

The Impact of Artificial Intelligence on the Development of E-commerce Companies

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Abstract: In the continuously developing modern society, artificial intelligence has shown rapid growth, and its application has been widely adopted in various industries. Artificial intelligence has also had varying degrees of impact on the development of industries, especially the e-commerce industry. In the increasingly competitive society, it is important to understand the influencing factors within and outside the industry in order to better protect and enhance the competitiveness of companies. This article analyzes the impact of artificial intelligence on the development of e-commerce companies based on the current production and living conditions, with the aim of providing references for the development of e-commerce companies.

Keywords: artificial intelligence; e-commerce companies; company development; impact analysis

1 Introduction

With the continuous progress of the times and the rapid development of modern science and technology, the importance of artificial intelligence technology has become increasingly prominent in various industries, and its capabilities have had a significant impact on the e-commerce industry. The development of the e-commerce industry and artificial intelligence capabilities are mutually coordinated. On the one hand, the existence and application of artificial intelligence capabilities have promoted the operation and development of the e-commerce industry. On the other hand, the existence and development of the e-commerce industry also promote social development and accelerate the application and development of artificial intelligence capabilities.

2 Brief Analysis of Artificial Intelligence Capabilities and the Development of the E-commerce Industry

2.1 Analysis of Artificial Intelligence Capabilities

The development of artificial intelligence has undergone a long historical process. With the continuous development of modern science and technology, the capabilities of artificial intelligence have continued to evolve and have been well applied and developed in various industries. The existence and development of artificial intelligence capabilities have to some extent replaced traditional labor, improved the intelligence of production and living methods, and reduced the production and operation costs of related industries in the process of industry production and operation, ensuring and enhancing the economic benefits of industry production and operation. On the one hand, with the continuous development of modern science and technology, the capabilities of artificial intelligence continue to improve. On the other hand, the improvement of artificial intelligence capabilities also promotes the development of modern science and technology. The two complement each other, making contributions to the construction of a modern scientific and beautiful society and providing good support for the operation and development of the industry.

2.2 Analysis of the E-commerce Industry

The e-commerce industry is the result of the continuous development of Internet technology and the logistics industry in modern society. The existence and development of the e-commerce industry have provided the general public with a more convenient and efficient way of shopping, changing the daily consumption habits of the general public, and also promoting the operation and development of the modern society's economy. Based on practical production and living experience, it can be seen that the e-commerce industry in our country is in a period of continuous growth and rapid development. In this period, numerous e-commerce companies have emerged. How to establish and sustain the industry position of enterprises during the rapid development of the e-commerce industry has become a concern and research topic for many enterprise managers. According to relevant industry survey data, in recent years, the overall scale of the e-commerce industry has been continuously accelerating, and people's consumption patterns have undergone significant changes, shifting from traditional offline shopping to online shopping. The trend of online shopping is growing stronger, and with the continuous development of artificial intelligence and Internet technology, some obstacles in the development process of the e-commerce industry have been addressed, and the overall development speed of the e-commerce industry has also increased.

3 Exploring the Multifaceted Impact of Artificial Intelligence on the Development of E-commerce Companies

The application of artificial intelligence (AI) capabilities in the field of e-commerce has greatly addressed a series of issues in the operation and development of the e-commerce industry, promoting its production, operation, and overall development. Based on practical experience in production and daily life, it is crucial for enterprise managers to pay attention to the operation and development of AI capabilities. They need to explore and study the multifaceted impact of AI capabilities on the development of e-commerce companies and make corresponding management

decisions based on their research. Only by doing so can they ensure the overall quality of the operation and development of e-commerce companies and solidify their position in the e-commerce industry.

At present, the impact of AI capabilities on the development of e-commerce companies can be summarized in the following aspects:

3.1 Application of AI capabilities to reduce the business operation costs of e-commerce companies

The business operation costs of a company are one of the key concerns for managers, and the application of AI capabilities can help reduce these costs for e-commerce companies. Specifically, in the context of the continuous and rapid development of the e-commerce industry, the consumers that companies need to serve exhibit a significant discrete characteristic. To meet the shopping needs of consumers, e-commerce companies must provide personalized services tailored to their individual needs. However, in the traditional logistics supply chain operation mode, the overall logistics costs tend to increase, which in turn increases the overall operating costs of e-commerce companies. The application of AI capabilities can solve this problem by reducing logistics costs. By applying AI technology to supply chain logistics management, companies can carry out management activities based on the identification of relevant point location information, transforming the management mode from “people finding goods” to “goods finding people.” This greatly saves unnecessary manpower and financial resources, ensuring the logistics costs of the company. Furthermore, AI capabilities can also be applied in the transportation of goods by e-commerce companies. Unmanned aerial vehicles (drones) can be used to carry out visual and intelligent transportation activities along pre-programmed routes. Unmanned warehouses can also facilitate scientific control, sorting, and packaging of goods. The application and development of these intelligent modes can effectively reduce the probability of management errors and save human resources costs. By reducing the relevant costs of e-commerce companies, it significantly enhances their overall competitiveness in the industry.

