

Application of Artificial Intelligence Technology in Enterprise Management Reform

Hui Liu^{1,*}, Guorong Hu¹

¹Huzhou Vocational & Tech. Coll., Huzhou Zhejiang, 313000, China

*Corresponding author e-mail: liuhui-cjp@163.com

Abstract. The essence of economic globalization refers to the integration of global market economy. Whether an enterprise can occupy a place in the future market economy, one of the decisive factors of enterprise management will be enterprise efficiency. Only by grasping the general trend of artificial intelligence technology in enterprise management reform can enterprises obtain sustainable development. Therefore, this paper studies the application of artificial intelligence technology in enterprise management reform. This paper mainly aims at the problems existing in the management of small and medium-sized enterprises, so as to introduce artificial intelligence technology, promote the management reform of small and medium-sized enterprises, and discuss the application of artificial intelligence technology in enterprise management reform. Through data investigation and analysis of the results, this paper puts forward the application and improvement strategy of artificial intelligence technology in enterprise management reform, which provides technical support for the development of enterprise management.

Keywords: Artificial Intelligence, Business Management, Management Change, Intelligent Technology

1. Introduction

As a high-tech discipline, artificial intelligence is the key technology to simulate human brain intelligence and realize the automation of mental work^[1-3]. At present, artificial intelligence focuses more on enhancing the ability of machine to predict complex patterns, such as image and character recognition, speech understanding and enhanced learning algorithms. In the new era of continuous development of intelligence, artificial intelligence technology has also been widely used in enterprises^[4-6].

In order to improve the competitiveness of enterprise management, many enterprises introduce



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artificial intelligence into the application of enterprise management reform, which makes the management of small and medium-sized enterprises intelligent. Compared with other enterprises in China, there are still some gaps, especially in large enterprises; there is still a big gap in enterprise management reform. Many enterprises are still relatively unfamiliar with the use of artificial intelligence in enterprise management^[7-8]. With the advent of the intelligent era, enterprises must introduce modern technology if they want to continue to develop. Through the active application of artificial intelligence technology, it greatly saves manpower and improves the working efficiency of enterprises. This is not only in line with the development of the times, but also the inevitable way of enterprise modernization. Therefore, relevant technical personnel and researchers should improve their understanding of artificial intelligence technology and constantly enhance their professional ability, so as to better promote the effective application of artificial intelligence technology in enterprise management reform^[9-10].

This paper analyzes the actual situation of the application of artificial intelligence technology in the management reform of small and medium-sized enterprises in China, and finds that there are still deficiencies in the promotion and use of science and technology with enterprises in developed countries. Therefore, this paper establishes the research on the application of artificial intelligence technology in enterprise management reform. In the research, according to the actual situation of enterprise management reform in China, the introduction of artificial intelligence technology, the combination of the two can improve the work efficiency, scientific and technological strength and core competitiveness of enterprises. Through the analysis of the survey results, this paper believes that the use of artificial intelligence technology can create more results for enterprises.

2. Enterprise Management Reform and Artificial Intelligence Technology

2.1. Definition of Enterprise Management Change

Enterprise management is the inevitable requirement of social production. It is the general term of planning, organizing, directing, coordinating and controlling the production and operation activities of enterprises. The core of enterprise survival and development is sustainable development. If an enterprise wants to live a long and healthy life, the only choice is constant change and innovation. In terms of change, essentially what changes is the way people think. Although many enterprises have introduced advanced systems in the process of reform, the success rate is really low. A big part of the problem is that they haven't solved the problem of talent and culture. In order to get rid of the predicament in enterprise management, we need the help of external forces and promote the management reform of enterprises.

2.2. Definition of Artificial Intelligence Technology and its Application in Enterprise Management

Artificial intelligence technology imitates human beings through this technology, which makes them have the ability of logical thinking and judgment and reasoning. Thus, it can replace human beings to do some work and effectively improve the efficiency and management level of enterprises. At present, the rapid development of artificial intelligence depends on two ways: the combination of big data and machine learning, the construction of platform framework, and the realization of economic benefits based on multi-directional development in various fields. Thus, the future development direction of artificial intelligence technology is the main direction of enterprise management and its

development. In the future enterprise management reform, artificial intelligence technology will have a very broad development prospect in enterprise management.

Artificial intelligence technology is compared with the mechanical equipment and other large equipment invested in enterprise management development, but compared with the increase of the number of applications in enterprise management, artificial intelligence technology still has problems in the internal management of enterprises. In practice, enterprise management involves all kinds of professional knowledge and the work content of technical departments. In order to ensure that artificial intelligence technology and enterprise management are widely used in manufacturing enterprise management, it is necessary to unite all departments of manufacturing enterprise management, do a good job of coordination and realize close cooperation.

