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ASEAN PROSPERITY BLUEPRINT: EXPLORING THE NEXUS BETWEEN INFRASTRUCTURE AND ECONOMIC GROWTH

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Abstract
Infrastructure, encompassing various critical assets such as transportation networks, energy systems, and communication grids, plays a pivotal role in driving a nation's economic and social progress. This study underscores the profound importance of robust infrastructure as a catalyst for sustainable development. Insufficient investments in infrastructure not only hinder a country's overall welfare but also impede its ability to foster lasting economic and social advancements.
The advantages of infrastructure support extend far and wide, encompassing:
Enhancing labor and capital productivity, thereby reducing production costs, increasing profits, boosting production levels, expanding employment opportunities, and augmenting people's incomes.
Contributing significantly to the attainment of sustainable development goals.
Promoting equitable development by tailoring infrastructure projects to meet the specific needs of each region.
Attracting fresh investments to bolster economic growth.
Enhancing connectivity among a nation's residents and breaking the isolation of disadvantaged communities.
Facilitating the seamless flow of ideas, goods, and services, adding value to economic and social activities.
Optimizing resource allocation by improving access to labor, raw materials, and diversifying opportunities.
This study underscores the multifaceted benefits of a well-developed infrastructure network in nurturing economic growth and fostering social well-being.

Keywords: Infrastructure, economic development, sustainable development, productivity, connectivity.

Introduction

The term infrastructure is related to various capital goods such as roads, seaports, airports, energy, irrigation, financial systems, communications networks, special economic zones (SEZ[4]), and so forth. The availability of adequate infrastructure is a key to successfully accelerating the development of a country, both economically and socialy. Failure in good infrastructure investments signifies failure in maintaining and improving the social and economic welfare of a nation in a sustainable manner.

The benefits of infrastructure support to economic and social development include the following:

1. Increasing the productivity of labor and capital thus lowering the production costs, increasing operating profit, increasing the amount of production, increasing the employment, and increasing the people's incomes;
2. To **produce** significant implications **in** the achievement of sustainable development goals;
3. To accelerate equitable development through the infrastructure development which is adjusted to the needs of each region;
4. To encourage new investments;
5. To improve the connectivity between residents of a country and to open the disadvantaged comunities' isolation;
6. To facilitate the flow of ideas, goods, and services to give added values in economic and social activities;
7. To enhance the efficiency in resources allocation because the right infrastructure will facilitate better access to labor and raw materials as well as to provide opportunities for alternative activities.

Inavailability of adequate infrastructure will bring forth series of adverse effects including the following:

1. Impede a nation's economic growth and international competitiveness (Delmon, 2006);
2. Lead to lower quality of life and increase the danger of disease and death (Willoughby, 2004);
3. The hardships in eradicating poverty;
4. Increase the public discontent against the government because of the many unmet needs which could threaten the existence of a state.

Based on the above, it requires serious efforts to improve the availability of adequate infrastructure in terms of quantity, quality, and accessibility. However, infrastructure development is relatively costly, can't be done instantly, and most of the time does not directly benefit right after it is completed. These factors often spawn disincentives for a country to invest in its infrastructures. These disincentives are often compounded by several factors including: (1) the lack of political decision makers' will to build adequate infrastructure; (2) the imperishable corruptions which make the development of infrastructures more expensive; and (3) the lack of synergy between the built infrastructures with pre-existing ones. Therefore, the purpose of this study was to determine the factors that affect the economic growth in the ASEAN region, especially in terms of infrastructure.

Developing countries (Middle Income Low Countries) require significant infrastructure development, both in its capacity and its quality. It has become the major prerequisite for optimizing the utilization of natural and human resources in order to increase a nation's revenue and also accelerate the achievement of the common welfare. However, infrastructure development has been facing many problems. These problems have been obstructing the usage of a nation's abundant natural resources and large population utilization in providing a much greater results than those currently obtained.

Several previous studies have been done on infrastructure, including Kessides (1993) who mentioned that there are several benefits of adequate infrastructure to the economy, including: (1) reducing the cost of production, (2) expanding the employment opportunities and consumptions due to the opening

of the isolated areas, and (3) maintaining macroeconomic stability through infrastructure investment that can absorb a large amount of labor and increase the consumers' purchasing power.

