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Economic Evaluation of Toll Roads: A Systematic Review of Financial Studies and Socio-Economic Benefits

Dakwan Soaloon Harahap
Politeknik Keuangan Negara STAN, Indonesia
e-mail: 4121240059_dakwan@pknstan.ac.id

Sulichlas Nur Fajariadha
Politeknik Keuangan Negara STAN, Indonesia
e-mail: 4121240713_sulichlas@pknstan.ac.id

Abstrak

Jalan tol merupakan proyek infrastruktur yang bertujuan untuk mendukung mobilitas ekonomi suatu negara. Jalan tol dibangun dengan harapan peningkatan akses dalam aktivitas sehari-hari masyarakat. Di Indonesia, pengembangan jalan tol telah dilakukan secara luas dan sering dianggap oleh pemerintah sebagai investasi yang menjanjikan. Namun, efektivitasnya baik dari segi keuangan maupun sosial-ekonomi memerlukan evaluasi yang lebih mendalam karena beberapa tantangan yang justru dapat menimbulkan masalah dari adanya jalan tol. Meskipun banyak studi telah mengkaji jalan tol dari perspektif ekonomi, terutama terkait dengan pengembalian investasi seperti ROI, sedikit yang meneliti dampak sosialnya. Penelitian ini menggunakan tinjauan literatur sistematis (SLR) untuk menilai kelayakan finansial dan implikasi sosial-ekonomi yang lebih luas dari pengembangan jalan tol. Temuan menunjukkan bahwa meskipun proyek jalan tol cenderung memiliki risiko tinggi dan awalnya tampak tidak layak secara finansial, potensi jangka panjangnya tetap signifikan. Khususnya, manfaat bagi komunitas kecil dan kondisi sosial-ekonomi lokal masih terbatas akibat strategi integrasi dan manajemen yang lemah. Namun, dengan perencanaan yang lebih baik, akses yang terjangkau, dan partisipasi komunitas, jalan tol dapat menjadi lebih inklusif dan bermanfaat bagi segmen masyarakat yang lebih luas. Temuan ini menyarankan bahwa pengembangan jalan tol tidak hanya harus didasarkan pada metrik ekonomi, tetapi juga memperhitungkan dinamika sosial dan kebutuhan kelompok rentan untuk memastikan hasil infrastruktur yang berkelanjutan dan adil.
***Kata kunci**: Jalan Tol; Keuangan; Sosial-Ekonomi.*

Abstract

Toll roads are infrastructure projects that aim to support a country's economic mobility. Toll roads are built with the hope of improving access for people's daily activities. In Indonesia, toll road development has been carried out extensively and is often considered by the government as a promising investment. However, its effectiveness, both financially and socio-economically, requires more in-depth evaluation due to several challenges that can actually cause problems from the existence of toll roads. While many studies have examined toll roads

from an economic perspective, especially regarding investment returns such as ROI, fewer have explored the social impacts. This research employs a Systematic Literature Review (SLR) to assess both financial feasibility and the broader socio-economic implications of toll road development. The findings reveal that although toll road projects tend to carry high risks and may initially appear financially unfeasible, their long-term potential remains significant. In particular, the benefits to small communities and local socio-economic conditions are still limited due to weak integration and management strategies. However, with better planning, affordable access, and community participation, toll roads can become more inclusive and beneficial to wider segments of society. These insights suggest that toll road development should not only be guided by economic metrics but also take into account social dynamics and the needs of vulnerable groups to ensure sustainable and equitable infrastructure outcomes.
Keywords: *Toll Road; Financial; Socio-Economic.*

INTRODUCTION

Toll roads are a form of strategic infrastructure that aims to improve the efficiency of human and goods mobility, thus contributing directly to the acceleration of a country's economic growth. In Indonesia, as a developing country with a vast geographical area and scattered economic potential, toll road development is a priority in the national development agenda. The Indonesian government consistently encourages the development of toll road infrastructure as an effort to create better connectivity between regions, accelerate the flow of logistics distribution, and support equitable economic development. As stated by (Lembhe, 2021), the government's focus on toll road development is based on the desire to strengthen the sustainability of economic relations between regions, especially those that were previously isolated.

