Analysis on the Path of Safety Culture Innovation in Foshan Manufacturing Industry

Xiaoming Sang[1,*]

[1]Guangzhou College of Technology and Business, Guangzhou, Guangdong 510850, China
*Corresponding author. Email: sangbinli@163.com

ABSTRACT

For the transformation and upgrading of manufacturing enterprises, safety development is a prerequisite. Safety production is the life of the enterprise, while safety culture is the soul of safety production. The article starts from the current situation of Foshan manufacturing industry, combing the necessity of safety culture innovation of Foshan manufacturing industry. Based on the systematic thinking mode of "Tao, Regulations, Tactics, Instruments, Trend" in Chinese traditional culture, in terms of system and concept, policy and system, means and methods, media and tools, cultivation and atmosphere, this paper proposes the path of safety culture innovation in Foshan manufacturing industry, and provides strategic escort for the enterprise safety development in transformation period of Foshan manufacturing industry.

Keywords: Foshan manufacturing industry, traditional culture, safety culture, innovation path

I. INTRODUCTION

Manufacturing occupies a dominant position in the national economy and has contributed incredibly to the development and prosperity of the world economy, which is a fundamental driving force for industrialization. In accordance with the statistics, 70% ∼ 80% of the material wealth of industrialized countries is generated in manufacturing. China is still in an essential strategic opportunity period. Faced with the reshaping of the global manufacturing pattern, the Foshan manufacturing industry needs to profoundly appreciate and grasp the new connotation of the opportunity period to better survive and grow under the conditions of the overlapping of the risk period and the opening period. Whether past, present, or future, manufacturing is the root of Foshan's economy. Adhering to the manufacturing industry to gain a foothold in the market is the inevitable approach for Foshan to leap from a large manufacturing city to a strong manufacturing city. Safety in production has become an essential part of national strategic development. In contrast, in order to achieve high-quality development of Foshan's manufacturing industry, safe development is the key. The transformation and upgrading of the manufacturing industry needs to the matchable transformation and

upgrading of safety management, and more importantly, the innovation support of safety culture.

II. CURRENT DEVELOPMENTAL STATUS OF SAFETY CULTURE IN CHINA AND FOREIGN COUNTRIES

The concept of a safety culture was first mentioned by the International Nuclear Safety Advisory Group (INSAG) in 1986 in response to the Chernobyl nuclear accident. The report (INSAG-4), published in 1991, defines a safety culture as the sum of qualities and attitudes that exist in units and individuals. In the United States, the National Safety Council (NSC) organizes the National Safety Conference and Exhibition in October each year, and the American Society of Safety Engineers observes June 20-27 as "National Workplace Safety Week" to reduce workplace accidents. The Canadian Society of Safety Engineering (CSSE) launches Canadian Occupational Safety and Health Week in June each year through the display of safety and personal protective equipment, video projections, announcements and awards for workers who meet safety and health standards, and safety poster competitions for company employees and their families. In Japan, National Safety Week is held every year from July 1 to 7 and National Labor Health Week is held from October 1 to 7, both of which are organized by the Ministry of Labor and the Central Labor Disaster Prevention Association of Japan to promote accident prevention and labor health

management activities at enterprises and to raise safety awareness among the entire population.

In China, June was established as National Security Month in 1980. In 1991, May was designated as National Security Production Week, and in 2002, June was re-regulated as National Security Production Month. Both Safety Week and Safety Month have accumulated and created many good practices and successful experiences for the promotion and education of safety culture. Safety culture is an important part of social culture, and an excellent safety culture is an important guarantee of social harmony and stability, healthy development of enterprises and a good life for the people. The former State Administration of Safety Supervision issued the Guidelines for Building a Safety Culture in Enterprises (AQ/T 9004-2008) and the Guidelines for Evaluating the Building of a Safety Culture in Enterprises (AQ/T 9005-2008), which provide working guidelines for enterprises to carry out safety culture building and promote the development of their own safety culture. The Thirteenth Five-Year Plan for Safe Production (2017), issued by the General Office of the State Council, calls for cultural innovation, promoting the coordinated development of safe production and the economy and society, vigorously promoting a safety culture, extensively carrying out safety education activities for the masses, and promoting safety knowledge and common sense into enterprises, schools, institutions, communities, villages and families.