Bhattacharyay (2008) identified the important role of infrastructure in the socio-economic development and the economic integration. First, the basic infrastructures encourage economic changes in various sectors both locally and internationally.

This is due to infrastructure development provides greater access to inputs which can be used in economic growth such as natural resources, technology, and knowledge. In addition, infrastructure development improves the environment and the socio-economic conditions through the provision of needs such as roads, water, sanitation, hospitals, clinics, schools, and telephone networks. Infrastructure development can also improve physical connectivity both domestically and internationally, facilitating the access for goods and services. Appart from those, there is one of the main reason why infrastructure development needs to be increased in the ASEAN region.

Second, the infrastructure has an important role in improving and maintaining the economic growth. Economic growth in ASEAN region is expected to decline due to the global crisis.

The decline in economic growth could have an impact on infrastructure investment at a time when it is needed. Currently, accelerating infrastructure development will be very important not only to address the current shortage, but also to reduce the impact of the global financial and economic crisis on economic growth in the region.

Third, the infrastructure development is needed to accelerate the economic integration in the region, particularly in trade and investment. ASEAN countries have unanimously pledged to defend the principles of open market, and it cannot be reversed. The ASEAN regional cooperation and integration pattern has shown that integration has been widely encouraged the market. Large trading flows and FDI have been driven by infrastructure and foreign-oriented policies, as well as other factors such as financial integration and the establishment of production networks and supply chains with global multi-national companies (MNCs) and Asian companies.

The results of previous studies about the effect of public expenditure on the economic development said that public expenditure has been able to effectively and efficiently improve the economic development. This conclusion is the result of studies by Highum (2006), Kotakorpi and Laamanen (2007), Guisan and Exposito (2010), Hessami (2010), Kim (2011), and Kiya (2012). On the other hand, other researches concluded that public spending hasn't been able to effectively and efficiently improve the public's welfare and development. This conclusion is consistent with studies conducted by Scully (2001), Bjornskov (2005), Eiji (2009), and Kim (2011).

The researchers who concluded a positive relationship between public spending with the economic development mentioned that the public expenditure sectors which were considered to have a major role in a nation's development because of their ability to encourage the public's welfare are education sector, health sector, and infrastructure sector. Public expenditures which allocated to these three sectors can actually be divided into two groups based on their targets. The first group is a group of expenditures which directly contribute to the development Human Resources (HR). This target can be realized through the education sector and health sectors' expenditures because both sectors are closely

correlated to human's basic needs. The second one is a group of expenditures which can increase the economic capacity and maintain the sustainable economic growth. The only way to realize these targets is by improving the infrastructure sector for all economic activity requires adequate infrastructure. This is in accordance with the Kessides (1993) who stated that the infrastructure development can benefit the economy, both micro and macro.

Infrastructure is a mandatory requirement for any development because the correct public expenditures spent through a wide range of appropriate infrastructure is expected to increase the capacity of an economy by providing multiplier effects. By using the proper facilities, all public economic activities, such as the construction of roads and bridges, can be efficiently integrated such as the construction of roads and bridges. Besides, the infrastructure development can encourage the emergence of centers of new central busines districts as industried and markets. Thus, shorter distance between economic actors and economic activity centers will reduce economic costs.

Infrastructure is not less important than education and health because infrastructure is a (physical) supporting mean which needed so the economic development of a nation can be realized. The infrastructure consists of several sub-sectors, some of which like housing and transportation are quite dominant in the economic development. Infrastructure also shows how vast the development distributed. A nation with high economic growth would be able to distribute the development and then develop the infrastructure in all parts of its territory.

An integrated economy requires infrastructure development. Explained in a scientific study conducted by Friawan (2008), there are at least three main reasons why infrastructure development is critical in an economic integration.

First, the availability of good infrastructure is the main engine that promotes the economic growth. As stated in a World Bank study (2004), the low rate of economic growth in years after the 1998 economic crisis was influenced by factors such as the low levels of investment. The lack of developed infrastructure is one of the main obstacles in improving the investment climate in Indonesia. Second, to fully obtain the benefits of integration, the availability of the infrastructure network is very important in facilitating trade and investment activities. The decline in tarrifs provided by an economic integration alone can not guarantee that it will increase trade and investment activities in the absence of adequate infrastructure support. Third, attention to infrastructure improvements is also important to address the economic development gap among countries in Asia and also to accelerate the integration of Asian economies.

