The Fintech-Sustainability Nexus: Analyzing Robo-Advisors' Roles in Enhancing Financial Inclusion, Natural Resource, and Sustainable Trade for ASEAN's Economic Growth

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ABSTRACT

In light of the increasing global commitments to sustainable development and regional economic integration, this study examines the influence of financial inclusion, natural resource endowments, and sustainable trade on economic growth within ASEAN nations, with robo-advisors serving as a mediating factor. Utilizing the Quantile Regression (QR) approach, the analysis uncovered three key findings. Firstly, sustainable trade significantly enhances economic growth by diminishing environmental remediation costs and improving trade efficiency, thereby confirming its direct positive impact on GDP growth through statistical analysis. Conversely, other trade measures exhibit insignificant effects, underscoring the necessity for targeted policies. Secondly, the collaboration of financial inclusion with robo-advisors unlocks GDP growth potential, as evidenced by the significant role that technology-mediated resource management plays, reflected in the consistent increase in usage. However, natural resource endowments appear to be insignificantly affected. Thirdly, with the implementation of robo-advisory technologies, the significance of sustainable trade's contribution to GDP growth is notably enhanced. The overall results indicate that countries implementing robo-advisory systems consistently achieve improvements in the efficiency of converting natural resources into economic value. These findings provide policymakers with actionable evidence that the integration of digital financial infrastructure with sustainable trade practices can accelerate green growth while minimizing environmental costs across ASEAN economies.

Keywords: digital financial tools; GDP; quantile regression; renewable energy; SDGs