Migration Letters

Volume: 20, No: 8, pp. 145-156

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online) www.migrationletters.com

The Significance of Makassar Port in the Context of Cargo Containers and Passenger Traffic: A Literature Review

Imaduddin Murdifin¹

Abstract

The study focused on analyzing the movement of commodities, ships, and people at Makassar Port, comparing its performance with four other major ports over the past five years. This study used descriptive qualitative methods. The growth ratio approach was employed to quantify transportation development, while proportion analysis was utilized to assess Makassar Port's significance relative to the other major ports. Analysis was utilized to assess Makassar Port's significance relative to the other major ports. Makassar Port's role in the overall transportation landscape of Indonesia reveals that it only handles 12.7% of incoming commodities and 10.27% of outbound transit when considering the five major ports under investigation. Despite Makassar Port's advantageous location and substantial TEU capacity, it was found that the port predominantly facilitates the export of commodities rather than imports. Additionally, a higher volume of items is transported to and from islands for incoming cargo compared to outgoing cargo. Makassar Port plays a vital role in Indonesia's maritime trade, its proportionate contribution to the overall transportation network is modest.

Keywords: Makassar Port, Container, Passenger, Ships, Entering And Leaving Commodities

Introduction

Ports have always been essential for facilitating trade and fostering national economic progress. Through the growth of industrial activity, population centers, and markets, they have established a significant connection with their hinterlands. (Larissa et al., n.d.) gave the conventional description of a seaport as "a gateway through which goods and passengers are transferred between ships and the shore." This definition has changed, though, as seaports now play a crucial role in supply chains and logistics within international production networks that must continually adjust to technological advancements, institutional changes, and competition in the maritime sector ((Lam, 2016)). Due to the enormous transportation expenses associated with selling over vast distances via the ancient silk route, trade in the past had traditionally been restricted to highly valuable items like silk, gold, silver, and spices ((Bernstein, 2008). Other times, trade involved items that could not be grown locally, such sugar, tobacco, or spices. Globalization and containerization have altered this, enabling producers to access markets at a lower cost of transportation.

While containerization paved the way for an effective freight transportation system that blurred the lines between global and domestic economies and created a global demand for goods, globalization increased interconnectivity in economies through travel, the internet, and improved communications (Handa, 2017).

¹Faculty of Economic and Business Universitas Muslim Indonesia, Email: imaduddin.imaduddin@umi.ac.id, Orchid: https://orcid.org/0000-0003-4068-1878

Approximately 17,500 islands make up the archipelago of Indonesia, 6,000 of which are uninhabitable. The major islands are those in Java (where Jakarta is located), Sumatra, Papua, Sulawesi, and the Borneo state of Kalimantan. The country's economy is the greatest in Southeast Asia and it earned independence from the Dutch in 1945. As can be observed from Table 1.1, there were over 264 million people living in Indonesia as of 2017, with Java and Sumatra hosting the majority of the country's economic activity ((*1108_PUB_SANDEE_annual_report_2016*, n.d.).

According to UNCTADSTAT 2017, Indonesia's GDP per capita increased by over threefold from US \$1,343 in 2005 to US \$3,614 in 2016. Following both the Asian Financial Crisis (Haque, n.d.) and the Global Financial Crisis in 2008, Indonesia's economy has experienced substantial growth along with decreasing unemployment and poverty rates. Falling commodity prices have caused the economy to grow more slowly since 2012, which has increased poverty and the income gap between Java and the other islands. Many Indonesians living in rural areas are nonetheless at risk of poverty as a result of the country's uneven distribution of the benefits of economic progress (World Bank, 2014). Due to high transportation and logistics costs, Figure 1.2 illustrates the geographical inequality that frequently exists for items exported between Indonesian islands.

The average annual growth rate through 2030 for a middle- to high-income country must be between 7 and 9 percent (MP3EI).



Figure 1. Regional disparities in prices by Indonesian provinces

Due to high logistical costs and a lack of infrastructure investment, Indonesia's port system is well known for being inefficient (*1108_PUB_SANDEE_annual_report_2016*, n.d.). According to State of Logistics (Bank Group, n.d.)), p. 18, these logistic expenditures account for 27% of Indonesia's Gross Domestic Product (GDP). Better infrastructure investment is necessary to enable an effective distribution of commodities to markets in Indonesia and abroad, as well as regulatory barrier reduction, in order to achieve better connectivity. According to estimates, the public sector can only afford to pay for a third of the country's infrastructure requirements, while foreign investment in ports is limited to 49% (Selasdini & Almuzani, n.d.). It will be challenging for Indonesia's ports to be globally competitive if the infrastructure deficit persists, which could affect its transition from a middle-income to a higher-income country.

