

# Analysis of industrial engineering development status and future development trend

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## Abstract:

*Modern industrial engineering is based on operations research and systems engineering in modern management, with advanced computer technology as the main means, and on this basis, it is compatible with many emerging high-tech and advanced disciplines. Therefore, modern industrial engineering is a professional technology with integration and coverage. This paper analyzes and discusses the development status and future development trend of industrial engineering.*

## Keywords:

*Industrial Engineering; Development Status; Future Trends*

## I. A brief overview of industrial engineering

After checking the information, it is known that the development process of industrial engineering has been nearly 100 years, compared with other disciplines, industrial engineering is a relatively slow development of the discipline. In addition, industrial engineering is referred to as IE, and industrial engineering is gradually divided into two professional technical categories over time, namely traditional industrial engineering and modern industrial engineering. As the name suggests, traditional industrial engineering is the early development of industrial engineering technology, it is mainly through factory layout, material handling, production planning and travel arrangements and other means, with time research and motion research as the main goal, to gradually improve productivity, and improve the overall labor efficiency. In the same way, modern industrial engineering technology refers to the professional technology that emerged in the great trend of modern society and the development of The Times. Modern industrial engineering is based on operation research and system engineering in modern management as the theoretical basis, and advanced computer technology as the main means, and on this basis, it summarizes many new high technology and advanced disciplines. Therefore, modern industrial engineering is a professional technology with integration and coverage.

## II. Problems related to the development of industrial engineering

### 1. Lack of independent innovation ability

Lack of independent innovation ability is the most common and serious problem in the application of industrial engineering in China's related enterprises. At present, although China's industrial engineering related enterprises are booming, it is undeniable that foreign enterprises related to the application of industrial engineering technology are developing more rapidly, and their development momentum is more rapid. Therefore, in the current development and change of industrial engineering technology, there is gradually a general situation of learning from the development technology of foreign enterprises. Among them, some enterprises introduce foreign industrial engineering related technology at the same time, because the relevant system and economic development system of foreign enterprises are not the same as those in China, and the business philosophy is also very different, so it often causes the opposite result, and this blind learning hinders the development and promotion of domestic related industrial engineering technology. Therefore, it can be concluded that it is particularly important to strengthen our own independent innovation capabilities while learning from relevant technologies from other countries.

### 2. The relevant staff lacks professional and technical ability

In the application of industrial engineering technology in related enterprises, because the relevant staff does not carry out relevant professional training, it is a little powerless to solve the problems of industrial engineering technology in daily work. In addition, due to the lack of relevant professional training, it will lead to the lack of basic knowledge of the personnel engaged in industrial engineering in relevant enterprises, which is not conducive to the further development and change of industrial engineering technology. And from another aspect, it is not conducive to the healthy and orderly development of related enterprises, and to a certain extent, it also affects the economic benefits of related enterprises. In addition, the relevant staff lack of professional technical ability, the theoretical basis of industrial engineering technology is lacking, it can not reflect the problems that arise in the work in a timely and effective manner, in the same way, the lack of professional technical ability of the relevant staff will lead to the situation that the relevant staff are caught off guard when dealing with the sudden problems in the relevant industrial engineering technology, and cannot solve the problem flexibly, which will cause the economic losses of the relevant enterprises to a certain extent, which is not conducive to the healthy development of the enterprise, and then will also hinder the orderly development of industrial engineering technology.

### **3. Lack of practical application ability**

Practical application ability is the foundation of the development and application of all things. The theoretical basis is naturally important, but the practical application ability is indispensable. Nowadays, in the gradual development and change of industrial engineering technology, the emphasis on practical application ability is more important. At present, due to the lack of practical ability of the staff engaged in industrial engineering technology in relevant enterprises, they only pay attention to the training of theoretical ability, while ignoring the most basic practical application ability, which often leads to the occurrence of "paper talk" accidents, and cannot deal with relevant problems flexibly and effectively, thus affecting the progress and change of relevant enterprises. Hindering the development and change of industrial engineering technology. In addition, the staff engaged in industrial engineering technology in relevant enterprises lack practical application ability, which is closely related to the relationship between the senior management of enterprises who do not pay attention to practical ability training. Among them, because the relevant senior personnel of the enterprise's understanding of industrial engineering technology is not thorough enough, it is in the shallow stage, then it is easy to cause the phenomenon of only focusing on the surface and ignoring the actual ability, which will affect the healthy and orderly development of the entire enterprise, and to a certain extent, it will inevitably affect the improvement of the economic benefits of the enterprise.

