

Exploration on the Management Model and Lean Production of Traditional Manufacturing Enterprise

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Keywords: Traditional manufacturing enterprise, Lean production, Management model

Abstract. With the issue of "Made in China 2015" by State Council in 2015, China is stepping into the comprehensive implementation of strategy of developing a powerful manufacturing country, which has brought about new opportunities and many challenges as well to Chinese manufacturing industry. In order to make the fundamentally qualitative change under the developing environment, Chinese manufacturing industry must establish LP system and to create management ability. This article makes an analysis on traditional enterprise management model and based on this it explores more about the lean production system.

Introduction

Chinese manufacturing enterprises have been developing since very early compared with other industrial enterprises. The management model of traditional manufacturing enterprise is based on the industrial management of former Soviet Union. Although the management model has been adjusted during the process of Chinese industrial economic development, no matter in the management concept or the management model, there is no substantial change. In addition, influenced by the planned economy and the slow development of Chinese scientific technology, Chinese industrial foundation has been improved very slowly and left far behind the western countries for a long time. With the competition in the industrial market getting fiercer, especially with the further development and deeper reform in China, huge numbers of foreign manufacturing enterprises have flowed into Chinese market forcing Chinese traditional manufacturing enterprises to transfer some market shares. Chinese traditional manufacturing enterprise must face the cruel reality and clearly understand the importance of management model transformation under this great pressure.

The strategy of reinvigorating China "Made in China 2015" provides the direction for the traditional manufacturing enterprise management innovation

In 2015, the publication of "Made in China 2025" has provided the strategic guiding ideology for the development of Chinese manufacturing industry. As the action program of implementing the strategy of reinvigorating China, it points out that the development requires for technological innovation, with the innovation as the motive to improve the product quality and to promote the enterprise economic structure optimization for the aim of long-term interests to boost the overall development of manufacturing enterprises. This means that Chinese traditional manufacturing enterprises must make innovation around the strategic guiding ideology for stepping in to new developing pathway by reinforcing resources integration and apply information technology fully into the industrialization on the basis of foundation strengthening. Promote green manufacturing and adjust industrial structure conforming to the demand of industry demand. Transform the original productive enterprise development model into the service model so as to improve the management level of Chinese manufacturing enterprise as well as their competitiveness.

Lean production is the important method to support enterprise management innovation

Lean production, known as LP, means to eliminate all the lavishing during the enterprise operation process and handle all malfunctions to prevent any defects, too much inventory backlogs so as to improve the enterprise operation efficiency. So, lean production is also called superior

production requiring enterprise to optimize resources in every process of operation and activities without valuable contents in the value chain will be strictly forbidden for improving labor efficiency. Conduct the production management according the buyer's market and manufacture based on the order quantity, and supply products punctually for inventory reduction [1].

LP is the precondition to achieve the enterprise management innovation.

In the development process of traditional manufacturing enterprise, the field operation is an important procedure. The economic manufacturing management model demands the new management concept to stipulate field operation for better effect, and during the process the development of employee's potential is very necessary. The enterprise management innovation is to break through the traditional situation that employees passively receive the assignment and to develop the corporate culture. There will be a cultural atmosphere in the field operation where employees can develop their wisdom fully and integrate into their work. In that case, they can improve their working ability and at the same time they can learn experiences to explore new working techniques for better working quality and efficiency.

With the starting of LP model, employees' working concept has transformed from the past concept that they work for the company as the goal of completing working tasks, to the new concept that work is their career with belongingness in their heart. In that way, employees can actively get into their own work and try best to finish the work tasks perfectly. The awareness of initiative of employees helps them to solve problems and explore deeper when facing difficulties instead of standing still waiting. Gradually new management culture can be established in job site. Motivated by the management concept, enterprise can make substantial transformation on the basis of quantified management accumulation so that the management innovation can be realized.

Manufacturing industry requires high technology but the only pursuit of technological innovation without into the management level, the improvement of enterprise overall competitiveness cannot be achieved. We can find out from the conclusion of management experiences in advanced countries that, the construction of LP model is the vital for enterprise management innovation. The technology advantage can be played fully through effective combination of technology and management and meanwhile intensify the management to improve the enterprise competitiveness in the industry. The introduction of LP management model into Chinese traditional manufacturing industry should be based on and perfected on Chinese practical situation so as to make new quantified accumulation and bring positive power for enterprise development.

LP is the ideological system of enterprise management.

The introduction of LP model to Chinese traditional manufacturing industry may often be the inflexible imitation regarding it as a working method instead of adjusting accordingly based on enterprise practical development. LP itself is an ideology of management, and when introduced into the specific work of enterprise, it would be used as an ideological management system and to be implemented in specific operation systematically.

LP can optimize enterprise management system

LP production is the optimization of enterprise management system. During introducing LP, traditional manufacturing enterprise should update management concept and put it into management method for management model transformation. The structure, operation of enterprise management system, the enterprise field working environment, and HR management should conform to the requirement of LP for stipulation and improvement for continuous management system resource optimization, effective resource integration and higher management level.

LP can bring innovation to enterprise management system

LP requires the innovation of enterprise management system based on practical working needs including the field operation standard, field management system. Accordingly, HR should be optimized so as to achieve the innovation in enterprise management organization. With the change from the seller's market to buyer's market under the market environment, manufacturing enterprise needs to adjust the perspective of production management, make production plan from the angel of market based on the consumer's demand for the purpose of inventory reduction. Enterprise

management model is transformed from production model into commercial model and will be more competitive by providing high quality service for consumers.

