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Revista de Antropología, Ciencias de la Comunicación y de la Información, Filosofía,
Lingüística y Semiótica, Problemas del Desarrollo, la Ciencia y la Tecnología

Año 35, 2019, Especial N°

19

Revista de Ciencias Humanas y Sociales
ISSN 1012-1587/ ISSNc: 2477-9385
Depósito Legal pp 198402ZU45



Universidad del Zulia
Facultad Experimental de Ciencias
Departamento de Ciencias Humanas
Maracaibo - Venezuela

The modernization of Krueng Geukuh port in supporting the special economic zones (Sez) Of Arun Lhokseumawe, Indonesia

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Abstract

The seaport plays an important role as a vital area beside sea transportation for local, regional, national and international economic, social development and even social changes. Krueng Geukeuh seaport is one of the biggest ports in Lhokseumawe city that can accelerate the economic growth of Lhokseumawe. Of the goal of this study is collecting data from several sources and analyzing using contents analysis. The result of the study indicates that the problem why this port cannot carry out its functions properly is government policies.

Keywords: Seaport of Krueng Geukuh, Special Economic Zones, Sea Transportation, Economic Development.

Se moderniza el puerto Krueng Geukuh para apoyar las zonas económicas especiales (Zee) de Arun Lhokseumawe, Indonesia

Resumen

El puerto marítimo desempeña un papel importante como área vital al lado del transporte marítimo para el desarrollo económico, social e incluso los cambios sociales locales, regionales, nacionales e internacionales. El puerto marítimo de Krueng Geukeuh es uno de los puertos más grandes de la ciudad de Lhokseumawe que puede acelerar el crecimiento económico de Lhokseumawe. El objetivo de este estudio es recopilar datos de varias fuentes y analizarlos mediante el análisis de contenidos. El resultado del estudio indica que el problema por el cual este puerto no puede llevar a cabo sus funciones correctamente es la política del gobierno.

Palabras clave: puerto marítimo de Krueng Geukuh, zonas económicas especiales, transporte marítimo, desarrollo económico.

1. INTRODUCTION

The port is not only a place of sea transportation but has long been a focal point for local, regional, national and international economic, and social development and even social change (Polónia, 2010). A strategic position brings the port into a significant research field to support studies on the development of trade networks, technological and industrial developments, and social and urban changes (Geels, 2004). Ports are no longer studied exclusively as infrastructures or economic centers, but as a complex system produced by economic, political, social and cultural forces which consist of gates between land and sea, inland and inland areas, the axis of capital with the impact on structures territorial, economic, social and mental (Miran, 2009). In addition, active agents in

the process of modernization and change have a role in the field of technological innovation and in the process of urbanization (Castells, 2011). All ports have the same roles and functions as mentioned above but have a different capacity. It means that the more important the port, the higher the demand for a change and development. The problem is how the roles are built. Based on history, there are two measures of the port roles. The first is natural conditions, and the second (most important) is political policies. The government support is not a single concept but consists of a series of integrative policies which include political, social, and (economic) capabilities.

If both measures are complete, the existing ports will have very great effects on national economic development. Unfavorable natural conditions can be engineered if the local government has a political will to make the port which is originally small and not strategic to be large and significant. For example, there are dredging, constructing infrastructure facilities and issuing affirmative regulations. Conversely, supporting natural conditions will be in vain if the existing government is not optimal in providing supports. Without government supports, the process of harbor optimization will be very hard. But the efforts will find a dead end if both naturally and politically are not fulfilled. Like other ports, Krueng Geukuh is also expected to be part of the centers of economic growth. Geographically, the natural condition of Krueng Geukuh Port promises not only on a local scale but also economic and social growth at the national, regional and even international levels. Since it is established as a Special Economic Zone (SEZ) in February 2017, Lhokseumawe city is expected to accelerate economic development that is strategic for national economic development.

In the context of SEZ, economic development in Lhokseumawe is divided into three five-year stages. The first phase (2016-2020) will focus on the revitalization of existing facilities. One of the partners collaborated by the Government of Aceh is PT Pelindo I, which is a State-Owned Enterprise that manages public ports (including) in Aceh Province. Thus, Pelindo is obligated to revitalize the port in the Lhokseumawe area, namely Kreung Geukeuh. In relation to this, this study aims to examine: how is the condition of the existing Krueng Geukuh port compared to the ideal port concept; how is the strategy of Pelindo in modernizing the Krueng Geukuh port so that it can accelerate economic development locally, nationally and internationally; and what political policies need to be carried out by stakeholders to make Krueng Geukeuh as an ideal port.

