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CHAPTER I

INTRODUCTION

1.1. Background

The process of globalization is certainly a hope for countries in establishing relations between other countries. The presence of this form of cooperation certainly has its own goals, so that the interests to be achieved can be well established, the establishment of a good relationship between countries is a first step in achieving common goals. Diplomacy is an attempt to manage an affair to achieve common interests between countries. The presence of a diplomatic process between a country is certainly an important pillar in the implementation of foreign policy.

Diplomacy is present as a method to establish, strengthen, and improve relations of a country so that its goals can be achieved, by presenting a diplomat who is expected to be able to master matters concerning a government. Being a core of diplomacy is to establish relationships in receiving and giving interests to achieve a goal between countries

Governments generally carry out diplomacy officially, but it can also be done informally, carried out by informal institutions or carried out by the community itself with other countries so as to create a relationship of interest. Diplomatic is also useful for solving problems that include national interests that can be resolved

properly. Maintaining and maintaining relations between countries is considered to be something important so that the interests in it can work.

Diplomacy is a process that can be carried out in various fields, namely security, defense, politics, culture, and economy. Economic diplomacy can also be interpreted as a bridge of cooperation between two countries which results in satisfaction from both parties as well as an addition from domestic political parties who serve construction in the domestic economy (Djelantik, 2008).

Technological developments are increasingly sophisticated, various kinds of technology are updated to become intermediary media that continue to grow rapidly in everyday life, as well as the development of information technology which greatly facilitates and plays an important role in human life, information technology plays an important role in supporting various kinds of life. Human activities, including the current economic processes, do business for example. The activity of large companies that use the internet or information technology as a medium in the process of marketing their products (Nuryanti, 2013). Not only as product marketing, information technology is currently very useful in the process of selling or buying a product and service, or what is known as electronic commerce (E-Commerce). E-Commerce is an online media that can be reached through computers, radio, television or other electronic devices such as mobile phones which begins with providing information services to consumers. E-Commerce is one of the largest platforms in the Digital Economy, as for several components of the digital

economy that are included in the digitalization grouping, including buying and selling transactions, capital, banking, as well as everything that uses digital technology can be called the digital economy (Agustina, Mahmudah, & Setiawan, 2019).

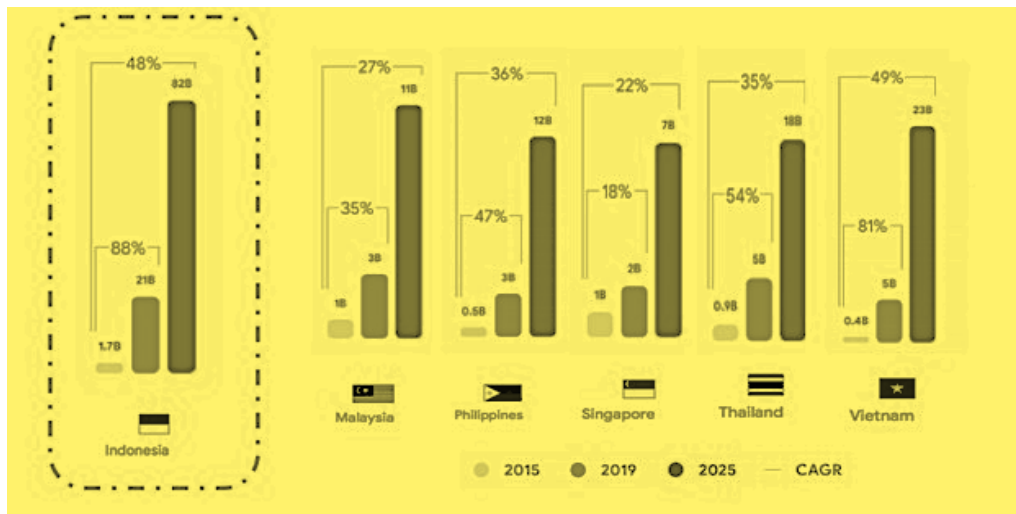
E-Commerce is very developed in the business world, this is due to the convenience that is obtained by consumers, consumers no longer need to come to a store just to see the goods they want to buy, but consumers are made easier to see goods in the form of photos and videos are also available information about the item, so that consumers only need to sit quietly at home to get the desired item, not only in the E-Commerce purchase process, it also makes it easier for consumers to process payments which can also be paid when the goods have arrived or through digital payments such as E-money. (Maulana, Susilo, & Riyadi, 2015). With these conveniences, E-Commerce is growing rapidly in the world, E-commerce also helps the country's economy run, this is evidenced by the achievement of job opportunities for the people of a country, seeing that ASEAN countries are also not lagging behind in technological developments through E-commerce. commerce, this is proven by the approval of ratification by all ASEAN countries in the ASEAN Agreement on E-commerce with the aim of creating cross-border innovation, as was done by Singapore for several countries to establish cooperative relations through this E-Commerce media, the development of E-Commerce in Singapore can be said to be very fast, this is because of Singapore's desire to achieve the status of an E-

Commerce center (Bratadharma, 2021). With Singapore's desire to become the center of E-Commerce digital media, Singapore of course strives to continue to improve its capabilities in the development of E-Commerce as well as build relationships between countries, especially neighboring countries, this starts with building economic cooperation, especially in the digital field, Singapore itself has conducted bilateral relations with several neighboring countries including Indonesia.

Singapore and Indonesia have carried out many cooperative relationships, one of which is in the economic field, the cooperative relationship between Singapore and Indonesia, especially in the digital economy, has been going on since 2017 through digital skills programs, this is where several digital E-Commerce media in Singapore are also given access to Indonesia, in Indonesia the use of E-Commerce applications for the last 3 years such as Gojek, Grab, Shopee, Lazada and other payment transactions as well as electronic money storage is becoming a trend and is even predicted to shift the role of paper money slowly, as a result of the surge and interest in the use of paper money. Singapore E-commerce digital media (Iza, 2017).

The development of E-commerce in these two countries can be said to have skyrocketed even in 2019-2021 Indonesia is included in one of the countries with the most users of E-Commerce digital media, namely 88.1% which is calculated based on data from Internet users in Indonesia, not only the number of

specializations. work in the field of E-commers dune a lot. According to research conducted by McKinsey & Company, as well as Google, Temasek, Bain & Company, it is estimated that by 2022, E-commerce transactions in Indonesia could reach US\$ 55-65 billion. And other research estimates that the value of E-commerce transactions in 2025 can reach US \$ 81 billion with an annual average rate of 48%, Indonesia will even occupy a place above Malaysia, the Philippines, Singapore, Thailand and Vietnam.



Picture 1.1 : Estimated *E-commerce* transactions in 2025

Sources : cnbc.indonesia, 2019

Based on the data above, this is triggered by the very fast adjustment and adaptation of technology by the Indonesian people, the level of use of smart phones also greatly triggers habits for online shopping, other factors are also seen from the internet speed as well as the cheapness of data packages that strongly support the rapid development of E-business - E-commerce in Indonesia (Citradi, 2019). The

creation of job opportunities presented by E-Commerce is also one of the factors that influence the rapid development of E-Commerce in Indonesia. With the potential of the data above, Singapore, which already has basic facilities and excellent literacy in this field to become an E-Commerce Center still has shortcomings and obstacles, Singapore sees that by building cooperative relations with Indonesia in this field where Indonesia has sufficient human resources, however, the employment opportunities are inadequate, Singapore finally focuses on further strengthening cooperative relations with Indonesia in the field of E-Commerce with the aim of achieving benefits for both countries.