PT Pelabuhan Indonesia (Persero), doing business as Pelindo, is a state-owned company in Indonesia. Pelabuhan Indonesia (Pelindo), based in one of the largest archipelagos in the world with a long history on the global maritime arena, is a top-tier port that provides an integrated port service across Indonesia. Pelindo was created as a result of the integration of four state-owned businesses (BUMN), specifically PT Pelindo I (Persero), PT Pelindo II (Persero), PT Pelindo III (Persero), and PT Pelindo IV (Persero).In order to achieve national connection and a more robust logistics ecosystem network, the government, as a shareholder, took the strategic decision to form Pelindo. Whether it is local ports or international ports, there is an anticipated improvement in maritime connectivity.

There are at least 13,500 islands that make up the marine nation known as the Unitary State of the Republic of Indonesia (NKRI). People live on the majority of the islands that are already there. To connect the existing islands, transportation infrastructure is required because of its existence. The existence of transportation infrastructure makes it possible to meet the needs of travelers and supports the development of inter-island trade. Locals can sell their goods inter-island with the use of maritime transportation. They can also incorporate development and subsistence products from neighboring islands.

The development of Indonesia as a nation is significantly aided by transportation in general. The nation's economic operations require transportation as a foundation, motor, and driving force. Transportation is required on a larger scale to unite the country and address issues related to the economy, politics, society, culture, and security.

In particular, the service of human transportation and the movement of agricultural, commercial, and industrial goods from one island to another, transportation plays a crucial role in the development and economics of the country. Additionally, transportation promotes equity development, speeds up regional growth, and lessens development gaps between cities, towns, and villages. Transportation is important for fostering inter-regional ties in the Unitary State of the Republic of Indonesia in order to preserve the unity of the country and state, according to the Archipelagic Outlook idea. As a result, the nation's social, cultural, economic, political, and security spheres can be unified via transportation.

One of Indonesia's five major ports, along with Belawan (Medan), Tg. Priok (Jakarta), Tg. Perak (Surabaya), Balikpapan, and Makassar, is Makassar Port. The Port of Makassar is strategically situated because it is situated on the side of the Makassar Strait, which is the international shipping route from Australia to Japan and other East Asian regions, and vice versa. This shipping channel connects the Port of Sabang and the Port of Jayapura. Due to its location, Makassar Port has long been a component of the global maritime system.

The number of passengers at the country's main ports increased during June 2021, up 7.74% from the time in May 2021, according to the Head of the Central Statistics Agency (BPS) for the period ending in May 2021. In June 2021, 1.4 million passengers were counted as having traveled by sea. an expansion All of the major ports experienced this amount of passengers, including Port 165 percent, Makassar port 59.52 percent, Tanjung Priok port 46.67 percent, Tanjung Perak port 32.82 percent, and Balikpapan port 2.30 percent. In the meantime, domestic maritime transport passengers increased by 2.49 percent to 7.8 million from January to June 2021, from the same period in 2020. At the Port of Tanjung Perak, there was a 3.50 percent rise in passengers. The number of passengers decreased by 43.50 percent at Belawan Port, 35.89 percent at Tanjung Priok, 17.31 percent at Makassar, and 5.09 percent at Balikpapan.

In connection with the phenomenon described above, the issues that will be the focus of this study are; (1) The largest role Port Makassar is among the three main Indonesian provinces in terms of supplying the country with both passenger and cargo; (2) The largest capacity unloading moves general cargo in ton/m3 increments per gang/hour and moves containers in TEU increments each hour.

According to the above-mentioned rumor about the problem, the purpose of this study is to clarify and explain how the Port Makassar consists of the three main Indonesian provinces in terms of supplying the country with both passenger and cargo.

To clarify and state that the capacity of the unloading is ton/m3 per gang/hour for regular freight and TEU each hour for containers.

