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Machine learning approaches in stock market prediction: A systematic literature review

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Abstract

Predicting the stock market has been done for a long time using traditional methods by analyzing fundamental and technical aspects. With machine learning, stock market predictions are made more accessible and more accurate. Various machine learning approaches have been applied in stock market prediction. This study aims to review relevant works about machine learning approaches in stock market prediction. To achieve this aim, we did a systematic literature review. This study review 30 studies regarding machine learning approaches/models in stock market prediction. Approaches that were used included neural networks and support vector machines. The result of this study is that neural networks are the most used model for stock market prediction. However, this does not mean that other models cannot be used for predicting the stock market.

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1. Introduction

Predicting the stock market is a complex task, and many factors influence the market. Therefore, before investing in a stock, investors perform two types of analysis. First is the fundamental analysis. For example, investors look at

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