

ABSTRACT

Digital transformation is a critical driver of competitiveness in Indonesia tourism industry. This study examines trends and research patterns in digital transformation within the sector using a bibliometric analysis approach enhanced by machine learning. The methodology integrates topic modelling through the Latent Dirichlet Allocation (LDA) method and text network analysis. Data was collected using the query (“Digital Transformation”) AND (“Tourism”) AND (“Indonesia”) OR (“Smart Tourism”), resulting in 1,298 articles published between 2019 and 2024. A relevance screening process refined the dataset to 1,215 articles, which were then analysed using topic modelling and LDA. The result analysis revealed an article study growth in research publications on digital transformation in Indonesia tourism sector. Topic modelling identified four main research topics, while correlation analysis with text network analysis uncovered six additional and three topic, offering a deeper understanding of thematic interconnections. The findings highlight the importance of smart technologies, data driven services, and sustainability in shaping tourist experiences and decision making processes. This study offers valuable insight for industry practitioners, researcher and policymakers, guiding the development of sustainable and technology driven tourism strategi in Indonesia.

Keywords: Digital transformation, Tourism industry Indonesia, bibliometric analysis.