Traffic of Goods and Services: Critical and Strategic Review for Increasing the Human Development Index (HDI)

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Abstract. Departing from the issue of high number of the entry and exit of goods and services, and the low number of Human Development Index (HDI), this study aims at investigating and to determine the supporting and inhibiting factors in road handling, the effectiveness of the entry and exit of goods and services, and their contribution to increasing HDI. This study uses a qualitative approach with the research descriptive format. The informants in this study are the actors and stakeholders in the road management and the increase of HDI which are determined purposively. The technique used to collect the data is Focus Group Discussions (FGD) and assisted by data collection techniques for interviews, observations, and documentation. The findings in this study are: road handling is already adequately running, the condition of the road is quite good, and the traffic of goods and services runs smoothly. However, these three are not strong enough in contributing to increasing HDI. It is due to the goods, that are entering, are originating from the outside the region or imported goods. Subsequently, the goods are distributed to the outside area. In other words, they only act as a place for transit.

Keywords: Goods and Services, HDI.

1 Introduction

Every human being is motivated to meet his needs, both goods and services. Goods and services needed are very likely not available in the city where they live and must be imported from other cities or countries. Likewise, if goods and services are abundant, they must be distributed to other areas that need them. One of the terrestrial infrastructures needed in facilitating the traffic of goods and services is a road. In other words, roads are an important part of the traffic of goods and services. The existence of roads is an important part of human development which includes the fields of health, education, and economy or people's purchasing power. With adequate roads, health workers and patients will easily go to the hospital or *puskesmas* to provide immediate medical treatment. Teachers and students will also be facilitated to go to school so that the learning and teaching process can be conducted. Likewise, the sellers or traders and buyers will easily reach the market for buying and selling transactions.

The adequate roads will support the achievement of high HDI (Human Development Index). The HDI indicators cover the fields of health, education, and people's purchasing power of basic needs.Road handling requires the involvement of various parties, both between

the governments and between the government and society. HDI is an indicator to measure the success of the human life quality development of an area/country. In Indonesia, the HDI is a measure of government performance and is also used as an instrument to determine the amount of General Allocation Fund.

A good transportation network will have an impact on increasing economic activity in a region. The construction, maintenance, and improvement of road infrastructure have become a priority program along with the increasing population and vehicles. Following the Decree of Minister of Public Works No. 630/KPTS/M/2009, national roads in Indonesia are 38,569.82 km. The importance of the role of the aforementioned road makes the Directorate General of Highways, in particular, the National Road and Bridge Planning and Monitoring Unit (P2JN) in each province survey road conditions twice a year and other road data once a year. During the second semester survey in 2014, it was found that 23,913.60 km (62%) of national roads were in good condition; 12,320.97 km (31.94%) were in moderate condition; 1,204.36 km (3,12%) were slightly damaged; and 1,130.90 km (2,93%) are severely damaged. More details can be seen in Graph 1.

Graph 1. National Road Conditions
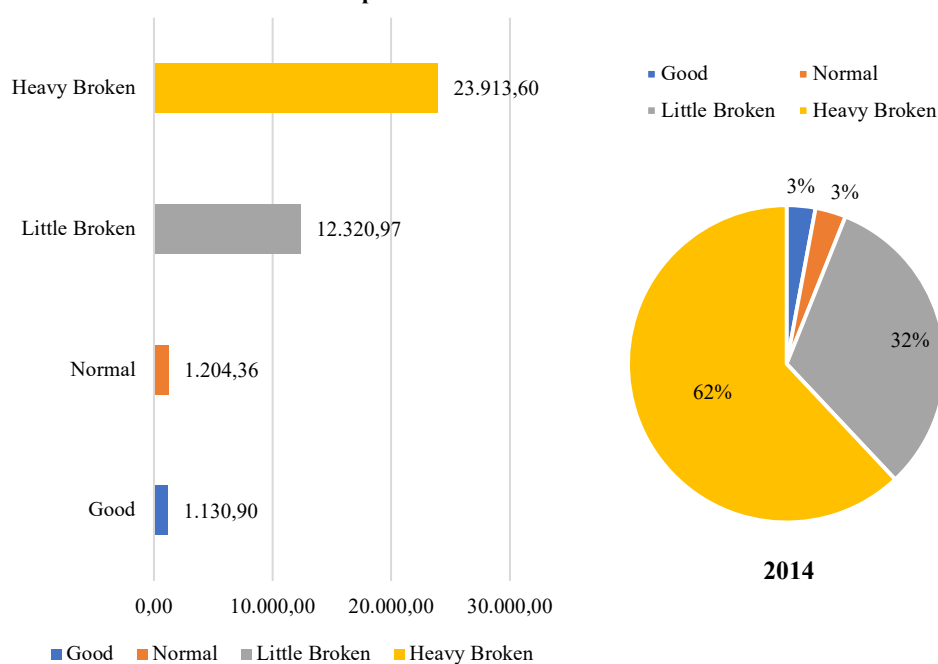
Source: Ministry of Public Works and Housing Directorate General of Highways, 2015.

