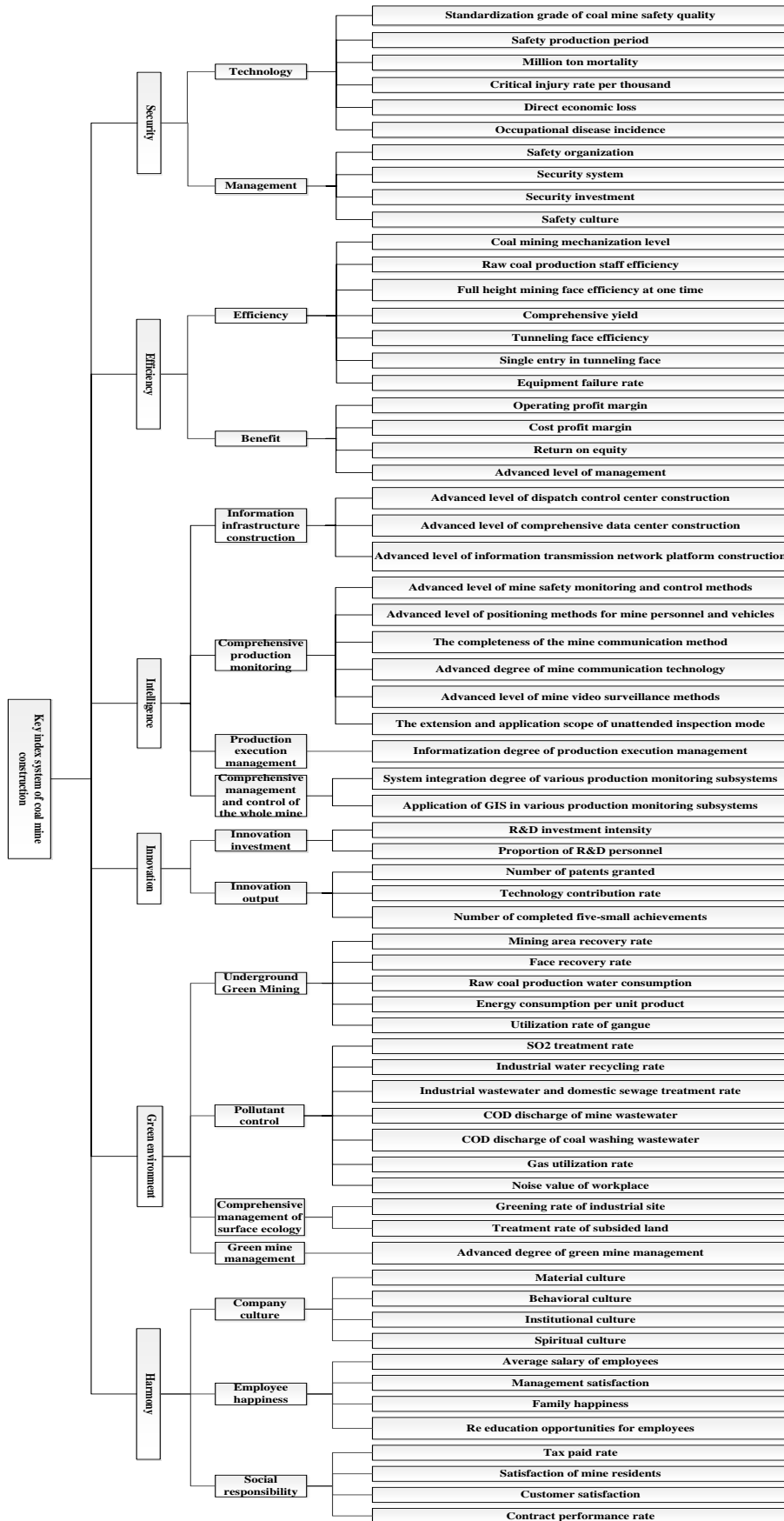


Fig.2 The Key Technical Index System for the Construction of High - Quality Industrial Enterprises-Taking Coal Mines as an Example

4. Conclusion

Through the analysis of the key influencing factors of industrial enterprise construction, this study established the framework and conceptual model of the key technical indicator system for the construction of high-quality industrial enterprises, and took coal enterprises as an example, from the six aspects of safety, efficiency, intelligence, green, innovation and harmony. Dimensions respectively put forward the key technical indicator system for the construction of high-quality coal enterprises, aiming to provide experience and reference for the high-quality development of industrial enterprises.

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