Literature Review

Ports and Shipping

Hope for an improvement in port quantity and quality can be found in the concept of the World Maritime Fulcrum. The port is a crucial hub for creating a powerful marine domain. The port serves as a catalyst to promote the expansion of several economic sectors, including trade, manufacturing, and tourism. In addition to serving as a hub for many forms of transportation and a point of entry for socioeconomic relations between islands and nations, ports can be used to boost state revenue. Global Maritime Axis Concepts implemented under Indonesian Maritime Policy Presidential Regulation No. 16 of 2017. The Indonesian Marine Policy encompasses a wide range of intricately woven topics.

Providing groundbreaking publications on the status of ship routing and scheduling in maritime transportation, covering tramp, industrial, and liner shipping, are (Christiansen et al., 2004) and (*Christensen_et_al2004*, n.d.). (Sprogis et al., 2020) extend the series to include contemporary literature. (Christiansen et al., 2004), (Meng et al., 2013) examine studies connected to the optimal challenges in liner shipping, they do so on the basis of decision-making levels as well. For the issues with ship routing and scheduling in liner shipping, (Kjeldsen, 2015) creates a categorization scheme with 18 features. A total of 24 items are chosen to be categorised using the new system.

According to Government Regulation No. 61 of 2009 Article 1 Paragraph 1, a port is a location made up of land and/or waters with specific boundaries that is used for official and commercial activities as well as a location for intra- and intermodal transportation as well as a place for ships to dock, board passengers, and/or load and unload goods. The location takes the form of a terminal and berths that are equipped with shipping safety and security facilities and port support activities.

According to Government Regulation No. 61 of 2009 Article 1 Paragraph 4, 5, 6, 7 and 8, different types of ports are known, including: (a) Main Port, which serves domestic and international sea transportation activities, large-scale transshipment of domestic and international sea transportation, as a place of origin for passengers and/or goods, as well as ferry transportation with interprovincial service coverage; (b) Collecting Port is a port that primarily serves domestic sea transportation activities, transshipment of domestic sea transportation in medium quantities, and as a point of origin for people and/or commodities, as well as ferry transportation with interprovincial service coverage. (c) A feeder port is a port whose primary duty is to serve domestic sea transportation activities, transshipment of domestic sea transportation in a limited capacity, is a feeder for the main port and port of collection, and serves as the point of origin for passengers and/or cargo as well as ferry transportation with service coverage within the province, (d) A seaport is a port that can be used for ferry services and/or marine transportation activities in rivers or the ocean, and (e) River and Lake Ports are harbors on rivers and lakes that are utilized to serve river and lake transportation.

The Port of Makassar is designated as both a primary port and a sea port in accordance with the aforementioned classification. Because Makassar Port is open to service interstate sea transportation in order to support export-import activities as well as domestic interisland transportation, the phrase "ocean port" is also frequently used.

Articles 1 and 2 of Law No. 21 of 1992 Concerning Shipping defined shipping as everything related to transportation in oceans and ports, as well as security and safety: (1). A ship is any watercraft of any size or design that is propelled by an external force, such as an engine, wind, or tow line. This definition includes underwater vehicles, floating objects, and immobile floating constructions.

Additionally, Article 3 of Law No. 17 of 2008 Concerning Shipping (an improvement to Law No. 21 of 1992) states that shipping is organized with the following goals: a. promote maritime spirit; b. uphold state sovereignty; c. foster national water transportation industry development; d. create competitiveness by developing national water transportation industry; e. support, mobilize, and encourage the achievement of national development goals; f. strengthen national unity and integrity within the context of facilitating national economic activities; g. improve a country's resiliency.

Ships and Maritime Travel

According to Law No. 17 of 2008 concerning Shipping Article 1 Paragraph 34, a ship is defined as a water vehicle with a specific shape and type that is propelled by wind, mechanical power, other energy, is towed or delayed, and includes floating devices, underwater vehicles, and floating buildings that are stationary. Furthermore, regardless of their name or origin, ships are all considered to be sailing tools, according to Article 309 of the Commercial Code (KUHD). Sea vessels are any ships used for sea trips or built with that function in mind, according to Article 310. Sea vessels are any ships used for sea trips or built with that function in mind, according to Article 310.