In 2017 Singapore and Indonesia established a relationship in the Digital E-commerce economy, the Singaporean and Indonesian governments agreed to build the Nongsa Digital Park (NDP) which was inaugurated by the Indonesian Ministry of Foreign Affairs Retno Marsudi and Singapore Foreign Minister Vivian Balakrishnan in 2018. Nongsa Digital Park is a telecommunications infrastructure area built by the Singaporean and Indonesian governments located in Batam, Riau Archipelago. These two countries decided to build in Batam City because Batam City is directly opposite Singapore, making it easier to access from both countries, Nongsa Digital The park was built to accommodate and encourage the growth of digital start-ups in Indonesia and Singapore (Putra, 2021). In the early stages of Nongsa Digital Park has employed as many as 1,500 workers, the total area of the Nongsa Digital Park development area is 180ha, this area is equipped with offices

and other supporting areas such as hospitals, schools as well as several flats to support the lives of workers, Citramas group became holding company or as a holding company that builds and manages Nongsa Digital Park.

As time goes by, the Singaporean and Indonesian governments see that the existence of E-commerce in these two countries is growing rapidly, plus the Covid 19 Virus outbreak which has made E-commerce companies flood of good interest from consumers, as well as increasing interest in job applications, seeing that Singapore and Indonesia meet again and plan to develop Nongsa Digital Park to be bigger, this is proven by the inauguration of Nongsa D-town by the Coordinating Minister for Economic Affairs of the Republic of Indonesia Airlangga Hartarto and the Minister of Trade and Industry of Singapore Chan Chun Sing, the development of Nongsa Digital Park into Nongsa D This town is seen from the increase in the area of Nongsa D-town by 64 hectares and is projected to accommodate more than 8000 workers, in addition to the addition of supporting facilities such as hotels, digital training centers and Co-working (Harahap, 2019). Nongsa D-town is expected to open up opportunities for the younger generation to concentrate on building creativity, industry, and connectivity in digital fields. Singapore and Indonesia are also a digital bridge in building bilateral relations in increasing E-commerce in Indonesia. With this, the author is interested in researching the impact of digital diplomacy carried out by Indonesia on Singapore through the development of a digital economic zone built in Batam with the name Region Nongsa D-town.

1.2. Limitation and Research Questions

This study focuses on the impact of Indonesia's economic diplomacy to Singapore from 2018-2020 in the development of economic cooperation between the two countries in the digital era, one of which is through E-commerce. E-commerce is used for buying and selling transactions carried out via the internet. In this study, researchers will examine the types of E-commerce transactions which include Intrabussines (Organizational) E-commerce, Consumer to Consumer (C2C), Business to Business (B2B), Business to Consumer (B2C), Non-Business Business E-commerce Consumer to Business (C2B), as well as the supporting factors of E-commerce that will assist in explaining the advantages and disadvantages of efforts to increase E-commerce in Indonesia through the development of digital vision of Nongsa D-town in Batam. Based on the limitations of the problem above, the authors formulate the formulation of the problem as follows;

1. What is the form of Indonesia's economic diplomacy with Singapore in the development of the Nongsa D-town Batam digital area?
2. What are the impacts and challenges of Indonesia's economic diplomacy to Singapore in the development of the Nongsa D-town Batam digital area?

1.3. Aim and Uses of the Research

Based on the formulation of the problem that has been described above, the objectives of this research can be described as follows, namely:

1. Knowing the forms of cooperation built by Singapore and Indonesia in the economic field, especially the digital economy
2. Analyzing the impact that occurs in the process of Indonesia's economic diplomacy to Singapore in the digital economy, especially increasing the economy in Indonesia
3. To find out the obstacles and obstacles faced in the digital economic cooperation relationship between Indonesia and Singapore.

The uses or benefits of the research conducted by the author are as follows, namely;

1. Can provide understanding to readers, especially students of International Relations study program related to digital diplomacy
2. As a reference for thinking patterns in reviewing and analyzing the impact of technological developments and their use in economic activities
3. This research can also be used as a reference for economic actors in Indonesia, especially for digital economy actors in generating new thinking thoughts.

1.4. Conceptual Framework

This study uses three concepts that will help clarify the research as well as clarify the two variables to be studied, the concepts used are the concept of economic diplomacy, digital economy and bilateral economic cooperation, this concept will

explain the efforts of the two countries who are mutually seeking to achieve the interests of each other. each country through digital economic cooperation relationships that were built and see how, the impact of digital economic diplomacy carried out by Indonesia on Singapore through the construction of Nongsa D-town in Batam. The following is a description and relevance of the concepts contained in this study, namely:

1) Diplomacy Economy

In this paper, the author uses the concept of economic diplomacy which is one of the main topics in explaining and analyzing the impact of Indonesia's economic diplomacy to Singapore through the development of the Nongsa D-Town digital area in Batam. The presence of interaction between economic actors can be achieved in communication through diplomacy. Diplomacy is actually an activity carried out by certain parties who become guardians of their country with the aim of achieving the interests of their country. Diplomacy is a form of expression of a government in terms of external relations that come from forms of government and are born from the same vision, organization, and motivation. Diplomacy in general is a way of managing relations between countries in terms of negotiations, as well as finding solutions to problems that arise in state relations by negotiating to avoid the use of violence between state parties. (Rana, 2007).

Diplomacy can be carried out in various fields, one of which is diplomacy carried out by all countries, namely economic diplomacy. In recent years, countries in the world have realized the great influence of economic issues on diplomacy and made some important changes and even changed some strategies in setting their foreign policy. In this provision, economic diplomacy is also included in one of the important pillars in the practice of diplomacy. According to G.R Berridge and Alan James, economic diplomacy is:

“Economic diplomacy deals with issues of economic policy, for example the work of delegates in standard-setting organizations such as the WTO and BIS. Economic diplomats also monitor and report on economic policies in foreign countries and advise home governments on how best to influence each other. Economic diplomacy uses economic resources, either as rewards or sanctions, in the pursuit of specific foreign policy goals. Sometimes this is referred to as a statecraft economy.”

The above understanding concludes that economic diplomacy in essence will emphasize the importance of efforts in thinking about the framework or formulating policies related to the results of the movement, production and exchange of goods and services, as well as labor and other resources. (Delanova, 2016). Scientifically, economic diplomacy is a technique of negotiation and cooperation. Diplomacy is carried out by means of trade or influencing external policies, diplomacy is a component that originates from foreign policy that leads to several international

activities within a country, economic diplomacy is one of the main factors or keys in a country's efforts to achieve foreign economic policy. Economic diplomacy also has a role and function in the modern international economy, this modern international economic system is driven by several factors (Baranay, 2009) :

1. Regional integration and global integration must undergo a strengthening process or an internationalization process
2. Increased interaction between countries through international investment and trade, this will greatly affect the market expansion that will occur in the market economy
3. Economic globalization, where economic diplomacy has a role in encouraging and advancing the development of internationalization in the country, but also acts as a barrier in limiting the wishes of other countries who want to monopolize the many advantages of the globalization process.
4. Adapt in progressive methods, energy, efficiency, management, and methods regarding all new technologies, so that investors from other countries can definitely cooperate between countries and international organizations.
5. Strive to improve and create new innovations so that economic innovations owned by the state are externally open, this will greatly affect the attractiveness of foreign investors and will have an impact on the economic growth and development of a country (Baranay, 2009).