As stated above on the significant and strategic position of the port, in the history of the progress of human civilization, the port has long been the focal point of local, regional, national and international economic and social development and social change (Ng et al., 2014). The port is no longer studied exclusively as infrastructure or a center of economy, but as a complex system produced by economic, political, social and cultural forces; The gate between land and sea, between the interior and inland areas, the axis of capital with the impact on territorial, economic, social and mental structures. The port is also an active agent in the process of modernization and change which has a role in the field of technological innovation and in the process of urbanization (Polónia, 2010).

In the early period of modernization of Western civilization, especially Europe, the roles played by the ports are undeniable (Acemoglu et al., 2005). The existence of ports is important for the arrangement of

economic spaces and the efficiency of shipping logistics or other basic needs. The existing ports play roles in building trade networks and maritime routes, increasing tonnage of ships and the world economy. All of which functions aim to increase maritime interests and activities and the importance of seaports (Unger, 2006). Ports are very strategic in the formation of political and economic structures and then considered that the ports play new roles. As a result, they have clearly contributed to the history and dynamics of Europe in the early era of European modernization. The interactions at the ports produce demographic, social and mental phenomena, and clearly show that the port zones are separate from the hinterlands.

Nowadays, the port has pretty complex functions. Therefore, various definitions of the port could be seen from a variety of perspectives such as in the practice of law, economics, and technology. The port is simply a place for exchanging goods or passengers between ships, or between ships and land transport vehicles. The port is a location on the ocean, river, or lake that has facilities to receive ships and move goods cargo and passengers into it. Dundovic and Kesic (Jakomin, 2003) define ports as natural or man-made ports in seas, rivers, canals or lakes, where ships find shelter from waves, currents, tides, and ice; Protect from hostile actions or attacks; A place that provides protection, fresh water and periods; A place to repair the hull, machinery and equipment, or to clean all parts; Place for safe and fast exit, loading of cargo and passengers; and a place that allows the crew to relax and unwind.

Ports usually have tools specifically designed to load and unload ships docked. The port is also a gateway to enter a particular area and as a

connecting infrastructure between regions, between islands, and even between countries. (Triatmodjo, 2009). The economic activities of a region will be more smoothly because of the existence of the port. Based on the facts in several countries, export-import of goods are mostly shipped by sea although the intended route can be passed by other modes of transportation. This is because the quantity that can be met is much more and the travel costs are cheaper although the route takes longer (Juhel, 2001; Zhang, 2008).

Traditionally, the port has three functions, as traffic flow or transportation, trade, and industry. But the traditional function of the seaport is changing today (Jakomin, 2003). In the globalization era, there is no single destination in the world that cannot be accessed so that it causes the ease delivery of information to every destination. This development has brought changes in the traditional seaport functions that have been in effect. Further, Jakomin claims that the seaport has other functions in this modern period, namely as a logistics and distribution function. Seaports act not only as handling points, or return goods to their transportation routes but also as logistics and distribution centers that function as intermodal hubs in the supply chain, which offer door-to-door services to customers.

In economic development, the port has several functions that can simultaneously improve the economy of a country (Limau & Venables, 2001). The port has a function as a place of import and export and other economic activities which is related to causality (Bintarto, 1968). There are economic benefits that can be directly obtained from the activities at the port, such as the opening of many jobs for the surrounding community

because every activity in the port will need human labor. For example, collies (to lift goods), port traffic regulators (especially traffic controllers of vehicles that will enter the ship), and port cleaners.

The port infrastructures have important effects on improving the quality of life and human well-being such as an increase in the value of consumption, labor productivity, and the prosperity of the surrounding community. Because of the presence of ports, many commercial goods enter a country and also aims to fulfill the desire of a community to consume the goods. Because now is the era of the global market, the level of desire to consume goods that are becoming a trend center also increases, even though the item is not from his country. Aside from being a port transportation infrastructure, it can also be used as a place of tourism because it can also bring benefits for both the country and the surrounding community (Indriyanto, 2005).

