

Large Language Models in Business Decision-Making: A Systematic Review

Mgr. Eva Ticina, Dr. Ing. Natalia Kryvinska

Comenius University in Bratislava, Slovakia

Abstract

The integration of Large Language Models (LLMs) into organizational information management processes has rapidly expanded, especially as businesses increasingly rely on unstructured data such as reports or customer feedback. However, there is currently no systematic review addressing their role in information management decision-making. This study aims to fill this gap by synthesizing existing research, identifying thematic trends, and mapping underexplored areas. To ensure transparency, PRISMA principles were followed. A systematic search was conducted in the Scopus database. Studies not written in English, lacking full-text access, or unrelated to the topic were excluded. 47 Q1–Q2 journal articles on LLMs in the context of business decision-making were selected. Bibliometric tools (VOSviewer and Biblioshiny) were used for trend and co-occurrence analysis, while qualitative content analysis enabled the identification of thematic clusters and subclusters. To minimize risk of bias, classification was iteratively cross-validated. The findings indicate that the application of LLMs in business decision-making is still in its infancy but is developing rapidly. The most frequently studied domains include the application of LLMs in financial decision-making, ethical perceptions and trust in human–LLM interactions, and customer management. Despite growing interest, the topic remains underexplored, highlighting a clear need for further research. Article serves as a roadmap for future exploration and formulates research questions, providing a structured agenda of underexplored areas. This review provides a foundation for both academics and managers aiming to implement LLM solutions in information management processes. The study is limited to one database, which may omit relevant works published elsewhere.

Keywords: artificial intelligence; decision making; information management; large language models; systematic review