From the three definitions of a ship discussed above, it can be inferred that all forms of sailing, whether or not they have their own power, are made of iron-steel, fiber, or wood, and can sail entirely above the water, below the sea, or even fly low over the sea. Regardless of the material the ship is made of or the means of propulsion, sea vessels are ships specifically constructed with the intention of being utilized on sea trips or mostly by sea. The ship can be distinguished into the following in relation to the definition mentioned above; (1) It is split into the following categories: (i) iron-steel ships; (ii) wooden ships; and (iii) fiber ships; (2) It is divided into four categories based on the means of propulsion: (i) motor boats (KM), which are propelled by diesel engines; (ii) steam ships (KU), which are propelled by steam engines; (iii) motorized sailing ships (KLM or PLM), which are propelled by sails (wind) with the help of a diesel engine; and (iv) sailing ships (boats), which are propelled by sails (wind); (3) According to their functions: (i) cargo ships, (ii) passenger ships, (iii) cargo and passenger ships, (iv) cruise ships, (v) fishing boats, (vi) tankers, (vii) light boats and coastal lighting, (viii) ferries (river, lake and ferry transport), (ix) tugboats, (x) barges, (xi) research vessels, (xii) hospital ships, (xiii) warships, (xiv) marine patrol and security vessels, and (xv) pilot and mooring vessels; (4) It is separated into (i) conventional ships and (ii) modern ships, depending on the design.

Modern ships, in particular, are distinguished by; (1) Full container ships; (2) semicontainer ships; (3) Roll-on and roll-off (RORO) ships; (4) Hovercraft, a ship that floats above sea level and takes the form of an air cushion, used for fast short-distance passenger transportation; (5) WiSE (Wing in Surface Effect is a winged ship that can fly low above the water. WiSE technology is a technology that utilizes the surface air compression effect that occurs on low flying objects to increase speed); (6) Katalina ships, aircraft that use the surface of the water (sea or lake) as a port for take-off and landing.

Ships are only used in this study for the transportation of cargo, people, and containers. Sea transportation refers to the use of ships for transportation activities, the majority of which take place at sea.

According to Article 1 Paragraph 2 of Government Regulation No. 20 of 2010 Governing Transportation in Waters, sea transportation is a form of transportation that supports other forms of sea transportation. According to Law No. 17 of 2008's Article 7, there are four different kinds of marine transportation: (a) domestic sea transportation; (b) foreign sea transportation; (c) special sea transportation; and (d) people's sea transportation.

Facilities at Makassar Port

Naturally, the primary port, Makassar Port, has a number of supporting amenities. The table below lists the facilities that are currently in use.

No	Facility Type	Location Capacity		Information
1	Harbor Pool	-	600 ha	
2	Break water	-	$2,000 \text{ m}^2$	
n	Mooringn : Concrete Pier	Base Sukarno	$1,370 \text{ m}^2$	
3	Concrete Pier	Base Hatta	$1,158 \text{ m}^2$	
	Concrete Pier	Base Paotere	686.50 m^2	2,410,50,2
	Concrete Iron/wood	Base Paotere	204.00 m ²	3,418.50 m ²
4	Warehouse	Base Sukarno	19,200.00 m ²	10,000,00 2
	Fire Warehouse	Base Sukarno	600.00 m^2	19,800.00 m ²
5	field	Base Sukarno	7,534.88 m ²	15 407 11 2
(of accumulation	Base Paotere	$7,962.23 \text{ m}^2$	15,497.11 m ²
6	Passenger Terminal	Base Sukarno	3,619.00 m ²	3,619.00 m ²
7	Floating Iool :		2	2
1	- Pilot Ship	Base Sukarno	3 units	3 units
	- lugboat	Base Sukarno	4 units	4 units
	Unloading Tool :		2	
0	- Ground cranes		3 units	a
8	- Forklifts		2 units	2 units
	- Reach stackers		1 units	1 units
	- Head trucks		1 units	1 units
	Support :		$1.025.00 m^2$	
	- Road		$1,955.00 \text{ m}^2$	
	- Parking Lot		$3,390.00 \text{ m}^2$	
9	- Workshop		1,546.10 III	
	- Firefighter			
	- PHC		220.00 m^2	
	- Garbage Car		220.00 III 2 unit	
10	Building		$5.807.00 \text{ m}^2$	
10	Clean water facilities		5,007.00 III	
			800.00 m^3	
	- Middle tub	Terminal	175 ton/jam	
	- Pump capacity	Terminar	175 ton/jam	
11	- PDAM capacity		100 ton/iam	
	- South tub		1.000 m^3	
	- Capacity	Base Hatta	180 ton/iam	
	- PDAM canacity	Dube Huttu	100 ton/jam	
12	Electricity	All Base	399.2 kVA	

Table 1. Facilities at Makassar Port

Source: Makassar Port Administrator

Methods

Exploratory Case Studies

According to (Jackson et al., 2007), qualitative research is defined as research subjects' experiences of actions, perceptions, motivations, behaviors, etc., as a whole, through descriptions and verbal forms. In 2022, the study was carried out in the Port of Makassar.