In the Indonesian context more specifically, ports are the most important means of connecting between islands and countries. The port is one of the most important trade chains of the entire trade process, both inter-island, and international trade. As a meeting point between land and sea transportation, the role of the port is very vital in encouraging economic growth, especially strategic areas as a place of movement of goods and people in large quantities. As a part of the transportation system, ports play an important role in the economy.

Thus, it concludes that seaport has a very important and strategic role in supporting the economic growth and trade in cities and provinces particularly, and the state generally. Likewise, the Krueng Geukeuh port in

Lhokseumawe is created with the aim to carry out the functions as mentioned above and the ultimate goal is to improve the strategic economic development for national economic development.

2. METHODOLOGY

The port should ideally be able to play many functions and roles such as the role of economy, socio-culture, and politics (de Langen, 2004). Therefore, the various functions and services provided by the port make it often analogous to a system. The more strategic the position of the port, the more serious and maximum handling because the port is a high-cost project and if the investments are not followed up seriously and sustainably, they will only waste a lot of budgets. What is the ideal port?. Several definitions as described earlier say that the port plays a role in accelerating economic growth, socio-cultural, political and recreational ones. Therefore, the ideal port is a port that can cover everything. Today, the developments in the port services industry of the world have improved the original port function from a place to stop over and link of transportation chain to a capable service center to offer comprehensive service packages (Service Centers, Distribution and Value added) and functions as a Trade Logistic Platform. This is due to the changes in the mindset of the consumers and trade of the world that need a total solution (Sudjanadi, 2010). In general, Sudjanadi (2010), international standards ports management and operation are oriented on "The Marketing Mix to Service" approach and has the following general characteristics: Lower costs of port services; Simple service systems and procedures (single documentation and procedures), facilities in paperless transactions,

smoothness in transshipment activities, and re-export (less restriction on transshipment and re-export), and able to offer more interesting services (offers more than just storage).

Some ideal ports in accordance with international standards include Rotterdam (Netherlands), Felix town (U.K), New York (USA), PSA (Singapore), Antwerp (Belgium) and others. In Indonesia, the only international standard port is Teluk Lamong Port which is a multipurpose terminal developed by PT Pelindo III. The port has reliable security because no unauthorized person enters the container field area and physical inspection place. The Container Yard (CY) use remote-controlled cranes to move the existing containers. In addition, there are also hangars next to them for physical inspection of customs and quarantine bodies. For vehicles entering and leaving, two lanes have also been made to facilitate mobility. Teluk Lamong also does not only have infrastructures but also provides environmentally friendly trucks for transportation where the engine is located below. If the truck strikes, the engine is replaced by a new one so that it can run again (Kompas, 2015). However, because it was inaugurated in May 2015, the service, operational role, and function of this port still need to be examined for sustainability.

3. RESULT AND DISCUSSION

3.1. Krueng Geukeuh Port Conditions

What is the condition of Krueng Geukeuh Port? Based on the Logistic Capacity Assessment, Krueng Geukeuh Port or also called

Lhokseumawe Port has fulfilled the provisions of the International Ship and Port Facility Security (ISPS) Code in managing the security of facilities in ports. This port has been designated as a port of import of certain products based on the Indonesian Minister of Trade Regulation. Under the control of PT Pelindo I (Persero) Branch of Lhokseumawe, this Class II seaport serves domestic and international shipping (export-import). Krueng Geukeuh is also often used as a 'supply base' for oil mining companies that carry out offshore exploration in Lhokseumawe. For example, Altus Logistics has already prepared a portion of this port area to a supply base for ENI Krueng Mane Limited, explored nearby.

Krueng Geukueh port of Lhokseumawe is located on the East coast of Aceh Province precisely at a distance of ± 15 km from Lhokseumawe city. It has a depth of 10 meters and can be pulled by a ship with a size of 20,000 Dead Weight Ton / DWT (dead ship weight) x 100 meters in length. The port also has 267 x 25 meters dock that allows two ships to lean at once. It is also supported by two permanent warehouses and has 2,000 and 600 square meters, and five tarpaulin warehouses covering 32 x 10 and 24 x 10 meters. For supporting equipment, this Port has two cranes with a load of 45 and 25 tons each of them. To transport goods from the ship to the warehouse, it has six units of forklifts (leverage fork) with weights of 7.5 tons, 5 tons and 3 tons each of them. In the first quarter of 2014, export activities through the port in North Aceh were recorded at only 384,473 tons. (Bappeda Aceh, 2015).