The benefits of toll road development are not only felt in the form of ease of transportation, but also have positive externalities in the form of increased economic activity, job creation, and the development of new areas around toll lanes. Therefore, it is not surprising that the government often views toll roads as a promising form of long-term investment, as well as a solution to address inter-regional development imbalances. However, the positive perception of toll roads as an investment is not necessarily in line with the reality on the ground. It is necessary to carefully evaluate the effectiveness of toll road development from various aspects, especially from the financial side such as Return on Investment (ROI), as well as in terms of socio-economic benefits for the community around the toll road.

Financial evaluation plays an important role in determining the feasibility of a toll road project. For this reason, a comprehensive literature review of previous studies that have discussed the feasibility of toll road development is needed, both in terms of profitability, investment costs, NPV, IRR, and the comparison between potential income and project risk. Although many quantitative analyses have been conducted by academics, such as studies on system management and operational efficiency of toll roads (Wijayanto & Widjaja, 2021), there is still a lack of qualitative studies, especially in social aspects. The social impacts of toll road development, such as changes in social structure, settlement relocation, and potential economic inequality, often receive less attention in the academic literature.

Based on this gap, this study aims to provide a systematic review of financial and socio-economic studies in toll road development projects in Indonesia. A

Systematic Literature Review (SLR) approach is used to collect, evaluate and synthesize relevant studies that have been published previously. This review is expected to provide a more complete and balanced understanding of the benefits and risks of toll road development, not only in terms of macroeconomics and investment, but also in terms of impacts on local communities and social sustainability. The results of this study are expected to be an important contribution in enriching the scientific literature, as well as a reference in the formulation of infrastructure policies that are more inclusive and socially just.

LITERATURE REVIEW/ TINJAUAN LITERATUR

1. Toll Road Development Trends in Indonesia

Toll road development in Indonesia is currently being intensified. This began since the administration of Indonesia's seventh President, Joko Widodo, who made increasing connectivity and accessibility between regions through toll road construction one of the main development goals (Hardjanti, 2024). Not surprisingly, until 2024, there are an additional 2 thousand kilometers of toll roads built in Indonesia since the Jokowi administration which includes several toll road projects, such as the Trans Sumatra Toll Road, Cisumdawu Toll Road, and Manado Bitung Toll Road (Musthafa & Ruslan, 2022). However, toll road development is also often criticized due to its failure to generate profits within a certain period of time, even though its construction requires a relatively large cost, which touched Rp6,445 trillion based on the 2020-2024 National Medium-Term Development Plan (RPJMN) (Chamidah et al., 2025). The trend of toll road development in Indonesia is starting to meet concerns by the public regarding the externalities it can cause, namely the impact of toll roads on the surrounding economy, social, or environment.

2. Financial Studies in Toll Road Development

Financial studies in infrastructure development are carried out to determine the feasibility of developing an infrastructure project. This study can be done through several calculations, such as Return On Investment (ROI), Internal Rate of Return (IRR), Net Present Value (NPV), and payback period. ROI study in the development of an infrastructure project is the ratio of the company's ability to create profits from the capital that has been spent to build an infrastructure project as evidenced by a positive ROI value (Semnasti et al., 2023). The IRR study was conducted to determine the maximum discount rate that the company can pay in financing the development of an infrastructure, namely when the existing discount rate can equalize the sum of the present value of the profit earned by the company (Hendra et al., 2024). The NPV study was conducted to test the feasibility of investment in the development of an infrastructure known from the positive NPV value, which indicates that an infrastructure project built can provide the company with profits because the present value of the incoming cash flow is more than the investment value at the beginning of the project development (Hendra et al., 2024). The payback period study is carried out to determine the time span required by an infrastructure project to return the capital spent by the company during the construction of the project (Alfiansyah et al., 2021).

3. Socio-Economic Impacts of Toll Road Development

Toll road development can have an impact on the people living around the toll road, both positive and negative socio-economic impacts. Some of the positive socio-economic impacts of toll road construction are facilitating the distribution of goods and services in trade in the

community, increasing accessibility and equitable development, to increasing the level of local revenue (PAD) in the area around the toll road (Alfiansyah et al., 2021). Some of the negative socio-economic impacts due to toll road construction are the disconnection between communities whose settlements are divided by toll roads so that to visit each other they have to take a bridge to cross people on the toll road, the reduction of agricultural land displaced by toll road construction, and the emergence of air pollution due to vehicle fumes passing through toll roads (Alfiansyah et al., 2021).