The condition of national roads in Indonesia, both with minor or severe damage is possibly caused by the imbalance between population and the number of motor vehicles with the area. This condition can be seen in Graph 1.

The high number of population and the number of motor vehicles in Java has the potential to cause damage to the road section network in the three provinces in Java, this can be seen in Graph 2.

Graph 2. Road Damage in Java
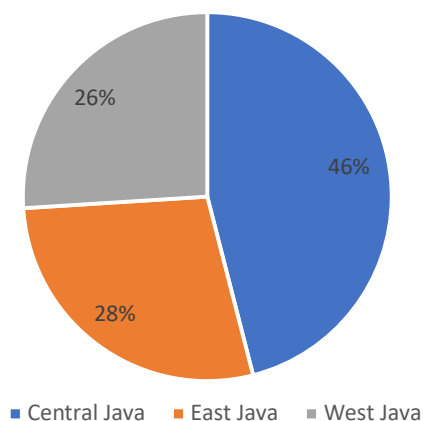
Source: Ministry of Public Works and Housing, 2016.

Based on Graph 2, it can be stated that the worst condition of road damage in Java is in Central Java Province with 40.61 km (46%) of damaged road, followed by West Java Province with 25,28 km (28%) of damaged road, and the least damage is in East Java Province with only 22.64 km (26%) of damaged road. Understandably, Central Java has the worst road condition since the vehicles from and to East and West Java must go through Central Java.

The high level of road damage that occurred in Central Java Province, especially in the North Coast Java Road (*Jalur Pantura*) through Tegal, Pemalang, and Pekalongan can be seen in Graph 3.

Graph 3. Road Conditions in Pemalang Regency, Tegal City, and Pekalongan City
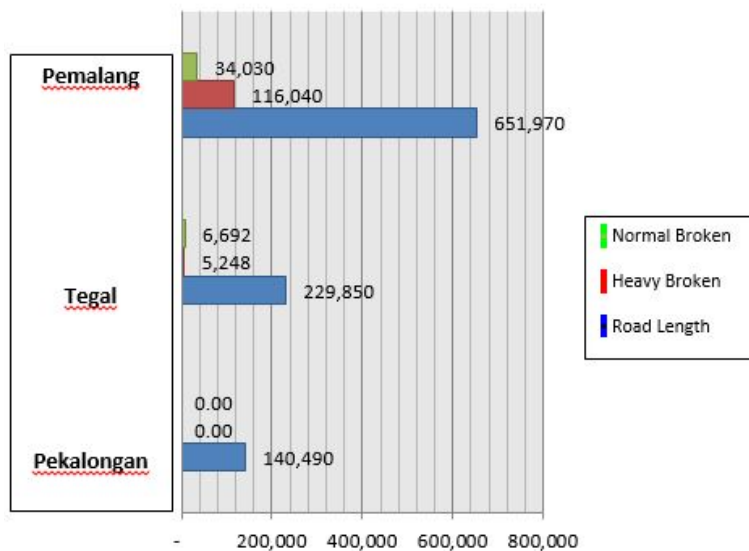
Source: Pemalang Regency, Tegal City, and Pekalongan City in Number (processed), 2016.

The road network in the North Coast Java Road through Pemalang Regency, Tegal City, and Pekalongan City has been heavily damaged.Pemalang Regency had the most road damage among the three regencies/cities, followed by Tegal City, and the least damage was in Pekalongan City.

