



# Government Governance, Government Quality, Transportation Infrastructure, and the Economic Growth: Evidence from Indonesia

## *Tata Kelola Pemerintahan, Kualitas Pemerintahan, Infrastruktur Transportasi, dan Pertumbuhan Ekonomi: Bukti dari Indonesia*

Andri Zainal<sup>1\*)</sup>, Tengku Citra Nisa Farza<sup>2)</sup>, Pasca Dwi Putra<sup>1)</sup>,  
Khairunnisa Harahap<sup>1)</sup>, Yerisma Welly<sup>3)</sup>

<sup>1)</sup>Faculty of Economics, Universitas Negeri Medan, Medan

<sup>2)</sup>Department of Sharia Economics, Sekolah Tinggi Agama Islam (STAI) Syekh H. Abdul Halim Hasan Al-Ishlahiyah, Binjai

<sup>3)</sup>Department of Accounting, Sekolah Tinggi Ilmu Ekonomi Sultan Agung, Pematangsiantar

\*e-mail korespondensi: [andrizainal@unimed.ac.id](mailto:andrizainal@unimed.ac.id)

Article Info	Abstract
<p><i>Article History :</i> Received: 27 June 2022 Accepted: 18 January 2023 Published: January 2023</p> <p><i>DOI Number :</i> 10.33059/jseb.v14i1.5701</p> <p><i>Hoe to cite :</i> Zainal, A., Farza, T. C. N., Putra, P. D., Harahap, K., &amp; Welly, Y. (2023). Government governance, government quality, transportation infrastructure, and the economic growth: Evidence from Indonesia. <i>Jurnal Samudra Ekonomi dan Bisnis</i>, 14(1), 113-128. doi: 10.33059/jseb.v14i1.5701.</p>	<p>This study aims to provide a descriptive analysis of the relationship between government administration, quality of government, transportation infrastructure, and economic growth in Indonesia during the period 2001 to 2018. The results of the analysis show that road length has a positive relationship with economic growth, while the amount of loading and unloading of goods domestic and foreign shipping has a negative relationship with economic growth. Government quality (as stated by Unqualified Opinion on the financial reports of the Ministry of Communications and the Ministry of Public Works and Public Housing provided by the Supervisory Board of the Republic of Indonesia) shows good quality results over the last three years.</p> <p><b>Kata Kunci:</b> Economic Growth, Government Governance, Government Quality, Indonesia, Transportation Infrastructure.</p>

Info Artikel	Abstrak
<p><i>Riwayat Artikel :</i> Diterima: 27 Juni 2022 Disetujui: 18 Januari 2023 Dipublikasikan: Januari 2023</p> <p><i>Nomor DOI :</i> 10.33059/jseb.v14i1.5701</p> <p><i>Bagaimana Mensitasi :</i> Zainal, A., Farza, T. C. N., Putra, P. D., Harahap, K., &amp; Welly, Y. (2023). Government governance, government quality, transportation infrastructure, and the economic growth: Evidence from Indonesia. <i>Jurnal Samudra Ekonomi dan Bisnis</i>, 14(1), 113-128. doi: 10.33059/jseb.v14i1.5701.</p>	<p><i>Penelitian ini bertujuan untuk memberikan analisis secara deskriptif mengenai hubungan antara pemerintahan pemerintah, kualitas pemerintah, infrastruktur pengangkutan, dan pertumbuhan ekonomi di Indonesia selama periode 2001 sampai 2018. Hasil analisis menunjukkan bahwa panjang jalan memiliki hubungan yang positif dengan pertumbuhan ekonomi, sementara jumlah bongkar muat barang pelayaran dalam dan luar negeri mempunyai hubungan negatif dengan pertumbuhan ekonomi. Kualitas pemerintah (dinyatakan dengan Opini Wajar Tanpa Pengecualian atas laporan keuangan Kementerian Komunikasi dan Kementerian Pekerjaan Umum dan Perumahan Rakyat yang diberikan oleh Badan Pengawasan Republik Indonesia) menunjukkan hasil kualitas yang baik selama tiga tahun terakhir.</i></p> <p><b>Keywords:</b> Pertumbuhan Ekonomi, Tata Kelola Pemerintahan, Kualitas Pemerintahan, Indonesia, Infrastruktur Transportasi.</p>



## INTRODUCTION

The existence of quality infrastructure is an essential factor in maintaining long-term economic growth leading to the establishment of a positive outlook for a country's performance in the eyes of investors toward increasing its foreign exchange reserve (Awandari & Indrawijaya, 2016; Canning & Pedroni, 2004). Extant literature and studies have presented facts and findings of positive correlations between infrastructure investment, especially transportation infrastructure, and a country's economic growth (Kartiasih, 2019; Mohmand *et al.*, 2017; Silondae *et al.*, 2016; Ma'ruf & Daud, 2015; Sahoo *et al.*, 2012; Yu *et al.*, 2012). Large amounts of transportation infrastructure investment are in direct contact with economic growth. The existence of a capable transportation infrastructure will facilitate all commercial activities and national logistics, which in turn will add value to the socio-economic activities of the surrounding population (Silondae *et al.*, 2016). Also, Kartiasih (2019) underlines the role of the existence of adequate transportation infrastructure as the primary consideration for investors to invest that can provide guarantees for the smooth running of economic activity.