3. Investigation and Analysis on the Application of Artificial Intelligence Technology in Enterprise Management

Research shows that 88% of the global enterprises take artificial intelligence as the core factor of enterprise competitiveness. Artificial intelligence technology has gradually penetrated into people's production and life through its own unique way and method. The analysis, decision-making, generation and other functions of artificial intelligence are widely used in intelligent marketing, new retail, finance and other fields. Artificial intelligence can replace repetitive manual operation, improve the production efficiency of enterprises, improve the traditional labor inefficient production mode, effectively ensure the output and quality of enterprise products, so as to improve the market competitiveness of products.

In the research and analysis, this paper adopts two methods, namely special survey and electronic questionnaire survey. 270 state-owned enterprises and 150 private enterprises were selected as the survey samples. In the process of investigation, this paper found that both state-owned enterprises and private enterprises involved in the application of artificial intelligence technology in enterprise management. In this survey, we divided all the subjects into two groups by category. One group is state-owned enterprises, the other is private enterprises. This paper analyzes the comprehensive situation of the application of artificial intelligence technology in existing enterprises. The results are shown in Table 1. Based on the survey results of two groups, the application of artificial intelligence technology in enterprise management reform can enhance the core competitiveness of enterprises.

Table 1. Survey and analysis of enterprises' willingness to apply artificial intelligence technology

Investigation factor	State owned enterprises (%)	Private enterprise (%)
Active use of AI technology	Ninety	Seventy
If there is a suitable technology will be actively used	Ninety-five	Eighty-five

No intention to use	Three	Ten
It is helpful to enterprise management	Ninety-two	Eighty-eight

4. Discussion

4.1. Current Situation Analysis of Artificial Intelligence in Enterprise Management

At present, artificial intelligence technology is to use computer system to operate, monitor and manage the operation of mechanical equipment, and to deal with technical accidents. This technology uses a lot of intelligent technologies, such as operational research, computer technology, automatic control technology, mechanical control technology and so on. Due to the slow ideological change of the enterprise management, even unwilling to change their ideas and concepts, they do not pay enough attention to the enterprise management, which leads to the difficulties in the artificial intelligence technology and enterprise management. This survey mainly compares and analyzes the data from four aspects: Safety (A), convenience (B), safety (C) and production efficiency (D). In the initial stage of development, the function of artificial intelligence equipment is relatively single, which affects the operation of enterprise management reform. After the problem occurs, the maintenance is not timely and sufficient, which also affects the application of artificial intelligence in enterprise management to a great extent.

From the analysis results in Figure 1, it can be seen that the leaders of enterprises tend to be conservative in the operation of AI technology, while the management is very interested in AI. Artificial intelligence technology plays a role in enterprise management reform, not only can improve the production efficiency, but also can improve the core competitiveness of enterprises. The use of artificial intelligence technology most enterprises focus on manufacturing machinery and other large-scale equipment. However, the thinking of production managers is more traditional, and it is difficult to give up the traditional technical ideas. In the research of artificial intelligence technology and system operation, the conference on summing up experience of communication and automation technology application has not been paid enough attention; there is no better artificial intelligence technology for management.

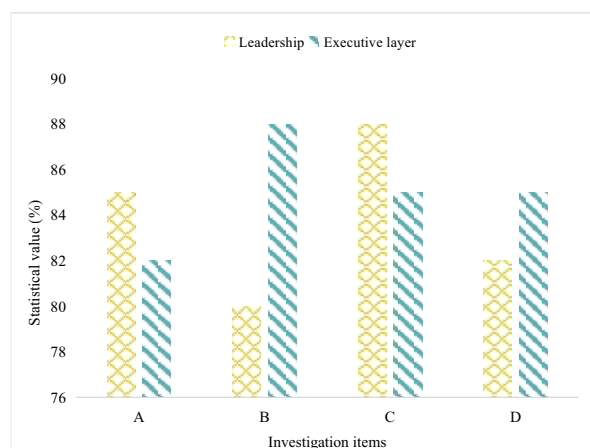


Figure 1. Satisfaction survey of leaders and executives on AI technology

In order to further investigate the application of artificial intelligence in enterprise management reform, the results are shown in Figure 2. As can be seen from Figure 2, the satisfaction of the grass-roots workers to the enterprise management of artificial intelligence technology is significantly higher than that of the leadership and executive levels. This is because for grassroots workers, they can feel the convenience and efficiency brought by science and technology to production. They believe that the advantages of artificial intelligence technology in the application of enterprise management outweigh the disadvantages, and that it is necessary to improve the competitiveness of enterprises and promote artificial intelligence technology.