METHOD

This research uses the Systematic Literature Review (SLR) method to comprehensively explore the study of toll road development related to its financial and socio-economic impacts. This exploration is expected to provide input for the government in formulating policies related to toll road development in Indonesia. The SLR method provides a structured and systematic methodology in integrating existing literature to critically examine all relevant literature on a particular subject. SLR can minimize bias by presenting a reliable and comprehensive picture of the diverse existing literature so as to identify research gaps and build a solid foundation for future research (Belahouaoui, R., & Attak, 2024).

To guide this SLR process, the authors adopted the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology. The PRISMA methodology can increase the transparency and clarity of a study by systematically documenting each stage of the literature review process, from assisting the selection of relevant literature, reducing bias, to increasing the rigor of the literature review (Belahouaoui & Attak, 2024). PRISMA can ensure a structured and in-depth analysis of the financial and socio-economic impacts of toll road development.

Identification of Relevant Literature

The literature discussed in this study was selected based on the inclusion criteria. The literature search was conducted using the Publish or Perish search engine, including Google Scholar and Crossref. The inclusion criteria included literature published in Indonesian and English, published between 2019 and 2025, and from all research methods (quantitative, qualitative and mixed) that were fully available and accessible. In addition, the inclusion criteria required a combination of keywords (“toll road” or “expressway”) and (“economic evaluation” or ‘ROI’ or “cost-benefit analysis” or “investment performance”). Conversely, studies that did not meet the P (Population), C (Concept), and C (Context) criteria were excluded from the research data (Table 2)

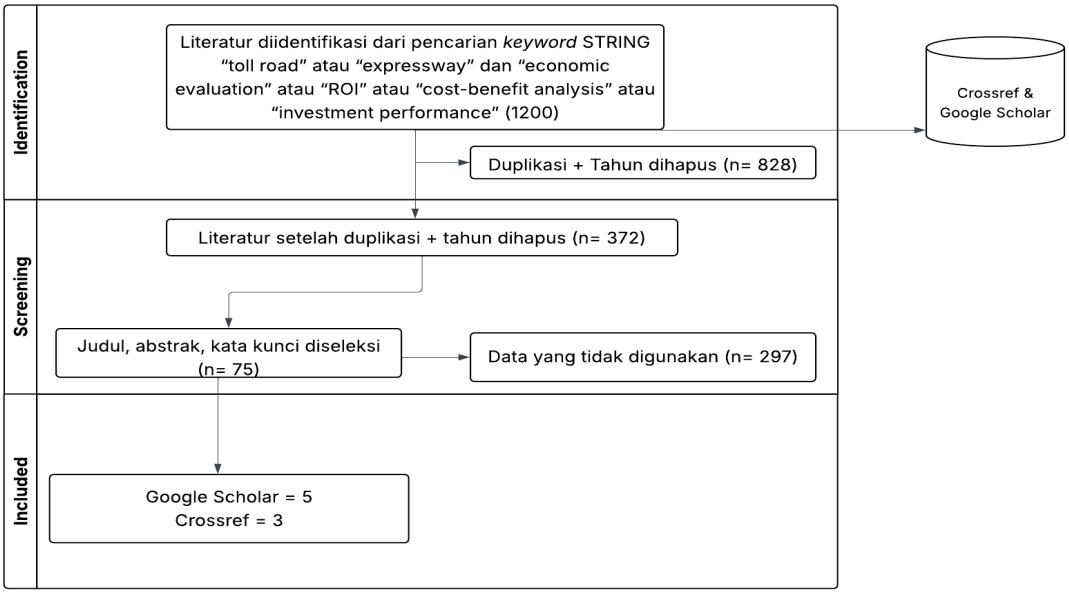
Table 1. Inclusion and Exclusion Criteria

Inclusions	Exclusions
Includes keywords (“toll road” or “expressway”) and (“economic evaluation” or “ROI” or “cost-benefit analysis” or “investment performance”)	Does not include keywords (“toll road” or “expressway”) and (“economic evaluation” or ‘ROI’ or “cost-benefit analysis” or “investment performance”)
Publications between 2019-2025	Publications before 2019

Quantitative, qualitative, and mixed methods	-
Bahasa Indonesia and English	-

The literature search strategy is described using the PRISMA flowchart, which serves to explain the literature selection process, as shown below.

Figure 1. PRISMA Flowchart



Source: Author (2025)

The following are the selection results for the literature used as research references.

