

**Suggested citation:** Mutiani, M., Disman, D., Abbas, E. W., Wiyanarti, E., Aprilla, W., Rajani, I. & Hadi, S. 2022. The Existence of Water Transportation towards Improving the Community Economy. *Global Journal of Entrepreneurship and Management*, 3(1):13-22. <https://doi.org/10.57585/GJEM.022.010>

# THE EXISTENCE OF WATER TRANSPORTATION TOWARDS IMPROVING THE COMMUNITY ECONOMY

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**ABSTRACT:** The meaning of transportation is not only limited to the transportation of people but also includes goods. The importance of the role of transportation is reflected in the implementation of the role and function of transportation. The existence of water transportation for the community functions as part of the livelihood to provide stability for family income. This article aims to analyze the existence of water transportation, namely *klotok*, in supporting community needs. *Klotok* is used as river transportation that can last more than six decades. Qualitative methods used to obtain descriptive data from research subjects. For data validity, the researcher asked academics from one university to check whether the year determination of water transportation is in line with the government's administrative documents. The study results describe that the existence of water transportation, in this case, the river is vital for service providers and users. The two are related. However, to maintain this relationship, the role of the government is needed to provide legality and policies for the operational mechanism of river transportation. This research actively provides data transparency on whether the operational mechanism of river transportation supports the welfare of the perpetrators. Thus, related parties, especially researchers and stakeholders, can develop the potential of *klotok* in a broader framework.

**KEYWORDS:** *Existence, River transportation, community needs, government, legality, and policy*

**JEL CLASSIFICATION:** H11, L26

**DOI:** 10.57585/GJEM.022.010

*Received: 10 March 2022*

*First revision: 21 April 2022*

*Accepted: 05 May 2022*

## 1. INTRODUCTION

Transportation is a crucial activity sector for meeting community needs. A simple description of the fulfillment of needs is exemplified, such as; efforts to reach work sites, schools, visits to places of entertainment, and services (Miller, 2018). The meaning of transportation is not only limited to the transportation of people but also includes goods. The importance of the role of transportation is reflected in the implementation of the role and function of transportation itself. It affects all aspects

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*Global Journal of Entrepreneurship and Management – Volume 3, Issue 1*

of the life of the nation and state. There is an increasing need for transportation services to mobility people and goods in the country (He & Haasis, 2019). In addition, transportation plays a role as a supporter, driver, and driver for the growth of regions with significant natural resource potential but are not yet developed (Wang & Sun, 2019).

In developed countries, transportation-related research enters the complexity of studies, such as; transportation review in management electronics, environmentally-friendly transportation innovation, to efforts to increase state income through tourism-based transportation (Anizal & Aziz, 2021; Bigith & Kumara, 2019; Markolf, Hoehne, Fraser, Chester, & Underwood, 2019; Nazarnia, Nazarnia, Sarmasti, & Wills, 2020; VB & Kumara, 2020) However, this research has not answered whether external challenges only drive transportation in developing countries. Therefore, this study provides a chronological analysis of how local transportation in Indonesia has survived more than six decades but remains a promising source of livelihood.

As it is known that Indonesia's landscape has puff characteristics, causes the transportation used is not only limited to land transportation. One of the exciting things to describe is water transportation (rivers) which plays a role in connecting regions in river waters (Budiman, Sadewa, Handayani, & Nurzaman, 2019; Surya, Syafri, Sahban, & Sakti, 2020). The navigable river water system must meet the technical requirements: a certain depth, slope, and current speed, so that it is safe and easy to navigate. River transportation is very prominent in Kalimantan, Sumatra, and Papua. In Kalimantan, river transportation is mainly used for local and urban transportation needs, especially in areas where road transportation infrastructure is unavailable (Subiyakto, 2005a).

There are several types of river transportation, including stamps, boats, speedboats, *klotok*, timestamps, boats, speedboats, *klotok*, and various types of *jukung* (Angriani, Sumarmi, Rujia, & Bachri, 2018; Subiyakto, 2005a). Almost half of South Kalimantan is a river water area, 17,610 square kilometers or about 47.62% covering river waters (Subiyakto, 2005b). For the Banjarese, the river does not only function as a fulfillment of physiological needs (Norhayati, Abbas, & Putra, 2019; Normelani, 2016; Subiyakto & Mutiani, 2019). Rivers become a traffic infrastructure connecting areas not touched by land infrastructure. The most popular means of river transportation for the people of Banjar is the *klotok*. *Klotok* is a multifunctional transportation service facility, namely, goods, fishers' products, and merchandise to passengers.