The other advantages of this port are relatively calm water conditions compared to other seas in temperate regions. The weather is

free from strong winds and typhoons. The hinterland of Krueng Geukueh Lhokseumawe Port covers the area of North Aceh Regency Government.



Figure 1: The area of Krueng Geukueh port ,Source: PT Pelindo I

With existing facilities, Krueng Geukeuh should be able to make a significant contribution to economic growth in Aceh at a minimum at the local level, namely the economy of Lhokseumawe city. Moreover, it is supported by various commodities that can be extracted from the earth of Aceh. For example, Palm oil is a commodity that has developed in several regions of Lhokseumawe SEZ hinterland. In 2012, community plantations in North Aceh had a land area of 16,829 acres with a production of 39,343 tons. While the large plantation had an area of 7,766 acres and the production was 76,632 tons. Bireuen had a relatively large potential, especially large plantations with a land area of 2,071 acres and its production was 21,261 tons. While Pidie Jaya had a community plantation

area of 2,000 acres with 884 tons of production, and Bener Meriah had a community plantation area of 1,300 acres with 144 tons production (Bappeda Aceh, 2015).



Figure 2: Lay Out of Krueng Geukueng Port
 Source: PT Pelindo I

Besides Palm, the hinterland area is also filled with other commodities such as coffee and cocoa. Coffee is an export mainstay for Aceh, especially people who live in the Aceh Tengah and Bener Meriah Regency with a production of around 49,784 tons. The estimated sales value reach Rp 3.5 trillion per year. Cocoa productions reach 36,661 tons in 2012, (Bappeda Aceh, 2015). Besides the many agricultural commodities or other plantations with positive growth projections, there is also a creative economy that also continues to show positive trends.

Table 1: Aceh Commodities and Projections

Type of Producti on	Year(s)						Export Commodity
	2012	2016	2017	2018	2019	2020	
Cocoa	46,782	39,297	40,083	40,884	41,702	42,536	80%
Coffee	51,237	32,279	32,925	33,583	34,255	34,940	60%
Rice	398,04 5	125,38 4	127,89 2	130,45 0	133,05 9	135,72 0	30%
Orange	35,000	29,400	29,988	30,588	31,200	31,824	80%
Avocado	22,000	17,325	17,672	18,025	18,385	18,753	75%
Rotan	200,00 0	157,50 0	16,650	163,86 3	167,14 0	170,48 3	75%
Fish	N/A	N/A	N/A	N/A	N/A	N/A	30%
Rubber	6,000	5,040	5,141	5,244	5,348	5,455	80%
Soybean	36,148	11,387	11,614	11,847	12,084	12,325	30%
	795,21 2	417,61 2	281,96 5	434,48 4	443,17 3	452,03 6	

Source: Bappeda Aceh, (2015)

As we know, there is a PT. Pupuk Iskandar Muda National Fertilizer Company which is also located in the hinterland area. Fertilizer production is quite large so that if marketed using ships, it will make the selected port quite busy. Based on projections, fertilizer production of PT. PIM is also predicted to continue to increase as shown in the following Table:

Table 2: Productions and projections of PT PIM Fertilizer

Fertilizer	2016	2017	2018	2019	2020
Urea	870,000	978,750	1,101,094	1,238,730	1,393,572
Ammoniac	383,000	430,875	484,734	545,326	613,492
Acid Sulphate	N/A	N/A	N/A	300,000	337,500
NPK Chemical	N/A	N/A	N/A	100,000	112,500
NPK Fusion	N/A	N/A	N/A	500,000	562,500

Annual Total Production	2,044,228	1,411,647	1,587,846	2,736,075	3,077,834
Monthly Total Production	170,352	117,637	132,321	228,006	256,486
Weekly Total Production	40,885	28,233	31,757	54,722	61,557

Source: Bappeda, (2015)

In addition to commodities produced from the earth of Aceh, Aceh itself requires various kinds of logistics for the consumption of the community. Based on the SUSENAS Data in 2014, the projection of demand for logistics needs by the people of Aceh continues to increase from year to year.