The documentation approach and internet access were used for data collecting. The websites <u>www.bpsmakassar.go.id</u> and <u>www.bumn.go.id</u> are used to access the internet. The information gathered pertains to the movement of commodities, ships, and people via Makassar Port and four other major ports throughout the course of the previous five years.

The growth ratio approach was used to quantify the development of transportation realization, and proportion analysis was used to gauge the significance of Makassar Port among the other major ports under investigation.

Sample and Data Collection

The study focused on analyzing the movement of commodities, ships, and people at Makassar Port, comparing its performance with four other major ports over the past five years. The growth ratio approach was employed to quantify transportation development, while proportion analysis was utilized to assess Makassar Port's significance relative to the other major ports.

Results and Discussion

Realization of Ship and Transport Flows at Makassar Port

According to the type of voyage, the realization of ship visits is divided down, and each tonnage is shown in Table 2.

No	Description	Unit	Year					
10.		Unit	2014	2015	2016	2017	2018	2019
1	Overseas	Call	196	221	235	185	178	171
1	Transport	GT	1,927,227	1,775,265	1,913,996	1,160,923	1,704,046	1,643,215
n	Domestic	Call	3,073	2,946	2,789	2,580	2,654	2,220
2	Transport	GT	13,758,223	13,670,358	13,586,997	12,991,280	14,877,269	12,748,261
2	Special	Call	398	388	413	455	469	469
5	Transport	GT	4,154,000	2,239,989	2,383,425	2,143,942	1,596,324	1,930,182
1	People	Call	1,750	1,565	1,452	1,481	1,539	1,400
4	Shipping	GT	150,182	153,685	184,651	208,892	203,539	165,982
5	Pioneer	Call	62	76	72	66	72	55
3	Transportation	GT	31,694	38,009	38,781	32,622	43,262	29,024
	Jumlah	Call	5,479	5,196	4,961	4,767	4,912	4,315
	Jumlah	GT	20,021,326	17,877,306	18,107,850	16,537,659	18,424,440	16,516,664

Table 2. Shows ship visits and tonnage at the port of Makassar

Source: PT Pelindo IV Makassar Main Branch

According to information from Table 2, over the past six years, an average ship made 198 visits with a tonnage of 1,687,445 Ton Registers or 8,536,823 RT per ship unit. With a gross content of 13,605,398 RT, or 5,019,825 RT, it reaches an average annual visit of 2,710 calls for ships providing domestic transportation. Tanker ships, cruise ships, fishing boats, and warships all made special ship visits, with an average of 432 calls and a tonnage of 2,407,977 RT or 5,574,021 RT per ship unit. With 1,531 calls each year and a tonnage of 177,822 RT, or 116,135 RT per ship unit, the people's shipping fleet makes visits. With a tonnage of 35,565 RT, or the equivalent of 529.51 RT, pioneer ships make an average of 67 stops per year. 4,938 ships, or more than 15 ships per day, are typically present at Makassar Port each year on average.

No	Description	I Init	Year					
		Unit	2014	2015	2016	2017	2018	2019
1	Export	Ton	875,925	875,761	627,438	434,425	384,149	311,084
2	Import	Ton	701,911	725,906	820,947	785,026	855,113	1,045,444
3	Unloading Between Islands	Ton	4,207,126	4,318,123	5,393,935	5,999,704	6,668,790	5,835,311
4	Load Between Islands	Ton	3,011,031	3,255,918	3,961,244	3,837,452	3,904,998	4,597,220
	Amount	Ton	8,795,993	9,175,708	10,803,564	11,056,607	11,813,050	11,789,059

Table 3. Actual Flow of Goods at Makassar Port

Source: PT Pelindo IV Makassar Main Branch

Following are the realizations of transportation from arriving ships: The annual average for export transportation was 584,797 tons, while the annual average for import transportation was 822,391 tons. This understanding demonstrates that imports outweigh exports in terms of volume. While cargo that is loaded only reaches an average of 3,761,311 tons per year, cargo that is unloaded averages 5,403,832 tons annually. According to the data, there is much more cargo being unloaded or brought into the country from other ports than is being loaded or released at Makassar Port.