As a country that is currently transitioning into the group of upper-middle-income countries, President Joko Widodo is keen to be committed to the development of massive transportation infrastructure in various parts of the Indonesian archipelago. Although the ratio of the aggregate performance of infrastructure development compared to the target of completion in his earlier presidency (2014-2019) was 46 percent, the volume (ranging from road quality to connectivity of various ports and the effectiveness of its services) experienced a significant increase compared to the previous of government regime. However, this massive development has not been able to resolve various domestic economic problems that are characterized by weak investment leverage on economic growth. Besides, government policy reforms that should facilitate the penetration of actual foreign investment create confusion due to ineffective coordination between related institutions that have an impact on the stagnation of foreign investment. The stagnant investment includes negative growth of the quantity and quality investment in transport infrastructure through various funding partnership schemes such as a combination of government and private funding, as well as from the 100 percent private sector source (Mohmand *et al.*, 2017).

Related government policies to the extent of increasing economic growth also reflect the quality of the government itself. Poor quality of government opens opportunities for corruption in the transportation infrastructure development as a result of many political and individual interests that intersect with the ruling regime (Crain & Oakley, 1995; Henisz, 2002). The conflict of interest downgrades the quality of transportation infrastructure work and has an impact on the low economic return of the investment in transportation infrastructure. In other words, the financial return from transportation infrastructure investment depends on factors of government credibility, including local government governance and the effectiveness of the justice system and the risk of corruption (Farza & Zainal, 2018).

Kaufmann & Kraay (2007) and Kaufmann *et al.* (2009) define good governance as a reflection of the institutionalized ethos from the government such as: selection, monitoring and replacement of government; government performance in formulating and implementing appropriate policies; as well as respect and social interaction between citizens and local governments on high institutions responsible for good governance. Specifically, the reflection in question will be seen from the existence of good governance as a unit of a solid and responsible development management agency with the principles of democracy and efficient market.

Market efficient can only be realized through real commitment in the placement of the right investment fund allocation and prevention of corruption both politically and administratively, carry out budget discipline, and the creation of a legal and political framework for the growth of business activities. The OECD (2015) underlines the embodiment of Governance as a mandatory condition for good public infrastructure development that provides a continued influence on improving the infrastructure investment climate through enhancing bureaucratic performance and budgeting (Aysan *et al.*, 2007). However, implementing and applying the principles of good governance is not easy. Achievement this requires a relatively long time and continuous effort. In Indonesia, the application of good government governance (GGG) in its implications requires commitment and a real sustainable ethos from all components of the nation including: central and regional governments, bureaucracy, civil society and economic society. The four pillars must interact in a balanced and synergistic manner to achieve good governance.

McCulloch & Malesky's (2011) research results show that the application of governance does not have a significant impact on regional economic growth in Indonesia. This is presumably because the relationship between governance and economic growth is complicated. De (2010) explains that the complexity of the relationship between governance and economic growth and per capita income can be both direct and indirect. Indirectly, governance can affect economic growth through infrastructure, trade, and or investment. There are several reasons why a study of governance in Indonesia attracts attention. First, decentralization in Indonesia is implemented directly without the maturation and strengthening of local governance to carry out decentralized functions. In contrast, governance has an essential role as a supporting system for regional economic management. Second, empirical studies that focus on the effects of governance implementation on economic growth in Indonesia are still rare.

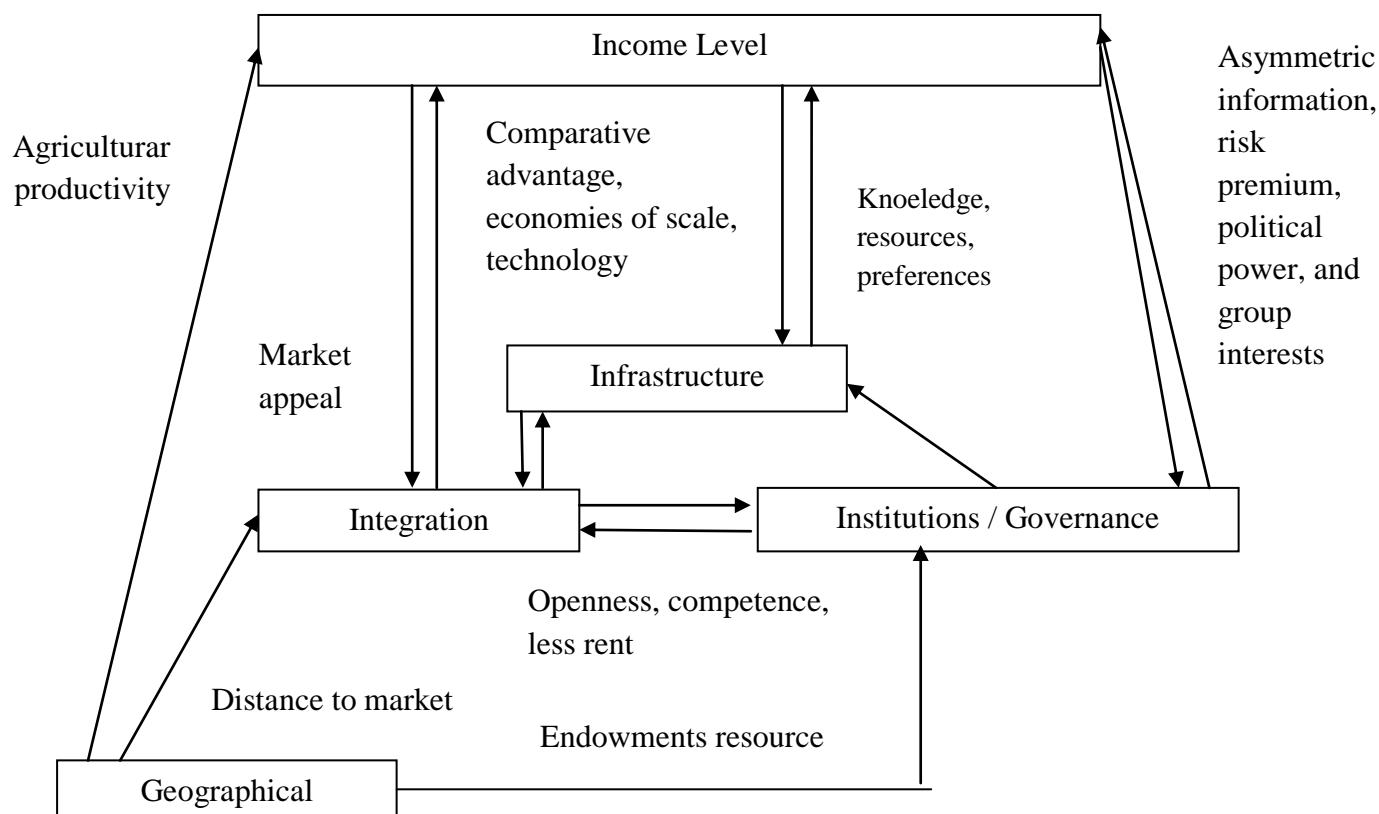
The only relevant study is found in Sutarsono (2012) that indicates the indirect effect of the implementation of local governance on economic growth through the provision of road infrastructure and electricity infrastructure. The study also emphasizes the disparity in the quality of local governments as a contributor to the provision of high-quality road development, clean water, and electricity infrastructure in Indonesia. The current study aims to provide a qualitative description of the relationship of governance, quality of government, and investment in transport infrastructure to economic growth in Indonesia. The next session outlined a literature review related to government governance, government quality, infrastructure investment, and economic growth. The subsequent segment discusses the relationship between the four dimensions of the study. Accordingly, the discussion is finalized with the conclusions and implications of the study.