Table 3: Aceh Community Consumption Products and Projections

Type of Logistic Needs	Projection of Demand					Consumption
	2016	2017	2018	2019	2020	
Rice Flour	1,357,606	1,389,102	1,421,330	1,454,304	1,488,044	0.261
Wheat Flour	6,507,146	6,658,112	6,812,580	6,970,632	7,132,351	1.251
Creamer	15,729,504	16,094,429	16,467,819	16,849,873	17,240,790	3.024
Milk Powder	3,739,136	3,885,229	3,975,366	4,067,595	4,161,963	0.730
Red Onion	107,406,922	109,898,762	112,448,414	115,057,217	117,726,544	20.649
Garlic	62,652,737	64,106,281	65,593,546	67,115,317	68,672,392	12.045
Red Chili	74,044,144	75,761,968	77,519,646	79,318,102	81,158,282	12.723
Cayenne Pepper	66,179,392	67,714,754	69,285,736	70,893,165	72,537,887	14.235
Sugar	345,809,820	353,832,608	362,041,524	370,440,887	379,035,116	66.482
Brown Sugar	28,478,517	29,139,219	29,815,248	30,506,962	31,214,724	5.475
Tofu	37,919,340	38,799,069	39,699,207	40,620,229	41,562,618	7.290
Tempe	41,144,305	42,098,853	43,075,546	44,074,899	45,097,436	7.910
Fried Oil	46,377,070	47,453,018	48,553,928	49,680,379	50,832,964	8.916
Annual Total Production	837,403,638	856,831,403	876,709,891	897,049,561	917,861,111	
Monthly Total Production	69,783,637	71,402,617	73,059,158	74,754,130	76,488,426	
Weekly Total Production	52,337,727	53,551,963	54,794,368	56,065,598	57,366,319	

Source; Bappeda (2015)

All of the above commodities should be able to make the Krueng Geukeuh port as a fairly busy port because the shipment of goods will be more profitable using the ship. It assumes that half of the fertilizer production produced by PT. PIM is distributed outside of Sumatra using a 10,000-20,000 tonne vessel and at least one to two vessels a week will dock to transport the commodity. While coffee, cocoa, and logistical needs will take at least one ship to two ships in a week to transport them. Besides, the need for raw materials, capital goods, and consumer goods for other communities and industries in Aceh that require the transportation services of the Krueng Geukuh port. The port location has closer access to the international shipping (compared to Belawan port in Medan) can make the choices for exporters to send or load their goods to and from Indonesia.

In fact, the activities of the Krueng Geukeuh port are relatively less because of the existing facilities and limitations. In the first quarter of 2014 export activities through the port in North Aceh are recorded at only 384,473 tons (Bappeda, 2015: 150). Below is the Krueng Geukeuh port traffics table from 2009 to 2014 based on the data from Pelindo 1.

Table 4: Traffics of Krueng Geukueh Port

Type(s)	Unit	Year(s)				
		2009	2010	2011	2012	2013
Ship visited	Call	465	423	236	696	374
	GT	5,252,991	5,447,445	1,416,765	3,388,687	2,969,970
Stevedoring	Ton	6,116,961	5,959,933	3,911,129	3,237,162	2,791,921
Goods Stevedoring	Teus	N/A	146	N/A	N/A	N/A

Source: Pelindo 1, (2013)

As a comparison, the import activities of ports under the management of Pelindo 1, There is an imbalance between Krueng Geukeuh and Belawan.

