Demak as the Maritime Kingdom on the North Coast of Java

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Abstract: This article focuses on the maritime activities of the Demak Kingdom. This research uses historical methods with a qualitative approach to critically analyze literature and related empirical data. This article wants to explore Demak’s economic strategies in utilizing its opportunities so that Demak grows into the largest maritime kingdom in the Archipelago of its time. An important finding from Demak’s maritime study is that this kingdom can take advantage of the available opportunities, optimize its potential, and make a policy, which is the key to Demak’s success. (1) Conducive social conditions with open public attitudes; (2) strategic positions between two significant maritime levels, namely Malacca and Maluku; (3) building good relations with allied countries and being wise in dealing with rivals; (4) utilizing Majapahit heritage assets, optimizing the results of Java’s natural wealth; and (5) multi attitude towards the status of relations with various countries depending on the type of relations.

INTRODUCTION

The control over certain ports determines the rise and decline of the coastal cities in Southeast Asia. It can even be said that the rise of the harbor is the reason for political awakening. As Lombard shows in the Aceh case, the political map is almost completely determined by entrepreneurs who play in the maritime sector. This pattern also occurs in Demak. After Pasai’s decline, Demak began to rise and became one of the strong maritime forces in Southeast Asia.

The Demak Kingdom rose with the decline of the Majapahit Kingdom. Its highly strategic position in the North Coast of Java Island makes it the first maritime Islamic kingdom in Java. The natural wealth of Java, especially foodstuffs, makes Demak able to export food to the East, particularly Maluku, and to the west,
specifically Malacca and Pasai. Demak also imports various types of needs from East and West. From Maluku, Demak imported a lot of spices. From Pasai, Demak imports and distributes pepper. Even Demak imports fabrics from India and sells them back to the Maluku Islands to be exchanged for spices.

During its heyday, Demak also had a large shipbuilding industry in several locations. The ships produced by Demak are huge and strong. The ships were used for cargo purposes and could even be operated as warships when Demak was involved in armed feuds. The capital of the shipyard industry made Demak grow into one of the most powerful maritime countries around the 15th and 16th centuries.

Although it can be easily known that the progress of the maritime aspect largely determines the progress of Demak, research that focuses on the maritime aspect of the Demak Kingdom is almost nothing. In fact, in general, research on Demak is starting to be forgotten. Maybe because it is considered to have no significance for the present, however, suppose it is examined by focusing on specific aspects, such as the focus of maritime aspects in this research. In that case, it can provide a lot of new information and build relevant inspiration in building the nation today. For example, government efforts to boost the maritime economic sector need to be supported by historical facts of the rise of the maritime economy that had occurred during the kingdom in the Archipelago, especially Demak.

Research on the Kingdom of Demak generally only focuses on the political aspects. For example, the research conducted by Ana Ngationo entitled “The Role of Raden Patah in Developing Demak Kingdom in 1478-1518” only focuses on the role of Raden Patah in developing the Demak Kingdom. The research shows that the Demak Kingdom is the first Islamic kingdom in Java. Ngationo explained the roles played by Raden Patah in establishing Demak as a force in developing Islam in Java (Ngationo, 2018).

The research of Joko Sayono, Ulfatun Nafi’ah, Daya Negri Wijaya entitled “The Values of Character Education in the fairy tale of Gagak Rimang” focuses on character education Gagak Rimang fairy tale, namely Arya Penangsang’s horse. He was the ruler of Jipang, who is involved in a conflict with Jaka Tingkir related to the Kingdom of Demak. Research only focuses on character education, not historical discussion. The research has no practical relationship with the history of the Kingdom of Demak (Sayono el al., 2015). Sugeng Priyadi in “Local Islamic Religious Leaders in Islamization in Banyumas” examines Muslim leaders who played a role in spreading Islam on Java before the establishment of the Demak Kingdom. This study also has no practical relationship with the kingdom of Demak (Sayono et al., 2015). Naili Anafah in ‘Legislasi Hukum Islam di Kerajaan Demak: Studi Naskah Serat Angger-Angger Suryangalam dan Serat Suryangalam’ focuses on the Islamic legal system which became the legal system in the Demak Kingdom (Anafah, 1970). Diding Ahmad Badri writes about the kingdom of Demak with a general description. There is no focus on the maritime sector in the literature analysis above. Even Orientalist researchers have not yet provided a focus of research on the maritime aspects of the Demak Kingdom.

Around 1512, Timo Pires reported about the existence of the Demak Kingdom and the general condition of its people. The Timo Pires report is very general (Pires, 1967). While Graaf and Pigeaud wrote about Demak based on local texts such as babad and saga, essential works such as Banten History, Hasanuddin Story, Banjarmasin Chronicle, and Serat Kanda. Graaf and Pigeaud also did not ignore the Timo Pires report. Graaf and Pigeaud outline Demak’s political, economic and socio-cultural situation. They also discussed the forms of community religious practices and architecture of the Demak city. Graaf in his study of Demak, focused on the history of Admiral Cheng Ho’s arrival. In his report, Graaf said that in Semarang, in Poncol a shipyard was built. This shows important data regarding the existence of Demak as a large maritime nation. Regarding Demak’s relations with other nations, Graaf illustrates the existence of Muslim Chinese settlements in Semarang, Demak, Bangil, Gresik, and Surabaya (Pigeaud & Graaf, n.d.).