## LITERATURE REVIEW

Although the neoclassical growth theory tends to ignore the effects of governance on economic growth, governance became an essential component of economic growth with the emergence of endogenous growth theories in the late 1980s (Romer, 1994; Farmer, 1999; Romer, 2011). In the context of the new growth theory, good governance through the optimal role of the state institutional structure serves as a determinant of transaction costs and effective and efficient production costs for positive economic growth (Aron, 2000). Countries with good governance have more significant potential for penetration of domestic private investment and foreign direct investment by reducing the uncertainty needed in creating a favorable investment climate for economic growth (Pay, 2016).

Based on the modification of the income determinant framework developed by Rodrik *et al.* (2002) and Busse *et al.* (2007), De (2010) offers a new formulation framework on the relations of governance and infrastructure. This relationship pattern was developed from the idea that governance can affect economic growth and income levels, both directly and indirectly, through trade, investment, infrastructure, and geography.

**Figure 1. A Conceptual Framework Linking Governance, Infrastructure & Economic Growth**



Source: Primary data (processed), 2022.

The figure above shows that governance has a direct influence on the level of revenue through transaction cost efficiency. De (2010) explains that there are three ways in which the quality of governance institutions at the government level influences income, namely: (1) Reducing asymmetric information through providing information by institutions about the situation, goods, and actors in the market symmetrically; (2) Reducing risk, for instance, the existence of sound institutions will guarantee intellectual rights; and, (3) There are restrictions on the interests of specific groups through accountability (Sutarsono, 2102). The pattern of the relationship between institutional quality and income is in line with the opinion of Crain & Oakley (1995) and Henisz (2002) that in conditions of weak government quality, investment in transport infrastructure can lead to more political and individual interests than fulfilling public needs (Farza & Zainal, 2018).

Meanwhile, governance also indirectly influences economic growth through infrastructure. Implementation of good governance will create a political will in the use of knowledge and resources to encourage infrastructure improvement. Also, good governance will improve the quality of infrastructure because there are not many leaks in the allocation of resources caused by rent-seeking.

## METHODOLOGY

This research is a descriptive study using the non-statistical analysis to analyze quantitative data, namely by reviewing relevant tables, graphs, or figures, followed by the description and interpretation (Vaismoradi *et al.*, 2016; Nassaji, 2015; Stanley, 2014). In this case, the qualitative descriptive study elaborates on the linkages between governance, quality of government, infrastructure investment, and economic growth in Indonesia.

Transportation infrastructure investment is analyzed by data on road length growth and Port loading and unloading activities - subsequently, the Indonesia Governance Index (IGI) rating scale determines the GGG and the mechanism for implementing good governance. Furthermore, the financial audit opinion from the Supreme Audit Agency (BPK) defines the quality of the government. In this case are auditor opinions on the financial statement of the two Ministries related to transportation infrastructure, namely the Ministry of Transportation (Kemenhub) and the Ministry of Public Works Public Housing (KemenPUPR) during the 2008-2018 period. Meanwhile, economic growth is measured using data on Indonesia's GDP.