Implementation of container transportation at Makassar's port

A typical Container Terminal for Makassar Port was constructed at Hatta Base and Hasanuddin Base. There will be an installed capacity of 800,000 TEUs in 2019.

No	Decomintion	Unit	Year					
	Description	UIIIt	2014	2015	2016	2017	2018	
1	Export	TEUS TON	10,618 222,648	12,263 224,736	15,576 288,179	15,286 176,303	16,648 308,447	
2	Import	TEUS TON	1,426 28,211	1,262 20,107	1,647 23,194	1,583 18,002	2,245 40,086	
3	Unloading Between Islands	TEUS TON	110,983 1,239,036	127,266 1,814,668	150,442 2,058,116	176,239 1,994,550	184,021 3,508,047	
4	Load Between Islands	TEUS TON	121,173 1,736,461	115,260 1,243,471	134,378 1,560,327	160,329 1,593,862	170,427 2,059,274	
	Amount	TEUS TON	244,200 3,226,366	256,071 3,302,982	302,043 3,929,816	353,437 3,929,816	373,332 5,915,854	

Table 4. shows the actual container flow at the port of Makassar

Source: PT Pelindo IV Makassar Main Branch

A contemporary container terminal already exists at Makassar Port, and every year, its capacity is raised. Table 4 shows the actual container traffic through the Makassar Port Container Terminal for the 2014–2018 period. If they are compared, export transportation realizes a far higher profit than imported transportation. This indicates that there are more exports from the hinterland of Makassar Port than there are imports. On the other side, more containers are discharged than loaded during domestic inter-island shipping. In contrast to the 149,790 TEUs that are unloaded, only 140,313 TEUs are typically loaded between islands each year. The loaded and unloaded tonnage of the intended containers totals 1,638,679 tons and 2,122,883 tons, respectively. The installed capacity has only been realized to a degree of roughly 50%.

Realization of Passenger Transportation

All PT PELNI ships traveling to the eastern region of Indonesia call at the Port of Makassar because of its location on the shipping route from the west to the east of Indonesia.

No.	Description	Unit	Year					
	Description	Om	2014	2015	2016	2017	2018	2019
1	Passenger Ship	Call	786	801	756	786	854	688
2	Passengers Get Off	Person	333,878	318,200	303,212	324,142	367,163	279,361
3	Passengers Go Up	Person	249,796	258,809	263,079	308,641	321,667	233,108
Amount		Call Person	786 583,674	801 577,009	756 566,291	786 632,783	854 688,830	688 512,469

Table 5. shows the actual passenger flow at the Makassar PorT

Source: PT Pelindo IV Makassar Main Branch

According to data from Table 5, over the past six years, there have been an average of 320,993 passengers disembarking at Makassar Port per year, but only 272,517 passengers boarding (departing passengers) per year. This indicates that there are more passengers getting off than on at the Port of Makassar.

The Role of Makassar Among Indonesia's Main Ports

In the following, data on the role of the Port of Makassar in the transportation of goods and passengers are presented.

Year	Port							
	Belawan	Tg. Priok	Tg. Perak	Balikpapan	Makassar			
2015	6,959,975	14,020,612	10,658,357	8,593,227	3,183,449			
2016	7,242,572	15,808,757	11,803,339	8,794,094	3,461,109			
2017	8,269,358	16,861,782	14,719,983	8,557,097	4,992,781			
2018	7,527,212	15,152,551	7,765,622	7.601.787	6,673,336			
2019	6,785,557	14,931,476	8,258,112	5.195.121	7,975,107			

Table 6. Realization of Outgoing Goods Flow at Five Main Ports (Tons)

Source: https:// www.bps.go.id

According to data from Table 6, Makassar Port has only had a 12 percent role in the actualization of outgoing goods transit during the last five years. 35.06 percent of the commodities are transported by Tg. Priok, while 24.30 percent are conveyed through Tg. Silver. The Port of Makassar can only outperform the Port of Balikpapan's actualization.