Schrieke reports a general description of trade in Java and the rise of Islam in the Archipelago between 1300-1500 and the trading situation between the 15th and 16th centuries known as the era of Portuguese expansion. Schrieke’s conversation about Demak was brief. However, Schrieke’s report is important because it illustrates the relationship between Jepara and Demak. In political matters, Schrieke described the succession of kings in Java from the Kediri era to the Mataram period. Specifically, about the first Demak king, namely Raden Patah, Schrieke called him the son of the last king of Majapahit. While subsequent kings always sought legitimacy by connecting themselves as legitimate descendants of the previous rulers. Schrieke gave a rather broad description of the geo-
graphical conditions of the kingdom, especially in Central Java and parts of East Java. According to Schrieke, technology cannot develop to overcome challenges and geographical obstacles (Schrieke, 1959).

M.A.P. Meilink-Roelofsz said that Demak is one of some cities on the north coast of the island of Java. Demak is a part of a commercial city group centered on the north coast of Java. While in the context of large scale, there are still other trade centers, namely the Straits of Malacca, ports in Sumatra, Maluku, and Aceh, Kalimantan, Sulawesi, and the Lesser Sunda Islands. Meilink-Roelofsz said that Demak had intense trade relations with these cities (Meilink-Roelofsz 1963). Demak cosmopolitanism was also mentioned by Slamet Mulyana, who focused on the weakening of the Demak trade power, which was one of the reasons for the transfer of the Islamic Islands of Java from the coast into the interior, which was also caused by the failure of the Demak to take Malacca in 1512 and 1521, and the Moluccas in 1546 M. Second, the area, was previously a vital area of the Demak trade (Mulyana, 2012).

The Orientalists generally only describe the existence of the Demak Kingdom in the general description. However, research into these aspects becomes essential to explore the Archipelago’s past to find the future of Indonesia. For this reason, this research is important. This research tries to collect data from various literature to find references related to the maritime condition of the Demak Kingdom.

METHOD
The method used in this study is a historical method with a qualitative approach, which is a process of critically examining and analyzing available sources in the form of writing and field evidence. The use of historical methods in this study was carried out as guided by Kuntowijoyo (1995, p. 90) in historical research through five stages of research, namely: (1) topic selection, with the chosen topic being the maritime activities of Demak Kingdom; (2) collection of sources, namely collecting materials or sources of writing-related literature about Javanese works by TimoPires, Raffles, Graaf and Pigeaud, Ma, Huan, and Fen, Schrieke, Meilink-Roelofsz, Geertz, etc. and observations related to the maritime history of Demak; (3) verification, i.e., testing the authenticity and credibility of the material or source; (4) interpretation, i.e., analyzing and synthesizing sources, and; (5) writing, namely narrating the maritime history of the Kingdom of Demak.

DEMAK CHRONOLOGY
Java Island is located between the Sunda Strait and the Bali Strait, flanked by the Java Sea and the Indian Ocean 60 and 90 South Latitude and 1050-1050 East Longitude. Tropical climates and volcanic soil content is filled with active mountains((Stockdale & Bastin, 2004, pp. 7–9). Thomas Stamford Raffles said that the Javanese are the same descendants as the other mainland Asian nations, the Tartars. However, it has cultural differences due to geographical separation, which has lasted very long. The name ‘Javanese’ is associated with the first settlers on the land of Java from India, who discovered a new grain named ‘jewawut’. Another name for the island of Java is Nusa Hara-Hara, or Nusa Kendang, which means an island that is still wild or has hillsides. (Raffles, 2018a, pp. 3–5).

The length of the island of Java is 575 geographic or equal to 666 square meters. Its width ranges from 170 geographic or 35.5 square meters between the southwestern tip of Pacitan Beach and the northern end of Jepara to 48 geographic or 56 square meters. Several small islands are scattered around it, especially along the north coast, and supported by the location of the land at the end, forming a port of different sizes. Ethnically social, Javanese constitute the majority of Indonesia. Still, among them there is religious diversity, because 5% to 10% of them embrace Islam in a rather pure form, around 30% embrace Islam in the form of a version that is very syncretic and scheduled. In contrast, most others consider themselves Muslims, but their actions and thoughts are closer to the old Javanese and Hindu Javanese traditions known as the Abangan group(Geertz, 1976, p. 387). The wisdom of Hindu culture that spread almost all over Java slowly began to fade with the establishment of the Kingdom of Demak.

Demak had become an important part of trade traffic before the 15th century, which at that time was still called Glagah Wangi. Based on inscription sources dating from the Majapahit era, during the reign of Hayam Wuruk, the name Demak was mentioned as one of 33 bases in the network of trade traffic at the time(Pigeaud, 1963, pp. 109–111). Demak once visited Cheng Ho from the Ming Dynasty on his seventh expedition between 1431-1433 AD. According to Mills’s interpretation, on his way back from Surabaya to Palembang, the route Cheng Ho took between various places on the North Coast of Java, namely, Tanmu (Demak), Wu-Chueh (Pekalongan), Che-li-wen (Cirebon) and Chia-lu-pa (Sunda Kelapa) (Ma et al., 1970, pp. 14–15).
Demak’s position which is located along the Muria Strait area is strategic alternative trade traffic from West to East. Demak is a haven for palawija ships, rice and other crops from Java to Malacca and Sumatra. Demak also imported ceramics from China, textiles from Cambay, and spices from Meluku. In the era of Javanese maritime progress, there were three ports controlled by the Javanese king, Tuban, which became the Arya Teja region, as Duke of Tuban, an in-law of Sunan Ampel. Blambangan controlled by Pate Pintor. Gamda (around Pasuruan) is controlled by Gusti Pate’s son.

