

**ANALISIS DINAMIKA PENGARUH JALAN TOL TERHADAP
PERTUMBUHAN EKONOMI DI PULAU SUMATRA**

TESIS



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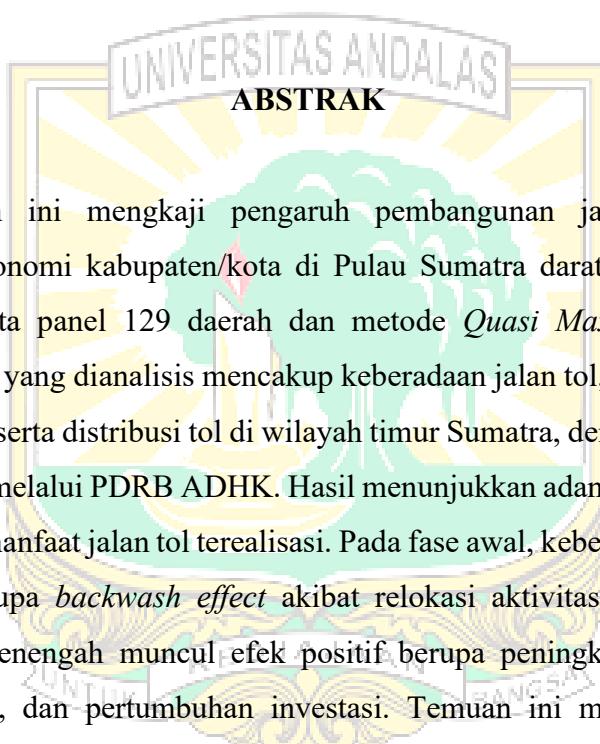
**ANALISIS DINAMIKA PENGARUH JALAN TOL TERHADAP
PERTUMBUHAN EKONOMI DI PULAU SUMATRA**

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Penelitian ini mengkaji pengaruh pembangunan jalan tol terhadap pertumbuhan ekonomi kabupaten/kota di Pulau Sumatra daratan periode 2010–2023 dengan data panel 129 daerah dan metode *Quasi Maximum Likelihood* (QML). Variabel yang dianalisis mencakup keberadaan jalan tol, jumlah ruas tol di tingkat provinsi, serta distribusi tol di wilayah timur Sumatra, dengan pertumbuhan ekonomi diukur melalui PDRB ADHK. Hasil menunjukkan adanya jeda waktu (*lag effect*) sebelum manfaat jalan tol terealisasi. Pada fase awal, keberadaan tol memicu efek negatif berupa *backwash effect* akibat relokasi aktivitas ekonomi, namun dalam jangka menengah muncul efek positif berupa peningkatan aksesibilitas, efisiensi logistik, dan pertumbuhan investasi. Temuan ini menegaskan bahwa pembangunan tol tidak serta-merta meningkatkan pertumbuhan ekonomi, melainkan memerlukan waktu adaptasi, sehingga kebijakan infrastruktur perlu memperhatikan dinamika temporal dan spasial agar manfaatnya lebih merata di seluruh wilayah Sumatra.

Kata Kunci: Jalan Tol, Infrastruktur, Pertumbuhan Ekonomi, *Lag Effect*, Sumatra

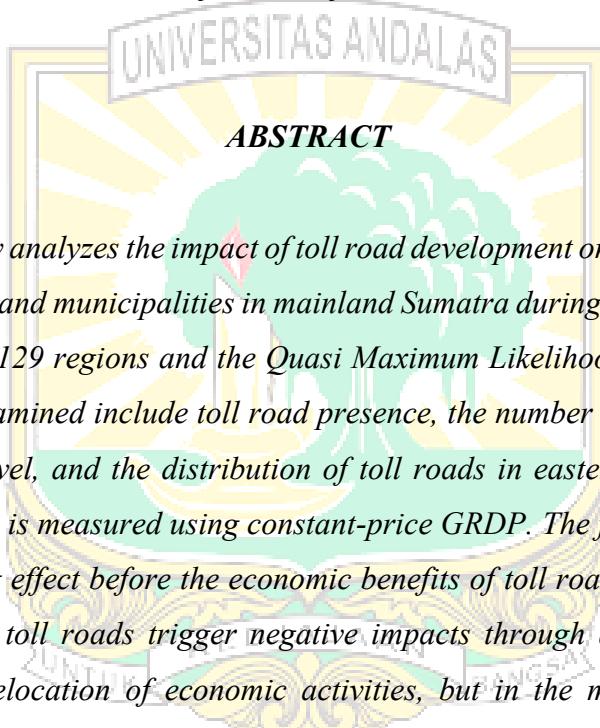
**ANALYSIS OF THE DYNAMIC IMPACT OF TOLL ROADS ON
ECONOMIC GROWTH IN SUMATRA ISLAND**

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This study analyzes the impact of toll road development on economic growth across regencies and municipalities in mainland Sumatra during 2010–2023, using panel data from 129 regions and the Quasi Maximum Likelihood (QML) method. The variables examined include toll road presence, the number of toll segments at the provincial level, and the distribution of toll roads in eastern Sumatra, while economic growth is measured using constant-price GRDP. The findings reveal the presence of a lag effect before the economic benefits of toll roads are realized. In the early phase, toll roads trigger negative impacts through a backwash effect caused by the relocation of economic activities, but in the medium term, they generate positive effects by improving accessibility, logistics efficiency, and investment growth. These results emphasize that toll road development does not instantly accelerate economic growth but requires a period of adjustment, highlighting the need for infrastructure policies to account for temporal and spatial dynamics to ensure more equitable benefits across Sumatra.

Keywords: Toll Roads, Infrastructure, Economic Growth, Lag Effect, Sumatra