

Original Research Article

The impact of artificial intelligence technology applications on corporate social responsibility

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Abstract: With the rapid development of artificial intelligence technology, its application in enterprises is becoming increasingly widespread. This article explores the multifaceted impact of artificial intelligence technology applications on corporate social responsibility, including positive impacts such as improving operational efficiency to support sustainable development, optimizing product and service quality to protect consumer rights, and aiding precise decision-making to better fulfill charitable and public welfare activities. It also analyzes negative impacts such as employment structure shocks, data privacy and security risks, and potential ethical and moral controversies. Based on this, the article proposes strategic recommendations for enterprises to address these impacts, with the hope that enterprises can better fulfill their social responsibilities while utilizing artificial intelligence technology, and promote harmonious development for themselves and society.

Keywords: Artificial intelligence technology; Corporate social responsibility; Positive impact; Negative impact; Response strategies

In today's era, artificial intelligence has become a significant driving force leading the technological revolution and industrial transformation. Many companies are introducing artificial intelligence technology to optimize various aspects of their production, operations, and management. Corporate Social Responsibility (CSR) emphasizes that while pursuing economic benefits, companies should also be responsible for society and the environment. Therefore, the impact of the application of artificial intelligence technology on the undertaking of corporate social responsibility is an important topic worthy of in-depth exploration. This is especially relevant for students who are about to enter society and participate in corporate operations and management, as understanding this relationship helps to better examine the connection between corporate development and social impact from a macro perspective.

1. Current application status of artificial intelligence technology in enterprises

Artificial intelligence encompasses various fields including machine learning, deep learning, natural language processing, computer vision, etc., and has a wide range of application scenarios in enterprises.

In the manufacturing sector, enterprises utilize artificial intelligence technology to achieve automated production. Through intelligent robots, automated production lines, and other means, they accurately complete various processing and assembly tasks, improving production efficiency and the stability of product quality. For instance, in automobile manufacturing companies, intelligent welding robots can complete welding work with extremely high precision, reducing human errors.

In the service industry, e-commerce platforms use artificial intelligence recommendation algorithms to precisely recommend products to users based on their browsing history, purchase behavior, and other data, enhancing the shopping experience; financial institutions use intelligent customer service systems to quickly respond to customer inquiries, resolve common issues, save labor costs, and improve the timeliness of services.

In the management aspect of enterprises, artificial intelligence assists in talent selection for human resources management by analyzing data such as job seekers' resumes to quickly identify suitable candidates; at the same time, in financial management, intelligent forecasting systems can assist enterprises in budgeting, risk predic-

tion, and other tasks.

2. The positive impact of artificial intelligence technology applications on corporate social responsibility

The application of artificial intelligence technology assists enterprises in taking on social responsibilities in various ways. In enhancing operational efficiency and facilitating sustainable development, intelligent energy management systems can precisely regulate energy use, reducing carbon emissions. Path planning systems in logistics distribution can plan the optimal routes, minimizing energy consumption and exhaust emissions, demonstrating a green commitment. For instance, after a large manufacturing enterprise introduced an intelligent energy management system, it monitored the electricity and gas usage of various production equipment in real-time and adjusted the operational parameters of the equipment based on data analysis, significantly reducing energy waste. As a result, carbon emissions were cut by nearly 20% in a year, setting a benchmark for green production within the industry.

At the same time, AI can optimize product and service quality to ensure consumer rights. Smart home products, for example, use algorithm optimization to enhance functionality, while intelligent quality inspection systems in the service sector ensure quality, providing consumers with a superior experience. Moreover, in the realm of charity and public welfare, artificial intelligence can analyze social data to help accurately identify groups and areas in need of assistance. It can also evaluate the effectiveness of public welfare projects and adjust strategies, making resource allocation more efficient and enhancing the level of corporate social responsibility. For example, an internet company used AI to analyze the distribution of educational resources in impoverished areas, precisely identifying remote mountain schools with a shortage of teachers. The company invested resources to build multimedia classrooms and, through continuous evaluation of project outcomes, continuously improved subsequent assistance measures, effectively improving local teaching conditions and earning social acclaim.

3. The negative impact of artificial intelligence technology applications on corporate social responsibility

The application of artificial intelligence technology has brought about many negative impacts on the assumption of corporate social responsibility. On one hand, its automation applications have caused shocks to the employment structure, leading to a reduction in repetitive jobs such as assembly workers and operators, resulting in some employees becoming unemployed and impacting job stability. Companies need to adjust their human resource management strategies and increase investment in digital skills training for employees, or else internal harmony will be affected, which is not conducive to fulfilling the responsibility of caring for employees. For example, a large electronics factory introduced highly automated production lines, and hundreds of workers who were previously engaged in simple assembly work suddenly faced the situation where nearly one-third of their positions were at risk of being replaced. These employees, lacking digital skills, found it difficult to find new jobs, became depressed, and developed dissatisfaction with the company. The internal atmosphere became tense, and the company had to spend a great deal of effort and money organizing skills training and coordinating job assignments to gradually alleviate the situation.

On the other hand, there are risks related to data privacy and security. If large amounts of data are not managed properly and data breaches occur, it can harm rights and interests, triggering a trust crisis and violating the requirements of ensuring data security. There was once an e-commerce platform that, due to vulnerabilities in its network security, was hacked, leading to the leakage of a large amount of personal information and shopping records of users. This information was utilized by criminals, and many users fell victim to scams. The trust of users in the platform plummeted, and the reputation of the platform was severely damaged. It took a long time and significant costs to make amends and gradually win back some users.