Table 2. Literature Selection Process

	Database	Year	Duplicate	Screening	Included
Crossref	1000	337	302	5	4
Google Scholar	200	70	70	70	4

Identification of Research Questions

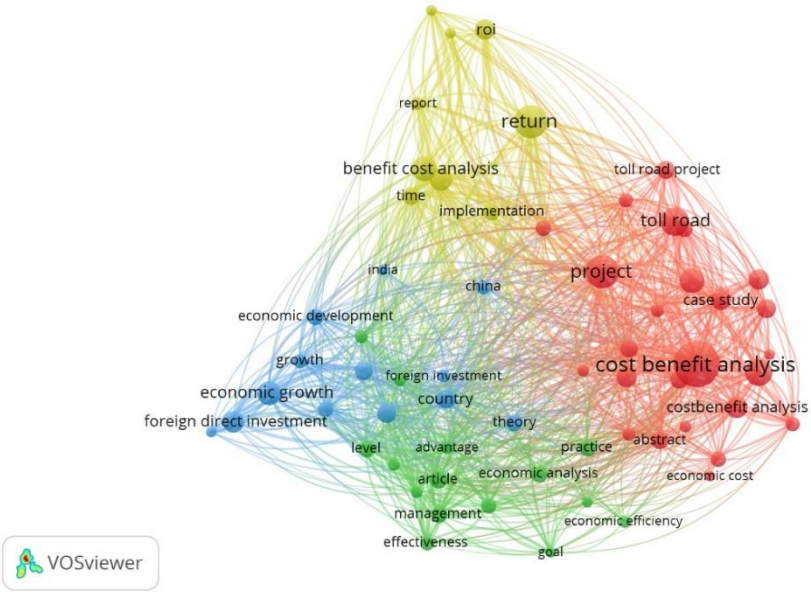
Formulation of research questions using the concepts of P (population), C (concept), C (context).

Table 3. PCC Detail

Population	Toll road construction
Concept	Study
Contextual	Financial and socio-economic

RESULTS AND DISCUSSION

Figure 2. Bibliographic Analysis



Source: Author (2025)

Before conducting further literature searches and analysis, this study began with a bibliographic analysis to map the structure of knowledge that has developed related to toll road projects. The analysis showed that the existing literature can be grouped into four main clusters based on color, which then formed the basis for the framework of this study. The Red Cluster focuses on project evaluation and feasibility analysis, with an emphasis on cost-benefit analysis methods and case studies of toll road projects. This cluster provides the basis for discussing the feasibility of toll road project investments, especially in terms of financing risks, potential losses, and financial indicators such as NPV, IRR, and payback period.

Furthermore, the Yellow Cluster highlights issues related to return and ROI, which support the analysis of the effectiveness of investment returns in the long term. The Blue Cluster broadens the perspective by emphasizing the relationship between infrastructure development and macroeconomic growth, including the contribution of toll roads to regional development and the potential for increased foreign investment. The findings in this cluster provide the basis for examining the socio-economic impacts of toll road development on communities around the project.

The Green Cluster is more conceptual, addressing basic theory, economic efficiency, and project management practices. This cluster strengthens the analysis by providing an evaluative framework to assess the optimization of toll road project management, including tariff affordability, land management, and equitable distribution of economic benefits. Together, these four clusters

form the foundation for the structure of this study's discussion, which covers three main aspects: investment feasibility, socioeconomic effectiveness, and toll road project management.

Table 4. Article Analysis

Author	Research Objectives	Research Methods	Research Results	Research Limitations
(Zubizaretta et al., 2021)	Analyzing risk allocation based on risk probability and impact on Solo-Ngawi Toll Road investment.	Quantitative descriptive by using numerical data from questionnaires to calculate the probability and impact of risks, and categorizing risks using formulas and matrices based on the Pd T-01-2005-B standard.	It was found that the overall risk level of the Solo-Ngawi toll road project was in the medium risk category, with risks with the highest probability and impact being at the pre-construction stage in the form of land availability and the percentage of risk to the total cost being the largest, which is 26.05% sourced from investment costs.	The data used is limited to the business plan and implementation in 2018.
(Hardika & Aridianto, 2020)	Knowing the impact of the construction of the Trans Sumatra Pekanbaru-Dumai Toll Road on the socio-economic conditions of the community in Harapan Baru Village, Mandau District, Bengkalis Regency.	Quantitative descriptive with number-based data collected (through questionnaires) to statistically describe community perceptions.	It was found that there were positive impacts in the form of opening new jobs for some local communities, increasing accessibility and efficiency of goods distribution between regions, and the growth of new residential areas	The study was geographically limited to RT 002 and RT 005 of Harapan Baru Village and therefore did not cover other affected villages.