Table 5: Perdagangan Impor Melalui Pelabuhan Pelindo 1 (In Ton)

No	City(es)	Year(s)	
		2014	2015
1	Belawan	3,596,689	2,326,510
2	BICT	2,860,107	3,137,095
3	Dumai	441,225	406,238
4	Pekanbaru	30,119	18,901
5	Tanjung Pinang	40,328	22,521
6	Lhokseumawe	58,330	33,436
7	Malahayati	22,180	22,325
8	Tanjung Balai Asahan	357,340	282,725
9	Sei Pakning	164,470	151,115
Total		7,570,788	6,400,866

Sumber: Pelindo 1 (2015)

Many ships and entrepreneurs feel reluctant to choose Krueng Geukeuh because they consider the cost of commodity transportation to Aceh to be high. For example, the expedition costs of goods using containers from Jakarta to Medan charges between Rp. 8,000,000-Rp.10,000,000. By using the same transportation, the cost of transporting goods from Jakarta to Aceh reaches Rp. 22,000,000 - Rp. 25,000,000. This cost is twice as expensive. Obviously, this is not proportional to the distance. The management of the Krueng Geukueh port is not well systemized. Ships are reluctant to enter because they do not know what can be brought from Aceh when they go back. In addition, the shipping goods through

Belawan port of North Sumatra is more conveniences, such as shipping domestic and foreign goods.

3.2.Modernization of Krueng Geukeuh

The role played by maintenance and upgrade at the port is very important to keep the assets running properly and the load moves as efficiently as possible. Ports are challenged to prioritize their limited resources between the main capital investments needed for larger vessels, versus upgrading the main cyclic docks and other facilities. Meanwhile, encouraging partnerships with shipping lines and private and public sector agents, it continues to help supporting supply chain infrastructure and it needs more (Smith, 2016). Without any changes, the port of Krueng Geukeuh will never be able to support the revitalization of the Lhokseumawe industrial area to become a special economic zone. Because of that, it is necessary to modernize the port. Making Krueng Geukeuh Port as an ideal port requires effort and hard work. Naturally, this port can indeed meet the standards required by ISPS. However, the Logistic Capacity Assessment on the web only places this port in level 1. The ideal level is at level 3.

Port Security		
Lhokseumawe is the only port in Aceh that is ISPS compliant.		
Security		
ISPS Compliant (Yes / No)	Yes	
Current ISPS Level	1	Level 1 = Normal, Level 2 = Heightened, Level 3 = Exceptional
Police Boats	N/A	
Fire Engines	N/A	

Figure 3: Security Standard Level of Krueng Geukueh Port
Source: <http://dlca.logcluster.org>

Krueng Geukuh Port has no supported facilities yet, such as cargo ships, containers to store goods, and a warehouse for shipping, and special transportations to launch goods. The Logistic Capacity Assessment in the web also serves the data that there is no cargo storage facility in this port at all for a capacity of 20 tons or 40 tons (Aguilardeborja, 2018).

Table 6: Krueng Geukeuh Port Storage Room

Facilities	20 ft	40 ft
Container Facilities Available	Open storage	Open storage
Container Freight Station (CFS)	N/A	N/A
Refrigerated Container Stations	N/A	N/A
Other Capacity Details	N/A	N/A
Daily Take-off Capacity (Containers per day)	Rarely used	N/A
Number of Reefer Stations (Connection points)	N/A	N/A
Emergency Take-off Capacity (Give an Indication)	N/A	N/A
Off-take the capacity of gang shift (in Containers per shift)	N/A	N/A

Sources: Logistic Capacity Assesment, (2018)

The low port activity is caused by the transportation of commodities produced from Aceh and the logistics of the needs of the Acehnese people who are still utilizing the Belawan port facilities in North Sumatra. Belawan is elected because Krueng Geukeuh is considered to be less supported by good transportation facilities and management (Matsubara & Yoshida, 2018).

Table 7: Krueng Geukueh Port Infrastructure

Equipment	Available	Total Quantity and Capacity Available	Comments on Current Condition and Actual Usage
Dockside Crane	No	N/A	N/A
Container Gantries	No	N/A	N/A
Mobile Cranes	Yes	2 unit, 45 & 25 MT	N/A
Reach Stacker	Yes	1 unit, 45 MT	N/A
RoRo Tugmaster (w/Trailer)	No	N/A	N/A
Grain Elevator w/Bagging Machines	No	N/A	N/A
Transtrainer	No	N/A	N/A
Forklift	Yes	6 unit, 6.5, 2 X 5, 3 MT	N/A

Source: Logistic Capacity Assessment, (2018)