The road section network in Pemalang Regency currently has a length of 790,490 km, with a status of Severely Damaged of up to 116,040 km and 34,030 km is moderately damaged. The number of damage to the existing road section network in Pemalang Regency is caused by the projects of toll road construction where the road is often traversed by dump trucks causing the road to be severely damaged.

Based on Graph 3, it can be seen that Pemalang Regency has the worst road section network condition, however, the efforts of the Government in handling damaged roads are running following the available budget.

Based on the background description which explains the importance of the distribution of goods and services in fulfilling the human needs, the importance of the road section network existence to facilitate the distribution of goods and services, and the existence of damaged roads in Pemalang Regency, this study aims to determine the distribution of goods and services traffic in improving HDI.

2 Research Method

A qualitative method was employed in this research. The data of qualitative research are in a natural setting without being converted to symbols or numbers. Whereas, research means a series of activities or processes to reveal the secret of something unknown by using systematic, directed, and accountable method.

The informants in this research were stakeholders regulating the traffic of goods and services as well as increasing HDI, including 1) Government: All related SKPD in Pemalang District Government, namely BAPPEKAB, Department of Transportation, Department of Market, Department of Public Works and Housing, and Department of Industry and Trade; and 2) Private: entrepreneurs in Pemalang Regency and Road Observer NGOs; determined purposively. Data collection was done by documentation, observation, and interview techniques. The data were then analyzed using descriptive qualitative analysis.

Data validity is "the degree of trust or truth of the research results as a standard in qualitative research" [1]. In qualitative research, a standard to see the degree of trust and truth of the research results is required. In qualitative research, the standard is often referred to as the data validity. Lincoln and Guba [2] suggested that there are 4 criteria used to check data validity, namely credibility, transferability, dependability, and confirmability.

3 Result and Discussion

3.1 Understanding Products

Humans fulfill their needs and desires with goods and services. According to Philip Kotler, products are "everything offered to the market to satisfy needs and desires". Basu Swastha and Irawan stated that product is "a complex trait, both tangible and intangible, including packaging, color, price, company prestige, service of entrepreneurs and retailers received by

buyers to satisfy their desires and needs. Tjiptono [3] defines a product as "everything that is offered by producers to be noticed, requested, found, bought, used/consumed by the market as a fulfillment of the needs/desires of the relevant market". The products offered include physical goods, services, people/individuals, organizations, and ideas. In more detail, product concepts include goods, packaging, brands, colors, labels, prices, quality, services, and guarantees. During this time, many sellers make a mistake by paying more attention to the physical product than the benefits of the products. They put themselves as sellers rather than providing solutions although companies must not only focus on existing desires but also customers' needs. This is because the product is a tool to solve consumer problems.

Tjiptono [4] states that in planning a product offering, marketers need to understand five product levels including: a) The main product or core benefit, the benefits that are needed and will be consumed by customers; b) Generic product, basic products that fulfill the most basic function or at least the product design functions; c) Expected product, a formal product offered with various attributes and conditions that are normally expected and agreed to be purchased; d) Complementary product, various product attributes that are complemented/supplemented with various benefits and services so that they can determine additional satisfaction and can be distinguished from foreign products; e) Potential product, all kinds of additions and changes that might be developed for a product in the future.

3.2 Product Classification

Product classification is usually done based on several points of view, but in general can be divided into 2, namely:
   a) Goods
       According to Tjiptono [3], goods are "physical products that can be seen, touched, felt, held, stored, and other physical treatments." Judging from its durability, there are two kinds of goods, namely:
       - Durable goods.A tangible item which can usually last long with a lot of use, or its economic life for normal use is one year or more. For example, refrigerator and television.
       - Non-durable goods. Tangible goods that are usually consumed in one use, or its economic life for normal use is less than one year. For example, bath soap and food.
   b) Service
       According to Philip Kotler, service is "every action that can be offered by one party to another party. Basically, the service is intangible and does not result in any ownership." Services may be related to physical products or not. Products can also be classified based on consumers and the purpose of consuming the products. Based on these criteria, Tjiptono [3] classifies products into:
       - Consumer Goods
          Consumer goods are goods consumed for the benefits of end consumers (individuals or households), and not for business purposes, consumer goods can be divided into four types, namely:
          o Convenience Goods
             Convenience Goods are goods that generally have a high purchase frequency, are needed immediately, and require minimum efforts in comparison and purchase. For example,cigarettes, soap, toothpaste, and candy.