Author	Research Objectives	Research Methods	Research Results	Research Limitations
			as well as negative impacts in the form of a decrease in plantation land area, noise and pollution disturbances, and inequality of benefits because those who benefited more were middle to upper class business actors.	
(Seprillina et al., 2022)	Identifying and analyzing the impact of toll road infrastructure development on the socio-economic welfare of local communities around five toll exit gates in Malang, East Java.	Mixed approach, namely quantitative through surveys and cluster analysis and qualitative through in-depth interviews with local communities.	The socio-economic condition of the community after the construction of the toll road is that the community's education has not changed much, which on average only reaches junior high school, the community's income has not shown a significant increase, some have even decreased due to the impact of congestion and reduced small business customers, and community assets in the form of home	Geographical coverage is limited to five toll exit locations in Malang and does not measure long-term impacts on social mobility or structural change.

Author	Research Objectives	Research Methods	Research Results	Research Limitations
			ownership and vehicles have not changed much even after compensation is paid.	
(Maulana & Pria, 2024)	Analyzing the financial feasibility of the Manado-Bitung Toll Road project.	The method used is mixed, namely qualitative and quantitative with a case study approach and the data used is secondary data, such as investment cost data, financing structure, and traffic volume.	It was found that the initial condition of the toll road showed that the project was not feasible (negative NPV of Rp2.28 trillion, project IRR of 5.72% < WACC of 9.47%) and the extension of the concession to 150 years could increase the IRR, but the NPV remained negative so that the availability payment scenario for 15 years needed to be carried out because it was considered to increase the IRR to exceed the WACC and produce a positive NPV.	The data used is limited to secondary data and the macroeconomic assumptions used may not reflect drastic changes in the future.
(Naim et al., 2024)	Identifying beneficiaries of toll road policies so as to evaluate ex-ante (before the event) the social and economic impacts of the Serang-Panimbang Toll	The method used is qualitative, namely in-depth interviews with twenty-two farmers, eight farm laborers, toll road project officials, the	It was found that the toll road development policy has not fully benefited the agrarian community with the conversion of agricultural land causing a	The research focused on agricultural areas around the Serang-Panimbang Toll Road so that the results could not necessarily be generalized and

Author	Research Objectives	Research Methods	Research Results	Research Limitations
	Road development with the Social Cost-Benefit Analysis (SCBA) approach.	head of the spatial planning office, community leaders, and academics.	decrease in productivity of up to 60% so that the SCBA value shows that the social and economic benefits are not optimal.	only covered the socio-economic aspects of SCBA.
(Elisha et al., 2020)	Analyzing the Public Private Partnership (PPP) model in the provision and management of Semarang-Solo Toll Road infrastructure and cost-benefit.	Qualitative approach to analyze the PPP model in the provision and management of Semarang-Solo Toll Road and quantitative approach to analyze the financial benefits of toll road projects.	It was found that the highest ROI occurred in 2018, which amounted to 6.61%, reflecting an increase in management efficiency and the project's Payback Period level was calculated for 7 years, indicating that the project can return its investment value in a relatively short time.	The analysis is limited to a specific time period (up to 2018) and does not take into account long-term economic risk projections.
(Erlangga & Winarno, 2023)	Analyzing the impact of the Serpong-Balaraja Toll Road development on changes in the social and economic conditions of the community in Kadusirung Village, Pagedangan District, Tangerang Regency	Descriptive qualitative with purposive sampling technique of 85 respondents from 551 heads of families in Kadusirung.	The social impact of toll road construction is in the form of social relations between residents becoming less harmonious after the toll road project, decreased community participation in gotong royong, and more	The observation period is limited to before and after the construction of the toll road, so it does not cover long-term impacts.