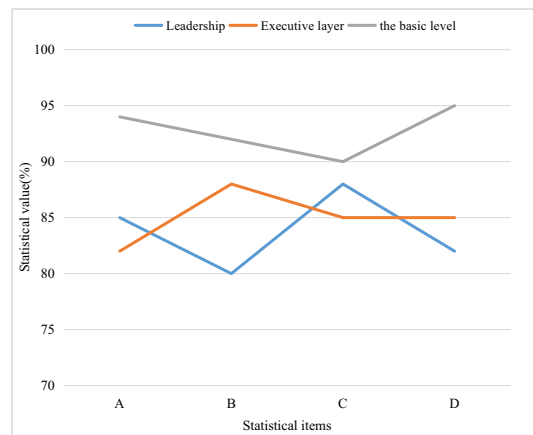


Figure 2. Survey on the satisfaction of grassroots workers on the integration of artificial intelligence technology into enterprises

4.2. Optimization Strategy of Artificial Intelligence in Enterprise Management Reform

(1) Strengthen the importance of artificial intelligence and enterprise management

Enterprise management in the actual operation process will involve a wide variety of professional knowledge and the specific work of technical departments, so the management of artificial intelligence technology, then the first condition for the normal operation of enterprise management is to ensure the normal operation of all working equipment. Due to the high technical content of artificial intelligence technology and enterprise management technology, it is also necessary to ensure that leaders at all levels in the enterprise management pay enough attention to the system. We should set up a reasonable backbone team, establish relevant technical professional institutions, vigorously develop artificial intelligence technology and enterprise management, and cultivate professionals who master core technologies. In the selection of equipment, enterprises should not only consider the cost factor, but also fully consider the technical application of equipment. From the practice of artificial intelligence technology in enterprise management, we can draw that the debugging of professional equipment must be carried out according to strict technical standards and technical requirements, so as to ensure the normal use of professional equipment in enterprise management.

(2) Increase the means of enterprise management

The analysis, decision-making, generation and other functions of artificial intelligence are widely

used in intelligent marketing, new retail, finance and other fields. With the application program of artificial intelligence, enterprises can connect with hundreds of millions of wechat users and users of intelligent system by using smart card, distribution mall, super official website and other systems, so as to intelligently track the sales behavior of customers, analyze the consumption tendency of customers, and improve the transaction probability of products. At the same time, enterprise managers can also carry out sales, customer management, and employee management. In order to ensure that artificial intelligence technology is widely used in enterprise management, it is also necessary to unite the management departments of manufacturing enterprises to do a good job of coordination and achieve close cooperation.

(3) Increase investment in artificial intelligence

Artificial intelligence technology is not only the inevitable stage of in-depth development of information technology in the new era, but also an important symbol of the deep integration of information technology and market economy. With the continuous innovation and progress of science and technology, artificial intelligence technology has been injected with great capabilities and infinite possibilities. However, artificial intelligence is also the focus of research and development in the field of information technology and the focus of global attention. Major countries in the world are making development plans, increasing investment and promoting the development of artificial intelligence. In order to promote the development of domestic small and medium-sized enterprises artificial intelligence technology, China has also carried out a comprehensive deployment of artificial intelligence system. With the vigorous promotion of various aspects and the promulgation and implementation of policies, China's artificial intelligence technology has made positive progress in enterprise management. In the process of enterprise management, while constantly introducing new technologies and new talents, artificial intelligence technology has been listed as the core competitiveness. Enterprise managers should not only increase the investment in enterprise equipment, but also increase the investment in artificial intelligence technology talent reserve. Only through the training of professionals, can we make full use of artificial intelligence technology to improve the efficiency of enterprises and enhance the core competitiveness of enterprises.

5. Conclusion

Although artificial intelligence technology has gone through the bottleneck period of various technical developments, so far, it has made breakthrough progress and entered the upsurge. However, in the era of computer technology development, many cutting-edge intelligent technologies have emerged, which constantly improve the core competitiveness of large enterprises. According to the data survey and analysis, artificial intelligence technology can improve productivity, increase security and other advantages in enterprise management reform, and can increase the technical competitiveness of enterprises. With the help of artificial intelligence, enterprise managers have been able to extricate themselves from all kinds of complicated work and even assist people to make decisions. Therefore, the value of artificial intelligence has been recognized by enterprises. According to the research results of this paper, for small and medium-sized enterprises, if they want to make full use of artificial intelligence, they must integrate the artificial intelligence technology with the business process of enterprises effectively. In the effective analysis of the application process of artificial intelligence technology in the enterprise management reform, we should focus on the actual

situation of the enterprise, pay attention to the scientific introduction, combine with the actual work content, effectively formulate perfect application measures, ensure the effective development of enterprises and improve work efficiency.

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