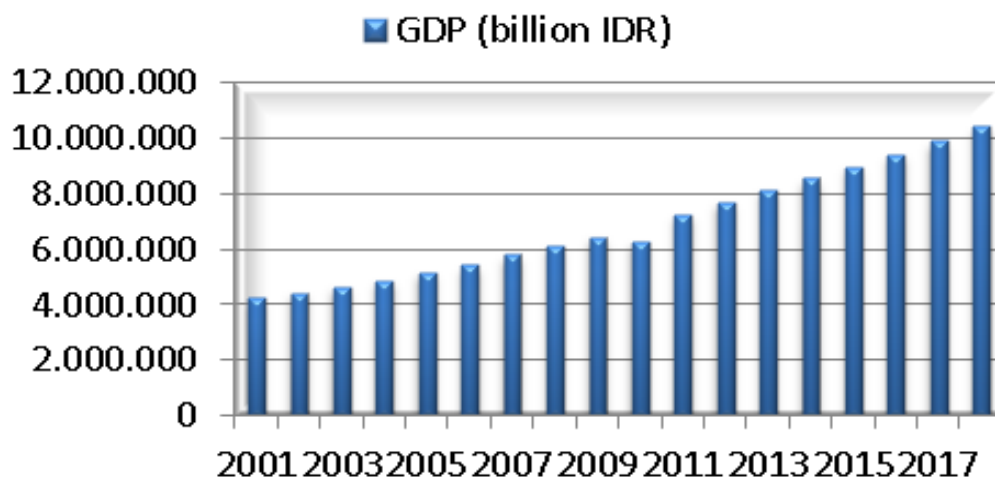
## RESULTS

Data on Gross Domestic Product (GDP) is one important indicator to determine the economic conditions in a country for a specified period. The Central Statistics Agency of Indonesia (BPS) recorded Indonesia's GDP per capita increased to USD 3,927 (approximately IDR 56 million) per capita per year in 2018. This figure is higher compared to 2017 at IDR 51.9 million and 2016 at IDR 47.9 million. However, this achievement still places Indonesia in lower-middle-income countries. Based on data from the World Bank, Indonesia's per capita GDP in 2018 places the nation at the second-lowest position among the G20 countries. The condition is undoubtedly a big challenge for Indonesia in questioning the national development goals, namely achieving prosperity and people's welfare to be equal with high income-developed countries.

The vision of Indonesia 2045 echoed by President Joko Widodo since the beginning of his presidency (2015 - 2019) until the second period ending in 2023 set an accomplishment of an aggregate GDP value of USD 7.3 trillion and GDP per capita of USD 25,000. Achieving this target will make Indonesia the fifth largest economy in the world, which automatically exits the trap of a middle-income country. Therefore, to become a high-income country, this country needs higher growth than global growth and must be inclusive (Ministry of National Development Planning/National Development Planning Agency, 2015).

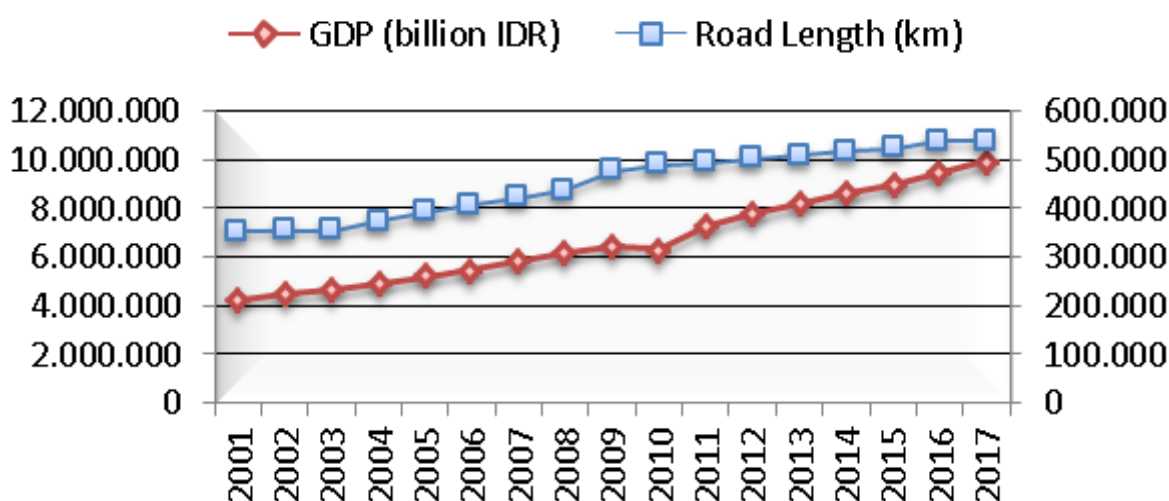
This paper marks good governance using the Indonesia Governance Index (IGI) rating scale. IGI is a very comprehensive measurement of governance performance in Indonesia (Hutapea and Widyaningsih, 2017). The overall index figure is a composite of the four areas of governance, namely government, bureaucracy, civil society, and industrial society. The four arenas are measured based on the extent to which essential functions are carried out per the principles of good governance, namely participation, accountability, fairness, transparency, efficiency, and effectiveness. Good governance will be achieved when the four components interact in a balanced and synergistic manner, which ultimately results in benefits for everyone. IGI rating scale ranges from number 1 (very bad) to number 10 (very good), as showed in Figure 5.





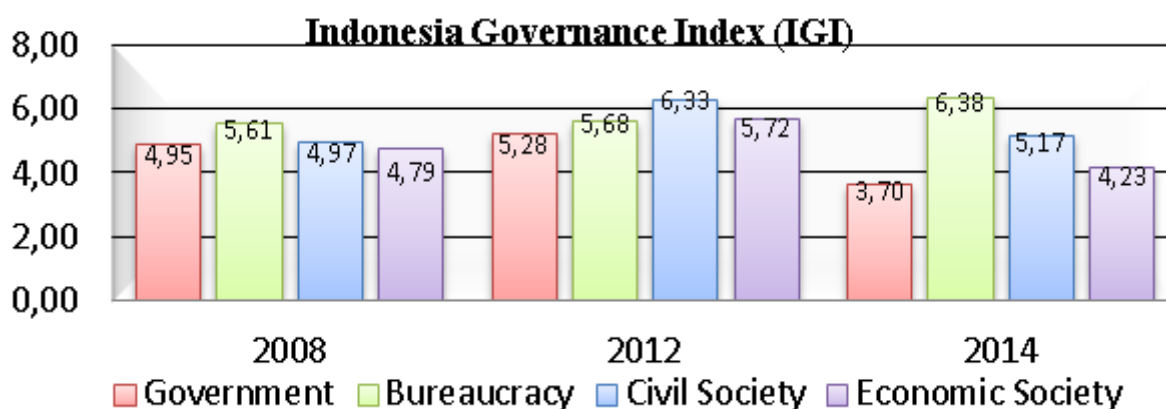
**Figure 2. Indonesia GDP 2001-2018 (in IDR)**

Source: Primary data (processed), 2022.