Author	Research Objectives	Research Methods	Research Results	Research Limitations
			difficult access in and out of settlements. The economic impact is that the community experiences land shrinkage due to eviction for the toll road project.	
(Lubis & Silviana, 2023)	Analyzing the impact of the construction of the Bakauheni-Terbanggi Besar Toll Road on improving the economic conditions of the people in Lampung.	Descriptive qualitative approach through empirical studies.	It was found that the social influence of toll roads was not significant in reducing unemployment. The economic influence of toll roads in the form of large, medium, and small industries is not directly affected instantly from toll road projects.	Long-term effects cannot be fully measured because most of the results are still in the form of preliminary indications.

Toll Road Project Investment Feasibility Analysis

Before a toll road project is implemented, investment feasibility is a key consideration because it determines whether the project is viable for long-term funding and operation. A number of studies show that toll road projects generally have high financing risks and are not yet fully economically viable, especially in the early stages of implementation. Zubizarreta (2021) notes that the Solo–Ngawi Toll Road project has a medium risk level, with the main challenge stemming from the land acquisition process, which requires a significant amount of funding. This risk could potentially result in losses of up to 26.05% of the total investment cost.

Research by Maulana & Pria (2022) on the Manado–Bitung Toll Road project also revealed similar results. They found that the project was initially financially unfeasible due to a negative NPV of Rp2.28 trillion and an IRR of 5.72%, which was lower than the project's WACC of 9.47%. However, they also showed that in a long-term scenario with an availability payment financing model, the project could be

profitable, as after 15 years the IRR increases to exceed the WACC and generates a positive NPV.

Elisha et al. (2020) in his analysis of the Semarang–Solo Toll Road project also showed that although the project requires a large initial investment, the payback period of 7 years reflects a realistic potential return on investment. From these various studies, it can be concluded that toll road projects indeed face investment feasibility challenges at the outset. However, with the right risk management approach and long-term financing scenarios, this project can generate significant and sustainable profits.

The Effectiveness of Toll Road Project Implementation on Socioeconomic Aspects

The implementation of toll road projects not only impacts transportation efficiency but also has a significant influence on the socioeconomic aspects of surrounding communities. On one hand, toll roads open up new economic opportunities through improved connectivity, but on the other hand, they also bring negative impacts, especially for small communities. Hardika & Aridianto (2020) in their study on the Pekanbaru–Dumai Toll Road project found that toll roads have positive impacts, such as improved accessibility, logistics efficiency, and the growth of new residential areas. This is also accompanied by the creation of new job opportunities in the transportation and construction sectors.

However, negative impacts were also identified, including the shrinking of smallholder farmland, increased pollution and noise, and social inequality due to the dominance of medium to large-scale businesses in exploiting new economic opportunities. These findings are supported by Erlangga & Winarno (2023), who studied the Serpong–Balaraja Toll Road project and found that land expropriation led to the loss of the primary economic assets of small communities, without a significant improvement in their well-being. Seprillina et al. (2022) also showed that the construction of a toll road in Malang did not bring about meaningful changes in the income and assets of small communities, which remained stagnant even after the toll road began operating.

From a social perspective, toll roads can disrupt social cohesion within communities. Toll roads that divide residential areas, such as in the case of the Serpong–Balaraja Toll Road, cause social ties between residents to weaken, participation in community activities to decline, and community solidarity to diminish. Therefore, toll road construction must be carried out in a more inclusive manner. The government needs to involve the community in the planning process, particularly in determining the route to avoid disrupting the social structure of the community. Facilities such as business spaces in rest areas for small and medium enterprises (SMEs) are also important to ensure that the economic benefits of the toll road are felt more evenly.

Suboptimal Toll Road Management

Once a toll road is completed and operational, the main challenge shifts to management. Unfortunately, many toll road projects in Indonesia are not

managed optimally, so their economic benefits are not maximized, especially for small communities and local industries. Lubis & Silviana (2023) found that high toll rates are one of the main obstacles to the use of toll roads by industry, especially logistics transportation, which should be the main users. As a result, toll roads do not have a significant impact on the efficiency of the industrial supply chain.

Another issue related to management was identified by Naim et al. (2024) in their study on the Serang–Panimbang Toll Road project. They showed that the conversion of agricultural land has led to a 60% decline in productivity, affecting local food security and the sustainability of farmers' livelihoods. These findings indicate that toll road projects have not been managed with a balance between infrastructure efficiency and protection of community interests. Therefore, toll road project management should focus on more affordable toll rates, avoiding the conversion of productive land, and post-operational planning that is responsive to the needs of surrounding communities.

