

SECTION I

INTRODUCTION

Urban relocation is a transformative process that reshapes social, economic, and environmental landscapes. Indonesia's decision to relocate its capital from Jakarta to Ibu Kota Negara (IKN, often called Nusantara), located in East Kalimantan, reflects the need to address Jakarta's chronic problems, including severe congestion, high population density, and increasing environmental degradation (Sutoyo & Almaarif, 2020). This project aims to establish a sustainable and technologically advanced urban center in Nusantara, shifting the political and economic focus of the nation while relieving pressures on Jakarta (Tarmidi et al., 2021)

The relocation has sparked widespread public discourse, driven by concerns over its economic feasibility, environmental impact, and implications for community displacement. Public sentiment plays a crucial role in shaping the success of such large-scale initiatives (Jia & Peng, 2022). Social media platforms have become a central space for expressing these views, providing valuable insight into public perspectives on relocation, which range from economic concerns to environmental impacts (Sutoyo & Almaarif, 2020).

To systematically analyze these public sentiments, Machine learning (ML) techniques, particularly in combination with Social Network Analysis (SNA), offer powerful tools for analyzing large datasets generated from social media platforms. By uncovering patterns, trends, and key concerns, these technologies provide actionable insights for policymakers and planners (Ismail, 2024)(Faralli & Velardi, 2022). Bibliometric analysis helps to map the thematic focus of existing research on ML applications in SNA, track trends, and understand the depth of research on this subject (Malekmohammadi & Damians, 2024).

Despite its potential, research on applying ML techniques in Indonesia's capital relocation context remains limited. Previous studies have primarily focused on general topics related to capital city relocation (Nurharjadmo et al., 2024);

However, a lack of research delves into Indonesia's unique context, including sustainability priorities, environmental impacts, and the integration of sentiment analysis across various social media platforms. Additionally, limited research utilizes tools such as Geographic Information Systems (GIS), which can provide valuable insights for spatial analysis, facilitating the assessment of land use, environmental changes, and resource allocation. This gap underscores the need for a systematic review and analysis of current research trends.

This paper aims to fill that gap by conducting a bibliometric analysis of ML applications in SNA related to Indonesia's capital relocation. The objectives are to identify research trends, examine underexplored areas like regional land use changes and socio-economic impacts unique to Indonesia's relocation project, and provide insights for policymakers to align relocation strategies with public sentiment and sustainability priorities. Using VOSviewer for co-occurrence and thematic analysis, this study maps existing knowledge and offers a framework for future research.

This paper contributes to the literature by providing an overview of current research and identifying underexplored gaps, such as platform diversity and longitudinal sentiment tracking. The findings will help guide future research, such as integrating sentiment analysis with GIS, demographic analysis, and environmental monitoring to provide valuable data for policymakers.