The decline of Majapahit greatly influenced the increasing popularity of Demak. Majapahit’s decline occurred partly because the backbone of his economy depended on agriculture. While control of the maritime sector began to retreat. Many local traders on the coast lost loyalty to Majapahit and began to create separate coalitions. Muslim traders exploit this condition. Demak’s position has become increasingly strategic, especially in exporting thousands of tons of Javanese rice to Malacca (oriental summa).

Entering the 16th century after the collapse of Majapahit and the establishment of the Kingdom of Demak, the kingdom’s control over the majority of the land of Java became more stable. Even Demak has succeeded in controlling Jepara Port. Between 1512-1523, Demak faced political and economic pressure. Among them was facing the Girdrawardhana Dynasty in Daha which continued on his successor, namely Prabu Udara. Both claimed to be the successors of the Majapahit kingdom after the collapse of Trowulan 1478 M. Prabu Udara who claimed to be Brawijaya VII chose to ally with Pakuan Pajajaran to face Demak. This rivalry cannot be separated from the struggle for the influence of trade in Sunda Kelapa and the Malacca Strait. The dispute is also increasingly fierce because Demak has an interest in maintaining the loyalty of its ally Cirebon so as not to be controlled by rivals (Wiyatmoko, 2014, p. 187).

Aside from the feud, Demak’s dominance was fading because of several problems. The first was his defeat in the liberation operation of Malacca in 1513 led by Yat Sun or Pati Unus, and Malacca was fully controlled by the Portuguese (Pigeaud & Graaf, n.d.). Although in 1527 AD, Demak, assisted by Cirebon under the leadership of Tubagus Pasai or Fatahillah, succeeded in confronting the Portuguese led by Francisco da Sa in Sunda Kalapa and destroyed the Sunda Pajajaran army led by Sri Baduga. However, on the other hand, the fall of the Moluccas in the hands of the Portuguese in 1546 became a burden for Demak in developing political and trade influence in the eastern Archipelago (Hall & Reid, 1994). Two power struggles took place in the Demak Kingdom which led to the outbreak of an open war between the Arya Jipang (Arya Penangsang) troops assisted by the Adipati Matahun against the Demak forces in coalition with the Pajang leader of Jaka Tingkir (Adipati Hadiwijaya). Seeing that Demak is increasingly on the edge, then after the restoration of security in the destroyed Demak region, Sunan Kalijaga together with Sunan Giri decided to hand over the mandate to Jaka Tingkir as the Commander in Chief of security restoration and take over the interim government (Simon, 2008, p. 149).

![Figure 1. Tomb of Sunan Giri IV.](Photograph by Anang Haris Himawan, 2018)

After Demak’s condition became conducive, Hadiwijaya was appointed Sultan official, he transferred the power and all the affairs of the Demak government to Pajang. The transfer of the center of power is the same as drawing power from the coast into the interior. According to Sunan Kalijaga, there are several reasons for the removal of the royal center. First, Demak is no longer representative of a center of power because it has been devastated by Jipang attack, the Second, the development of Demak which has become a metropolitan city, if there is no transfer, is likely to erode Javanese culture. Third, the fall of Malacca and the Moluccas into the hands of the Portuguese, severely struck the Demak economy, bearing in mind that these two regions are the largest foreign exchange earners of the Demak trade chain. Fourth, the acceleration of the spread of Islam needs to be focused to the inland (Daryanto, 2011, p. 32). Sunan Kudus opposed the transfer of political power from Maritime to Agriculture with the following reasons: First, the loss of control of the north coast as a city of trade; second, the waning values of Islamic teachings that have formed on the
coast. Even so, the central government of Demak continued to be moved to Pajang. The determination of Hadiwijaya from Sultan’s official to Sultan Pajang definitively took place in 1568 M in Giri Kedaton (Raffles, 2018b, p. 151).

After the transfer, Demak became a duchy under Pajang’s authority. Pajang was accepted as a kingdom which oversees various small kingdoms in East Java such as Japan, Wirasaba (East Java), Kediri, Surabaya, Pasuruan, Madiun, Sedayu, Lasem, Tuban and Pati because Jaka Tingkir still has genealogical relations to Majapahit, and Pajang is a continuation Demak Kingdom.

RELIGIOUS AND SOCIAL ASPECT
Coastal culture along the North Coast of Java, where residents work as fishermen or traders, gain a strong Islamic influence. Inland areas which are often called kejawen, where rural livelihoods are more reliant on agriculture and plantations. The North Coast of Java has an intense network with various other nations, especially relations with China. Some argue that the relationship between Java and China is one of the reasons for the establishment of the Javanese Islamic empire, namely the Demak Bintoro Kingdom, an Islamic kingdom which is considered to be the origin to the transfer of Hindu power (Majapahit) to Islamic power in the form of political succession and leadership in Java in particular, and the Archipelago in general. However, in this study, the writer will focus more on Demak Kingdom as a Maritime Kingdom that had succeeded and became the second maritime strongest kingdom in Java and third in the Archipelago in the 15th and 16th centuries after the collapse of Srivijaya and Majapahit (Pradhanani, 2018, p. 186).