Economic diplomacy has dimensions which are divided into bilateral, regional and multilateral economic diplomacy. The dimension of bilateral economic diplomacy in question is how the negotiation process between 2 countries is to achieve the interests and goals of each country, where the results can provide a fair agreement for both countries, the dimension of regional economic diplomacy is how a country is able to build a relationship with other countries. countries that are around the country or who are often referred to as neighboring countries, while the multilateral economic dimension is economic diplomacy carried out by many state actors and involves many countries to achieve international economic interests. This dimension of economic diplomacy is carried out by various official actors such as the ministry of foreign affairs and trade, non-state actors, as well as diplomatic and commercial services. Currently, the management of international economic relations is no longer limited to the state, but extends to civil and commercial affairs (Rana, 2007).

The transformation of the global political economy that continues to undergo significant changes produces new actors in the economic system, thus giving rise to the term triangular diplomacy. Triangular diplomacy is diplomacy carried out based on state actors and companies, as well as businesses and companies. However, over time Triangular diplomacy is no longer used, the development of political economy that presents new actors at each time is evidenced by the development of the term Triangular Diplomacy into decades of diplomacy involving more actors, both

international organizations and non-governmental organizations (Parreira, 2005). The process of cooperation is increasingly complex, countries are required and are required to be able to improve their external economic capabilities, with that economic diplomacy becomes one of the most important media in exploiting opportunities in this era of economic globalization.

Therefore, the author sees the impact of diplomacy carried out by Indonesia on Singapore can be seen through the concept of economic diplomacy so that readers can understand more deeply about economic diplomacy and see how big the impact is given by economic diplomacy carried out through various actors, both state and national. non-state.

2) Bilateral Economic Cooperation

Cooperation is an action taken by several parties to overcome problems or to achieve a common goal and national interest in accordance with several previously determined provisions. Cooperation has a classification in the fields that will be carried out by groups, individuals, and countries, namely;

1. Global cooperation, this cooperation is carried out to mix or integrate various nations in the world into a container that can accommodate and unite them in their achievements and aspirations in avoiding international integration.

2. Regional Cooperation, this cooperation is carried out based on the same geographical location, culture and political views, as well as the level of productive activity to help and need each other.
3. Ideological cooperation, this cooperation is motivated by the ideological similarity of a country.
4. Functional Cooperation, this collaboration is carried out based on shared assumptions and goals, this collaboration is based on a pragmatic mindset that signals certain capabilities in each country as working partners (Budiono, 2009).

Meanwhile, according to the Big Indonesian Dictionary (KBBI) bilateral is two parties or reciprocity, with that bilateral cooperation in general is a relationship between two parties carried out to overcome problems and achieve common goals. According to Didi Krisna (1993) which is written in his International political dictionary that "Bilateral relations are conditions that describe a relationship that influences each other or a reciprocal relationship between two parties or two countries". both countries must have national interests from both countries which must be mutually beneficial for each country, either to improve state security, the country's economy, or the welfare of the community (Krisna, 1993).

In bilateral cooperation relations there are many aspects that can be done such as bilateral cooperation in the field of national defense, the country's economy, also in the field of education, but in this study the researcher will be more specific

through the concept of bilateral economic cooperation relations carried out by Singapore and Indonesia. Bilateral Economic Cooperation is a relationship that was built by two countries with the aim of mutually benefiting in the economic field, as it is known that each country cannot stand alone, especially in an effort to build and achieve the welfare of its people.

International developments can also be seen from the form of cooperation that is built between countries, there are many kinds of cooperative relations carried out by countries also in various fields. The economy is one of the most influential for the welfare of the people in a country. So, every country definitely needs cooperation that is built with other countries in the economic field (Suryadi, 2015). Bilateral economic cooperation is carried out with the approval and agreement of the two countries, indirectly the state is a major actor in bilateral economic cooperation relations in realizing various kinds of operational activities as well as involving the government and involving parties in the business world (Dikti, 1997).

The aim of the state to carry out bilateral economic cooperation relations is to cover the needs needed in the country, increase productivity that occurs within the country, provide employment, balance the balance of payments, equalize natural resources and human resources owned by the state, build good relations between countries, helping each other in the development between countries, as well as protecting each other's domestic industries, with this aim, bilateral economic

cooperation relations can occur with several factors that affect the interests of bilateral economic cooperation relations, such as;

1. Geographical location and differences
2. Differences in population
3. Differences in wealth in the form of resources

According to Robert Gorman and Peter Toma, if a country makes a decision to cooperate with a country it is caused by the following factors;

1. To encourage improvement and maintain economic prosperity, where bilateral cooperation is expected to encourage the level of economic prosperity which is the main target in each country.
2. To realize the national interest, where bilateral cooperation can be a tool in strengthening the national interest of the country
3. To deal with negative impacts that arise due to human activities, such as terrorism and abuse of natural resources (Toma, A, & Gorman, 1991).

The agreement made by the two countries will be approved if the two countries are in a mutually beneficial position or touch the point of each other's interests, but to get to that stage there are many obstacles and problems that must be passed with it, bilateral economic cooperation relations must meet 3 processes, that is;

1. The process of exchanging inputs and outputs from one country to another, the intended output is goods or services.
2. The process of exchanging various means that support production, such as technology, labor and capital, both in foreign aid capital and foreign capital.
3. The credit process or debt processing as a condition and consequence in trade relations, this credit can be in the form of foreign assistance such as soft loans, not in the form of grants. (Boediono, 1981).

With the processes carried out in bilateral economic cooperation relations, this relationship also has various obstacles in its implementation, both positive and negative impacts. which is increasing, the development of capital for the implementation of development, as well as an increase in foreign investment. Meanwhile, the negative impact of bilateral economic cooperation is the fulfillment of employment opportunities by foreign workers as well as the emergence of dependence on foreign aid, as well as mistakes that occur in making economic policies. (HAKIM, 2014).

Thus, it can be summarized that bilateral economic cooperation is a mutually beneficial process with the aim of improving the welfare of the people through the economic sector in the form of investment, labor, employment, etc. Which aims to achieve economic success from both sides of the country.

1.5. Variabel Operation

In this study, researchers used two variables which were divided into two parts, namely the independent variable and the dependent variable, the independent variable referred to in this study was Indonesia's economic diplomacy to Singapore. While the dependent variable is the development of the digital Nongsa D-town area. These two variables will be analyzed at the international level with a description of the operationalization of the variables as follows;

Dependent Variable	Independent Variable	Category	Indicator
Development Nongsa Digital Town digital area in batam	Economic diplomacy from Indonesia to Singapore	Technology transfer	1. Technology production exchange 2. Exchange of outputs and inputs in the form of goods and services
		Combined Training	1. Provision of human resources 2. Cooperation of experts and experts
		Capital injection	1. Accounts payable 2. Credit in the form of soft loans

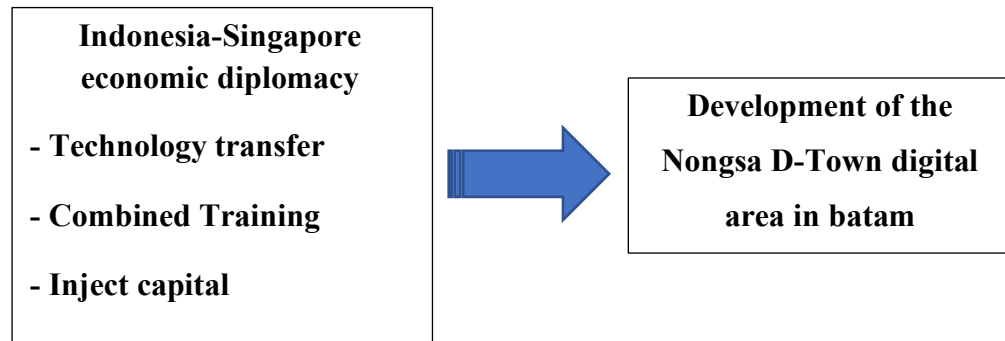
Tabel 1.1: Oprasionalisasi Variabel

Sources: Processed by Author

The three aspects described above will be projected in the data analysis process, so that it will be presented about the impact of Indonesia's economic diplomacy on Singapore through the development of the digital nongsa D-town area. First, technology transfer will explain how the exchange of technology and the exchange of output and input in the form of goods or services can affect the improvement of the economy in Indonesia through the cooperation established by Singapore and Indonesia.