- o Shopping Goods

  Shopping goods are goods that are compared to various available alternatives during the selection and purchasing process. Benchmarking criteria include price, quality, and models. For example,household appliances, clothing, and cosmetics.
- o Specialty goods

  Specialty goods are goods that have characteristics or unique brand identification that a group of consumers is willing to make a special effort to buy. Generally, these types of goods consist of luxury goods with specific brands and models, such as Jaguar cars and famous designer clothes.
- o Unsought goods

  Unsought goods are goods that the consumer does not know about or already know but the consumer is not necessarily interested in buying them. For example, tombstones, encyclopedia, and burial grounds.

- Industrial Goods

  Industrial goods are goods consumed by industrialists (intermediate consumers or business consumers).Industrial goods are used for a purpose other than direct consumption, namely to be processed into other goods or for resale. Industrial goods can be categorized into three groups, namely:
  - o Material and parts

    Are items that are completely used in the finished products. This group is divided into two classes, namely raw and finished materials and spare parts.
  - o Capital Items

    Long-lasting items that help to develop or manage a finished product. Capital items are divided into two groups, namely installations (including buildings and office equipment).
  - o Supplies and service

    Are durable items and services that help to develop or manage an entire finished product.

3.3 Human Development Index (HDI)

Humans are the true wealth of nation. Therefore, humans are always the target of the national development. The main objective of development is to create an environment that allows people to enjoy long and healthy lives as well as to live productive lives. Human development places humanity as the ultimate goal of development, not a tool for development. The success of human development can be seen from how much the basic problems of society including poverty, unemployment, malnutrition, and illiteracy can be overcome.

The Human Development Index (HDI) was introduced by the United Nations Development Program (UNDP) in 1990 and is published regularly in the annual HDR (Human Development Report). HDIbecomes an important indicator to measure success in efforts to build human life quality that can explain how people can access the results of development in obtaining income, health, and education.

The Human Development Index (HDI) is formed by composite indicators namely education, health, and purchasing power parity. With the three indicators used as parameters, hopefully, they can be used as an instrument of how development policies in Pemalang

regency can guarantee at least three of the basic choices. These choices cover the choice to live long, to possess the knowledge, and to live properly. That is why the demand to increase HDI is not only intended to fulfill the basic rights of the population but also to build a solid foundation of the economy of Pemalang Regency.

In a special sense, HDI is an indicator of human life quality which is built through three basic components, namely (1) Health sector represented by life expectancy, (2) Education sector represented by literacy rate and mean years of schooling and (3) Per capita expenditure represented by people's purchasing power to basic needs in achieving a decent life.

HDI is an indicator to measure success in efforts to build the human life quality can also be used to determine the ranking or development level of a region/country. For Indonesia, the HDI is a strategic data because, in addition to being a measure of government performance, the HDI is also used as one of the allocators for determining the General Allocation Fund.

Human development covers a very broad dimension. Efforts to make measurements of the achievements of human development that have been carried out in an area must be able to provide a picture of the impact of human development on the population. At the same time, these efforts must be able to describe the achievement percentage against the ideal target. Human Development Index (HDI) is a single composite indicator that although it cannot measure all dimensions of human development, HDI measures three main dimensions of human development which are considered to reflect the basic capabilities of the population. These basic capabilities include a long and healthy life aimed at measuring life opportunities, knowledge and skills, and access to resources needed to achieve a decent standard of living.

Considering the HDI is intended to measure the impact of efforts to improve these basic abilities, thus using the impact indicator as a basic component of its calculation, namely life expectancy at birth, educational attainment as measured by expected years of schooling and mean years of schooling, and consumption expenditure. The HDI value of a country or region shows how far the country or region has reached the specified target in which life expectancy of 85 years, basic education for all layers (without exception), and the level of expenditure and consumption that reaches a decent standard of living. The closer the HDI value of an area to 100, the closer the goal is.