Demak began to be known in the late 15th century as an Islamic-style kingdom in Java. Before becoming a large Islamic empire, various political and trade activities had thrived in the central area of the Kingdom of Demak. Before the appearance of a kingdom which was later established by Raden Fattah, Demak is also called Jin Bun, where the higher-ups there still have blood relations with the officials of the Majapahit Kingdom. The location of the center of the Kingdom of Demak which is not too far from the coast, or the Strait of Muria makes it visited by many traders and announcers of Islam. Although familiar, the Sultanate of Demak, known as a maritime country is still very limited (Pelras, 1985, pp. 107–135).

It is historical evidence that the pre-Islamic Demak was a region under the control of the Hindu Majapahit authority. Thus, the social system also follows the rules that apply to Hindus. Regarding how contacts with outside influences took place prior to the dominance of Islam on the north coast, historical data provide rather clear information. Basically, the dominance of Islam on the north coast did not come suddenly, but through a long and long process. The convincing evidence is the discovery of the Islamic tomb complex in the central area of Majapahit’s power. The existence of Islamic tombs at the heart of this power became evidence of the harmony of religious life at that time. Especially with the large number of migrants from China, both before Majapahit were founded, and afterwards, with archaeological evidence of the discovery of relics, both tombs and historic objects; a strong proof of the existence of harmony in the ethnic diversity of the period. Moreover, several saints and other figures who lived during Majapahit still came from China and Indochina, such as Sunan Ampel, Campa daughter, and others, adding to the treasury of historical evidence of life at that time which was rich in culture and ethnicity and things it lasted for centuries until now (Harkantiningsih, 2017, p. 233).

All that is historical evidence, that the concept of Islam in principle does not really distinguish religious life from social life. This is what distinguishes the concept of Islam from the concept of Hinduism. In Hinduism, social life or worldly life is considered lower than religious life. Therefore, Hinduism also does not highly value material things or human activities oriented to profit. In contrast to the teachings of Islam which considers worldly and religious activities as equal and complementary activities. Thus, the concept of Islam in placing worldly oriented activities is an absolute part that must be carried out, as a support for religiously oriented activities (Nasution & Miswari, 2017).

For this reason, the history of Demak is a clear proof of the history of the presence of the Islamic concept. Without worldly oriented activities, it would be impossible for Demak, the saints and Islam at that time to be large and have a territory that stretches from the west to the eastern end of the Archipelago. Impossible without worldly activities, the Islamic flag with the Kingdom of Demak and the saints could fly to meet social life in all corners of Java, Kalimantan, Sulawesi and Maluku (Thoifuri, 2016).

The combination of trade and propaganda shows that Javanese civilization, especially on the coast is a civilization of the city, so that Islam with its culture is able to replace the old culture (Hindu)
along the North Coast of Java and even to the East Coast of Java. The rapid development of Islam around the 15th century and the 16th century was not only born or driven by one ethnic group alone, but by various ethnic groups and races. They consist of Arabs, Persians, Gujarats, Bengalis, Chinese and Malays. This means, from a large area that extends from West Asia, South Asia, East Asia and Southeast Asia. Of course, it is not only religion that was developed in Demak, but also other aspects of life. Moreover, the contact between the nations is almost always related to commercial activities, the aspects related to these activities also appear in this place.

From another aspect, namely religion, the mosque is a unifying symbol of Muslims. But there is an interesting thing in the history of Demak, that it turns out that the Demak Mosque is not only a unifying symbol between Muslims, but also between ethnic and religious groups. Where in history, the construction of the Demak mosque could not be separated from the interference of the ethnic Chinese who were then under the command of Kin San (Raden Husein) as duke of Semarang. Gan Si Cang, son of GanEng Cu, asked Kin San to appear before the qadhi Demak Kanjeng Sunan Kalijaga, so that they would be permitted to participate in building the historic mosque. Hence, as can now be seen, some of the mosque’s structures are inspired by Chinese civilization. Including soko tatal which became the final supporting pole, which consisted of parts of wood arranged and joined in such a way, turned out to be inspiration from the Chinese citizens as shipyard workers at Poncol Semarang, which in its development later became one of the business entities owned by the Demak Kingdom, the largest ships producer in Southeast Asia (Kuardhani, 2019).

Regarding the archaeological heritage of the Sultanate of Demak, not much can be found other than only the Demak mosque and Kauman Mosque in Semarang. All matters related to the greatness of a country or kingdom, in the form of palace buildings and the greatness of its shipyards, were all destroyed by the civil war in 1549 and the killing of Demak’s best sons at that time included Sunan Hadiri, Sunan Prawoto, and Arya Penangsan. Following later the transfer of the center of political power from the coast into the interior, namely Pajang with its king Jaka Tingkir or the title Sultan Hadiwijaya who was none other than the son-in-law of Sultan Trenggono. With the transfer of political power into the interior, the greatness of Demak ended with the greatness of Javanese maritime power, where Demak was the third heir of the two maritime predecessors, namely Singasari and Majapahit (Makin, 2016).

PORTS AND RIVER TRADING LINES IN DEMAK
Jepara is the territory of Demak which is located west of the mountains. Previously Jepara was an island called the Muria Islands. In this place there is a safe and quiet port that is protected by three small islands. The location of the Jepara port is very profitable for larger merchant ships that sail through the north coast of Java to Maluku and back west to Malacca. Jepara is a region that produces large amounts of rice, quality meat, and large amounts of fish. Jepara, which is located at the peak and middle of the island of Java, makes it a strategic maritime economic location. Distance with other important trade locations such as Cirebon and Gresik is also very strategic. Between Jepara to Cirebon is the same as the distance to Gresik. TimoPires said that the Port of Jepara was one of the best ports he had ever visited (Pires, 1967).