Infrastructure problems are associated with its financing by the government which is often inadequate so it requires additional investments from the private sector. The government is expected to be able to design a certain mechanism to determine the investment risk and develop a methodology that can be easily applied. At the same time, considering the time length in private sector investment mobilization, the government is expected to continuesly give attention to the increase in public investment so the infrastructure needs can be met, one of them is by increasing the government spending on infrastructure. But if the government spending alone is not enough, then it is necessary for private parties to take parts in it. The role of the government in increasing the private sectors' attention are by

helping them in land concession, operating and capital subsidies, and business risk assurance. Increasing government spending on infrastructure must also be followed by the effectiveness and efficiency of such spending. So it is necessary to monitor the influence of infrastructures such as seaports, airports and telephone access to economic growth. By knowing the influence of every kind of infrastructure, the government can make investment priorities to in infrastructure.

Types of infrastructure which are discussed in this study are both domestic and international scaled seaports and airports and the conditions communication means and infrastructures (the number of phone total users). Seaport is a type of infrastructure that contributes greatly to export-import activities. The seaports conditions in Indonesia and some other ASEAN countries can be seen in Table 1. In 2012, Indonesia had the largest quantity of seaports which comprised of 2,187 domestic ports and 141 international ports (see Table 1).

In terms of the number of ports, Indonesia only requires a few extra seaports for its outer islands. The basic problem is actually the lack in container terminals' number and width as well as the length of the main ports which culminated in slow goods mobilization and increase the transportation costs.

Table 1: Seaports Number Growth in ASEAN countries and Japan

Country/ Year	2004	2005	2006	2007	2008	2009	2010	2011	2012
Domestic									
Brunei	1	1	1	1	1	1	1	1	1
Cambodia	7	7	7	7	7	7	7	5	5
Indonesia	1,645	1,667	1,886	1,887	1,895	1,906	2,187	2,187	2,187
LaoPDR	23	23	24	25	27	27	27	27	27
Malaysia				5	14	14	14	13	13
Myanmar	9	9	9	9	9	9	9	9	9
Philippines	416	413	413	413	413	413	82	180	211
Singapore	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thailand	317	285	235	322	235	212	215	216	242
Vietnam	NA	NA	NA	NA	NA	NA	NA	NA	NA
Japan	951	951	942	936	936	936	936	935	933
International									
Brunei	1	1	1	1	1	1	1	1	1
Cambodia	2	2	2	2	2	2	2	3	3
Indonesia	141	141	141	141	141	141	141	141	141
LaoPDR	1	1	1	1	1	1	1	1	1
Malaysia	9	9	9	10	10	10	10	15	15
Myanmar	9	9	9	9	9	9	9	9	9
Philippines	13	13	13	13	13	13	22	35	38
Singapore	2	2	2	2	2	2	2	2	2
Thailand	6	6	6	7	7	7	7	7	7

Vietnam	NA	NA	NA	150	166	242	250	329	240
Japan	128	128	128	128	128	126	126	126	125

Source: ASEAN-Japan Transport Partnership, www.ajtpweb.org/statistics

The piers' condition is not yet appropriate to meet the **users'** needs and the quality of their support facilities is very low in most seaports in Indonesia. Not only they increase the transportion cost but also encourage local fishermaen to illegally sell their fisheries foreigneer fishermen which take place in the sea, resulting in losses for the state. Therefore, the piers' length, container terminals/ports and other seaports' supporting facilities should be the focus of attention in the marine infrastructure development.

In addition to seaports' quantity/number, their quality is also another important factor in influencing export-import activities that will ultimately affect the economic growth. One of the indicators used to see a seaport's quality is the value of LSCI (Liner Shipping Connectivity Index). LSCI describes the connectivity of a seaport based on the following five marine transportation components: the number of ships, the container-carrying capacity, the vessel's maximum size, the number of services, and the number of container shipping companies. 2004 data is used as a reference, in which, the value of each component is divided by the highest value (China) and averaged. Since 2004, Indonesia LSCI value had not changed much, while several other countries, including most ASEAN countries have increased, resulting in Indonesian declining rank in the last 3 years (Table 2).