Furthermore, it can also provoke ethical and moral disputes, such as algorithmic bias in intelligent recruitment systems and difficulties in defining liability in autonomous driving accidents, which pose complex social responsibility challenges for companies. Taking the intelligent recruitment system of a certain company as an example, during the resume screening process, due to the imperfection of the algorithm design, there was an unfair screening tendency towards female job seekers, with male job seekers being preferentially recommended for interviews under equal conditions. Once this situation was exposed, it triggered widespread questioning from all sectors of society about the fairness of the company's recruitment practices. The company also fell into a public relations storm, with its image significantly tarnished, and it had to review and improve the algorithm mechanism of the recruitment system to address the challenges posed by this ethical controversy.

4. Strategies for enterprises to fulfill social responsibilities in response to the impact of artificial intelligence technology applications

4.1. Strengthen employee training and re-employment support

In the era of rapid development of artificial intelligence, enterprises bear the important responsibility of ensuring the rights and interests of employees and promoting social employment stability. Therefore, strengthening employee training and re-employment support has become crucial. Enterprises should proactively build a comprehensive and systematic digital skills training system. For example, through programming courses, starting with the basic syntax of programming languages, gradually cultivating employees' skills in writing code, enabling them to participate in the development and maintenance of intelligent projects; at the same time, the development of data analysis courses will guide employees on how to collect, organize, and analyze large amounts of data, using data insights to predict business trends and provide solid support for corporate decision-making. These trainings help employees adapt to the job requirements of the artificial intelligence era and smoothly transition from traditional positions to digital ones. For those employees who have become unemployed due to technological progress, enterprises should take active action rather than stand by. Enterprises should work closely with external professional employment service agencies, on the one hand, providing professional re-employment guidance, such as job search skills training, helping employees optimize their resumes and improve interview skills; on the other hand, leveraging their own industry resources and network connections, recommending suitable positions for unemployed employees, helping them return to the workplace quickly. Through such efforts, enterprises not only alleviate social employment pressure but also fulfill their responsibility for employment security for employees and society, promoting harmonious development between enterprises and society.

4.2. Strengthen data security management and privacy protection

With the continuous increase in data volume in the application of artificial intelligence, data security management and privacy protection have become an important part of fulfilling social responsibilities for enterprises. First, enterprises need to establish a comprehensive and strict data security management system covering the entire lifecycle of data from generation to destruction. Invest sufficient human, material, and financial resources to comprehensively strengthen network security protection. Use advanced encryption technologies to encrypt important data stored, making data as secure as being locked with a solid "lock" when at rest, even if illegally obtained, it is difficult to be cracked; at the same time, implement strict access control, accurately assign data access permissions based on employees' job functions and business needs, ensuring that only authorized personnel can access the corresponding data. During the process of collecting and using data, enterprises must follow strict privacy policies. Before collecting user data, clearly and understandably inform users of the specific purposes of the data and obtain their consent. For example, when developing a smart health management application, it is necessary to explain to users that the collection of health data is for providing personalized health advice and promise not to disclose the data to third parties for commercial marketing or other purposes. Only

in this way can consumer data privacy be fully protected, truly meet the strict requirements of corporate social responsibility for data security, and win the trust of users and market recognition.

4.3. Emphasize ethical and moral review and governance

In the process of artificial intelligence deeply integrating into corporate operations, ethical and moral issues cannot be ignored, and enterprises need to actively respond by establishing effective review and governance mechanisms. When introducing and applying artificial intelligence systems, enterprises should establish a dedicated ethical and moral review mechanism and form a team that includes technical experts, ethicists, legal professionals, and other multi-disciplinary professionals. Conduct in-depth and detailed assessments of artificial intelligence algorithms from various aspects such as fairness and transparency. For example, in intelligent recruitment systems, review their selection rules to ensure that they do not cause unfair treatment to certain specific groups due to unreasonable algorithmic biases, such as avoiding gender discrimination, ensuring that male and female job seekers have the same opportunity to be selected under equal conditions; eliminating regional biases, not affecting recruitment decisions based on factors such as job seekers' origins. At the same time, enterprises should actively participate in the formulation of ethical and moral standards for artificial intelligence within the industry. By participating in industry seminars, providing practical cases and suggestions, and other means, discuss and develop unified and reasonable ethical and moral guidelines with peers. Thus, promoting the entire industry to follow these standards when applying artificial intelligence technology, meeting the ethical and moral requirements of society, making artificial intelligence truly a powerful tool for the benefit of humanity and the advancement of society, and also allowing enterprises to better fulfill their own social responsibilities and establish a good social image.

5. Conclusion

The application of artificial intelligence technology has brought complex impacts on corporate social responsibility, with both positive aspects such as improving efficiency and optimizing services, and negative aspects such as employment shocks and data risks. As senior students who may participate in corporate operations management in the future, it is important to clearly recognize these impacts. Enterprises need to adopt reasonable strategies to address the negative impacts and fully leverage the positive impacts, so as to better fulfill social responsibilities in the era of artificial intelligence, achieve a win-win development between enterprises and society, and promote the whole society towards a more harmonious and sustainable direction.

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