

Harnessing AI for Economic Forecasting

Kai Evans

PhD

Massachusetts Institute of Technology
77 Massachusetts Ave, Cambridge, MA 02139, USA

Taylor Mitchell

PhD

Kyiv School of Economics
Dmytrivska St, 92-94, Kyiv, 01135, Ukraine

Dana Scott

PhD

University of Toronto
27 King's College Cir, Toronto, ON M5S, Canada

Abstract. This paper explores the integration of artificial intelligence (AI) in economic forecasting models. Traditional forecasting methods often suffer from a lack of precision due to their reliance on historical data and linear models. By incorporating AI, specifically machine learning algorithms, these models can improve accuracy and adaptability to new data trends. We analyze several case studies where AI-driven approaches have led to significant improvements in forecasting accuracy over traditional models. The findings suggest a promising future for AI in the field of economic research, offering potential for more robust decision-making processes in economic policy and business strategies.

Keywords: artificial intelligence, forecasting, economic models, accuracy, adaptability

Introduction: The application of artificial intelligence (AI) in various domains has gained considerable attention in recent years, particularly in the field of economic forecasting. As economies become increasingly complex, the demand for precise and reliable forecasting methods grows. Traditional economic forecasting methods, which typically rely on historical data and linear regression models, often fall short in capturing the dynamic nature of modern economies. AI, with its ability to process large datasets and identify non-linear patterns, offers a novel approach to overcoming these limitations. This paper aims to explore the potential benefits of integrating AI into economic forecasting models, highlighting its impact on improving accuracy and adaptability. We present a comprehensive analysis of AI-driven models compared to traditional approaches, based on recent case studies and empirical data.

[This is a preliminary version. To read the full version of the article, please purchase a subscription.](#)

References

1. Ola, M. H. Financing mix and Financial Performance: Evidence from listed Consumer and Industrial Goods Sector in Nigeria.
2. Babayev, F. (2020). GIDA SANAYİSİNDE YENİLİKÇİ GELİŞİM. In Econdor 2020 3rd. International Economics, Business and Social Sciences Congress (p. 240).
3. Fikrat, B. F. (2023, January). THE ROLE OF AGRICULTURE IN ENSURING ECONOMIC DEVELOPMENT. In Publisher. agency: Proceedings of the 1st International Scientific Conference «Research Retrieval and Academic Letters»(January 26-27, 2023). Warsaw, Poland (p. 73).
4. Petkov, Vasil S (2013), Advantages and Disadvantages of Fiscal Discipline in Bulgaria in Times of Crisis, [online]. [cit.2017-08-30]. Available at <https://ieas.repec.org/a/wyz/journal/id332html>