Table 2: Linier Shipping Connectivity Index (LSCI) Rank

Year	**2010**		**2011**		**2012**		**2013**	
Country	**Rank**	**LSCI**	**Rank**	**LSCI**	**Rank**	**LSCI**	**Rank**	**LSCI**
Cina	1	143.57	1	152.06	1	156.19	1	157.51
Malaysia	3	103.76	3	105.02	3	113.16	3	106.91
Singapura	9	83.80	10	81.63	6	91.70	6	92.80
Thailand	29	36.10	25	39.40	20	53.15	20	52.13
Vietnam	21	43.76	28	36.70	36	37.66	35	38.32
Indonesia	64	16.20	67	17.12	69	16.02	71	16.39
Philipina	90	8.68	94	8.41	96	8.23	95	8.30
Myanmar	100	7.58	119	4.75	120	5.08	124	5.12
Kamboja	136	3.77	130	4.08	124	4.55	125	4.93

Source: WDI, 2014

As well as sea ports, Indonesia has the highest number of airports in ASEAN of 262 units in 2011. This number is comprised of 233 units serving domestic flights only and the other 29 units act as international airports (see Table 3). In terms of quantity, Indonesia does not require many additional airports. What Indonesian aviary needs arelonger runways and and bigger terminal capacity to enable wide-bodied aircrafts landing at potential airports. Although Indonesia has a laarge number of airports,

most of them have a low utilization rate. This is due to the small number of aircrafts that serve small areas.

Table 3. Airport Growth in ASEAN Countries and Japan

Country/Year	2004	2005	2006	2007	2008	2009	2010	2011	2012
Domestic									
Brunei	0	0	0	0	0	0	0	0	0
Cambodia	6	6	6	6	6	5	5	5	5
Indonesia	160	160	160	160	161	161	204	211	216
LaoPDR	8	8	9	9	9	9	9	9	9
Malaysia	15	15	15	15	15	15	15	16	22
Myanmar	57	58	60	60	60	30	30	30	30
Philippines	77	77	77	76	75	76	76	76	75
Singapore	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thailand	29	29	29	29	29	29	29	29	29
Vietnam	15	15	15	15	16	14	14	14	12
Japan	72	72	73	75	75	74	74	71	68
International									
Brunei	1	1	1	1	1	1	1	1	1
Cambodia	2	2	2	2	2	3	3	3	3
Indonesia	27	27	27	27	27	27	29	29	29
LaoPDR	3	3	3	3	3	4	4	4	4
Malaysia	5	5	5	5	6	6	6	6	6
Myanmar	2	2	2	2	2	2	2	2	2
Philippines	8	8	8	9	10	9	9	9	10
Singapore	2	2	2	2	2	2	2	2	2
Thailand	5	5	6	6	6	6	6	6	6
Vietnam	3	3	3	3	3	6	6	6	9
Japan	25	25	25	25	25	26	26	29	29

Source: ASEAN-Japan Transport Partnership, www.ajtpweb.org/statistics

I. Research Methodology

This study used various ASEAN member countries' data such as Indonesia, the Philippines, Singapore, Thailand, Vietnam and Malaysia in the 2005-2012 periods. Other countries such as Brunei, Laos, Myanmar, and Cambodia were not analyzed because of the limitations of existing data. The variables used to determine the effect of infrastructure on the economic growth can be seen in equation 1, ie:

$lngdp_{i,t} = a_i + btelepon_{i,t} + cdom\_port_{i,t} + dlsci_{i,t} + edom\_airport_{i,t} + fintl\_port_{i,t} + eror$

Where:

$Telepon_{i,t}$: The number of people who subscribe to phone services, including postpaid and prepaid (per

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1000 persons)
dom_port $_{i,t}$:The number of domestic seaports lsci $_{i,t}$: The quality of international ports' conectivity
dom_airport $_{i,t}$: The number of domestic airports
intl_port $_{i,t}$: The number of international seaports

The analysis was conducted using panel data in accordance to the research model in equation 1. As for the trade and GDP variables were made in the form of the natural logarithm (log). The number of international airports and their quality were not included in this research model because most of the export-import activities conducted on seaports. The author had tried to incorporate these two variables and the result showed that the two variables do not significantly affect economic growth.