Furthermore, joint training, which is used to demonstrate the willingness of human resources, and build expert collaboration as well as an effort in the form of cooperative relationships that Indonesia and Singapore have built in improving the digital economy in Indonesia, this indicator will explain how Indonesia opens up job opportunities and improve the quality and quantity of human resources they have. As for the aspect of capital injection, it will be explained to see how the process of processing funds such as the credit process or accounts payable is used as a condition and consequence in the economic cooperation relationship between the two parties, so that it can explain how the process of applying funds in a cooperative relationship built by the two parties will be explained. Indonesia and Singapore.

1.6. Analysis Model



1.7. Assumption and Hypotheses

Based on the description of the conceptual framework and operationalization of variables that have been discussed by previous authors, the authors assume that the economic diplomacy carried out by Indonesia against Singapore in the digital economy is in the form of cooperation in the development of the Nongsa D-town Batam digital area as a place to accommodate various start-up company activities and training. digital, as well as seeing how the prospects for increasing the digital economy in Indonesia are through the Nongsa D-town area. Therefore, this research is oriented towards the following working hypotheses:

1. There are interactions and relationships built by Indonesia and Singapore in an effort to achieve the interests of each country through bilateral economic cooperation and diplomacy

2. There is an initiative from the two countries to build a bilateral cooperative relationship through the construction of Nongsa Dtown which is placed as a gathering center for E-commerce companies
3. The cooperation built by Indonesia and Singapore is very influential on improving the economy in Indonesia, especially through the investment sector and the digital economy
4. Bilateral economic cooperation between the two countries in the development of the Nongsa D-town digital area is blocked through economic diplomacy efforts.

1.8.Method of the Research

1) Type of Research

The type of research used by the author is descriptive qualitative research. This research method can explain the research results in more detail by using descriptive techniques. This qualitative type of research will help the author to focus on discussing the impact of Indonesia's economic diplomacy on Singapore through the development of the digital Nongsa D-town Batam area.

The purpose of qualitative research generally includes information about data collection which uses measuring tools such as data obtained from trusted parties as well as accurate. Through analytical descriptive research, the author presents the data obtained systematically in order to make it easier to understand and in more

detail, the scopes of the type of research that will be used by the author are the use of patterns and descriptions of circumstances or empirical facts which then, the results of the description followed by analysis to draw conclusions based on artistic data.

2) Types of Data

The types of data that the author uses are secondary data and primary data. Secondary data is data obtained through the study of literature such as books, scientific journals, articles, and internet media as for several books and journals used by authors in research such as:

- a. Book; International cooperation, economic diplomacy, development of digital media, improvement of the country's economy, use of social media, international relations study methodology, theories and concepts in international relations.
- b. Journal; Singapore-Indonesia economic cooperation, economic diplomacy, social media in international relations, the role of social media in the digital economy (E-commerce).
- c. Official website and Official report : Nongsa D-town area development site.

3) Analysis Technique Data

The author will analyze the research data obtained through qualitative data analysis techniques. In analyzing the problems studied, the author will provide a

description based on the facts obtained and the author will relate these facts to other facts so that an appropriate argument can be generated. The author also attaches the quantitative data obtained to strengthen the author's qualitative analysis.

1.9. Systematic Writing

The following is a systematic description of research writing organized into five chapters, including;

CHAPTER 1 Introduction covers the background of the problem, the limitations and formulation of the problem, the objectives and benefits of the research, conceptual framework, research methodology, and research systematics.

CHAPTER 2 Overview of the Center will provide a broader review of the concepts or theories used in this research. The purpose of this review is to find variables that will affect the study to be studied.

CHAPTER 3 An overview of the development of the digital economy in Indonesia and Singapore which is discussed in detail, both the development of the digital economy in Indonesia as well as the development of the digital economy in Singapore, the dynamics of Indonesia-Singapore cooperation in the digital field, as well as the development of the digital area of Nongsa D-town Batam

CHAPTER 4 Analysis and research results contains the results of previous research that has gone through the process of testing hypotheses based on the data

that has been collected. In this chapter, we will discuss the operational process of variables until a justification for the research statement is raised.

CHAPTER 5 Conclusion answers the research statement submitted and re-validates the assumptions and hypotheses that have been projected at the beginning of the study.

CHAPTER II

LITERATURE REVIEW

2.1. Diplomacy Economy

Diplomacy is etymologically derived from the Greek "diploun" which means to fold. The meaning of folding shows a phenomenon in the Roman Empire where at that time all passports passing through the country were printed on double metal plates which were then folded and sewn into one piece, the letter was given the name "Diplomas", over time in the Middle Ages all forms of official letters were stored and made into archives known as "diplomaticus" which means anyone related to these archival documents will be referred to as "diplomatic businessmen", which are then associated with the management of international relations and are considered as "diplomats" for those who come set it up. Ernest Satow said that diplomacy was used for the first time by Burke who demonstrated some expertise in building international relations, and in 1796 Burke for the first time used the term "Diplomatic Institution".

Diplomacy is an art practice commonly known as the practice of negotiation, the practice of negotiation is usually carried out by state actors who are referred to as diplomats. Bilateral diplomacy or diplomacy involving two parties is the oldest and simplest diplomacy, even this bilateral diplomacy is usually used in the achievement of a mission by embassies and also state visits. Therefore, diplomacy

has become an important practice in the life of the nation and state, diplomacy is believed to be one of the main means in handling international problems in order to achieve common interests as well as world peace, diplomacy is also used in achieving goals and principles to be adhered to in a country (Setiawan, 2016). Diplomacy is different from foreign policy, diplomacy is not included in a policy but diplomacy is an influential institution in making these policies, with that diplomacy itself is divided into 2, the first is soft diplomacy and hard diplomacy, soft diplomacy is a character approach where the strength is can make other people more interested so that emotional strength and intelligence can be built through a social and cultural approach, while hard diplomacy is a way or tactic of a country in achieving its country's interests through a military force approach. (Yani & Lusiana, 2018). In a country for the welfare of its people it is necessary to build good relations with countries around the country, the welfare of the people can be seen from how the processing of the results of natural wealth in their country can be processed properly so that meet the economic needs of the community.

As it is known that the economy is one of the most influential things in the process of improving people's welfare, the economy can also run well with the help and support from several countries with the aim of mutually benefiting, therefore usually cooperative relations between countries, especially in the economic and trade fields. always gets the highest spotlight from a country, please note that the economy also has a big influence in paradigm changes, this can be seen based on

economic issues that are very influential on political and military issues (Delanova, 2016), Therefore, to build good economic cooperation with other countries, a form of diplomacy is needed that connects one country to another, which is expected to complete and achieve the respective goals of these countries, namely for mutual benefit. carried out by a country to achieve economic goals, both to establish cooperative relations between countries or in improving the process of developing its economy, according to economic diplomacy it is also referred to as shop keeper diplomacy which means diplomacy aims to formulate and advance policies that include production activities, exchange of goods or services, movement, labor, and also as a form of investment in other countries (Cabestan, 2001). G.R Berridge and Alan James explain that economic diplomacy is:

“Economic diplomacy is related to issues of economic policy, for example the work of delegates in standard setting organizations such as the WTO and BIS. Economic diplomats also monitor and report on economic policies in foreign countries and advice home governments on how best to influence each other. Economic diplomacy uses economic resources, either as rewards or sanctions, in the pursuit of specific foreign policy goals. This is sometimes referred to as a statecraft economy.”