III. THE NECESSITY OF SAFETY CULTURE INNOVATION IN FOSHAN MANUFACTURING INDUSTRY

Safety management is not only a corporate action, but also a social action. The safety culture is continuous, cumulative and progressive, with a national character horizontally and a contemporary character vertically. The innovation and development of enterprise safety culture is a long-term systematic project, and only by constant grasping can we achieve the transmission and breakthrough of safety culture. Safety Production "Thirteenth Five-Year Plan" of Foshan City (2016) points out that Foshan will build safety production publicity and education center and national safety culture construction project. At present, Foshan's manufacturing industry is in a period of industrial transformation, so how to innovate the manufacturing safety culture in the period of transformation, and comprehensively improve the safety management level of manufacturing enterprises to achieve successful transformation is particularly important.

A. *Enterprise safety strategy affects enterprise safety culture*

In 2018, there were 6041 small, medium and micro enterprises above scale in Foshan, accounting for 97.34% of the city's total number of enterprises. The small, medium and micro enterprises which accounts for the largest proportion of manufacturing provides an important driving force for economic development in Foshan. Nevertheless, many MSMEs have management problems such as inadequate positioning of safety strategies, low investment in safety management, lack of safety management systems and inadequate training of personnel. At the enterprise level, enterprise safety development strategy, safety management organization structure and safety communication mechanism have an important influence on enterprise safety culture. Enterprises regard investment in safety culture as a strategic investment that can not only enhance the economic efficiency of enterprises, but also help them build a good social image.

B. *The level of employee culture affects the safety culture of the enterprise*

The 2018 Foshan City Human Resources Market Occupational Supply and Demand Analysis shows that in the respect of the quarterly employment supply and demand, manufacturing employment is the largest demand, and the majority of literacy requirements are below high school. The literacy level of frontline employees in manufacturing enterprises is low and they lack of skilled professionals. Front-line employees are at the forefront of people, objects, environment and management, and have a supporting role in the implementation of the enterprise safety culture. If frontline employees cannot accurately understand the safety culture of the enterprise, the safety behaviors of the employees will finally lay a hidden danger for the occurrence of safety accidents.

C. *Modern information technology influences corporate security culture*

The Thirteenth Five-Year Plan of Foshan City (2016) points out that Foshan will build a safe production of comprehensive information management network system construction project. With the popularity of smart terminals, mobile Internet and other technologies and devices, it is becoming a new trend to comprehensively improve the level of safety culture construction through innovative means such as the innovation of safety publicity and education. Accurate, systematic and comprehensive safety management data is very important to enhance the level of safety culture in the enterprise. Big data technology reduces the occurrence of safety accidents by analyzing the large amount of safety accident data, analyzing and finding the seasonal, cyclical and correlation laws of accidents, finding out the sources of accidents, formulating

reasonable prevention plans and improving the capacity of source management. How to analyze the vast amount of data on safety production, comb through the relevant data related to safety culture and provide decision support for safety culture innovation are also the key issues that need to be addressed.

IV. THE PATH OF SAFETY CULTURE INNOVATION IN FOSHAN MANUFACTURING INDUSTRY

With the development of society and the continuous emergence of new technologies, the concept, mode and dissemination of the security culture must keep pace with the times and constantly innovate. Safety first is not just a loud slogan, which determines that the safety culture must be in line with the development of society and be at the forefront of all management. Safety culture is both national and contemporary. In ancient Chinese management thought, the "Tao, Regulations, Tactics, Instruments, Trend" in Laozi's Tao Te Ching is a typical Chinese management wisdom. The Classic of the Virtue of the Tao is a typical Chinese management wisdom. The following is a systematic thinking model based on the "Tao, Regulations, Tactics, Instruments, Trend", which proposes the systematic thinking of Foshan's manufacturing safety culture innovation in terms of system and concept, policy and system, means and methods, media and tools, cultivation and atmosphere.

A. Tao is used to show the direction, which embodies the system and concept of enterprise safety culture

Tao is the source of all things, the core idea and philosophy. The way of safety culture of enterprises lies in building a safety culture system, forming a scientific and reasonable safety concept and safety mission. The absence of an enterprise safety culture directly or indirectly affects the enterprise safety management system, which in turn affects the safety behavior of employees. Safety concept is the guiding idea of safety business, can be combined with local cultural characteristics to refine the safety concept, such as Foshan manufacturing enterprises can be combined with the local Lingnan culture, scientific culture, etc., innovative enterprise safety management concept.