Table 7. Actual Flow of Incoming Goods at Five Main Ports (Tons)

Year	Port							
	Belawan	Tg. Priok	Tg. Perak	Balikpapan	Makassar			
2015	538,602	5,948,414	11,221,968	10,123,854	2,552,868			
2016	974,286	7,124,602	13,610,296	13,395,413	2,707,219			
2017	1,186,819	6,745,753	9,463,008	11,642,395	3,294,072			
2018	1,216,190	8,341,275	8,829,194	8,218,005	3,711,557			
2019	1,128,960	9,901,037	8,398,353	9,436,453	4,601,508			

Source: https:// www.bps.go.id

Table 7 demonstrates that over the last five years, the Port of Makassar's contribution to the realization of incoming goods (unloaded) transportation has only reached 10.27 percent. Tg. Priok and Tg. Silver together account for 23.16 percent and 31.36 percent of the total amount of products moved, respectively. Actually, the Port of Balikpapan operates under the control of the Port of Makassar.

Year	Port							
	Belawan	Tg. Priok	Tg. Perak	Balikpapan	Makassar			
2015	69,004	235,464	424,943	257,939	326,202			
2016	63,918	216,333	495,409	284,313	386,203			
2017	80,309	299,891	571,470	303,296	384,438			
2018	67,292	227,927	472,347	254,288	360,750			
2019	57,177	202,146	444,411	202,499	309,705			

Table 8. Actual Alighting of Passengers at Five Main Ports (Tons)

Source: https:// <u>www.bps.go.id</u>

The Port of Makassar plays a significant part in the transportation of passengers. Table 8 shows that for passengers disembarking, Makassar Port had a stake of 25.26 percent, with Tg. Silver having the biggest share at 34.42 percent. Belawan Port has the smallest proportion, at only 4.83 percent.

Voor	Port							
Teal	Belawan	Tg. Priok	Tg. Perak	Balikpapan	Makassar			
2015	77,996	250,050	492,018	257,587	416,093			
2016	57,528	213,749	558,966	254,648	418,823			
2017	75,562	275,605	583,310	306,856	552,041			
2018	60,916	195,835	465,360	193,299	506,444			
2019	70,280	205,532	466,948	182,820	387,623			

Table 9. Actual Increase in Passengers at Five Main Ports (Tons)

Source: https:// www.bps.go.id

According to Table 9, the greatest proportion for boarding passengers was at Tg. Silver, which reached 34.10 percent, while Makassar Port had a share of 30.31 percent. Belawan Port holds the least percentage, with about 4.56 percent.

Why does the number of passengers embarking at Makassar Port always exceed the number of passengers disembarking is the question that now needs to be answered definitively. The second query is as to why the Central Bureau of Statistics (BPS) data and the Makassar Port Administrator's passenger transport statistics differ. Theoretically, the data for both freight and passenger transportation should be same.

There may be a variety of causes for Makassar Port consistently disembarking more passengers than usual. It's crucial to remember that it's challenging to offer a conclusive answer in the absence of precise data or context. But I can suggest several potential justifications: 1). Passengers in transit: Makassar Port may be used as a stopover for those going somewhere else. There would be more passengers embarking than disembarking because these travelers would board at Makassar but disembark at their final location. 2). Tourism and travel patterns: Makassar Port might be a well-liked vacation spot or be situated in a region that draws a sizable number of tourists. It may be because of the city's charms or the availability of tourist activities if more people are arriving in Makassar than departing.3). Economic factors: Makassar might be a center for economic activity, drawing visitors who come for work or business. This might lead to more people traveling to the port for business-related reasons, which would increase the number of passengers boarding.