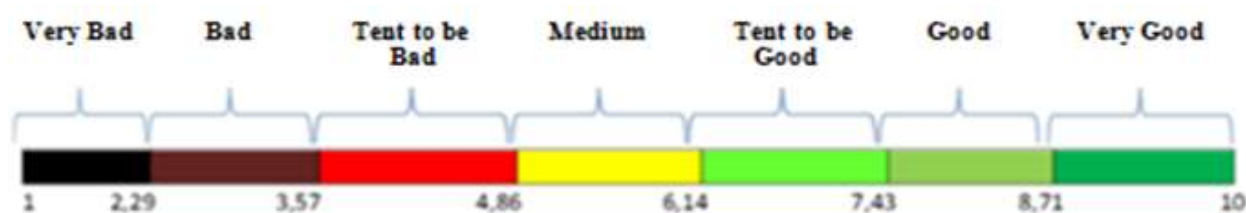
**Figure 3. Comparison of GDP and Road Length in Indonesia**

Source: Primary data (processed), 2022.



**Figure 4. The Overview of Performance on Four Component of IGI**

Source: Primary data (processed), 2022.



**Figure 5. The IGI rating scale ranges from 1 (very bad) to 10 (very good)**

Source: Primary data (processed), 2022.

**Table 1. BPK's opinion on The Financial Report of The Ministry of Transportation and The Ministry of Public Works Public Housing 2008-2017**

Year	The BPK Audit Opinion	
	Ministry of Transportation	Ministry of Public Works Public Housing
2008	Qualified	Disclaimer
2009	Qualified	Qualified
2010	Qualified	Qualified
2011	Qualified	Qualified
2012	Qualified	Unqualified with Explanatory Paragraphs
2013	Unqualified	Unqualified
2014	Unqualified with Explanatory Paragraphs	Unqualified with Explanatory Paragraphs
2015	Unqualified	Qualified
2016	Unqualified	Unqualified
2017	Unqualified	Unqualified
2018	Unqualified	Qualified

Source: Primary data (processed), 2022.

In 2008 Indonesia had an average IGI score of 5.08 with the largest index owned by the bureaucracy of 5.61. In 2012, the average IGI score increased to 5.75, with the largest index owned by civil society at 6.33. Whereas in 2014, the average IGI decreased to 4.87, with the largest index owned by the bureaucracy of 6.38. The IGI data above shows that both in 2008, 2012, and 2014 Indonesian governance was in the medium category. The level of Indonesian governance that is categorized is in line with Indonesia's GDP, which in the same year showed positive growth. The positive outlook means that Indonesian governance has a positive relationship with economic growth. This synthesis is in line with the results of Sutarsono's research (2012) that examines the relationship of governance, infrastructure, and economic growth in Indonesia to obtain results that local governance directly influences economic growth through Regional Government policies that do not increase costs for businesses. At the same time, governance has an indirect effect on economic growth through the availability of quality road infrastructure.

In this paper, the quality of the government will be analyzed through financing and audit opinions by the Supreme Audit Board (BPK) towards the Ministry of Transportation (Kemenhub) and the Ministry of Public Works and Public Housing (KemenPUPR). The data presented in Table 1 shows that from 2008-2012 the Ministry of Transportation received a Fair opinion with the exception (WDP). Still, for the last four years (2015-2018), the Ministry of Transportation received an unqualified from the BPK RI in a row. This achievement shows a positive change in institutional performance. It also illustrates the quality of an increasingly good government. However, even though receiving WTP opinion does not mean that the Ministry of Transportation's financial statements is free from error. Modification of opinion by BPK RI in 2018 shows that there are still

weaknesses in the internal recognition system as well as non-compliance with statutory provisions that need to be corrected. One of the findings is that the management of Non-Tax State Revenues (PNBP) for Ports and Airport Services was not disclosed in the provisions properly. There are PNBP in 2017 that escaped the Ministry of Transportation levies around Rp. 900 billion. Also, there was an overpayment on the implementation of capital expenditure activities valued at Rp. 44.07 billion and an overpayment on the implementation of goods shopping activities valued at Rp. 156 billion (Ulya, 2019).

Meanwhile, for 2018 the Ministry of Public Works and Public Housing (KemenPUPR) obtained a qualified opinion from the BPK. In comparison, two years earlier (2016 and 2017) obtained an unqualified opinion. The achievement of the unqualified follow suits the achievements of the KemenPUPR in 2016, which was very satisfying with a value of 102.57 percent. The KemenPUPR, as the ministry with the most significant infrastructure development budget, recorded a physical realization rate of 93.66 percent and a budget absorption of 91.24 percent of the budget of Rp. 106.25 trillion allocated in 2017. The KemenPUPR received appreciation for the realization of above 90 percent and performance The Ministry of PUPR throughout 2017 has provided benefits in supporting socio-economic activities in Indonesia. However, despite getting an appreciation of the achievements in 2017, a qualified opinion in 2018 clearly shows a decline from the previous two-year performance. The decline has yet provided concern for improvement for the next KemenPUPR officer (BPK RI, 2018).