Figure 2. Tombs of Giri Kedaton, Gresik, East Java. (Photograph by Anang Haris Himawan, 2018)

After changing its status to Duchy under Pajang, Demak is still seen as an empire that has strong marine fleet capabilities. The Sultanate of Aceh Darussalam when faced with the Portuguese alliance and the powerful Sultanate of Johor, lobbied other Islamic countries or kingdoms. One of them, the King of Aceh, Sultan AlauddinRiayat Syah, who in 1564 sent an envoy, asked for help from Demak,
who at that time was led by Arya Pangiri, the son of Raden Mukmin. Unfortunately, Arya Pangiri, who was easily suspicious, made him kill the Aceh envoy. Because the envoy was killed, Aceh practically fought against the Portuguese without the involvement of Demak who was previously an ally of Aceh in the attack on Malacca 1513 and 1521. Since the establishment of the Pajang Sultanate which was a continuation of the political power of the Demak Kingdom, the involvement of the Demak military in the struggle for the influence of archipelago waters ended (Widiyatmoko, 2014, p. 246).

Pajang is more focused on building an agrarian power, supporting the strength of maritime economic trade which was then held by Kalinyamat, Jepara, after the collapse of Demak. Pajang strengthened his ideology of power, namely Open Door Politics. Political models that make social life, including the development of Islam in the interior of Java more smelling of smoke and incense (Hariwijaya, 2006, p. 204).

After the degradation of Demak to become Duchy, Jepara still has maritime relations with Demak. Ratu Kalinyamat as Regent of Jepara is the daughter of King Demak Trenggana. Jepara under the Kalinyamat government was the only final defense of the north coast of Java from the influence of European power. Its maritime military and trade power were still calculated by another kingdom. Ratu Kalinyamat in 1550 Jepara sent a large army of 4000 in its 40 army ships to Malacca. This shipment was in order to fulfill the request of the Sultan of Johor to free Malacca from the Portuguese. Fifteen years later, 1565, Ratu Kalinyamat sent aid to the Sultanate of Hitu in Maluku on the same mission in the face of Portuguese and Hative interference. Nine years later or in 1574 precisely in October, Ratu Kalinyamat sent her war fleet back to Malacca. This time is far greater than the first attack. It consists of 300 ships, 80 of which are large, carrying approximately 15,000 selected soldiers, complete with supplies, cannons and gunpowder. The Jepara combat fleet was led by Kyai Demang Laksamana. The Portuguese call it Quilidamao. In the big battle, the Kalinyamat troops lost 6 logistical transport vessels which resulted in the troops having a shortage of food which resulted in defeat. Many victims on the Kalinyamat. Nearly two-thirds of the power of Kalinyamat troop was destroyed. Reportedly, around Malacca alone there are around 7,000 Javanese tombs (Achmad, 2019, p. 128).

Of the two shipments of the Malacca liberation expedition, it proved that Ratu Kalinyamat was a powerful ruler. Despite failing the mission, the greatness of Queen Kalinyamat and her battle fleet received praise and recognition from the Portuguese. Including, the request for troops for assistance from the Haiatu Sultanate in Maluku in 1565-1567 AD in carrying out resistance against the Portuguese and the Hative Tribe, showing their broad and strong trade links and networks. Once the influence of Kalinyamat from West to East of the Archipelago, the Portuguese also gave the title to Dyah Retno Kencono or Queen Kalinyamat with Rainha de Japara, Senhora Poderosa e Rica, de Kranige Dame or “Ratu Jepara, a woman who is rich and powerful, a woman who valiant. "Since the Fall of Malacca and Maluku as the largest foreign exchange earner of the economy in Java, practically the north coast region was subject to Portuguese control of both shipping and trade traffic (Pane, 2017, p. 35).

Demak’s relationship with the interior of Central Java is connected by river channels. The rivers are trade routes that connect inland areas. Through these rivers, commodities from inland areas are brought by small and medium ships to coastal areas which are trading ports, especially in the mouth of the Strait of Muria. Even arks can sail on these rivers when the water is high tide.

Figure 3. Tuntang River. (Photograph by Anang Haris Himawan, 2018)

Tuntang River became an important transportation facility during the Demak and Pajang Kingdoms. This river flows approximately 106.5 Km across Semarang Regency, Grobogan Regency, and Demak Regency. The river’s headwaters are generally known to be in Lake Rawa Pening near Ambarawa City and empties into the Java Sea (Muria Strait) on the coast of Demak Regency. The width of the watershed (DAS) is 830.82 km2 covering 7 districts namely Salatiga City, Kendal Regency, Magelang Regency, Semarang Regency, Grobogan Regency, Boyolali Regency, and Demak Regency. Upstream of the Tuntang River is located on the northern slope of Merbabu Mountain, but it is generally
known that the headwaters ofis in lake Rawa Pening. The water from Rawa Pening flows into the Tuntang River and then heads northeast, then turns northwest and finally enters the Java Sea. The following are a number of relatively large tributaries of the Tuntang River, the Geyongan River, Purwo River, Senjoyo River, Bancak River, and Temuireng River. The Tuntang River and its tributaries play an important role in sustaining the economic progress of Demak. These rivers are one of the important factors in Demak’s maritime economic progress. Another river that also contributes to supporting the Demak maritime economy is the Serang River. Until the 18th century, the river could still be sailed with rather small trading boats, at least up to the Godong area. The tributaries are sourced in the middle of Kapur mountains. South of the mountains are the old regions of Central Java, namely Pengging and Pajang (Rahardjo, 1994, pp. 29–30).