Conclusions

The Port of Makassar may serve as the entry point to Eastern Indonesia and has sufficient infrastructure. Its contribution to the movement of products, both entering and departing, is minimal-only about 10% for incoming and 12% for outgoing goods. Its function in passenger transportation is substantial. The hinterland region has to expand if Makassar Port is to play a bigger role in the future. There is a need to publicize where the factories are being built in this archipelago. Not just concentrated in Indonesia's western area. More than 60% of Indonesia's potential natural riches, according to research, is located in Eastern Indonesia, compared to just about 25% in economic infrastructure. The development strategies for Eastern Indonesia must address this discrepancy right away, and they will support Makassar Port's future expansion. Several tactics could be taken into consideration to aid in the future growth of Eastern Indonesia and the Makassar Port, including; (1) Infrastructure development: Improving the accessibility and effectiveness of goods moving to and from the port can be accomplished through improving transportation infrastructure, such as roads, railroads, and intermodal connectivity. This will make it easier for trade and industrial activity to grow in the area; (2) Investment inducements: Offering enticing inducements, like tax exemptions, subsidies, or other forms of assistance, can entice companies to invest in Eastern Indonesia. These incentives may entice manufacturing and industrial firms to locate their operations in the area, fostering job creation and economic growth; (3) Collaboration at the regional level can encourage alliances and joint development projects with adjacent regions, provinces, and nations. Eastern Indonesia can take advantage of its natural advantages and encourage regional economic integration by pooling resources, knowledge, and investment.

Acknowledgements

We are profoundly thankful to the head of Research and Community Service (LP2S), Universitas Muslim Indonesia, for their help and support in the process of completing this research

Author Contributions

Conceptualization, methodology, software, validation (syamsu Nujum & Hukma Ratu Purnama), formal analysis, investigation, resources, data curation, writing—original draft preparation (Zainuddin Rahman), writing—review and editing, visualization, supervision, project administration, (Imaduddin Murdifin), have read and agreed to the published version of the manuscript.

Funding

No funding external

Ethical Considertion Statement

Informed was obtained from all subjects involved in the study.

Conflicts of Interest: The authors declare no conflict of interest.

References

1108_PUB_SANDEE_annual_report_2016. (n.d.).

Bank Group, W. (n.d.). State of Logistics Indonesia 2013. http://www.ali.web.id/

Bernstein, J. B. (2008). Reformulating the determiner phrase analysis. In Linguistics and Language Compass (Vol. 2, Issue 6, pp. 1246–1270). Blackwell Publishing Inc. https://doi.org/10.1111/j.1749-818X.2008.00091.x

Christensen et al2004. (n.d.).

- Christiansen, M., Fagerholt, K., & Ronen, D. (2004). Ship Routing and Scheduling: Status and Perspectives. Source: Transportation Science, 38(1), 1–18. https://doi.org/10.1287/trsc.1030.0036
- Handa, R. (2017). Research Methods for Architecture. Technology|Architecture + Design, 1(1), 112–113. https://doi.org/10.1080/24751448.2017.1292802
- Haque, M. (n.d.). The Asian Financial Crisis of 1997: Causes and Policy Responses. https://www.researchgate.net/publication/263448530
- Jackson, R. L., Drummond, D. K., & Camara, S. (2007). What is qualitative research? Qualitative Research Reports in Communication, 8(1), 21–28. https://doi.org/10.1080/17459430701617879
- Kjeldsen, J. E. (2015). The study of visual and multimodal argumentation. Argumentation, 29(2), 115–132. https://doi.org/10.1007/s10503-015-9348-4
- Lam, J. S. L. (2016). Strategy of a Transhipment Hub: The Case of Port of Singapore. In Dynamic Shipping and Port Development in the Globalized Economy (pp. 12–38). Palgrave Macmillan UK. https://doi.org/10.1057/9781137514233_2
- Larissa, D., Van Der Lugt, M., & De Langen, P. W. (n.d.). PORT AUTHORITY STRATEGY: BEYOND THE LANDLORD A CONCEPTUAL APPROACH. https://www.researchgate.net/publication/228814779
- Meng, F., Braasch, I., Phillips, J. B., Lin, X., Titus, T., Zhang, C., & Postlethwait, J. H. (2013). Evolution of the eye transcriptome under constant darkness in sinocyclocheilus cavefish. Molecular Biology and Evolution, 30(7), 1527–1543. https://doi.org/10.1093/molbev/mst079
- Selasdini, V., & Almuzani, N. (n.d.). Implementation of Port Acceptance Facilities: Study at Tanjung Priok Port. https://doi.org/10.38035/jafm.v3i2
- Sprogis, K. R., Bejder, L., Hanf, D., & Christiansen, F. (2020). Behavioural responses of migrating humpback whales to swim-with-whale activities in the Ningaloo Marine Park, Western Australia. Journal of Experimental Marine Biology and Ecology, 522. https://doi.org/10.1016/j.jembe.2019.151254