Water transportation has become an icon in South Kalimantan, especially Banjarmasin, since 1950. In Banjarmasin stretches the Martapura River, which crosses two areas namely: Banjar Regency and Banjarmasin City area. The Martapura River has an overall length of 80km, while the navigable is about 45km with an average width of 150m. The highest water depth is 4m, and the lowest is 2.4m. The Martapura River is navigable by riverboats, transporting passengers and goods and agricultural and fishery products. The river transportation network pattern operating in the City of Banjarmasin serves two routes/routes: (1) inter-city river transportation routes between provinces and (2) river transportation routes within the city. In addition, the river route for the community is used as a public transportation route. In Banjarmasin, when you want to see the appearance of busy river transportation routes, among others, the Barito River and Martapura.

The development of *klotok* also experienced ups and downs. River as in 1950 – 1980, functioned as a highway (Subiyakto & Mutiani, 2019). Every day, residents are busy going back and forth from one river to another and then to a more significant river. This condition lasts up to three decades. The vitality of the river function encourages transportation activities with the *klotok* fleet. In 1950, machines to support the movement of the *klotok* facility made the popularity of the *klotok* unable to be shifted by other means of land transportation. *Klotok* can carry more passengers and goods than the capacity of cars and land routes in 1950 – 1980). This article aims to analyze the existence of *klotok* in supporting community needs. *Klotok* is used as river transportation that can last more than six decades. Analysis of river transportation in the context of

cross-social science is expected to provide input for broadening stakeholder insights in developing policies on cross-country local transportation potential.

## **2. LITERATURE REVIEW**

### **2.1 Water transportation and its relation to river transportation**

Transportation is defined as a transportation activity emphasizing the movement or movement of people or goods from one place to another. The movement or movement of goods or people occurs due to differences in utility levels, both in the form of place value and time value. Transportation is a means to facilitate the economy (Lane & Pretes, 2020; Rybeck, 2018). Transportation activities indirectly support the movement of meeting community needs. The importance of transportation is reflected in its implementation, which affects all aspects of the life of the nation and the state, as well as the increasing need for transportation services for the mobility of people and goods both domestically and abroad (Fachrudin & Lubis, 2016). In addition, for the growth of regions that have significant natural resource potential but have not yet developed, to increase and equalize development and its results.

Transportation is a concept that emphasizes human mobility (Feng et al., 2019; Mateescu et al, 2020). The traditional meaning of transportation is only limited to movement by transporting and carrying. The concept has expanded to all parts of the world with a broad definition: a straightforward "product" tool is needed to transport the goods. In general, the means of transportation only touch three things: land, sea, and air (Chen & Chen, 2018; Jin & Chen, 2019; Kelobonye et al, 2019). As described above, transportation can support the success of development, especially in supporting community economic activities. In addition, transportation can improve population mobility services and other resources supporting economic growth in an area (Hutagalung et al, 2019). Transportation is hoped to eliminate isolation and provide a stimulus for development in all areas of life, be it trade, industry, or other sectors (Rochwulaningsih et al, 2019).

Several factors influence the magnitude of transportation generation; income, ownership of transportation modes, household structure, land value, distance to the center of activity, the density of settlements, and accessibility. The generation of transportation is capable of causing two types of trips (transport) (Adegbenle & Olatunji, 2016; Hermawan, 2017). The first type is known as home-based transportation; the second is not home-based. Home-based transportation makes the home a point of departure or destination. Meanwhile, non-home-based transportation makes a point of origin and destination a benchmark for travel (Fitri, 2018; Tian & Sun, 2018).

The dualism of transportation functions for river transportation is used as the basis for strengthening vitality. Home-based and non-house-based transportation is used as a reference for the generation of river transportation. The implementation of river transportation is not only charged with meeting the needs of the community to reach their homes but also for personal needs such as chartering (Banerjee et al, 2020). River transportation has specifications for goods and passenger transportation services. Thus, river transportation is given a clear route to provide a fixed and regular route (Kanwal et al, 2020; Rao, 2019; Zheng & Kim, 2017).

The water transportation system cannot be separated from the general transportation system, as well as other activities owned by the region and has a regional development process that wants to expand the marketing reach of service funds in supporting various sectors of socio-economic activity at every point and stimulate the emergence of new activities in the regional economy (Fathoni et al, 2017). The river and inter-island traffic system in Indonesia is a transportation system that is traditionally used for various purposes, both from the interior (rural) to the mouth of the river. It will

then be connected with small-scale ship traffic between islands (Fachrudin & Lubis, 2016) As for the context in the planning framework, infrastructure improvements and suggestions are made so that public services can be revived and become the mainstay of public transportation in areas where access to other areas must be via rivers (Wahono et al, 2021).