COMMODITIES AND COMMERCE SYSTEMS
The main export commodities of the Demak Kingdom are rice and other food ingredients. The destination for the export of these commodities is mainly Malacca. Pires in Suma Oriental said that Java also produced large amounts of gold and copper. There are also Javanese chillies, tamarinds which are enough to fill a thousand ships. In the forest, quality trengguli can be found, cardamom, vegetables, and Javanese cloth. At that time Malacca had a high dependence on commercial products from Java, especially food products. Being a historical fact, that the relationship between Malacca and Java, the trade sector in particular, was noted to have a very vulnerable relationship. This is because Malacca’s insufficient food production is a matter between life and death to allow Javanese traders to visit the port. Especially, when the food supply from Siam proved to be unreliable. In addition, if Malacca wants to attract international trade, Malacca must have a regular supply of spices. Additionally, the regular supply is only in the hands of the Javanese.

Before the rise of Demak, Majapahit had a close trading relationship with Pasai. The spices from Java are guaranteed marketing to Sumatra by Pasai. While Majapahit guarantees pepper marketing to Java. After the decline of Majapahit, the relationship between Pasai and Java is still going well, especially between Demak and Pasai who have similarities which strengthen them, namely Islam. Rice from Java Island is still sold through Pasai. Likewise, pepper from Pasai is still marketed to Java through Demak. Malacca became interested in the quality of rice exports from Demak, so it was interested in trading relations. Different from Srivijaya and Tumasik who carried out trade relations business through violence, Malacca chose a persuasive approach. The relationship between Demak and Malacca is also well established because of the same similarity with Pasai, namely Islam (Meilink-Roelofs, 1963, p. 29).

Furthermore, the relationship between Demak is closer to Malacca compared to Pasai. It happened because Malacca’s economy was developing rapidly. At the same time, the influence of Pasai became increasingly receding as the Aceh Darussalam Sultanate grew. In addition, the port of Malacca is safer than the port of Pasai. The ferocious lanun also rose again in the Pasai waterway. Above all, Javanese rice gained a more promising market in Malacca (Scherer, 1998, pp. 43–60).

For more than a hundred years, Demak had almost controlled the archipelago trade. Relationships are not only built to the East with Malacca and Pasai, but also to the East, especially Maluku. At that time, Jepara was a duchy under Demak. From Demak and Jepara, exports to Maluku are dominated by teak wood. Of course imports from Maluku are spices. In addition to conducting intense trade to the East and west, the port of Demak and the port of Jepara also serve as transit locations for ships from East to west and ships from west to East (Lapian, 2017, p. 88).

In addition to exporting food to various countries, Demak also imports various types of goods from various countries including those from Gujarat, China and Bengal. To these countries, Demak exports rice, cloth, teak, (Carre, Esposito, and Voll 2002). In the export activity, Demak tends to use copper metal coins from China. In Java, also known as the Portuguese currency. One unit of the Portuguese currency is Cruzados. This currency was favored by the Javanese, because Java did not have coins made of gold or silver. Java only has a medium of exchange called Tumdaya or the Javanese tael which is worth a quarter higher than Malacca’s tumdaya. Tumdaya made of gold printed with 8 mate, which is equal to 12,000 cash, or 9 cruzado, using an exchange rate of 1.3331 / 2 per cruzado. The gold brought from Java to Malacca will increase in value by one in every five gold.

The Chinese currency that has a small value is given a hole in the middle, so that the currency can be made bonds of up to one hundred pieces. Each bond contains 100 pieces of metal which has the same value as five Malacca scales. For currencies with large values, there is also the value of a gold
currency whose value is equal to 3000 calai or 9 cruzados. However, the Chinese currency is the most commonly known medium of exchange on Java. Indeed, there is no information whether the currency was made by the Javanese authorities themselves. However, based on other historical sources, it can be seen that the Chinese currency used on Java was indeed imported from China. Schrieke said, the import of the Chinese currency even continued until the VOC period (Schrieke, 1959). The weight unit was well known and was used in commerce in Java at that time. In Java, the unit of weight is known as ganta. The unity of ganta in Java for rice and vegetables is smaller than the same unit used in Malacca. For example, for 25 ganta in Java, the same as 20 in Malacca. In several different places, with the same unit of measurement, they have different scales. Malacca Ganta is equal to 5 Portuguese quartiles (1.75 liters). Whereas the Maluku ganta is much greater than that, which is equal to 51/2 quartile (1.86 liters). There is no mention of the size of the ganta of Java. However, according to Pires information, this number is equal to 4 quartiles or 1 canada (1.4 liters).

In addition to trade products and the exchange value of goods, at that time it was already known as the policy regarding trade and shipping taxation regulations. The main tax that is imposed and must be paid by trade commodities brought through sea waters is the port tax. To pay these taxes, they provide gifts. Traders are required to pay 400 cash for every 10,000 items they sell in the country (Pianto, 2017).

SHIPYARD INDUSTRY
As a maritime country, Demak certainly has prepared everything to support the mobility of its power. One of them was to enlarge the ship industry which was then based in Semarang. Economically, the need for water transportation was the focus of Demak at that time, given the position of Demak on the edge of the North Coast of Java, where most of the activities of the coastal community at that time were traders. In addition, Demak is an important trade area from the west and East. Its location is very strategic, so that many merchant ships passed for transit.