## **III. The future development trend of industrial engineering**

In recent years, industrial engineering technology has developed with an unstoppable momentum, which in turn has improved its core competitiveness and occupied a place in the market. Then, in view of the future development trend of industrial engineering, this paper discusses and analyzes step by step from four aspects: enhancing the ability of independent innovation, improving the professional and technical ability of relevant staff and keeping pace with the times, and focusing on practical application ability, which is described as follows.

### **1. Enhance independent innovation capability**

Nowadays, China's economic construction is gradually advancing, and the social construction is also booming. Therefore, in the context of the current era, it is particularly valuable to enhance the ability of independent innovation. As we all know, in the international environment, the ability of independent innovation has developed into the evaluation standard of the comprehensive strength of various countries. In addition, enhancing the ability of independent innovation has become extremely important in the development and change of industrial engineering technology. Among them, the staff engaged in industrial engineering technology in relevant enterprises must enhance the ability of independent innovation, in order to promote the vigorous development of relevant enterprises, promote the improvement of economic interests of enterprises, to a certain extent, also enhance the brand image of the entire enterprise, promote the healthy and orderly development of enterprises, and then make a certain contribution to the development and progress of industrial engineering technology. Therefore, it is necessary to strengthen the ability of independent innovation, to provide effective power factors for the further development of our industrial engineering technology, then enhancing the ability of independent innovation will also inevitably become the future development

trend of our industrial engineering technology.

## **2. Improve the professional and technical ability of relevant personnel**

Due to the lack of professional and technical ability of relevant staff, it is not conducive to the development of industrial engineering technology, so it is imperative to improve the professional and technical ability of relevant staff. Enhance the professional and technical competence of relevant staff. For example, the relevant enterprises engaged in industrial engineering technology staff professional training, so that the relevant staff master the professional ability of industrial engineering technology, and gradually applied to the daily work, to contribute to the further development of the enterprise. In addition, a reward and punishment system can be implemented within the enterprise to reward staff with strong industrial engineering skills after training to show encouragement. At the same time, staff who are still unable to master relevant professional skills after training will be punished to serve as punishment and warning. Because the professional technical ability of the relevant personnel will be the future development trend of China's industrial engineering technology, it is necessary to improve the professional technical ability of the relevant staff.

## **3. Keep pace with the times**

Keeping pace with the times will inevitably become the future development trend of industrial engineering technology. The development of industrial engineering technology must adapt to the current trend of the times in order to proceed naturally and orderly. Therefore, keeping pace with the times and developing gradually under the background of the development of the times and social progress is the irreversible development trend of industrial engineering technology in the future. It will provide an effective driving force for the vigorous development of industrial.

## **4. Pay attention to practical application ability**

Paying attention to practical application ability is also the future development trend of industrial engineering technology. In the application of industrial engineering technology, practical ability is particularly important. For a project, practical application ability is the foundation, and practical ability plays an important role in the development and change of industrial engineering technology. Therefore, it can be expected that paying attention to practical application ability will be the future development trend of industrial engineering technology.

## **Conclusion**

All in all, industrial engineering technology will flourish in the tide of rapid progress and change of the times, which will be the irreversible future development trend of industrial engineering technology. Therefore, in view of the development status and future development trend of industrial engineering technology, this paper further analyzes and explores from three aspects: a brief overview of industrial engineering, problems in the development of industrial engineering, and future development trend of industrial engineering, hoping to provide effective reference for relevant practitioners.

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