B. Regulations are used to establish the foundation, which embody the policy and system of enterprise safety culture

Regulations are principles based on the Tao, which are system. The way to establish a safety culture in an enterprise is to establish a safety management system, safety operating procedures, etc. By virtue of the safety culture system, it can discipline the safety behavior of employees, motivate employees to consciously comply with the enterprise safety system, and practice the

safety policy and safety concept. Enterprises should establish the safety-first safety production policy, when safety and quality, efficiency and cost conflict, safety should be put first. A well-developed safety culture system is the basic guarantee to ensure the implementation of safety production guidelines, and safety management system documents should be simple, efficient and easy to implement.

C. Tactics are used to make policy, which embody the means and methods of enterprise safety culture

Tactics are the realization means based on Tao, and they are behavior and skill. The effective initiation and implementation of a corporate safety culture at the physical, institutional, behavioral and spiritual levels requires the company to invest in the corresponding costs, personnel, equipment and facilities. Publicize and implement the company's safety philosophy and safety policy, conduct various kinds of education on safety topics, and establish flexible online and offline communication methods. In addition, in the process of achieving people-centered and intrinsic security, leadership and full participation are required. Only up, can it work. Combining the characteristics of frontline employees in manufacturing enterprises, strengthen the monitoring and feedback of the implementation process, set a benchmark to catch up, and achieve the steady development of the spiral of enterprise safety culture PDCA.

D. Instruments are used to accomplish things, which are the media and tools of enterprise safety culture

Instruments are Tao-based carriers, which are tools and network. In the era of big data, the rational use of all kinds of digital media can help to spread the culture of safety with half the effort. Enterprises should actively explore a variety of safety culture dissemination vehicles to enhance the permeability, affinity and infectious power of safety culture. The core content of safety culture is presented in a three-dimensional manner through the company's internal publications, publicity boards, promotional videos, cultural folders and other ways. Adopt online learning platform such as safety lectures and webcasts, so that employees can learn and publicize enterprise safety culture anytime and anywhere through mobile terminals.

E. Trend is used to improve people, which embodies the cultivation and atmosphere of enterprise safety culture

Trend is the Tao-based environment, which is the tendency and context. The safety culture needs to be accumulated day by day, to create a good safety culture atmosphere by continuously improving the safety literacy of employees. Enterprises should continuously

optimize safety management processes, constantly improve safety performance, enrich the connotation of safety culture, and realize employees at all levels from cognitive philosophy, recognition and implementation to conscious improvement. Only internalizing the safety culture in the heart can it be externalized in action. As the main force for the implementation and dissemination of safety culture, only the frontline employees of manufacturing enterprises form a combined force can ensure the transmission and promotion of safety culture.

V. CONCLUSION

People-oriented, safe production and harmonious development are essential elements of sustainable development of modern enterprises. Safety is the prerequisite, and production is the foundation, while the safety culture is the underpinning of safe production. China's enterprise safety culture innovation should be combined with local characteristics and the elements that constitute the enterprise safety culture should be systematically reshaped to adapt to changes in the level of enterprise management and the external environment. This article refers to the management wisdom in traditional Chinese culture, from the system perspective of "Tao, Regulations, Tactics, Instruments, Trend", proposes the innovative path of Foshan manufacturing safety culture, in order to provide a useful reference for the Foshan manufacturing industry in transition period of enterprise safety development.

References

[1] Luo Yun. Discussion on the construction of emergency cultural system in the new era. [J]. Security, 2020,41 (3): 1-7

[2] Shi Bo, Wang Bing, Wu Chao. Identification mechanism and influencing factors of corporate safety culture [J]. Science and technology management research, 2016,36 (16): 195-200

[3] Li Hongling. The cultural gene of Made in Foshan is at your home. [N]. Foshan daily, December 5, 2017 (A06)

[4] Chen Benfeng,Discussion into Construction and Innovation of Enterprise's Safety Culture System[J].Safety Health & Environment,2014,14(4):29-31

[5] Pei Wentian. Theory and practice of enterprise safety culture construction [M]. Beijing: Red Flag Press, 2014

[6] Gao Jian.Discussion on Practice and Innovation of Enterprise Safety Culture[J].Safety Health & Environment,2020,20 (5): 58-60

[7] Wang Bing,Wu Chao. Research on construction principles of safety culture[J]. Journal of Safety Science and Technology, 2015,11(12): 26-32