Besides, HDI is a sensitive measurement tool that can provide a picture of changes that occur, especially in purchasing power that is strongly influenced by income, employment opportunities, and inflation. Decreasing employment opportunities in the context of human development may sever the relationship between economic growth and efforts to increase the basic capabilities of the population. The impact of the human development crisis is a decrease in purchasing power and this also means a delay in efforts to increase the physical and intellectual capabilities of the population to meet the target.

3.4 Discussion

Policy making is an important thing in development issue [5], [6] The smooth traffic of goods and services is inseparable from the condition and existence of roads in Pemalang Regency. Government and non-government efforts to improve road conditions can be seen in the interview results with several informants, that reflects interaction of actors [7], as follows:

"The road handling policy in Pemalang Regency can be said to be quite effective considering that for the maintenance of damaged roads, the Department of Public Works and Housing (highways unit) has a Public Works Implementation Unit (UPPU) which lead to faster handling and immediate response (still paying attention to

financial conditions and priority scale). In connection with the RPJM, the society will ask for the regents' promises delivered during the campaign. Until now, the government applies Ministerial Decree no 14 of 2007. There are 7 UPPUs in 14 sub-districts in Pemalang Regency. UPPU functions as a budget management unit office. In 2019, UPPU is prepared to have its own budget management so that it can carry out road repair/maintenance in Pemalang Regency." (Interview on 29 July 2019 with Imam Santoso-Head of Bina Masra Public Works Department).

Looking at the results of the interview with Imam Santoso, as explained above, it seems that the government, in this case, the Public Works and Housing Department and the UPPU in handling roads, has been running under the Ministerial Decree Number 14 of 2007. Furthermore, Imam Santoso stated that:

"In terms of efficiency, the road handling policy through the UPU, damaged roads in the regency area are managed to be handled in stages from all incoming reports from society or UPPU submitted to the head of the department. For planning, the Public Works Department cooperates with the private sector through a work contract and is also carried out independently through a survey conducted by UPU.Planning conducted independently is considered faster and more effective because it takes only a little amount of time. UPU survey related to the damaged road condition is conducted every quarter." (Interview, 29 July 2019).

In this case, Imam Santoso emphasized that the cooperation between the Public Works and Housing Department with UPPU in improving road handling is already underway. UPPU forward the reports on damaged roads to the Public Works and Housing Department. Subsequently, the report was used as a material to make plans for collaboration between the government and the private sector through a work contract.

In addition to cooperating with UPPU, the Public Works and Housing Department also establish cooperation with the Village Government, the following is an interview with Imam Santoso:

"All this time, the government has tried to be fair/equitable in handling damaged roads (district roads). With the Village Fund/ADD, damaged roads are no longer the responsibility of the Public Works Department because the construction of damaged roads is the village's responsibility.Public Works Department can no longer take part in that field, but in the context of providing services to the community, the Public Works Department is still assisting the village to draw pictures or prepare the budget and other supporting details related to the construction/maintenance/repair of damaged roads at the village level.All damaged road reports (various sources) will be accommodated. After going through the survey review process, a priority scale will be drawn on which roads should be handled first. Considering all the needs to be prepared for the implementation, more or less the time required is one week after the report comes." (Interview on 29 July 2019).

The involvement of the village government, said Imam Santoso, is through equitable road handling in the form of budget allocation. For the roads at the village level, the village fund is used.Although not directly involved in road handling, Public Works and Housing Department

assist the Village Government in providing services such as making drawings or budgeting related to the maintenance of damaged roads at the village level.

The involvement of the village government in improving road handling by the government is also supported by the opinion of Andi Restono (NGO Gereh Pethek, Head of Deka Association in Pemalang Regency, Head of the young farmers' community, Secretary of the Agricultural Land Transportation Organization). The interview result is as follows:

"In connection with the results of the road handling policy so far, public report or the survey results of UPPU officers indeed play a major role. Roads at the regency level can be said to be able to solve the existing problems in the society. Village funds provided funding for village roads, and the government department provided consultancy assistance. The road improvement policy around the toll road project has been able to solve the problem although it must go through demonstrations and road closures." (Interview on 29 July 2019).

Andi Restono stated that the road at the regency level was able to solve existing problems in the society. The improvement of road handling is based on public reports and surveys conducted by UPPU officers.