## Discussion

### *The Relationship between Transportation Infrastructure and Economic Growth*

According to Figure 2, in the period 2001-2018, GDP has always experienced positive growth. Although in 2010, there was a slowdown in growth, which caused a decline in GDP from IDR 6,428,634 billion to IDR 6,297,659 billion; after that, economic growth moved stably in the positive direction and again experienced an increase in the following year. This increase mainly occurred in terms of investment, marked by an improvement in the investment climate, the excellent progress of infrastructure projects, the strengthening of the IDR exchange rate against USD in early 2011. The increase in year on year GDP to 2018 was recorded at IDR 10,425,316 billion, indicating the consistency of the domestic economic recovery process. The continued economic recovery in 2018 comes mainly from more robust investment in line with accelerating infrastructure projects and strengthening the demand side.

This achievement is inseparable from various government policies, such as infrastructure packages contained in various regulations and an increase in the budget for fiscal stimulus in the infrastructure sector. This achievement also visualizes the government's enormous attention to catch up, especially in the development of infrastructure, transportation sub-sector. The government's exceptional attention to the infrastructure sub-sector is very appropriate, given that several study findings indicate the importance of quality transportation infrastructure that has an impact on improving the domestic economy. However, the problem of availability and maintenance becomes a further problem, which also contributes to the suboptimal role of the transportation infrastructure in increasing the competitiveness of the national economy. The condition is due to the weak role of state institutions, human resources, and the limited ability of government funding. At present, there are many institutions related to infrastructure management that make coordination difficult, while the quality of human resources is still not optimal. Meanwhile, related to financing, private



investment for infrastructure financing in the transportation sub-sector is currently far from investment needs (Bappenas, 2012).

Physical infrastructure, especially the road network as forming the national spatial structure, has a stable relationship with the economic growth of a region and the socio-cultural life of the people (Ma'ruf & Daud, 2015). The existence of road infrastructure has a very vital role in supporting the ongoing activities of other sectors and serves as the infrastructure for the movement of transporting raw materials for production, as well as the infrastructure for the distribution movement of the marketing of goods and services produced. Therefore, the development of transportation infrastructure continues to be a concern for the government. Since 2009 road transportation has received a stimulus program used for the rehabilitation of national roads, planning and technical supervision of roads and bridges, maintenance of provincial roads and bridges, improvement or construction of crossroads and bridges and non-cross roads, as well as the construction of regional roads at the border (Bappenas, 2012). Yet, the question is has the development of transportation infrastructure been able to encourage national economic growth?

The graph of Figure 3 showing the relationship between GDP and road length for 2011-2017 shows a unidirectional relationship (illustrating a positive trend). The inverse relationship only occurred in 2010. More specifically, the last seven years of data display the positive association between the increase of constructed road lengths and the increase of Indonesian GDP. However, road investment in Indonesia has not been able to stimulate economic growth directly. The passive economic growth is due to the low quality of human resources, as well as the continuing construction of new roads in various districts and cities without carrying out proper maintenance of old roads. So that the economic return from the investment of the new road is not significant because it coincides with high maintenance costs (Bappenas, 2012). These are two causes underlining the unsuccessful performance of the constructed road on economic growth. First, the length of the road is not the only significant determinant of the smooth running of the Indonesian economy. This is due to almost all large cities with high economic flows in Indonesia already have good quality road access so that they do not require additional road lengths. Secondly, the length of the road has a lag in a specific time to trigger economic growth in an area. That is, an increase in the length of the road does not necessarily improve the economy directly, but the benefits will be gained several years after the road has been completed (Kartiasih, 2019). This assumption supports the synthesis of Huang (2006), which shows that public spending, including investment in infrastructure, does not always lead to economic growth (Sahoo *et al.*, 2012).

In addition to land transportation investments, especially road length, sea transportation investments also make an important contribution to Indonesia's economic development. Although Indonesia is a maritime country consisting of tens of thousands of islands, the sea mode is not the dominant mode of representing movement in Indonesia. The economic and territorial disparities that occur cause the movement of passengers to rely heavily on the islands of Sumatra and Java. The road mode is still the primary mode of movement in and between the two islands, although there is a considerable distance between important cities on the two islands. The improvement of sea transportation infrastructure is also shown by improving the quality of Indonesia's port infrastructure. The Global Competitiveness Index of 2017-2018 shows improved quality of Indonesia's port infrastructure, jumping three spots from 72<sup>th</sup> to 75<sup>th</sup> from the earlier period. The report stated an increase from the score of 3.9 in the 2016-2017 period to 4.0 in 2017-2018.

A brief look at the management of the transportation sector in Indonesia shows that it is dominated by single operators who are state-owned enterprises, such as Jasa Marga, for the road operator and Pelabuhan Indonesia as the water operator. The limited funds and lack of private investment generates an impact on the lack of competitiveness in the management of Indonesia's transportation infrastructure. It is thus causing the number of subsidies that must be borne by the government. It further stated that the challenges of sea transportation currently consist of various sectors, namely the fields of regulation, facilities, and infrastructure, as well as the lack of competent human resources in terms of quantity and quality. The unpopular water transportation mode is indicated by the occupancy of the national shipping fleet as a mode of transportation in the country and abroad until now is still very low (Bappenas, 2012). This problem must be immediately evaluated considering the transportation system with a well-managed, and efficient sea transportation mode are a crucial factor for an archipelago like Indonesia in increasing economic competitiveness.