Politically, as a maritime empire, of course Demak also requires a large fleet of ships to monitor and expand its territory, where at that time, the ship was the single most important fleet for a maritime empire. In Semarang, since 1413 there has been a shipyard industry. The industry was reproduced and became very large in the glory of the Demak Kingdom (Van Houtan et al., 2010, pp. 3–4).

All countries that have developed in Southeast Asia such as Sriwijaya, Majapahit, Pasai, including Demak, have a shipyard industry. The types of ships produced in the Demak era, in particular, were the types of arks. Namely a type of boat transportation in large sizes. Ark was used mainly as a passenger ship and a cargo ship, it could reach Ghana or even Brazil in ancient times. The average load weight is 400-500 tons. In the Majapahit era this type of ship was also used as a warship. In Semarang, a shipyard was also built by Admiral Haji Sam Po Bo or Zeng He or better known as Admiral Cheng Ho. The shipyard that was pioneered by Cheng Ho since 1413 AD and has been running for about three generations was then continued by Raden Husen who at that time was the Duke of Semarang with Gan Si Cang, the son of the late Haji GanEng Cu who became the captain of non-Islamic China in Semarang. This shipyard factory is located in Poncol Semarang. This shipyard factory is said to be one of the largest shipyard factories in Southeast Asia (Mulyana, 2012).

The commercial ships and warships of the Demak Kingdom were Ming Dynasty Chinese arks. The speed of the ship was then enlarged as the Aceh ship that had docked at the Semarang shipyard. The Aceh ship suffered damage to be repaired at the Semarang shipyard. From modeling the speed model of the Aceh ship, Kin San succeeded in making large-sized ships with high speed. The ships can carry 400 soldiers or 100 tons of cargo.

Demak Kingdom in 1500 had become a maritime competitor of the Malacca Sultanate. Especially with the help of Pati Yunus to accompany Kin San in ship production. Pati Yunus next became commander of the Malaccan liberation expedition. In addition to the shipyard factory, Kin San also manufactures weapons and cannons at the factory, as well as perfecting the production of Jung ships into ta cih boats (larger than jungs). These cannons and ships were then used by the Demak military combat group to attack Malaka at the turn of 1512-1513 AD.

In 1529, Kin San died. His position as Head of the shipyard in Semarang was replaced by Sunan Prawoto, son of Sultan Trenggono. In his time, the Kingdom of Demak produced 1600 large jungs, each of which could contain 400 soldiers. With such a large production, the Demak Kingdom had brought very many jungs during the Demak attack to Pasuruan. The Demak shipyard ended production after being destroyed by a civil war between Jipang and Pajang in fighting for the throne of the
Sultanate of Demak.

The jungs made by the Javanese were among Portuguese sailors, including ships that were highly considered in the maritime world. When the Portuguese first came to the Nusantara region they were made inferior to the ship. Some accounts say that when Portuguese sailors reached Southeast Asian waters in the early 1500s they found Javanese jungs dominating and controlling the vital spice route, between Maluku, Java and Malacca (Pires, 1967).

The port city of Malacca at that time practically became a city dominated by Javanese. There were many Javanese merchants and ship captains who settled and at the same time controlled international trade. Javanese people are very experienced in the art of navigation, until they are considered to be the pioneers of this most ancient art, although many show that the Chinese are more entitled to this award, and emphasize that this art was passed on from them to the Javanese. However, what is certain is that the Javanese who used to sail to Tanjung harapan and entered into relations with Madagascar, where now many indigenous people are found in Madagascar who say that they are descendants of the Javanese. In fact, the Portuguese sailor who explored the ocean in the mid-16th century said, the Javanese first sailed to Tanjung harapan, Africa, and Madagascar. He found residents of Tanjung Harapan in the early 16th century brown-skinned like Javanese (Chow et al., 2005, pp. 550-559).

Alfonso de Albuquerque, commander of the Portuguese Navy who occupied Malacca in 1511, paid special attention to the jungs of Java. The large ship that the Royal Navy of Demak used to attack the Portuguese fleet. Alfonso de Albuquerque in his notes said the ship had four sails, made of four-layered boards. The ship has an amazing endurance because it is able to withstand cannon fire from Portuguese ships. This type of ship had an average weight of around 600 tons, which at that time was already greater than Portuguese warships. Even the biggest jungs of the Demak Kingdom weigh up to 1,000 tons. Portuguese ships were actually made dwarfed by Javanese jungs (de Albuquerque & Birch, 2010). Even the Portuguese sailor Tome Pires in his note titled *Summa Oriental* in 1515 said the largest Portuguese ship in Malacca in 1511 named Anunziata looked out of proportion when compared to the Javanese jungs. Gaspar Correia, a Portuguese seaman who made notes with Tome Pires, said Jung had a size exceeding the Flor de la Mar, the highest and largest Portuguese ship in 1511-1512. According to Correia, the rear of the flor de la mar, which was very high, could not reach the bridge of the ship which was below the deck of the jungs (Pires, 1967).

Irawan Djoko Nugroho said that the size of the jungs both in terms of length and width were even four times larger than those of the flor de la mar. Jung Jawa has a length of around 313.2 to 391.5 meters while the flor de la mar is estimated to have a length of 78.30 meters. When attacking Malacca, the Portuguese used around 40 Flor de la mar ships. Each ship is capable of carrying 500 troops and 50 cannon units (Nugroho, 2011). With a size four times more it can be imagined how much can be transported by the Java junks. Meanwhile, Javanese jungs have weaknesses. Its large and heavy shape makes it very difficult for jungs to maneuver, and ships tend to move slowly. In contrast to Portuguese ships that are leaner and easier to maneuver (Reid, 2001, p. 50).