In addition, a study on toll road development in East Java by Paulia (2025) shows that although toll roads improve regional connectivity, post-operational management often fails to distribute economic benefits to local small businesses due to traffic diversion and limited access roads. Their findings suggest that projects such as the Probowangi Toll Road have accelerated national logistics flows; however, in the absence of responsive management planning, local micro and small enterprises experience declining revenues as traffic bypasses local economic centers. This indicates that improved connectivity alone is insufficient to ensure inclusive economic growth for surrounding communities.

Similarly, Tyas & Kholifah (2025) reports that the operation of the Probolinggo–Banyuwangi Toll Road led to a 40–60% decline in the number of customers for local small businesses in the Kraksaan area, with business revenues decreasing by up to 50% after the toll road became operational. This decline was primarily driven by traffic diversion away from traditional arterial roads, reducing direct exposure to local economic activities. These findings indicate that, in the absence of targeted management interventions—such as the provision of additional toll exits or business diversification programs—the economic benefits of toll road infrastructure tend to be unevenly distributed and may bypass smaller local communities.

Evidence from the Abdillah et al. (2024) further demonstrates the uneven economic impacts of toll road infrastructure on local enterprises in North Sumatra. The study finds that small businesses located outside toll road corridors experience declining competitiveness due to higher distribution costs and limited access to toll facilities, which constrain their ability to compete with larger firms that benefit from easier toll road connectivity. In contrast, small enterprises situated closer to toll roads recorded revenue increases of approximately 25–30% during the first year of operation. This disparity highlights that, without inclusive post-operational management and

complementary access policies, toll road development may exacerbate spatial economic inequalities rather than promote broad-based local economic growth.

CONCLUSION

Toll roads are a form of infrastructure development often undertaken by the government. The construction of toll roads can have positive impacts, such as improving distribution accessibility, but it can also have negative impacts that are detrimental to small communities. This needs to be a concern for the government so that it conducts analysis and consideration before undertaking toll road construction projects. While toll road construction is indeed a profitable investment, the government should not solely focus on toll road projects. The government may undertake toll road construction projects, but only within the budget available, as borrowing funds would mean the benefits of the toll road project cannot be realized and would only be used to repay the debt incurred from the project.

REFERENCES

Abdillah, M. D., Harahap, I., Anggara, W., & Nurojiyah, S. (2024). Pengaruh Jalan Tol Terhadap Pembangunan Ekonomi Khususnya UMKM di Sumatera Utara. *Prosiding Seminar Nasional Ilmu Ekonomi Dan Akuntansi*, *1*(2), 408–413.

Alfiansyah, A. D., Karsaman, R. H., & Al-Rasyid, H. (2021). ajian Investasi Pembangunan Jalan Tol Menggunakan Dana Haji (Studi Kasus: Jalan Tol Gempol - Pandaan). *Jurnal Teknik Sipil*, *28*(1), 63–72. https://doi.org/10.5614/jts.2020.28.1.7

Belahouaoui, R., & Attak, E. H. (2024). Digital taxation, artificial intelligence and Tax Administration 3.0: improving tax compliance behavior – a systematic literature review using textometry (2016–2023). *Accounting Research Journal*, *37*(2), 172–191. https://doi.org/10.1108/ARJ-12-2023-0372/FULL/XML

Chamidah, U., Roestamy, M., Islam, U., Jakarta, A., & Djuanda, U. (2025). *Analisis Program Strategis Nasional dalam Pengembangan Jalan Tol di Section Harbour Road II Jakarta Utara : Perspektif Hak Menguasai Negara*. *11*(1), 48–63. https://doi.org/10.30997/jhd.v11i1.15021

Elisha, L. C., Soesilowati, E., & Setyadharma, A. (2020). Cost Benefit Analysis (CBA) of Semarang - Solo Toll Road Infrastructure Development. *Journal of Economic Education*, *10*(1), 28–33.