### *The Relationship between Governance and Transportation Infrastructure Investment and Economic Growth*

The concept of good governance was first proposed by the World Bank, UNDP, and the Asian Development Bank (ADB). It was later reconstructed by many experts in developing countries to realize the ideal idea of governance modeling. Specifically, the World Bank in 2002 defined governance as the ability of the state to provide institutions that support growth and poverty reduction (Pere, 2015). The practical concept of good governance reflects the mechanism for managing economic and social resources that involve the influence of the state and non-government sectors in a collective effort. This definition assumes many actors are involved where none is very dominant that determines the motion of other actors (Siregar, 2008). Meanwhile, referring to the World Bank report written by Kaufmann *et al.* (2005), six main pillars characterize good governance: (1) accountability and responsibility of government; (2) political stability and lack of violence; (3) governance efficiency; (4) legal framework; (5) law enforcement; and (6) control of corruption.

From a theoretical point of view, the better governance of a country will have a positive influence on infrastructure development and economic growth. Better governance will stimulate the investment climate in a country through improved performance. There is a direct influence of good governance practices on socio-economic interactions between citizens and government institutions. The success of the GGG implementation is determined by the involvement and synergy of three leading roles, namely the government apparatus, the community, and the private sector (Agus, 2011). The issue of institutional readiness is one of the central issues related to the successful implementation of a country's economic development. Included in the case of financing the transportation infrastructure investment budget by the government will significantly affect economic returns. In the macroeconomic concept, government spending on the purchase of goods and services is an injection to the economy that impacts economic growth. An injection of government expenditure, in this case, the development of infrastructure in a region, not only increases income in the area concerned but also influences the driving force to neighboring areas through increased imports (Siregar, 2008). Therefore, the role of government in making investment decisions must be based on strict cost-benefit calculations. In the 2020 State Revenue and Expenditure Plan (RAPBN), the government increased the infrastructure budget by 4.9 percent from

Rp. 399.7 trillion to Rp. 419.2 trillion. The target of road construction has increased significantly from 406 kilometers in 2019 to 837 kilometers. The budget is also allocated for the construction of a 6.9-kilometer bridge, 238.8 kilometers of railroad lines, and 49 dams, and three new airports.

The above illustration shows that infrastructure development is still a big challenge that must be overcome. The government continues to strive to boost infrastructure development, but many obstacles are encountered, ranging from funding to technical issues in the field. To respond to these weaknesses, the government will also work with the private sector, SOEs, and local governments for a long-term financing policy strategy, in addition to the APBN as a fiscal instrument. For example, through the Government-Business Entity (PPP) scheme, it is targeted to build 11 projects with a potential project value of Rp. 19.7 trillion in 2020 (Ulya, 2019). Accordingly, to optimize the success of transportation infrastructure development, it is necessary to set quantitative targets for the achievement of a program. So far, whether we realize it or not, we are often oriented towards input indicators such as budget allocation and absorption, and forget about the achievement (output) of the program. In ensuring the accurate expenditure spending, strict performance monitoring is needed highlighting the achievement of the targets of various pre-determined performance indicators and show the overall success rate of a program (Siregar, 2008).

Based on the Table 1, BPK's audit opinion, the quality of the government in transport infrastructure investment in Indonesia shows modest performance. However, there is still a need for improvement on several sides. Being able to maintain the unqualified opinion for four years in a row as well as the rapid response shown by the Ministry of Transportation and also the achievements of the Ministry of PUPR in the previous year emphasized the excellent quality of the government in the government institutional system. A good quality government will have a positive influence on a country's economic growth. This finding is in line with research by Crescenzi *et al.* (2016), which states that there is a positive and very significant relationship between infrastructure investment (secondary roads) and government quality. This finding shows that the presence of adequate government institutions mediates the positive rate of return from investment infrastructure. Furthermore, Beck & Laeven's (2006) research investigated the relationship between economic growth and institutional quality (proxied by Worldwide Governance Indicators) in 24 transition countries during the 1992-2004 period using panel regression. The study found a significant and positive relationship between economic growth and institutional development that supports the study results of Pay (2016).

GGG also plays a vital role in economic growth. Good governance has the potential to influence economic growth directly and indirectly. Besides, the economic environment and good governance have a significant impact on the decision-making process of economic actors (Acemoglu *et al.*, 2002). Based on relevant studies of good governance and economic growth, that some authors are very critical of this approach, their view that this correlation is only theoretical, and there is not enough evidence to support it (Kurtz & Shrank, 2007). According to the authors, the relationship between good governance and economic growth can become apparent only in developed countries, or it will be realized in a very long time. However, the Indonesian governance index shows a positive relationship with economic growth when viewed based on 2008, 2012, and 2014 performances, where the average Indonesian governance index reaches a moderate category (between 4.86-6.24) and Indonesia's GDP show positive growth. This finding rejects Kurtz & Shrank's view that the results show a positive correlation between good governance and economic growth can also occur in developing countries, including Indonesia.

Crescenzi *et al.* (2016) also concluded the importance of government quality as a moderating variable. The excellent quality government will provide a positive correlation between transportation investment and economic growth. On the contrary, as expressed by Crain & Oakley (1995) and Henisz (2000) with poor quality of government will trigger opportunities for corruption in the implementation of transportation infrastructure development, which results in low returns. ns responsible for governance (Kaufman *et al.*, 2009). There are also several theoretical and empirical studies dedicated to proving the relationship between good governance and economic growth. Hall & Jones (1999) find that good governance is one of the main factors, not only for the country's development of democracy but also a significant factor in economic development. On the other hand, Kaufmann's (2003) evaluation on the pace of economic development in several countries over a long period (1970 to the early 2000s), concluded that the slowdown in the rate of growth during 2002-2003 was not only related to the country's particular macroeconomic situation. It is also a result of stagnation or decline in some welfare standards, such as the quality of institutional structures, judicial independence, the level of corruption, and the ease of doing business.