The above understanding concludes that economic diplomacy in essence will emphasize the importance of efforts to think about a framework or formulate policies related to the results of the movement, production and exchange of goods

and services, labor and other resources on the topic of international relations. (Delanova, 2016). Economic diplomacy is a subject of academic study, but not only that, economic diplomacy is an activity carried out by several elements of the state which are referred to as state actors as well as non-state actors, in this case, such as the mention of economic diplomacy, it is more concerned with problems that exist in the existing economic system. carried out by nations, Bretton Woods said that economic institutions carried out by nations were created after World War II. In 1990, with the progress of globalization, economic diplomacy became a more complex matter and it was decided to enter as a mandatory element in the decision-making process of a country. (Ruggie,1982). Economic diplomacy is divided into 3 elements, namely;

1. Influence the use of political relations to introduce, market, promote and attract investors
2. Using economic assets with the aim of strengthening relations between countries for mutual benefit as well as increasing the costs of conflict
3. Consolidating the international environment with a political climate that aims to achieve the goals of each country

With the three elements above, it can be seen that there are differences that occur according to the capabilities and capabilities of each country in the diplomatic process, these differences can be seen from internal factors or external factors, and can be seen through non-material or material capabilities, therefore these things can

lead to imbalances in the diplomatic process between countries that have insufficient capacity and more capacity or what we are more familiar with as developing countries and developed countries.

In the practice of economic diplomacy, the emphasis is on negotiation processes not through policy content or structure but through institutional capacity and competence, with that developing countries have various variants and various factors in using economic diplomacy practices such as policy management, trade promotion and investment. . As a developing country, Indonesia must be able to respond intelligently to the era of globalization, so that it can achieve and benefit in achieving its national interests, especially in the economic field, as it is known that Indonesia is one of the biggest players in building world or global economic relations. This is evidenced by the signing of international agreements which are dominated by the economic sector. In general, economic diplomacy is multi-actor and multi-level, which means that economic diplomacy is carried out at 4 levels, multilateral, bilateral, regional and plurilateral. Economic diplomacy involves various kinds of actors, not only the government (Killian, 2012).

2.2. Digital Economy

The digital economy is one of the things that the world community is familiar with, the digital economy was introduced for the first time by a technology expert named Tapscott in 1995 through a book entitled *The Digital Economy: Promise and Peril in the Age of Networked Intelligence*, In the book, Tapscott said that the digital

economy is one of the social phenomena that can affect many changes in the economic system, the phenomenon in question is having characteristics that are used as an intelligence room, application of information, access in all fields of information instruments, information processing and the capacity of an information.

. The digital economy itself has many components, including the distribution of goods and services digitally, ICT industries, and what is being discussed very much in the world of the digital economy, namely E-commerce. The digital economy is often also called digital-based economy, new economy, new economy, web economy or internet economy. In a book written by Topscott in 1996, the digital economy has 12 tools or attributes, namely;

1. New and superior innovations or knowledge (*power of the knowledge*). In classical economics, buildings, land, money and labor are very important factors of production, so in an organization knowledge is a resource that must be owned, seeing that science is very attached to humans, then human resources are a factor in determining the success of an organization or organization. company in achieving objective goals.
2. Digitization in the use of digital technology and digital information which sees the target customers as digital customers who use digitalization devices as a medium in conducting buying and selling transactions of goods and services (Digitization). Digitization is the development of information that is very influential in the world of economy, this can be a reference in

increasing the efficiency of a company, which causes reduced costs associated with the process of exchanging, storing and creating a media, so that the human opportunity to exchange information is faster.

3. Changing the concept of seeing physical goods into virtual goods, this requires intellectual property that is converted into digital capital (Virtualization). Running a business in the real world is of course different from running a business with digital assistance, in the real world business people need physical assets in the form of goods, production equipment, and buildings, virtualization is here to provide land for business people through simple devices, and reach customers in all corners of the world. , where the process of running a business begins with the exchange of information and data that is carried out virtually, without the presence of physical assets between individuals or parties who carry out transactions, both real and online.
4. The digital economy is considered easy to follow and adapt to the environment (Molecularization). Molecularization is a term for organizations or companies that will survive in the era and role of the digital economy, in other words, organizations that are successful in implementing digitalization, the molecular form becomes one of the systems that can show adaptation to an environment with some dynamic changes or with a natural process.

5. Use of internet network which is useful for building interconnection (Internetworking). In an organization or a company, it is certain to have cooperative relationships with other parties, this can be seen from the small things where a company wants to be successful in cyberspace, the organization or company will definitely determine and choose core activities to establish cooperative relationships with other institutions so that obtain supporting activities.
6. Without intermediary or Peer to peer (disintermediation). The digital economy has a tendency to reduce the number of mediators or intermediaries that exist when conducting transactions between customers from suppliers, as for examples of such mediators as wholesalers, retailers, broadcasters, record companies, etc.
7. Communication, computing and content to build interactive media (Convergence). The 3 main keys of an organization or company in achieving its success are content, communications and computing. Content is one type of service in an industry offered by organizations or companies to the virtual digital market.
8. Creativity and imagination produced by humans are the main ones in the formation of innovation in the economy (Innovation). The difference between business in the real world and the digital world can be seen from the time of day in carrying out activities, in general, real-world businesses work for 8 hours while on the internet business activities can run for 24

hours, this is the impact of innovation in the growing digital era, with the existence of innovations that are increasingly developing, organizations or companies are required to be able to carry out and reproduce various kinds of innovations in order to survive in this digital era.

9. The main aspect in the digital economy is mass adjustment, so that it can turn customers who have more information into producers (prosumption). The boundaries between producers and consumers are blurred, this is because every consumer who uses information technology can change or change the status of being a producer.
10. Speed and agility in the drastic production process and the influence of digital technology (Immediacy). There are many organizations or companies that see the positive side of this digital era and make business as one of the competitions, making customers faced with offering the same products and services, therefore every company always tries to provide more or the highest benefits, so that their needs can achieve maximum benefits. customer satisfaction targets.
11. Global transactions with no restrictions (globalization). The essence of the presence of globalization is the collapse of the boundaries of space and time, knowledge which is the main resource can be obtained regardless of geographical boundaries, as well as in the business world, with globalization the scope of reaching goods or services will be easier, a pure capitalist will

even be more inclined to continue to look for the most comfortable and inexpensive place.

12. There will be a barrier between those who do not understand technology and those who understand, so that all technology players must be able to survive in their fields to continue to offer things that are increasingly interesting and easy (discordance). The phenomenon in the digital economy has undergone many changes, both in social and cultural structures, which causes a continuous change in a paradigm in daily life, this can lead to an accumulation of unemployment, this is due to the understanding of each individual regarding the digitalization era where many people will left behind and some are increasingly soaring with their knowledge in a very good digital era. (Hartono, 2016).

Meanwhile, according to Zimmerman in 2000, the concept of the digital economy is a concept that can explain and describe a global influence on the development of Information and Communication Technology which has an impact on social and economic conditions. The presence of this concept is a view of the relationship between innovation and technological progress that has an economic impact both in macro and micro terms. The affordability of technology can be an influence in various sectors such as the goods and services sector, production, as well as sales or supply.