3.2 AI capabilities contribute to increasing the overall transaction volume of e-commerce companies

In the entire process of the operation and development of e-commerce companies, apart from considering cost control issues, it is equally important to focus on how to increase the overall transaction volume of the company, expand its scale in the e-commerce industry, and create more economic benefits. On the one hand, with the continuous development of internet technology, the frequency and quantity of online shopping activities by consumers are increasing. The overall business volume of the e-commerce industry is experiencing rapid growth. On the other hand, as the e-commerce industry continues to develop, the number and types of e-commerce companies are also increasing. How to attract consumers' attention and improve the overall service quality of the company has become an important focus for managers. In the process of company operation and development, the application of AI capabilities can contribute to increasing the overall transaction volume of e-commerce companies. Specifically, firstly, the application and development of AI capabilities can reduce the time cost for consumers to obtain information. In the context of the growing scale of the e-commerce industry, the number of consumers and the amount of online information are increasing.

Consumers need to spend more time and effort to find the products they want. The application of AI capabilities can intelligently assist transactions. By applying intelligent transaction systems in e-commerce companies, the system can automatically collect, organize, and analyze data based on customer-defined requirements and scope. This reduces the time and effort consumers need to spend throughout the online shopping process, making it more convenient for consumers and increasing their transaction volume. Secondly, the application and development of distributed AI in e-commerce companies have made good progress. With the consent of consumers, the shopping system can exchange information with consumers, promoting the concept of “people divide into groups.” It provides a channel for information exchange and communication among consumers. When a consumer is undecided about purchasing a particular product, the information provided by other consumers can support their decision-making, thereby reducing their decision-making costs and improving transaction efficiency. Thirdly, the application of AI technology can provide important technical support for the intelligent expansion of business in e-commerce companies. Consumers can locate their own needs on e-commerce websites and find the products or services they need. AI technology can collect, organize, and analyze consumer data and record their historical consumption patterns and behavioral preferences. These records can help companies better analyze consumers' potential needs, provide targeted product services, increase consumer transaction volume, and uncover consumers' latent demands, attracting them to place orders and transforming them from non-users to users, expanding the company's customer base.

3.3 The application of AI capabilities can better enhance the service quality of e-commerce companies

During the operation and development of e-commerce companies, consumers communicate and interact with the company regarding their consumption needs, shopping desires, and details, prices, and parameters of the products. The timeliness, professionalism, and pleasantness of the communication process can affect consumers' purchasing experience and reflect the company's service quality. This, in turn, can impact consumers' subsequent purchasing behavior and overall sales volume of the company. The application of AI capabilities can better implement a customer-centric service marketing concept. Through intelligent customer service robots, intelligent search, personalized recommendations, and intelligent pricing, among other methods, AI can meet customers' information needs more timely and effectively, thereby greatly improving their user experience. Applying AI capabilities to customer service, compared to traditional robots, modern AI customer service is more accurate and meticulous. Additionally, AI-powered customer service systems do not experience fatigue or emotional states during communication, allowing customers to perceive the meticulousness and professionalism of the entire service process, leaving them with a better service impression. At the same time, with the continuous development of modern science and technology, AI technology is also continuously evolving. In the future, intelligent robot customer service will become more humanoid and intelligent. Through data capture and analysis, it can better provide shopping services to company customers, ensuring the overall service quality of e-commerce companies and meeting the needs of their operation and development. During the operation and development of e-commerce companies, company

managers not only need to consider issues such as costs and market transaction volume but also need to consider how to safeguard and solidify their position in the minds of consumers. In this process, service quality is crucial. The application and development of AI capabilities provide support for companies to provide more convenient and efficient services, thereby ensuring and improving the level and quality of customer service.

4 Conclusion

In conclusion, this article provides a brief analysis of the current development status of AI, the operation and development status of the e-commerce industry, and other related aspects based on the actual production and business development situation. It also analyzes the impact of AI capabilities on the operation and development of e-commerce companies, taking into account the actual industry and company operation and development.

Through the above analysis and discussion, it can be concluded that the application and development of AI capabilities play an extremely important role in the operation and development of e-commerce companies. On the one hand, in the context of the continuous development of the e-commerce industry, with the increasing number of e-commerce companies, the application of AI capabilities can reduce operating costs. Without the application of AI capabilities, e-commerce companies are bound to lag behind other units in the industry, thereby reducing their competitiveness and hindering their production and development. On the other hand, AI capabilities bring many benefits to e-commerce companies, including cost reduction, increased transaction volume, customized and intelligent customer service, and promoting the flourishing development of the e-commerce industry by enhancing customer satisfaction with online shopping.

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