### 3. METHODOLOGY

The characteristics of the research in revealing the phenomenon of the Banjar people utilizing water transportation, of course, are in line with qualitative research methods. Qualitative research is feasible to study informants' experiences (Callao & Ruisánchez, 2018). Researchers use the case study method to get the meaning of data collection activities, data analysis related to the existence of water transportation (Lefèvre et al, 2019; Edwards & Holland, 2020). This study aims to reveal the existence of water transportation that can support the community's economic needs. Research is based on field experience in the riverbank area. Given the area, this study focuses on the Barito Hilir locus, to be precise, the West Banjarmasin District (Aveling et al, 2015). The location determination is based on the existence of water transportation since 1960 for the people of Banjar. Design explores informants' experiences regarding research subjects, including water transportation business actors and daily passengers, namely: Trisakti *Klotok* Pier in Telaga Biru Village, District of North Banjarmasin. In maintaining the existence of water transportation, researchers analyze data from various perspectives.

#### 3.1 Informant

Data regarding the existence of water transportation were obtained from nine sources, namely: 1) the resource tables are mentioned and compiled using the pseudonym of the subject's identity, as follows:

**Table 1 List of Informants**

No	Name (Pseudonym)	age (year-old)	Information
1	MY	60	Chairman of the Trisakti Water Transportation Jetty ( <i>Klotok</i> ) Management
2	MI	41	<i>Klotok</i> owner, subject in the water transportation business for 26 years
3	HH	37	<i>Klotok</i> owner, subject in the water transportation business for 18 years
4	KA	51	<i>Klotok</i> owner, subject in the water transportation business for 37 years
5	MIR	54	<i>Klotok</i> owner, subject in the water transportation business for 34 years
6	AR	30	Elementary school teacher, using river transportation for 7 years
7	RQ	30	Community Health Center employees have used river transportation for 5 years
8	RD	47	Puskesmas employees have used river transportation for 24 years
9	ED	30	Community Health Center employees have used river transportation for 5 years.

Source: Data processed by researchers (2022)

Based on the informant's data above, MY was chosen as the primary data source because, as the head of the water transportation dock management (*klotok*) in Trisakti, he has been involved in *klotok* transportation for four decades. The basis for why MY was then appointed as chairman of the dock management for two periods (2015 to 2025). Then, to support the research data, eight sources provided data support to describe how the existence of water transportation affects the community's economy (Aveling et al, 2015; Nigar, 2020).

### 3.2 Instruments, Data Validation, and Data Analysis

In the first stage, the researcher made participatory observations as passengers by following the water transportation route from Trisakti *Klotok* Pier in Telaga Biru Village to the Savings Village. Second, the informants were interviewed using in-depth interview techniques to get exposure to the data written descriptively. Third, the research data was also supported by researcher documentation in regulations that legalized The *Klotok* Trisakti Pier in Telaga Biru Village is operational and some other photos. However, not all data are presented because the researcher has reduced the data based on the research objectives (Mohajan, 2018). Fourth, for data validity, the researcher asked BS and SY academics (pseudonyms) from a university in South Kalimantan to check whether the year determination of water transportation is in line with administrative documents owned by the Banjarmasin Government (Hamilton & Finley, 2019). Finally, a discussion extract was carried out in one study program at Lambung Mangkurat University to minimize bias during the analysis. After the results show data saturation, it is concluded that the data is reliable or consistent (Hill et al, 2019; Williams & Moser, 2019).

## 4. RESULTS AND DISCUSSION

River transportation category, the number of *klotok* dominates compared to other river transportation. In 2015, the number of *klotok* reached 49 units. However, there was a decrease in 2016 to 34 units. Then, in 2017 it increased to 41 units and ranks second for river transportation in Banjarmasin. In 2021, the Banjarmasin City Transportation Service launched a 115% increase in the number of *klotok* operating and having legal permits to operate with 88 units. As reported from the latest data from the Central Statistics Agency of South Kalimantan Province in 2018, the existence of *klotok* as river transportation in Banjarmasin can be seen as follows;