In addition to cooperating with the government, the Public Works and Housing Department also engaged the society, the interview results with Imam Santoso are as follows:

"Besides the direct report, to accommodate the aspirations of the society, especially regarding damaged road, reports through website and question and answer on the radio are possible.This is intended to immediately respond to the damaged road report.The existence of KOTAKU (*Kota Tanpa Kumuh*/City without Slums), of course, is the result of collaboration with society and NGOs. The government assisted in the form of paints and equipment, the society painted the river's edge so it would not look dirty. Society was also engaged in mapping the damaged road by forming *Forum Peduli Jalan* (Road Care Forum). According to the Head of Public Works, currently, 60% of roads are in good condition, and the remaining 40% are still problematic, but 30%– 40% have begun to be realized." (Interview on 29 July 2019).

The Public Works and Housing Department also engaged society in improving road handling, in this case in finding and determining which roads are damaged and require repairs. Public Works and Housing Department received reports from the society directly, through websites, and radio.

By examining the interview results with several stakeholders, in road handling, it can be stated that repairing damaged roads is always and continuously carried out by engaging various relevant parties. The following are the results of data collection on goods and services traffic and road conditions through various documents and interviews.

From interviews with the Head of Transportation Department, it was found that the number of signs needed in Pemalang Regency was 23,589 units and only 10,961 units were installed. However, said the Head of Transportation Department, the traffic of goods and services went smoothly, without congested roads, let alone heavy traffic.

From the data mining though documents from Public Works and Housing Department, there was an increase in the road length, from 696.92 Km to 765.72 Km. With the longer road, of course, the traffic of goods and services will go smoothly.

The improvement of the toll affected road only 81% of the total length of 128.42 Km so that the toll road party still has not repaired the road of 24.4 Km or 19% consisting of 1. Comal - Bodeh 3.5 Km; 2. Sirangkang - Karangasem 3.5 Km; 3. Blimbing - Kendalsari 4 Km; 4. Blimbing - Kebandaran 7 Km; 5. Bantarbolang - Kalitorong 6.4 Km.This means that roads that have not been repaired by toll road parties until the end of 2018 are 3.19% of the total length of the district road. With only 3.19% of damaged roads, it can be stated that almost 100% of roads in Pemalang Regency are good and decent.

From the data obtained by researchers both by interviewing and examining the documents and observations, it can be stated that the traffic of goods and services runs smoothly because it is supported by the addition of road length, road repair that is almost complete, and installation of road signs, mostly, has been carried out. The smooth traffic of goods and services in Pemalang Regency was also confirmed by the Head of the Transportation Department in the interview on 29 July 2019.

The interview results with Priya (Head of Trade Department, Ministry of Industry and Trade, Pemalang Regency). He states:

"The products of agriculture, plantation, and fishery in Pemalang Regency is pretty good. Besides being able to meet the needs of the regency itself, the products are distributed to cities around Pemalang. Besides, there are additional supplies from other areas that stop by or transit to Pemalang which is then distributed to cities around Pemalang. Likewise, imported fruit, besides being distributed to Pemalang and its surroundings, is also distributed to other cities outside Java". (Interview on 29 July 2019)

Referring to the data obtained from interviews with several informants as well as the results of researchers' examination on existing documents, it can be stated that the traffic of goods and services in Pemalang Regency is running smoothly but it is not enough to support the increase of HDI.This is because the goods delivered to Pemalang Regency are only transit without being managed and utilized by the people of Pemalang so that there is no added value such as absorbing labor and increasing people's purchasing power.

4 Conclusion

Road handling is already going well by involving various parties. In addition, the length of the road sections has increased, the road repair is almost complete, the installation of road signs has been running, the traffic of goods and services is running smoothly. However, this condition has not been able to increase HDI in Pemalang Regency because the goods delivered to Pemalang Regency such as fishery, plantation, and agricultural products are only transit and distributed to the surrounding cities.

Goods in the form of agricultural, plantation, and fishery products that have been delivered should not only transit in Pemalang Regency but need to be managed and processed so that there will be added value for the society.Therefore, the Government of Pemalang Regency should actively enlighten the public and capital so that they have adequate resources to carry out the manufacturing process of incoming goods to create added value.

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