Javanese jungs, Portuguese sailors note, also called junco. Whereas Italian writers refer to it as zonchi. Some records also mention that this ship is very different in shape from Portuguese ships. In addition to the jungle wall which is made of four layers of thick boards, the jungs also have two large steering oars on both sterns. The two steering oars can only be destroyed with cannons. The walls of the junks were able to withstand the cannon fire of the Portuguese ships which surrounded them very close. How the technique of making Javanese jungs is still a mystery, such as what connection techniques are used so that jungs can withstand cannon fire. In addition, what materials are used to close the wood, so that the jungs are safe from seeping water.

Other types of ships produced by the Javanese at that time besides junks were panganjaya and lanchara. However, regarding the two types of ships, the author has not found differences between the two. However, in Pires’ notes concerning trade in Sunda Kelapa, lanchara type is a trading ship (cargo type ship) that can load up to 150 tons. While what distinguishes between the two types of ships with jungs is their size which is bigger than the two types of ships (Pires, 1967). However, in general the types of Javanese products have the same function as cargo ships or commercial vessels (Tjipotomodjo 1983, p. 93).

From this shipyard, Demak grew up with hundreds of commercial ships that sailed west to Malacca and East to Maluku. From this shipyard were born warships that made Demak have territory to the East of Java, Kalimantan, Sulawesi, Maluku; and flap its wings westward to the western end.
of the island of Java. Despite failing in the expedition to liberate Malacca from the hands of the Portuguese, Demak might in trade was very much influenced in Malacca. Even this country has a high dependence on Javanese agricultural products brought by Demak (Pigeaud, 1963; Raffles, 2018b).

CONCLUSION
Demak Kingdom can grow into one of the biggest maritime empires due to several factors. First because of the collapse of Majapahit which automatically weakened its influence in the North of Java. This influence was used by merchants to build a separate power system in leading trade in the North Coast of Java and other countries. Arab, Indian, Malacca and Chinese merchants have important roles in Demak. Even around the Demak pier, there are residents of various nationalities such as Chinese settlements. Secondly, because Java indeed has abundant natural resources, especially in the fields of food and furniture. Demak exports a lot of rice and wood to various countries, especially Malacca, Pasai and Maluku. Third, Demak had a strategic position connecting two major markets at that time, namely Malacca in the West and Maluku in the East. This position makes Demak a big role in exports and imports and becomes an important location for transiting merchant ships from west to East and vice versa (Hägerdal, 2019).

Fourth, Demak can utilize the great potential that is owned by having good quality wood, having skilled experts, so that it can take advantage of good opportunities to develop large ships for trade and warfare needs in taking the opportunity to be one of the largest maritime centers at that time. The potential quality of wood owned and expert shipbuilders was integrated so that Demak succeeded in making large ships that beat other large ships including ships owned by Portugal in terms of size and quality. Even the feared Portuguese ship Flor de la mar was only a quarter the size of a Javanese jung. The shipyard industry has existed in northern Java since Majapahit. The industry was enlarged and expanded during the Demak Kingdom which focused on the maritime economy.

Fifth, Demak’s position is strategic in the sea waterways and strategic in river waters. The rivers connect Demak with inland locations that produce many Java’s natural products to be sent to Demak. On the other hand, Demak can also supply the needs of inland communities through the river channel. One of the biggest rivers that serves as Demak transportation facilities is the Tuntang River. This river is also connected with other rivers such as Geyongan River, Purwo River, Senjoyo River, Bancak River, and Temuiren River. Demak optimizes these rivers as a means of supporting economic progress. The main commodity produced by Demak is rice. There is also teak, cardamom, chili, vegetables, tamarind, and various spices. The commodity is exported to various countries, especially Malacca.

Demak setbacks are motivated by internal and external factors. The external factor was the greater hegemony of the Portuguese. Some countries were subdued under Portuguese control, which made some relations worse and others created animosity with Demak. The deterioration of the Indonesian maritime sector due to Portuguese domination has made the Demak economy recede. The internal factor behind Demak’s setback was a civil war in the struggle for influence and power that dragged on and could not be completely resolved, forcing the kingdom to be moved from the coast to the interior. Furthermore, Demak only became a duchy under the Kingdom of Pajang. Between these two factors, it is the external factors that have more impact on setbacks because usually almost all kingdoms have internal problems over power struggles. However, if the economic sector is strong, internal problems will still be resolved. In addition, if economic conditions worsen, then that automatically weakens a country.

Progress that has only occurred about a century provides a lot of value that can be taken. First, Demak’s position is actually not very strategic compared to the position of other countries such as Pasai, Aceh, and Malacca which are located on the silk road that connects China and big countries like Arab, India and Europe. Demak is very effective in exploiting opportunities and developing its potential. Demak took advantage of the relationship opportunities between Maluku and Malacca, so that it has a significant role in the relationship. In taking advantage of this opportunity, Demak develops the potential of natural resources for export while developing the potential of good wood owned to create the best ships. This can be seen in the conditioning of good relations with allies such as Cirebon and Sunda Kelapa, wise with friendly countries such as Pasai, Malacca, and Maluku, to be vigilant towards those who do not have close relations like Aceh, firm and wise in dealing with rivals such as Pajajaran and Portuguese, and compassion towards the countries under control such as Jepara, Sema-rang, and inland countries. Demak also utilizes the similarity in terms of religion in building relations with Pasai and Malacca.
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