LP requires the establishment of appraisal management model

The effective impact from LP on the enterprise management can only be tested to prove. Establish the LP appraisal system with the evaluation content including enterprise production management, enterprise organization management, enterprise overall target, etc. And then put these contents into practice of HR performance assessment by setting standards so as to achieve the perfection of enterprise PAM.

The existing LP model

Flexibility production model.

LP requires the establishment of flexible manufacturing system in the enterprise. When design the system, products should be given special consideration. The FMS refers to the automatic manufacturing system controlled by computer including CNC machining equipment, cargo transportation equipment and cargo storage equipment. According to the operational demand, the enterprise can divide the FMS into different units so that there would be relevant adjustment with the change of enterprise technology environment, production environment, and management environment.

Just in time production model.

JIT is called real-time production system also. Every system operation in the enterprise will be started only when needed to produce products according the required quantity. Enterprise should guarantee the synchronization of material flow and information flow in the production process to make sure JIT model can be applied effectively. Product quality can meet the standard according to the required material production so as to shorten working time, improve working efficiency and reduce product inventory.

From the aspect of management, JIT is not only a management on the production process, but also a management on the whole process of production and operation particularly aiming at flexible use of all management elements for efficiency improvement. [2]JIT itself is an operation ideology for modern enterprises which is an important standard to strengthen the enterprise social credibility and industrial competitiveness.

Integration of JIT model and flexibility production model.

The purpose of the integration is to improve the product quality. In the management process, adjust the traditional manufacturing management process by introducing “Six Sigma” as the management principle to reduce quality cost and achieve the goal of product zero defect and business competitiveness improvement.

In the product design stage, the quality should be paid special attention. Make sure the product can meet the quality standard and conduct strict monitor on product designing. In the designing, there should be specific requirement on the product manufacturing method and product packaging method so that the product conforms to the design.

The goal in the stage of product inventory management is to reduce inventory amount and to avoid the increasing finished products due to too much stock. Te production line’s continuous operation must be guaranteed to reduce product inventory so that product quality can satisfy consumers’ requirement [3].

The biggest breakthrough for traditional manufacturing enterprise to use LP is that employee is not only the management receiver, but also endowed with rights. In the enterprise HR management, the existing leader-member relation can make them communicating closely for developing the cohesion from management level to the employee level. Management is a kind of regulation and system, more a kind of culture. Under this kind of enterprise cultural atmosphere, employees will acknowledge, cooperate, and support each other for the same goal to promote the innovation of enterprise management model. LP is an irresistible trend in the process of Chinese traditional manufacturing enterprise management innovation.

The deep implementation of LP in Chinese traditional manufacturing enterprises

The management mode of Chinese traditional manufacturing enterprises is seriously lagging behind, which reflected on that there is neither any adjustment nor perfection of the management model according to the Chinese market economic development, nor any innovation from the aspect of world economic development, which has made Chinese manufacturing enterprise still remains the state of quantified accumulation without any substantial gap. 2015 is the opening year for the development of Chinese traditional manufacturing enterprises. Under the guidance of strategic ideology in “Made in China 2025”, Chinese manufacturing industry obtains new developing chances. This requires the perceptual transformation on traditional production model and management model, but also requires advanced scientific technology for the establishment of management model which matches China’s national conditions. Chinese traditional manufacturing industry is the pillar sector promoting the whole national economy. With the huge change of manufacturing industry, there will be great-leap-forward development in the whole economy. The innovation of production and management model in Chinese traditional manufacturing enterprises will be a historic mission and LP will be the important way to support the management innovation.

LP is a reform for the enterprise, especially for Chinese traditional manufacturing industry. The management innovation by using LP model mainly includes the improvement enterprise intangible environment. The reform of material conditions which only accounts for one third of the overall reform of enterprise management system will be mainly on the layout optimization. Enterprise intangible environment refers to the enterprise management concept, cultural environment and enterprise system, etc. LP, as a method to improve the enterprise intangible environment, will bring innovation to the traditional enterprise culture and establish the enterprise cultural atmosphere which can adapt to the industry market. And it requires the nurture of employees’ technology and management ability, the establishment of incentive mechanism in HR management so as to stimulate employees’ initiative and creativity [4]. During the process of execution, pay more attention to employees’ feedbacks and analyze their suggestions, for some reasonable advice to get positive adoption. Develop employees’ initiative so that their own career will be closed connected with the enterprise development.

LP has brought about technical reform to traditional manufacturing enterprises. The establishment of information management system can be used in the enterprise management, but also can make full use of the automatic technology in the production stage so as to achieve the combination of manufacturing technology and Information automation technology. And the application of high precision manufacturing equipment in production stage can achieve intelligent management and the huge increase of manufacturing efficiency.

Conclusion

To sum up, as a method of management, will never be limited in the enterprise production process, but the guiding ideology of enterprise management. Chinese traditional manufacturing enterprises are facing with the developing opportunity of fully implementation of reinforcing China strategy. The introduction of LP management model is necessary for the enterprise management innovation. However, in the process of specific execution, this management model should be adjusted according to the enterprise practical condition so that the enterprise can establish a LP system to meet its own requirement for the aim of management innovation and finally promoting traditional manufacturing enterprises into a new developing pathway.

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