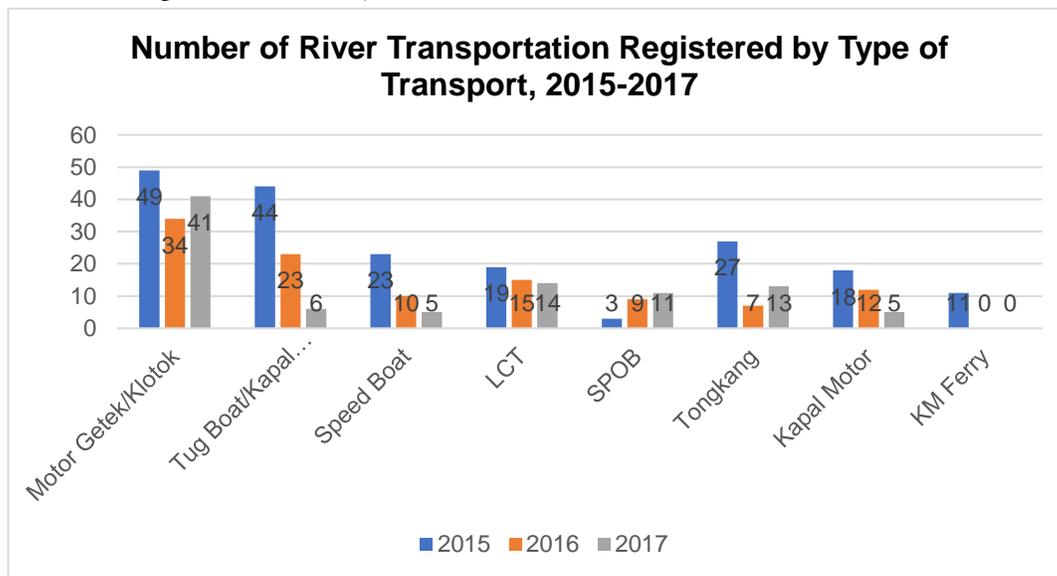


Figure 1 Statistical Data on Total River Transport 2015-2017

Source: Central Bureau of Statistics, 2018)

*Klotok* in South Kalimantan, especially in Banjarmasin, until now it is still used by the community as public transportation to support their daily needs. This can be proven by several docks in Banjarmasin, including Siring Pier of Menara Pandang, Siring Proboscis Pier, *Klotok* Komatsu Taxi Trisakti *Klotok*

Pier. Research describes the existence of klotok water transportation located at Trisakti *Klotok* Pier. This pier has existed since 1979 until now. It has obtained a permit from the Village, which the LKMD manages (Village Community Resilience Institute) with a permit number (No. K 347/D/PKY/DD/XII/1979). Since 1979, Trisakti Klotok Jetty has provided public transportation services. Based on the results of interviews with MY (60 years) revealed that:

"This pier has been around since 1979, and the permit is managed by the Village Community Resilience Institution (LKMD). That year, we still had limited licensing because it only included a *klotok* tethering permit, not an operational permit.

As for the impact of the limited scope of the permit, *klotok* owners are sometimes asked for illegal levies by irresponsible persons. However, from 1979 – to 1990, klotok owners could reap daily profits of up to Rp. 25,000 – 50,000 per day, if accumulated per month, Rp. 1,500,000. The opinion in that year is included in the very prosperous category, considering that there has been inflation in the rupiah exchange rate of 10.7% over the last two decades. Based on the results of interviews with KA (50 years):

"In 2000, the Trisakti Klotok Jetty was administratively under the supervision of Trisakti Port, so the total number of *klotok* must be recorded. It is intended to avoid the struggle for the klotok operational route."

The change-in supervisor instructed the *klotok* owner to arrange the management structure of the Trisakti *Klotok* Jetty. Based on the results of an interview with one *klotok* owner who is a member of the Trisakti *Klotok* Jetty association, MD (41 years old) said that:

"We are here to manage the pier with our capital or the proceeds from the parking fees for the passengers that we collect every day. However, we also have a monthly fee of 5000 rupiahs. So if there is one from the pier that must be repaired using that money, because there is no financial assistance from any party."

*Klotok* Tri Sakti Pier focuses on providing public transportation services using *klotok*. At Trisakti *Klotok* Pier, there is an organizational structure made by the *klotok* owner with several regulations, one of which is the policy in regulating the order of the *klotok*, which operates every day. Transportation of passengers by *klotok* owners is based on writing the arrival number sequentially. Thus, those who tether their *klotok* first will get the first order in operation. In 2021, it was recorded that 31 klotoks were registered at the Trisakti *klotok* jetty. This figure will not increase in 2021, considering maintaining the income stability of *klotok* owners.

Described chronologically, the years 1979 to 1990 were the heyday of *klotok* as the transportation of choice for the people. Several things, such as 1, influence this) the lack of competitors for land public transportation, 2) river accessibility is more effective than land routes, 3) the cargo of passengers and goods is more than land transportation, 4) the costs incurred are cheaper, 5) departures are not bound by operational time because passengers can negotiate openly with drivers and *klotok* owners, and 6) six Plywood companies have 300 employees, who need *klotok* every day to reach the company's location.

