The Role of Artificial Intelligence in Enhancing Digital Operations in the Banking Sector

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Abstract:
Artificial Intelligence (AI) has become an important technology in supporting operational activities within the banking industry. This study examines the extent of AI adoption in Indonesian commercial banks, the factors driving its implementation, the barriers of its adoption, and the potential benefits gained from its use. Using a qualitative phenomenological approach, data were collected through semi-structured interviews with 7 management representatives from KBMI III and IV banks. The findings show that AI is mainly adopted in customer service and back-office operations to improve automation, operational efficiency, security, and service quality. However, challenges such as regulatory compliance, security concerns, limited expertise, and high implementation costs continue to hinder wider adoption. Overall, the study highlights that AI has significant potential to enhance digital banking operations and support long-term operational improvement in the banking sector.

Keywords:
Artificial Intelligence (AI), Banking, Automation, Operational Efficiency.