To answer the purpose of this study, the author conducted an analysis using panel data from nine ASEAN countries, namely Indonesia, Malaysia, Thailand, Singapore, Cambodia, Myanmar, the Philippines, Vietnam, and Laos during the period 2005-2012[1]. This research model would initially be tested in advance to know which model to choose among poled OLS, *fixed effect* and *random effect*. To test the model's suitability or appropriateness of the three methods on their model estimation technique with the panel data, the author used F test (Chow Test), the LM test and Hausman test. F-test (Chow Test) is used to test the suitability of the model between the model which obtained from pooled OLS method with the model which derived from the fixed effect method. Then, the Hausman test was done on the best model which obtained from the *fixed effect* and the model obtained from the *random effect* method. Meanwhile, the LM Test is used to test the *random effect* method and *pooled least squares*. Generally, the panel data models estimation testing requires a strategy. The strategies which could be done were to examine: RE vs. FE (Hausman Test) and PLS vs. FE (Chow Test).

II. Results and Discussion

The determination on which model would be best must be preceded by the models' testings.

The results in Table 4 showed that the chosen best model to analyze the influence of infrastructure on economic growth in ASEAN countries was the *fixed effect* method. The result from the fixed effect method had met the BLUE assumptions. The analysis result showed that the infrastructures that significantly affect the economic growth are the number of people who use the phone service, the number of domestic airports, the number of international seaports and the seaports' LSCI. Meanwhile, the domestic seaports variable did not significantly affect the economic growth of analyzed ASEAN countries.

Table 4: The Results of Chow Test and Hausman Test

Test	Hypothesis	Chi-square Prob.	Conclusion
Chow Test	PLS vs FE	0.0000	Choose *Fixed Effect*
Hausman Test	RE vs FE	0.0000	Choose *Fixed Effect*

[1] Bukannya 2001-2013?

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The analysis results showed the order of infrastructure types based on their influence on the economic growth. The order from the largest to the smallest is as follow: the number of people who use the telephone network, the large number of international seaports, the number of domestic ports, and the ports' connectivity (LSCI) (Table 5). This order can be seen from the magnitude of each variable's coefficient. For example, the coefficient for the variable number of international seaports is 0.2 meaning that each increase of 1 percent of the total number of international sea port will boost economic growth by 0.2 percent. The model's feasibility indicated that the used model is well with the R-squared value of 0.98, which means 98 percent of the the dependent variables (economic growth) diversity can be explained by the independent variables while the remaining 2 percent is explained by other variables which weren't analyzed by the model.

Table 5. The Effect of Infrastructure on the Economic Growth in ASEAN

Variable	***Coeffic ient***	***Std. Error***	***t-Statistic***	***Prob.***
TELEPON	0.445057	0.037835	11.76298	0.0000*
DOM_AIRPORT	0.172975	0.061974	2.791065	0.0085*
DOM_PORT	-0.004379	0.021033	-0.208193	0.8363
INTL_PORT	0.205071	0.027537	7.447059	0.0000*
LSCI	0.114121	0.060825	1.876233	0.0690***
C	0.634787	0.154331	4.113139	0.0002*
R-squared	**0.989240**			

Note : *) Significant at the 1% significance level
***) Significant at the 10% significance level

The increasing amount of infrastructure such as international seaports and domestic airports may increase the economic growth. For Indonesia, 95 percent of export-import activities conducted through sea transports and only about 5 percent of the use of air transport (Table 6). In other words, the sea port infrastructure improvements would increase Indonesia's exports and its economic growth.

Table 6. Indonesian Share of Export Value via Seaports to Total Export[2]

Year	**Export Value via Seaports (Billion US$)**	**Total Export Value (Billion US$)**	**The Share of Export Value via Seaports**	**The Share of Export Value via Airports**
2003	57.89	61.06	94.81	5.19
2004	67.91	71.64	94.78	5.22
2005	82.05	85.86	95.56	4.44
2006	96.15	101.02	95.18	4.82

[2] The Value Share of Export via Seaports to Total Export

2007	108.93	114.10	95.47	4.53
2009	111.37	116.51	95.59	4.41
2010	151.30	157.78	95.89	4.11
2011	195.07	203.50	95.86	4.14

Source: BPS, 2014 (processed data)

As to why domestic sea port variables did not significantly affect the economic growth could be caused by the effect that brought by inter-island export-import activities to the economic growth wasn't as big as the effect that brought by the export-import activities between countries. Another possible cause is the lack of a nation's inter-island export-import activities' recording so the inter-island export-import activities' value and quantity can not be credibly known. Appart from that, the fact that only Indonesia, as ASEAN's only archipelago nation, which has and uses domestic seaports makes domestic seaports variable has only a small effect to ASEAN's economic growth.