Erlangga, D., & Winarno, W. (2023). Analysis of the Impact of Serpong-Balaraja Toll Road Development on Changes in Social and Economic Conditions of the Kadusirung Village Community, Tangerang Regency. *JPG (Jurnal Pendidikan Geografi)*, *10*(2), 160–173. https://doi.org/10.20527/jpg.v10i2.17010

Hardika, S. A., & Aridianto, J. (2020). An Analysis of Socio-Economic Impacts of Trans Sumatera Pekanbaru-Dumai Toll Road Development. *Sumatra Journal of Disaster, Geography ...*. https://www.academia.edu/download/80497766/325237-an-analysis-of-socio-economic-impacts-of-c893de10.pdf

Hardjanti, D. K. (2024). Efektivitas Dan Optimalisasi Dua Periode Pemerintahan Presiden Republik Indonesia Ke Tujuh: Joko Widodo. *Proceeding APHTN-HAN*. https://proceedingaphtnhan.id/index.php/paphtnhan/article/view/130

Hendra, M. P., Pradana, R. A., Masulili, A. N., & Soeroto, W. M. (2024). Mengukur Kinerja Dan Rianalisis Kelayakan Investasi Pengadaan 1(Satu) Unit Truck Mounted Crane Kapasitas 10 Ton Di Pabrik Pemurnian Minyak Bumi Siko Keuangan. *Sebatik*, *28*(1), 121–128. https://doi.org/10.46984/sebatik.v28i1.2447

Lembhe, P. (2021). Analysis of Toll Road Financing \& Economic Viability. *International Journal of Science and Research (IJSR)*, *10*(4), 1385–1393. https://doi.org/10.21275/sr24531141458

Lubis, F. A., & Silviana, A. (2023). Construction of The Bakauheni-Terbanggi Besar Toll Road to Improve The Community's Economy. *Eduvest-Journal of Universal Studies*. https://eduvest.greenvest.co.id/index.php/edv/article/download/772/1513

Maulana, A., & Pria, E. (2024). Feasibility and advance scenario analysis of toll road company with low rate of return on investment in Indonesia: case study of the Manado-Bitung toll road. *Jurnal Ekonomi*. https://ejournal.seaninstitute.or.id/index.php/Ekonomi/article/view/3639

Musthafa, I., & Ruslan, D. (2022). Eksternalitas Pembangunan Jalan Tol Sigli-Banda-Aceh (Studi Kasus Pedagang di Kecamatan Indrapuri dan Kecamatan Blang Bintang). *Nusantara: Jurnal Ilmu Pengetahuan Sosial*, *9*(4), 1483–1490.

Naim, M., Mufariq, A., Winarno, A., & ... (2024). Identifying the actual beneficiaries of toll road development policies in rural communities: ex-ante evaluation approaches. *Cogent Social Sciences*. https://doi.org/10.1080/23311886.2024.2328387

Paulia, D. E. (2025). Strategi Penanggulangan Dampak Pembangunan Jalan Tol Terhadap Sosial dan Ekonomi Masyarakat Lokal. *Journal of Trends Economics and Accounting …*, *6*(1), 11–19. https://doi.org/10.47065/jtear.v6i1.2069

Semnasti, S. D., Semnasti, M. C. P. A. I., Semnasti, R. N. S., & Semnasti, C. J. (2023). Analisis Kelayakan Ekonomi dan Sensitivitas Pengembangan Industri Jasa. *Waluyo Jatmiko Proceeding*, *16*(1), 521–530. https://doi.org/10.33005/wj.v16i1.76

SEPRILLINA, L., & RAHMAWATI, F. (2022). Toll Road Infrastructure Development and Local Social-Economic Enhancement. *Business, Economic and Sustainability Science (BESS)*, 21–27. https://doi.org/10.2478/9788366675711-003

Tyas, P. dwi cahya ning, & Kholifah, E. (2025). Analisis Dampak Proses Pembangunan Jalan Tol Probolinggo – Banyuwangi Terhadap Keberlangsungan Umkm Di Kraksaan. *Jurnal Wahana Bina Pemerintahan*, *7*(2), 8–15. https://doi.org/10.55745/jwbp.v7i2.350

Wijayanto, M. K., & Widjaja, A. W. (2021). Quality Management System Analysis in Toll Road Construction (Case Study: Bogor Ring Road Toll Road). *Proceedings of the 5th Global Conference on Business, Management and Entrepreneurship (GCBME 2020)*,

187(Gcbme 2020), 279–284. https://doi.org/10.2991/aebmr.k.210831.054

Zubizaretta, Z. D., Karsaman, R. H., & Wibowo, R. S. S. (2021). Investment Risk Of Solo-Ngawi Toll Road. *Ci-Tech*, *2*(1), 18–24. https://doi.org/10.33005/ci-tech.v2i01.28