Krueng Geukeuh port also does not have facilities such as grain and bulk to handle bulk cargo in large quantities in both dry and wet forms. As a result, exports of fertilizers, ammonia and other logistical needs such as wheat, flour and others cannot be done at this port so that PT Pelindo 1 in the 2016 annual report attaches data that the loading and unloading activities at this port have decreased. The Unloading Unit (UBM) service revenue is not in line with the target, because the significant decrease in revenue is found in receiving/delivery activities in Lhokseumawe, loading, and unloading of goods per package in Tanjung Pinang, and rental of equipment in Belawan, Lhokseumawe and Sibolga (Pelindo 1, 2016). The decline in loading and unloading certainly implies that the average utilization of existing vessels continues to decline (Pelindo, 2016). Similarly, the available human resources (HR) are inadequate both in the

context of quantity and quality. Compared to other ports under the control of Pelindo 1, Krueng Geukeuh is very lacking in human resources and has only 13 people if it is compared to the number of human resources in Belawan that reaches thousands (Nugrahani & Imron, 2019).

Table 8: The number of human resources at the branch office of Pelindo 1

No	Office-Unit	The number of employee(s)
1	Head Office	498
2	Belawan	409
3	Dumai	76
4	BICT	245
5	Tanjung Pinang	34
6	Pekanbaru	74
7	Lhokseumawe	13
8	Tanjung Balai Karimun	20
9	Sibolga	13
10	Tembilahan	7
11	Malahayati	9
12	Sei Pakning	17
13	Tanjung Balai Asahan	16
14	Kuala Tanjung	15
15	Hospital Medan Port	18
16	Shipyards Unit	8
17	Belawan Logistic Center	12
18	Batam	13
19	Sitoli Mountain	2
Total		1499

Source: Pelindo 1 (2013)

The Government of Aceh in supporting the realization of SEZ of Lhokseumawe needs to improve steps and strategies, Such as starting with internal organization consolidation. The goal is to make people know in real terms where the direction to be obtained, Especially how the superior products of Aceh will have competitiveness in 2017 which aims to realize an increase in the added value of community production and optimization of the use of natural resources. Furthermore, the community economy moves from various sectors. One of them is to activate the function of the Krueng Geukueh port to increase the trade value by coordinating with Pelindo.

To support Lhokseumawe as SEZ, Krueng Geukeuh absolutely must be revitalized in all sectors, from facilities, human resources to its policies. As explained earlier above, the supporting natural conditions will not function if it is not supported by affirmative policies. This revitalization effort is not only related to the improvement of infrastructure completeness and capacity but also the increase in the types of services provided which include: (i) transportation of industrial production in the industrial area of Lhokseumawe SEZ and its hinterlands; (ii) transportation of agricultural, plantation, fishery and horticulture commodities produced in the hinterland area of Lhokseumawe SEZ area; (iii) transportation of the logistics needs of the Acehnese people; (iv) commodity warehousing; (v) packaging services; (vi) local goods delivery distribution services (expeditions); (vii) transportation consulting services; (viii) transportation insurance services; and (ix) financing facilities

4. CONCLUSIONS

The modernization of the Krueng Geukeuh port is absolutely necessary to support the revitalization of Lhokseumawe as a special economic zone. Based on the data, the port modernization will have challenges and obstacles and hard efforts. Besides, Krueng Geukeuh Port has weaknesses and challenges but also has many potential and opportunities. The maximum use of the opportunities and potential of the Krueng Geukeuh port can make this port not only increase local economic growth but also nationally. Even its strategic location can make it the largest port in the region and also international. The things need to be done related to the modernization of the port are the first, the state policy (particularly central government) support to this port. This includes the creation of a friendly investment climate for investors. Second, the completeness of the facilities and infrastructures. Krueng Geukeuh should not only be satisfied at level 1 of ISPS but also must be included in level 3. It means that the majority of the requirements must be fulfilled, especially regarding the completeness of the infrastructure facilities. The example is the issue of integrated land transportation, such as transportation using trucks that can be moved to railroad transport which is already available at the port. The third is the improvement of quality and quantity of human resources, and it is not less important. To handle the port with very heavy traffic, a large number and professional people are needed.

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Revista de Ciencias Humanas y Sociales

Año 35, Especial N° 19, 2019

Esta revista fue editada en formato digital por el personal de la Oficina de Publicaciones Científicas de la Facultad Experimental de Ciencias, Universidad del Zulia.
Maracaibo - Venezuela

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