As explained earlier, LSCI shows how the fleet's conditions, the number of shipping companies and the number of seaports' services. This importance makes it an undeniable variable that can affect the exportimport activities of a country. Countries which have many domestic vessels with large capacity that can be used to export goods can have them as sources of their foreign exchange.

If the exported commodities use domestic vessels, their transport costs would be included in the nation's foreign exchange. As for domestic shipping, the entire inter-island import-export activities are done by national-flaged vessels (cabotage principle)[3].

Indonesia is the second ASEAN country after Malaysia's which carry out the cabotage policy in its domestic sea transportation sector. There is a tendency that some Southeast Asian countries will implement cabotage principle based policies such as Vietnam, the Philippine and Thailand. Geographically, Southeast Asia is a region dominated by oceans. Out of all 11 ASEAN countries, only Laos that does not have any direct offshore border. This tendency clarified the strategic presence of having qualified fleets in Southeast Asia. Asean Economic Community that will start next year has three main pillars, one of which is "For making ASEAN as a single market and production base". This pillar concludes free flows of goods and services, labor, capital, and many more. ASEAN itself turns into an economic zone, covering 600 million people, which can be a nation's shipping industry opportunities or even threats.

Adopting cabotage principle is done to improve the quality of built infrastructure and to promote transparency in the procurement process as well as its development. Indonesian government positively responded the Maritime Silk Road that iniciated by China to ASEAN. Moreover, this idea of collaborative strengthening, which is inspired by the maritime silk trade route, was relevant to one of Joko Widodo's, Indonesian elected president, missions to develop Indonesian national maritime sector.

[3] Cabotage principle is the provision enforcing domestic cargo to be transported by national-flaged vessels of a country. This principle applies to liquid type vessels and offshore activities supporting vessels in 2010 and 2011. In Indonesia, there are up to 13 transported commodities, namely rice, timber, fertilizers, general cargo, cement, sugar, CPO, fresh vegetables and fruits and other fresh products, chemicals, corn, soybean, oil, and coal.

The realization of the Chinese proposal is in the form of multinational cooperation in the field of maritime connectivity. Nowadays' infrastructure strengthening makes too much orientation in the field of landline connectivity, resulting better reach for more on-land ASEAN countries.

Indonesia has two areas that can be potentially connected with the Maritime Silk Road concept. The first one is the Strait of Malacca which since 2000 has been the destination port for Chinese silk trade. Including in it are Riau, Dumai, Belawan, Aceh, and Pontianak. The other option is through the eastern Indonesia regions path, such as Balikpapan, Samarinda, and Bitung. These two ALKI (Indonesian archipelago cross path or *alur lintas kepulauan Indonesia*) are Indonesian optionsto enter the maritime connectivity system.

Promoting maritime connectivity trade with China can also Indonesian trade with China. Moreover, the East Asian economies are still growing relatively higher than the global average, which is 5-6 percents, making East Asia countries potential markets for Indonesia and other ASEAN countries.

Thus, the ASEAN-China Free Trade Agreement (ACFTA) was implemented with its main objective to strengthen economic cooperation with ASEAN, including financial aspects and infrastructure partnership projects. Since it was realized, ASEAN trade has tripled. Meanwhile, China-ASEAN bilateral trade rose 20fold.

The connectivity development, which plays as an important pillar in supporting the ASEAN economy toward its integration in 2015, needs to be intensified, especially in the maritime sector since most of the areas in the region are archipelagos. Maritime connectivity is essential in connecting every access in ASEAN countries to promote the trade calue and attract investment. Most or about 80 percent of the Southeast Asian region is a maritime region. ASEAN can imitate China where provisioning adequate infrastructure could support China's economy turning it into the world's second strongest economy.

