

Research on Artificial Intelligence Influence towards Corporate Sustainability Strategies in Management

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Abstract. With the development of artificial intelligent techniques, current corporations have faced great challenges in making corporate sustainability strategies in management, and estimating the effect of artificial intelligence is essential for corporation decision maker. However, existing research only evaluates the impacts based on traditional methodology and ignores the appearance of novel intelligence. Therefore, we propose a novel evaluation model to analyze the potential of artificial intelligence to influence corporate sustainability strategies in corporations. We examine the current state of artificial intelligence technology and its potential to be used for the top management of corporations, which also concerns the potential implications on the management of corporations including the potential for increased efficiency and cost savings. The paper also considers the ethical implications of utilizing artificial intelligence in the sustainable management of corporations and provides recommendations for corporate sustainability strategies. Finally, the research concludes that artificial intelligence can be a powerful tool for corporations, and it must be used responsibly and ethically.

Keywords: Artificial Intelligence; Corporate Sustainability Strategies; Evaluation Model; Sustainable Management Model.

1 Introduction

Artificial intelligence has become increasingly influential in our real-situation applications and social lives. Artificial intelligence is a broad term that refers to computers and machines, which can perform downstream tasks normally requiring human intelligence including decision-making, problem-solving and learning^[1]. Artificial intelligence methods including artificial neural networks has been utilized in tremendous industries areas including healthcare, finance, and transportation, which has revolutionized the way that normal people work, live and interact.

In addition, artificial intelligence has enabled us to automate mundane tasks, streamline complex processes, and increase the accuracy and efficiency of the decisions making. Artificial intelligence has enabled us to access and analyze data in time leading to better insights and improved decision-making procedures and process periods^[2]. Indeed, Artificial intelligence has also enabled us to create more personalized products and services for our customers as well as provide a better understanding of corporation customer needs and preferences. Artificial intelligence has become an integral part of our lives and its influence will continuously increase in future development^[3]. Artificial intelligence has revolutionized the way corporations manage their strategies. Artificial intelligence can be used to optimize

processes including segmentation, marketing campaigns and pricing^[4]. Furthermore, artificial intelligence can assist corporations better understand their customer requirements and needs, which can enable them to create more personalized experiences.

Artificial intelligence can also be utilized to identify trends from customer data and allows corporations to precisely predict customer behaviors and demands^[5]. Additionally, artificial intelligence can reduce operational costs by automating mundane tasks and streamlining complex processes and decisions making in a short period and more accurately than early stage^[6]. Ensuring the corporations can stay ahead of the competition. Finally, artificial intelligence can be used to analyze large datasets and identify patterns, which can assist top management to making better decisions and creating more effective strategies^[7].

Subsequently, the widely used artificial intelligence in the sustainable management of corporations will be becoming increasingly popular^[8]. Artificial intelligence has the potential to revolutionize the future development of corporations, which are managed by streamlining processes to provide customer insights into consuming behavior^[9]. This research paper will explore the potential of artificial intelligence to affect corporate strategies in management. We also examine the current state of artificial intelligence technology and its potential to be used in sustainable strategic management in corporations. Besides, we also focus on the potential implications of artificial intelligence on the management of corporations including the potential for increased efficiency and cost savings. Finally, the paper will consider the ethical implications of utilizing artificial intelligence in the management of corporations.

2 The Analysis of Corporate Sustainability Strategies in Management

2.1 Corporate Sustainability Strategies in Management

Many corporations are only focused on creating one culture that only boosts employees to enhance internal collaboration and productivity. Corporations are increasingly recognizing the importance of creating a culture that boosts employee engagement and satisfaction, which means that top management need to proactively in developing corporate strategies that to build a culture of trust, respect, and collaboration. Following Figure 1 demonstrates the existing general corporate management strategies, which include providing training and development opportunities, offering flexible work schedules, and providing remote work options. Additionally, top management should strive to create an atmosphere of open communication and feedback to ensure that employees feel heard and valued^[10].



Fig. 1. Existing management strategies.

Another important strategy for creating a sustainable work atmosphere is to focus on team building. Corporations should strive to create diverse and inclusive teams, which means that top management should create an atmosphere where everyone feels comfortable and respected. Additionally, top management should create an atmosphere where team members can collaborate and share ideas. This will help create an organizational culture of innovation and creativity. Subsequently, top management ought to strive to create an atmosphere where employees feel comfortable taking risks and trying new things. This will assist to foster an atmosphere of innovation and creativity. By implementing these strategies, corporations can create an atmosphere that not only encourages collaboration, and productivity, but also ensures that employees feel valued and respected. This, in turn, will enable employees to maximize their full potential and contribute their best work. Finally, corporations should also strive to create a culture of accountability, which means that top management should hold employees accountable for their performance and provide feedback on their progress^[11].

In summary, creating a sustainable work atmosphere requires a multifaceted approach that emphasizes collaboration, inclusivity, creativity, and accountability. By prioritizing these values and implementing effective strategies, corporations can cultivate a highly efficient culture that empowers employees to reach their full potential and drive success.

2.2 Challenges and Risks Analysis

In this subsection, we will explore the challenges and risks associated with artificial intelligence and provide an analysis of how corporations avoid the mentioned risks. The introduction of artificial intelligence into business operations presents a number of challenges and risks to corporate sustainability management. Artificial intelligence is a rapidly evolving technology and presents several unpredictable risks that need to be addressed and managed. Corporations are essential to consider the potential risks associated with artificial intelligence and develop appropriate strategies to mitigate the potential risks. Figure 2 illustrates the detailed aspects of management risks.