#### *The Relationship between Government Quality and Transportation Infrastructure Investment and Economic Growth*

The success of the GGG implementation is determined by the involvement and synergy of three leading roles, namely the government apparatus, the community, and the private sector (Agus, 2011). The issue of institutional readiness is one of the central issues related to the successful implementation of a country's economic development. Included in the case of financing the transportation infrastructure investment budget by the government will significantly affect economic returns. In the macroeconomic concept, government spending on the purchase of goods and services is an injection to the economy that impacts economic growth. An injection of government expenditure, in this case, the development of infrastructure in a region, not only increases income in the area concerned but also influences the driving force to neighboring areas through increased imports (Siregar, 2008). Therefore, the role of government in making investment decisions must be based on strict cost-benefit calculations. In the 2020 State Revenue and Expenditure Plan (RAPBN), the government increased the infrastructure budget by 4.9 percent from Rp. 399.7 trillion to Rp. 419.2 trillion. The target of road construction has increased significantly from 406 kilometers in 2019 to 837 kilometers. The budget is also allocated for the construction of a 6.9-kilometer bridge, 238.8 kilometers of railroad lines, and 49 dams, and three new airports.

The above illustration shows that infrastructure development is still a big challenge that must be overcome. The government continues to strive to boost infrastructure development, but many obstacles are encountered, ranging from funding to technical issues in the field. To respond to these weaknesses, the government will also work with the private sector, SOEs, and local governments for a long-term financing policy strategy, in addition to the APBN as a fiscal instrument. For example, through the Government-Business Entity (PPP) scheme, it is targeted to build 11 projects with a potential project value of Rp 19.7 trillion in 2020 (Ulya, 2019). Accordingly, to optimize the success of transportation infrastructure development, it is necessary to set quantitative targets for the achievement of a program. So far, whether we realize it or not, we are often oriented towards input indicators such as budget allocation and absorption, and forget about the achievement (output) of the program. In ensuring the accurate expenditure spending, strict performance monitoring is

needed highlighting the achievement of the targets of various pre-determined performance indicators and show the overall success rate of a program (Siregar, 2008).

Based on the Table 1, BPK's audit opinion, the quality of the government in transport infrastructure investment in Indonesia shows modest performance. However, there is still a need for improvement on several sides. Being able to maintain the unqualified opinion for four years in a row as well as the rapid response shown by the Ministry of Transportation and also the achievements of the Ministry of PUPR in the previous year emphasized the excellent quality of the government in the government institutional system. A good quality government will have a positive influence on a country's economic growth. This finding is in line with research by Crescenzi *et al.* (2016), which states that there is a positive and very significant relationship between infrastructure investment (secondary roads) and government quality. This finding shows that the presence of adequate government institutions mediates the positive rate of return from investment infrastructure. Furthermore, Beck & Laeven's (2006) research investigated the relationship between economic growth and institutional quality (proxied by Worldwide Governance Indicators) in 24 transition countries during the 1992-2004 period using panel regression. The study found a significant and positive relationship between economic growth and institutional development that supports the study results of Pay (2016).

GGG also plays a vital role in economic growth. Good governance has the potential to influence economic growth directly and indirectly. Besides, the economic environment and good governance have a significant impact on the decision-making process of economic actors (Acemoglu *et al.*, 2002). Based on relevant studies of good governance and economic growth, that some authors are very critical of this approach, their view that this correlation is only theoretical, and there is not enough evidence to support it (Kurtz & Shrank, 2007). According to the authors, the relationship between good governance and economic growth can become apparent only in developed countries, or it will be realized in a very long time. However, the Indonesian governance index shows a positive relationship with economic growth when viewed based on 2008, 2012, and 2014 performances, where the average Indonesian governance index reaches a moderate category (between 4.86-6.24) and Indonesia's GDP show positive growth. This finding rejects Kurtz & Shrank's view that the results show a positive correlation between good governance and economic growth can also occur in developing countries, including Indonesia.

Crescenzi *et al.* (2016) also concluded the importance of government quality as a moderating variable. The excellent quality government will provide a positive correlation between transportation investment and economic growth. On the contrary, as expressed by Crain & Oakley (1995) and Henisz (2000) with poor quality of government will trigger opportunities for corruption in the implementation of transportation infrastructure development, which results in low returns.

## CONCLUSION

Although the availability of infrastructure in an area is critical, to be able to attract investors to invest their capital into national and regional strategic transportation infrastructure projects that have an impact on sustainable economic growth. However, the relationship between investment in transport infrastructure (proxied by the length of the road and the volume of loading and unloading of shipping goods) and economic growth in Indonesia, overall still shows a positive correlation. The increase in the length of the road does not necessarily improve the economy directly. Still, the benefits will be generated several years post the completion of the construction of the road.



Accordingly, the improper allocation of funds is also one of the lacking factors in transport infrastructure management to encourage economic growth. In fact, by continuing to build new roads in various districts and cities without carrying out decent maintenance of old roads, causing obstacles in generating economic returns from road investment. High investment costs for maintenance also accompany the new investment. This finding fits the study of Crescenzi et al. (2016), which revealed that investment in new infrastructure might take precedence over the maintenance of existing infrastructure. So it can be said that transportation infrastructure investment in Indonesia has not been able to encourage economic growth directly. The qualitative descriptive study in this paper also emphasizes the vital role of government institutions in creating the effectiveness of investment in transportation infrastructure, which ultimately has an impact on a country's economic growth.

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