

ABSTRACT

The digital era has been the main catalyst in accelerating the growth of Financial Technology (Fintech), which has substantially transformed the structure of global financial services and driven a paradigm shift in the economy. Fintech brings technological innovations that enable the creation of more efficient, adaptive, and inclusive financial services, thereby encouraging public participation in the formal financial system as consumers, investors, and business actors. In Indonesia, Fintech advancements have had a significant impact on the banking sector, particularly in building integration between conventional and digital financial services. Commercial banks have begun adopting Fintech technologies to enhance efficiency, expand service accessibility, and enrich customer experiences. This study aims to analyze the impact of Fintech implementation on banking efficiency at commercial banks listed on the Indonesia Stock Exchange (IDX) during the period 2018–2023. The study uses two main FinTech indicators, namely Peer-to-Peer Lending (P2P) and Digital Payment (PAY), as well as control variables of bank size (Size) and market concentration (Concentration Ratio). The research methodology consists of Data Envelopment Analysis (DEA) for efficiency measurement, panel data regression for analyzing inter-variable relationships, and control variable testing. The results of the study indicate that all main variables have a significant partial and simultaneous effect on banking efficiency, while control variables are not proven to be confounding variables. These findings are expected to contribute academically and practically to the formulation of digital transformation strategies for banking based on financial technology.

Keywords: Banking, DEA, Efficiency, Fintech, IDX