One of the primary challenges associated with artificial intelligence is potential to disrupt existing business modules blocks and processes. Artificial intelligence can automate processes and downstream tasks and keep the tasks efficient and generally cost-effective. However, the mentioned method can also lead to employee losses and the displacement of workers. Corporations are necessary to consider the potential impact of artificial intelligence on their workforce and develop strategies to ensure that employees are not adversely affected.

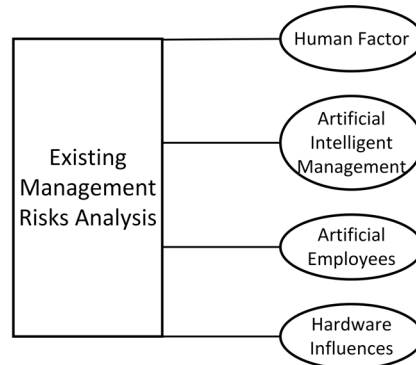


Fig. 2. Management risks analysis.

Another significant management risk associated with artificial intelligence is the ethical implications of its decision-making and actions. artificial intelligence systems are designed to operate autonomously, which raises ethical concerns about how decisions are made and who is responsible for them. Corporations must carefully consider the potential ethical implications of their artificial intelligence systems and develop policies and procedures to ensure that ethical considerations are taken into account. Ethical considerations include issues such as bias, fairness, and transparency in decision-making processes. For instance, AI systems may inadvertently perpetuate bias if they are trained on biased data or if they rely on algorithms that produce biased outcomes. To mitigate these risks, corporations must ensure that AI systems are developed in a fair and unbiased manner and that they are transparent in their decision-making processes.

In addition to the above challenges, corporations are required to consider the risks associated with artificial intelligence. These risks include data security, privacy protection and accuracy. Corporations ought to ensure that utilized artificial intelligence systems are secure, the stored data and processed securely and precisely. Corporations also need to ensure that their artificial intelligence systems are accurate and that they are not making decisions based on biased or incomplete data. Corporations have responsibility to concern the regulatory environment surrounding artificial intelligence, which includes laws and regulations related to data privacy, data security and ethical considerations. Corporations need to ensure that their artificial intelligence systems comply with all applicable laws and regulations.

3 The Impacts of Artificial Intelligence

In this section, we focus on the impacts that are caused by artificial intelligence and establish an evaluation model to estimate the realistic impacts. Indeed, we establish a corporate sustainability management model for investigating the effect of artificial intelligence.

3.1 Impacts Evaluation Techniques

In this subsection, we simulate the artificial intelligence development indicators with years to measure the sustainable management strategies in the traditional model. Figure 3 demonstrates the management validation percentage with the development of artificial intelligence.

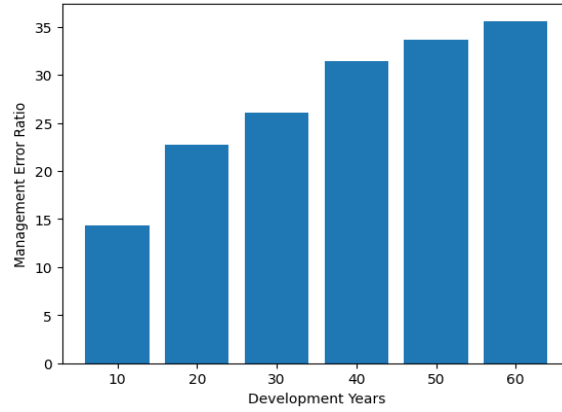


Fig. 3. Sustainable management validation simulation results.

Algorithm 1: Influence evaluation for artificial intelligent
Input: Years, Benefits, Artificial development ratio
1 Create the benefits matrix and calculate the weights for each year.
2 Training the neural analysis network module until reaches convergence.
3 Generate the normal distribution parameters and optimize module.
4 Return risk analysis results

Additionally, Algorithm 1 describes the execution procedures of proposed artificial neural network analysis model with the inputs data.

In this procedure, we simulate the management error ratio by calculating following equations 1. Where Φ represents error ratio and w_i demonstrates the influenced weighted, which is determined by the percentage of artificial intelligence utilization ratio in the whole production. Symbol θ is the value of influenced years. The o is the random values for input sustainable management modules and o is correspond to normal distribution. The sum of total o is equal to whole wight W .

$$\Phi = W_i \times \theta \times o/W \quad (1)$$

3.2 Impacts of Sustainable Management Modes

Based on previous analysis and experimental procedure, we conclude that sustainable management mode effects these following detail items.

- The impact of corporation sustainable management modes on artificial intelligence is becoming increasingly apparent. Artificial intelligence has the potential to revolutionize the way businesses are run and managed by providing more accurate insights, streamlining operations and improving decision-making. However, the success of artificial intelligence hinges on corporations leveraging technology and corporation sustainable management modes implemented.
- Organizations that adopt a top-down sustainable management style with a focus on control and command tend to be less successful in terms of implementing artificial intelligence. Flexible and open-minded management models that encourage collaboration and innovation to leverage artificial intelligence technology. Management style allows for more experimentation and exploration, which are key components of successful artificial intelligence implementation.

4 Conclusion

The research on the influence of artificial intelligence on corporate sustainability strategies in management has revealed that artificial intelligence has the potential to revolutionize the way businesses are run and managed. The utilization of artificial intelligence for corporate sustainability strategies in management contains the benefits and risks through our analysis. By carefully implementing and utilizing artificial intelligence systems, corporations can improve their operations and decision-making processes, leading to increased efficiency and productivity. However, it is crucial that corporations also consider the potential impacts on their workforce, ethical implications, and regulatory environment to ensure the long-term success and sustainability of their business.

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