ASEAN countries agreed to continue to keep improving theier connectivity in order to support the economic integration of the region with a market of 600 million people. Meanwhile, China has several times demonstrated its seriousness to build cooperation with ASEAN. One of them was when Yunnan Province, China, some time ago, rapidly settled the railway line which connects the capital of Yunnan province, Kunming, with Singapore (SKRL).

ASEAN member countries and China named of the last ten years "The Golden Decade". For the next ten years, they have agreed to name it "The Diamond Decade", aiming to implement a broader economic integration in this period. Supported by low wages, available skilled manufacturing workforce, strategic location, and a domestic market of 90 million people, Vietnam has attracted foreign direct investment (FDI) from major corporations such as Intel, Nokia, and Samsung, and becomes a more attractive **investment** destination than other common favorite destinations such as China and Indonesia.

Along with Vietnam, other ASEAN countries such as Thailand, Malaysia, and the Philippines also provide incentives to attract manufacturing businesses to move from China. As a result, many companies were turning to ASEAN, especially Vietnam which currently has the highest economic growth in the world exportation. Foreign businesses complemented Vietnam with better geographic location than other Southeast Asian countries. Its eastern coast facilitates products' shipment to the

US, Japan, and Korea. Furthermore, its border with China making the current supply chain easier to be maintained.

The low wage rates are still the main attraction for manufacturers. Vietnamese factory workers are among the lowest paid in the region, championed only by Myanmar, Laos, and Cambodia workers. Whether Vietnam able to maintain its rapid growth or not will depend on the country's ability to create jobs that require high-value products manufacturing process and expertise. Vietnam's invest in education, infrastructure, and research will produce good growth in the future. Otherwise, this country could only attract FDI until neighboring countries eventually manage to compete with Vietnam in terms of cost and value.

ASEAN and India also agreed to discuss the connectivity and maritime cooperation issues as their new priorities in future ASEAN-India partnership cooperation. The agreement was reached in the 16th meeting of the India-ASEAN Senior Officials' Meeting (SOM) in Brunei Darussalam. The locations of the two regions which are connected by the Indian Ocean and the Pacific as well as the importance of implementating ASEAN connectivity in wider regions, including connectivity land, maritime, and aerial; are two important considerations underlying the priorities determination on the ASEAN-India partnership's upcoming cooperation directions. Some of the ASEAN-India partnership prioritzed issues are need to be further strengthened. Some of those issues are economic cooperation, connectivity, maritime cooperation as well as energy and food security. ASEAN-India partnership cooperative Action Plan for the years 20162021 will be equipped with several new priorities issues as well as solid and specific work program to produce tangible benefits for ASEAN and India communities. ASEAN-India partnership coooperations in the 2015 ASEAN Community's three pillars have had some progress, especially after their partnership was strategivally escalated in 2012.

In the political and security pillar, ASEAN-India cooperations were done among others, through the mechanisms of the ASEAN Plus One, East Asia Summit (EAS), Expanded ASEAN Maritime Forum (EAMF), the ASEAN Defense Ministerial Meeting (ADMM) Plus, and the ASEAN Regional Forum (ARF). In the economic pillar, significant developments are seen smong others in the cooperation in trade, investment, tourism, agriculture and SMEs. Economic cooperations are also focused on the completion of the Regional Comprehensive Economic Partnership (RCEP) and the Free Trade Agreement (FTA) which considered could create win-win solutions for the ASEAN-India partnership.

III. Conclusion

The analysis results showed that the infrastructures that significantly affect ASEAN countries' economic growth of ASEAN countries are the number of people who use the telephone network, the number of international seaports, the number of domestic airports, and ports connectivity (LSCI). On the other hand, domestic seaports variable did not significantly affect the analyzed ASEAN countries' economic growth. Increasing the number of infrastructures such as international seaports and domestic airports may increase the ASEAN countries' economic growth. For Indonesia, 95 percent of export-import activities are conducted through sea transport, leaving only about 5 percent of them conducted through air transport. In other words, the seaports infrastructure improvements can increase trading activity, which can eventually boost the economic growth.

The fact that number of domestic seaports variable did not significantly affect the economic growth could be caused by its role in inter-island export-import activities was not as big as the role of the ones done between countries. Inter-island export-import activities in a country are often not recorded so its value and quantity cannot be credibly known with certainty. In addition, Indonesia is the only ASEAN country which has and uses domestic since it's an archipelagic nation.

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