Entering the year 2000, Banjarmasin is overgrowing, especially in infrastructure. The government provides ample space for the massive opening of land route access so that the presence of *klotok* has decreased significantly. It is factual, conveyed by HH (37 years old), that more than 40% of *klotok* co-owners change professions and sell assets (*klotok*) to meet their daily needs. It became even more severe in the same year that wood exports declined, and found several Plywood companies such as; PT Hendratna Plywood, Surya Satria Timur, Gunung Meranti, Wijaya Plywood, and PT Basirih Plywood laid off up to 67% of employees.

Struggle over a decade, 2014 to 2022, an increase due to top *Klotok* service users are no longer dominated by traders and plywood employees but have turned into people who work in Tabunganen Village with the professions of teachers, puskesmas employees, and village officials. In addition, a positive influence is also obtained because The Banjarmasin City Government then initiated the Mayor's Regulation Number 25 of 2016 Article 2, which explains that the purpose of managing and developing river-based tourism is to increase the number of visits and be able to become a means of opening up business opportunities. Furthermore, this regulation gives *klotok* owners the flexibility to offer public transportation services to private transportation for the community through a charter mechanism.

The existence of *klotok* transportation as river transportation is used as the primary source of livelihood and as a support for public transportation for the community. An indicator of improving the community's economy, especially *klotok* owners, in utilizing *klotok* transportation as a source of income is the number of *klotok* service users. Calculate the income of the owners of this *klotok* water transportation. It can be seen from how many passengers each day. Passengers who are teachers, health center staff, or village officers, pay for a monthly *klotok* service of IDR 350,000 per person. Based on observations, every day, passengers per *klotok* reach 24 people. Thus, the income received by *klotok* owners reaches Rp. 8,400,000 (excluding charter services per week). This data shows that the cash flow received by *klotok* owners per month is above eight million rupiahs. The following is a picture of using *klotok* services at Trisakti *Klotok* Pier:



Figure 2. Klotok Services at Trisakti Klotok Pier

Source: Personal Documentation (2022)

The need for movement is a hereditary need. Movement occurs because of the process of meeting needs. Movement will not occur if all these needs are integrated with settlements. However, in reality all human needs are not available in one place. In other words, the location of the activity is spread heterogeneously in space. Thus, there is a need for movement in order to meet the needs. Based on the research results, the existence of the *klotok* as river transportation is supported by three components: the owner of the *klotok* as a service provider, the community as a service user, and the government that provides legality and policies so that the *klotok* continues to exist. These three components cannot be separated because they influence each other (Ortega et al, 2019). Transportation, as an activity of moving or transporting an object that wants to be transferred from one location to another, applies the concept of supply and demand (Arabi et al, 2018; Liu et al, 2018).

In this case, the supplied context that binds the service provider, the *klotok* owner, plays a role in maintaining the availability of services so that there are no gaps. The context of demand that binds to the user positions river transportation as a request for travel. It has a great relationship with existing

activities in society (Feng et al., 2019; Ortega et al., 2019). The demand for transportation services reflects the need for transportation from users of the system, both for human transportation and goods transportation, and therefore the demand for services (Rao, 2019; Razi, 2014). Thus, there will be no arbitrarily increasing tariffs. Meanwhile, the government evaluates both planning and practice, mainly providing standardization so that service users feel safe and comfortable (Biolini et al, 2021). Based on this explanation, it is interpreted that the existence of river transportation cannot be underestimated. It is because it has implications for people's lives.

## 5. CONCLUSION

The study results concluded that the existence of water transportation, in this case, the river is vital for service providers and users. The two are related. However, to maintain this relationship, the role of the government is needed to provide legality and policies for the operational mechanism of river transportation. This research contributes to the perspective of maintaining river transportation, especially in areas with similar characteristics to the research location. In social research, this research actively provides data transparency on whether the operational mechanism of river transportation supports the welfare of the perpetrators. Thus, related parties, especially researchers and stakeholders, can develop the potential of *kelotok* in a broader framework. The recommendations given in this study are related to revitalizing transportation management in an area. It means that river transportation is not only used by limited communities but can be used as public transportation. However, of course, this research has limitations where it only focuses on the existence of river transportation. Researchers have not provided exposure and review of changes in river transportation management. Of course, this change is influenced by the dynamics of the development of river transportation. So that further research can explore the dynamics of river transportation development and its influence on society..

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