The digital economy was born and evolved with information and communication technology that is increasingly globalizing in the world. Global economic power has passed through four epochs of human life, the age of agriculture, the era of the industrial revolution, the era of oil hunting, and capitalism. The previous four economic waves could only be reached by certain elites and underwent some very significant groupings. The digital economy is expected to be present as a reference material for inclusive topography, and quality, which means that it is an era that can be reached by all people with various qualities. The digital economy is expected to be present and be the best solution in keeping up with technological developments and is expected to be a source of profit for both the community, economic actors, or the state (Agustina, et al., 2019).

2.3. Electronic commerce (E-commerce)

Electronic commerce or what is often heard with the word E-commerce is one of the business activities involving manufacturing, consumers, and intermediary trading, this activity is carried out using computer networks. E-commerce can be said to be one of the very large scopes in the digital economy, this is said to be based on processes and practices that can be done without using manual methods such as writing on paper as a transaction mechanism. (W. Purbo, Wahyudi, 2001). Julian Ding defined E-commerce as a;

"Electronic commerce, or E-commerce which is also known as commercial transactions between vendors to buyers or buyers to vendors or parties who are in

the same contractual relationship for the supply of goods and services or the acquisition of "rights". These commercial transactions are carried out by the executor in electronic media (or digital media) when the physical presence of the parties is not required where the media exists in a public network or system as opposed to a private network (closed system). Public networks or systems should be considered as open systems (e.g. the internet or the world wide web), transactions being completed regardless of national boundaries or local requirements”.

E-commerce is a transaction between sellers to buyers in the provision of goods, services or taking over rights, E-commerce is also often interpreted as a process in exchanging information in business, not only that, E-commerce is also used to maintain relationships and communication in the business world. E-commerce adheres to the principle of consensualism which means that E-commerce requires an agreement from both parties, acceptance and offer are one of the beginnings of an agreement between the parties concerned through internet media intermediaries, the next stage after approval from both parties is the payment stage, payment in e-commerce - commerce can be done by cash, transfer, credit card, or third party intermediaries such as the provision of accounts or now very well known as Electronic money (e-money), after the payment stage the next process is the delivery of goods that will go through shipping or expedition services. The term E-commerce itself can be explained through 4 perspectives as follows;

- a. Business perspective. From this perspective, E-commerce is an application of technology that aims to automate business transactions
- b. Communication perspective. This perspective sees E-commerce as a medium for providing goods, services, information, or payments made through internet communication processes or computer networks.
- c. Online perspective. Seeing from this perspective, E-commerce allows its implementation, such as the process of buying and selling a product through online media and the internet
- d. Service perspective, this perspective sees E-commerce as a tool that is able to meet all the needs of consumers, companies, and management with the aim of minimizing service costs and increasing speed in customer service.
- e. Collaboration perspective. This perspective sees E-commerce as a facilitator that allows collaboration in organizations both inter-organizational and inter-organizational
- f. Community perspective. This perspective sees E-commerce as a place for community members to interact, learn, collaborate, and transact.

There are 3 types of E-Commerce division, namely; Business to Business (B2B) E-Commerce Business to consumer (B2C), and Consumer to Consumer (C2C) (Humdiana, Indriyani, & Evi, 2005).

1. Business to Business (B2B)

The position where wholesalers and suppliers go to the commercial process, or a place where various companies carry out buying activities, or selling with other companies is referred to as the type of E-commerce Business to Business or (B2B). B2B is an interaction that is built by business people in the trade process through the internet network. The power of mobile and internet technology is very great, the development and impact given is very large for the sectors of people's lives. According to Adam in 2003 B2B has several characteristics such as;

Data Exchange (data exchange), a process carried out using existing data from the agreement of all parties and carried out in stages and iteratively.

1. Trading partners, where relationships that have been built for a long time will be used as a place for exchanging information, so that the type of information that has been sent can adjust to needs and trust
2. Having actors who can take the initiative in working on and sending data without waiting for partners to act
3. Processing intelligence where this process uses a per-to-per model so that it can be distributed by both parties

This characteristic can also confirm that B2B is very influential in the efficiency of various operational activities between one party and another. (JONATHAN, 2012).

2. Business to consumer (B2C)

Business To consumer (B2C) is one part of E-commerce that is used in the process of online transactions or buying and selling, for example a company will try to develop an attractive electronic market to sell various products and services to customers. This type of B2C E-Commerce which is more customer-focused has the same important goal, namely: attracting the attention of buyers to make transactions for goods and services, as well as building customer trust and loyalty through excellent service for each individual. B2C has consumer characteristics such as;

- a. conducted in general with the intention that all forms of information will be disseminated in general.
- b. The services to be provided are general (generic), for example with the use of the web, the web has been known and used by many people, so the web has become one of the most common sites, therefore information can be provided using a web base.
 - a. The service that has been provided will be considered based on the request (On demand), where the consumer takes the initiative in giving a response which will be responded to in accordance with the request.

B2C also guarantees services to be provided to customers;

- a) Making samples on products to be sold equipped with important information

- b) Online product ordering transactions
- c) Online product payment transactions
- d) Product delivery
- e) Provide important information about products or services
- f) Offer and provide a complete service.

Therefore, it can be concluded that B2C is a business that sells products directly to consumers without any intermediaries.

3. Consumer to consumer (C2C)

Consumer to Consumer (C2C), is a place where customers and companies can make sales and purchases through a website called an auction website, for example, *Bukalapak* and *E-bay* which have great success in online auctions, this is one of the strategies in the E-Commerce business that is quite important (Rahardjo, 2005). The purpose of C2C is to help the interaction between sellers and buyers to find each other, customers can also benefit and get more information about competing products, and help get products that are difficult to find.

As for some of the components involved in E-commerce, these components are of course different from traditional commerce, namely;

1. *Seller*: The party who offers and provides products, services or information to customers, either in organizations or individuals, sellers usually use their website or marketplace to sell their products, services or information.

2. *Customer*: The target market is internet users in offering products, services or information provided by the seller
3. *Products*: Are goods or information sent directly via the internet by sellers to customers.
4. *Infrastructure*: electronic media infrastructure, software, hardware and all existing network systems.
5. *Frontend*: It is a web media that provides space to interact with users without intermediaries or directly, such as: electronic catalogs, shopping cards, payment gateways and vendor portals.
6. *Backend*: Frontend media support, such as marketing activity processing, payment processing, shipping and inventory management
7. *Intermediary*: A third party in bridging the relationship between consumers and producers, bringing together sellers and buyers, assisting the transaction process. Intermediary is not only carried out by organizations or companies but can also be done by individuals such as distributors.
8. *Other business partners*: parties who build collaborative relationships or cooperation with producers
9. *Support service*: in the form of security guarantees through cyberspace which can be seen from certificates as well as trust services, thus providing security guarantees for knowledge providers.

These components are parts that greatly influence the development of economic digitization in various countries, therefore, the author proves how the role of a country's economy can be affected by the development of the times, especially in the digital economy through the role of *E-commerce*, where *E-commerce* acts as an intermediary medium that is used as one of the biggest forces in influencing a country's economy.

The literature review on the concept of the digital economy and the indicators put forward by several experts in viewing the digital economy will be used as a reference by the author in evaluating the impact of Indonesia's economic diplomacy to Singapore in the development of the Nongsa D-town digital area in Batam.

