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Applications of artificial intelligence in business management, e-commerce and finance

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Abstract

In the e-commerce and financial industries, AI has been deployed to achieve better customer experience, efficient supply chain management, improved operational efficiency, and reduced mate size, with the main goal of designing standard, reliable product quality control methods and the search for new ways of reaching and serving customers while maintaining low cost. Machine learning and deep learning are two of the most often used AI approaches. Individuals, businesses, and government agencies utilize these models to anticipate and learn from data. Machine learning models for the complexity and diversity of data in the food industry are being developed at the moment. This article discusses machine learning and artificial intelligence applications in e-commerce, corporate management, and finance. Sales growth, profit maximization, sales forecast, inventory management, security, fraud detection, and portfolio management are some of the major uses.

Introduction

Artificial intelligence usually refers to the artificial fabrication of human minds that can learn natural language, plan it, perceive it or process it [1]. It is the theory and development of computer systems that can generally carry out activities requiring human intelligence, such as visual perception, recognition of speech, decision-making and language translation [3]. Artificial intelligence is an IT industry that mostly works with machines which are built to operate like a human being. John McCarthy (AI's dad) described AI as "the scientific and technical knowledge of developing smart computer programs in particular".

Machine learning and profound learning are two of the most often utilized AI methods. These models learn from data and are used for predicting by individuals, firms and government organizations. Machine learning models for the complexity and diversity of data in the food business are nowadays being developed [2], [3].

In e-commerce and financial industries with a major aim to design standard, reliable product quality control methods and the search for new ways of reaching and serving customers, while at the same time maintaining low cost, has required deployed AI in order to achieve better customer experience, efficient management of the supply chain, improved operational efficiency, reduced mate size.

This article presents applications of machine learning and artificial intelligence in e-commerce, business management and finance. Major applications include sales increase, profit maximization, sales prediction, inventory management, security, fraud detection and portfolio management.

Section snippets

Different artificial intelligence and machine learning techniques

Machine learning is the most important AI technique. Relationship between machine learning and artificial intelligence is shown below in Fig. 1. This section contains prominent machine learning techniques.

Machine learning (ML) [4] is a new area of data mining that allows a computer program to grow increasingly accurate in predicting outcomes without explicitly programming it. These ML techniques are often divided into two types: supervised and unsupervised learning techniques employ labeled…

Applications of artificial intelligence in business management, e-commerce and finance

Applications of Artificial Intelligence and Machine Learning in Business management, e-commerce and finance are discussed in this section [10], [11], [12], [13], [14], [15].

- **Chatbots**…

Most of the E-commerce and financial web sites are using chatbots to improve customer satisfaction and provide enhanced services to customers. These chatbots are developed using artificial intelligence and machine learning techniques. They are capable of behaving like humans. These chatbots have learning capability,…

Conclusion

AI has been used in the e-commerce and financial industries to improve customer experience, efficient supply chain management, operational efficiency, and mate size, with the main goal of designing standard, reliable product quality control methods and the search for new ways of reaching and serving customers while keeping costs low. Deep learning and machine learning are two of the most popular AI techniques. These models are used by individuals, corporations, and government organizations to…

CRediT authorship contribution statement

Harikumar Pallathadka: . **:** Conceptualization, Methodology. **Edwin Hernan Ramirez-Asis:** Data curation. **Telmo Pablo Loli-Poma:** . **:** Visualization, Investigation. **Karthikeyan Kaliyaperumal:** Writing - review & editing. **Randy Joy Magno Ventayen:** Validation. **Mohd Naved:** . **:** Writing - original draft, Supervision,…

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.…

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