2.4. Bilateral Economics Cooperation

Bilateral economic cooperation is motivated by the presence of agreements that have been reached and will be realized through various operational activities involving state actors, especially those developing in the business world. Bilateral economic cooperation comes from the type of international cooperation relationship, in the study of international relations studies, international cooperation is divided into several parts such as regional, bilateral, trilateral, and multilateral cooperation. International cooperation is an activity carried out by countries to build mutually beneficial relations between countries, the most important element in the process of international cooperation is the process of achieving national interests.

The national interest of a country is a classic discussion that is very common in the study of international relations, national interests have a subjective nature which means that national interests depend on the direction of foreign policy in a country, can also be adapted to actors who play a direct role, namely the government. (Avivi & Siagian, 2020).

According to Hans J Morgenthau in 1985, the national interest is used as a tool to gain power. With the power of a country, that country can control other countries, more precisely called the concept of *national interest*, where the ability of a country in an effort to protect each other also preserves culture, material and political features from the many interferences of other countries (Morgenthau & Thompson, 1985).

According to Felix E. Oppenheim in 1987, the national interest is carried out for the welfare of the national government in a large international scope, this shows that the national interest plays a major role in the defense of political autonomy, in order to achieve the main goal of a country, namely the welfare of society, especially on the international stage (Oppenheim, 1987).

With this, national interests are seen as a good bridge for relations between countries in forming international cooperation, as mentioned above, international cooperation consists of several groups, namely regional, bilateral, trilateral and multilateral, but in this study the author will use and specify the discussion on bilateral cooperation. Bilateral cooperation is carried out by two countries to achieve

the interests of each of these countries, the main actor of bilateral cooperation relations in this study is the state, bilateral cooperation itself can be explained in various fields but this research will discuss more specifically in the economic field. As we know the economy in a country is the main source in the process of prospering the people, with that comes bilateral economic cooperation as a reference concept used by the author in the process of this research.

Bilateral economic cooperation is cooperation carried out by 2 countries with the aim of achieving the interests of the two countries in an effort to improve the economy of each party, bilateral economic cooperation is carried out based on agreements previously made by the two countries, usually the agreement begins with diplomacy which was later agreed by both parties. However, even though an agreement has been reached, the cooperation process still encounters deficiencies or problems, therefore it is necessary to evaluate as well as assess the performance of each party. In bilateral economic cooperation, there are at least 3 economic standardizations:

1. Exchange of results (output) such as goods and services
2. Exchange of production facilities such as capital, labor, and required technology
3. The relationship in the form of accounts payable which is used as one of the consequences in conducting cooperative relations in the field of trade, this

debt can be in the form of foreign aid which is termed soft loans (Boediono, 1981).

The objectives of bilateral economic cooperation are to cover domestic needs, increase domestic production activities, provide employment for the community, increase state income, strengthen relations between countries, and protect existing industries in the country, both industrial and domestic. developing or just starting out. Bilateral economic cooperation is carried out due to causal factors, the causes of cooperation between countries such as differences in wealth and natural resources, production, population, or geographical conditions of the country, so it can be concluded that bilateral economic cooperation is a process of fulfilling the interests of a country. so that it benefits the common interest.

The literature review on the concept of bilateral economic cooperation as well as the indicators put forward by several experts in viewing bilateral economic cooperation will be used as a reference by the authors in evaluating the impact of Indonesia's economic diplomacy to Singapore in the development of the Nongsa D-town digital area in Batam.

2.5. Previous Research

The research conducted by the researcher this time is one of the original ideas and certainly has never been studied by other researchers, to prove the truth, evidence is needed from previous research. The existence of previous research is

one of the measuring tools for current researchers to be used as a guide or basis in working on a thesis so as to facilitate the research process of researchers, as for previous research that is considered relevant to this research, namely research conducted by Fachran Adi Suryadi in 2016 which entitled, "Indonesia and Singapore in the Management of Special Economic Border Areas", Nur Muhamad Bagus Harpiandi in 2019 entitled "Indonesia-Singapore Cooperation in the Digital Economy 2017", Desy Arjuna in 2016 entitled "Indonesia-Singapore Economic Cooperation in Realization Special Economic Zone (SEZ) in Batam, Bintan and Karimun”.

Thesis research conducted by Fachran Adi Suryadi in 2016 entitled, "Indonesia and Singapore in the Management of Special Economic Border Areas" which examines how the cooperative relationship developed by Singapore and Indonesia in processing the boundaries of the special economic area, namely Batam Island. The difference in the focus of this research lies in the specifications of the object of study where the results of research conducted by Fachran Adi Suryadi discuss more specifically how the Indonesian and Singaporean governments show that territorial boundaries can be one of the frameworks in cooperative relations, while in this study it focuses more on how the impact of diplomacy carried out by Indonesia to Singapore in the digital economy through the development of a digital economy area.

A research journal conducted by Nur Muhamad Bagus Harpiandi in 2019

entitled "Indonesia-Singapore Cooperation in the Digital Economy 2017" which examines how the Singapore-Indonesia cooperation relationship in the Digital Economy in 2017. Differences in focus in previous research with this research The previous research conducted by Nur Muhamad Bagus Harpiandi focused on the process carried out by Singapore and Indonesia in the digital economy which was agreed in 2017, while this research tries to look at the job prospects of Singapore and Indonesia in improving the economy in Indonesia.

The research journal conducted by Desy Arjuna in 2016 entitled "Indonesia-Singapore Economic Cooperation in the Realization of the Special Economic Zone (SEZ) in Batam, Bintan and Karimun" which is the difference between previous research and current research is the research conducted by Desy Arjuna discussing more specifically regarding the cooperative relationship carried out by Singapore and Indonesia in the economic field that forms areas as special economic zones such as Batam, Bintan and Karimun which are used as investment areas, foreign investment and others. focuses on one area, namely Batam which is used by Singapore and Indonesia in conducting diplomatic relations to improve the economies of the two countries through the development of a digital economic zone in Batam.

Author's Research	Previous Research	Focus Of Previous Research	Differences Of Research Focus
The Impact Of Indonesia's	Fachran Adi Suryadi in 2016 entitled,	Focusing on the boundaries	Focusing on how the

Economic Diplomas To Singapore Through The Development Of The Nongsa D-Town Batam	"Indonesia and Singapore in the Management of Special Economic Border Areas"	of Singapore and Indonesia can be one of the frameworks in the cooperative relationship	impact of diplomacy carried out by Indonesia to Singapore in the digital economy through the development of a digital economy area.
	Nur Muhamad Bagus Harpiandi in 2019 entitled "Indonesia-Singapore Cooperation in the Digital Economy 2017"	Focusing on the collaboration between Singapore and Indonesia in the digital economy, which was agreed in 2017	Focuses on the prospects of work carried out by Singapore and Indonesia in improving the economy in Indonesia from the initial agreement to build Nongsa Digital Park until now it has become Nongsa D-town
	Desy Arjuna in 2016 entitled "Indonesia-Singapore Economic Cooperation in Realizing the Special Economic Zone	Discusses more specifically the cooperative relationship carried out by Singapore and	Focuses on one area, namely Batam which is used by Singapore and Indonesia

	(SEZ) in Batam, Bintan and Karimun"	Indonesia in the economic field that forms areas as special economic zones such as Batam, Bintan and Karimun which are used as investment areas, foreign investment and others.	in conducting diplomatic relations to improve the economy of the two countries through the development of a digital economic zone in Batam.
	Sulthon Sjahril Sabaruddin in 2016 with the title "Grand Design of Indonesian Economic Diplomacy: An Approach to Economic Diplomacy Index"	This journal discusses the determination of the Economic Diplomacy Index (IDE) resulting from calculations through several indicators. The indicators referred to are four areas of cooperation between Indonesia and other countries, including; exports, foreign investment (PMA), foreign	Discusses how technology transfer activities, joint training, and capital injections are in the mechanism of the digital economy.

		tourists (tourists), and income transfers (remittances)	
	Nurichsan Hidayah in 2019 with the title "Implementation of Indonesia-Singapore Cooperation in Batam in 2017-2018"	Focuses on discussing the cooperation that Indonesia and Singapore will build in general regarding various economic diplomacy activities in Batam in 2017-2018	Focusing on activities and forms of Indonesia's digital economic diplomacy towards Singapore in the development of the Nongsa Digital Town area as an investment in the Indonesian economy, the author also focuses on research from 2018-2020

Tabel 1.2 Previous Research

Sources : Processed by Author

CHAPTER III

DIGITAL ECONOMY DEVELOPMENT IN INDONESIA AND SINGAPORE

3.1. Digital Economy Development in Indonesia

In the era of globalization, the digital sector has a large enough influence, these increasingly developing movements in the digital world encourage Indonesia to participate in the development of the digital economy in Indonesia, Indonesia sees that there are 4 aspects that have the potential to develop rapidly, this is proved by;

1. Fintech, Financial technology (financial technology), this aspect can be seen and measured from the nominal number of transactions per population in Indonesia, this can be proven by looking at the nominal transaction in 2014 as much as US\$56.98 or equivalent to Rp. 747 thousand which is growing very rapidly in the next 2 years, namely 2016 as much as US \$ 14.5 billion or equivalent to Rp. 190 trillion, the types of fintech in question are; Peer to Peer (P2P) which is very popular in Indonesia as online loans, or Digital Payment Systems or digital payments without going through banks and other types of fintech. On demand services or business capital is carried out by providing goods or services as needed by consumers, this aspect can be seen from the high market demand in Indonesia, namely as many as 132.7 internet users and 63.4 million smartphone users.

2. Electronic commerce (E-commerce), this aspect has great potential and opportunity in the development of Indonesia's digital economy, this is evidenced by the continuous increase in E-commerce transactions from 2013 as much as US\$20 billion or equivalent to Rp. 104 trillion, and in 2016 increased to Rp. 261 trillion, and in 2020 US\$130 billion or equivalent to Rp. 1,700 trillion.
3. Internet of things (IOT) or the addition of technology in the form of sensors and software in an object with the aim of communicating, connecting and controlling this is also seen through the potentials of the Asia Pacific market which also has a drastic increase, this can be proven by the potential Asia Pacific market in 2015 was US\$ 250 billion and in 2021 US\$ 583 billion (Widyanita, 2016).

Digital technology has developed rapidly all over the world. However, not all countries have noticed the various development benefits of using technology. This fact has been happening for a long time, because the internet has a big role in driving economic growth, expanding job opportunities, and improving public services. The digital technology revolution must be understood as a new business opportunity because equitable access to digital adoption is a step to reduce the inequality of a country's development. The use of credit cards and ATM cards for transactional purposes shows positive growth and people are increasingly accustomed to using these two cards for various transactional purposes along with

the ease of transactions and the ease of obtaining payment instruments using these cards.. (Jelasi & Albretcht Endes, 2008).

The rapid development of digital technology in Indonesia supports the development of digital and technology-based company activities to develop start-up businesses, creative industries, UMKM and educational institutions engaged in information technology. Conventional financial services and national financial technology players need to build collaborations that are driven by the existence of the government as a provider of financial technology services to increase equitable access, advance the financial industry to be more efficient in supporting MSME capital and production activities and increase Indonesia's economic growth. In fact, a number of large technology-based companies cooperate well with banks on investment resources. Some of the effects of the development of digital technology are the existence of the internet which encourages economic growth, Indonesia's per capita income in the midst of a declining global economy due to increasing competition in oil prices in the international market, expanding job opportunities and improving public facilities.

The digital technology revolution is considered a new business opportunity by novice businessmen. Some startup businesses have started trying to enter the agricultural sector to help with the capital problems faced by farmers. The high risk of capital is considered an opportunity by business people. Financial technology-based company funding can channel credit more quickly and can overcome the low

financial inclusion outside Java. This is indicated by the existence of information technology which is a means of connecting between farmers and investors.

This also happened to e-money, which could be seen from the co-branding that was intensively carried out by e-money publishers and the increase in e-money balances from Rp. 5 million to Rp. 10 million. Card-based transactions will increase in line with the development of e-payments connected to ATM and EDC networks. The government even requires road users to make payments using e-money, prepares electronic money readers for up to 20 types of electronic money, and provides more counters for reloading electronic money so that users can get a lot of convenience.

Each bank has more than one digital financial product and claims that the product offered is superior to similar products released by competitors. Each bank strives to offer innovative and technologically advanced digital products from biometrics to artificial intelligence and enhance its security systems beyond one password despite the consequences of large-scale investments in infrastructure procurement and promotion. Experience in countries such as the United States and China has proven how important it is to create open innovation that can be easily understood by various cultures and innovation processes that allow input from various sources, both internal and external, by building partnerships that have understanding and competence in financial technology (Ahmad Zafrullah Tayinnapis, 2018).

On November 10, 2021, Airlangga Hartanto in a press release from the Coordinating Ministry for Economic Affairs of the Republic of Indonesia explained that the development of the digital economy in Indonesia is not only a target market but must be a global player. The pandemic has changed the global economic landscape towards a new economic order by accelerating the adoption of digital technology in various aspects of people's socio-economic life, including in Indonesia. Airlangga also stated that the results of a study he conducted from Google, Temasek and also Bain & Co stated that 41.9% of the total ASEAN digital economy transactions came from Indonesia. The value of Indonesia's digital economy in 2020 has reached USD 44 billion, which means it grew 11 % from the previous year and contributed 9.5% to Indonesia's GDP (Hartanto, 2021).

Indonesia's digital economy opportunities are still wide open. The digital economy is the strength of the new economy and Indonesia is in a position to develop what is called Artificial Intelligence (AI). This AI is the "New Gold" which is expected to be able to synergize various situations and stakeholders in collaborative cooperation between the government, business actors and other stakeholders (Hartanto, 2021).

Indonesia's great digital economy opportunities are also supported by a number of factors, Indonesia is a country that has the 4th largest total population in the world with a population of productive age reaching more than 191 million or 70.7% and most of them are Generation Z and Millennials. In terms of digital users,

the number of Indonesian mobile phone users currently reaches 345.3 million with internet penetration of 73.7% and internet traffic increasing by 20% throughout 2020. The transaction value of Indonesia's digital economy is projected to reach USD 124 billion in 2020. year 2025.

President Joko Widodo has given direction in Indonesia's digital transformation towards Indonesia's Vision 2045 which expressly states that digital sovereignty and independence must be an important principle in digital transformation. To realize the digital transformation which is an important agenda for Indonesia, the Government has compiled a Roadmap for Digital Indonesia 2021-2024 which is expected to accelerate and increase the use and development of digital technology.

Coordinating Minister Airlangga said that with the roadmap, it is hoped that in 2024 there will be an increase in GDP growth of 1% and the digitization of MSMEs can reach 50%. In addition, 2.5 million new jobs can be created and 600,000 new digital talents are trained every year. This is expected to create added value for the economy, especially technology enablers such as drones and robots, unmanned cars, 3D printing, artificial intelligence, big data analysis, cloud computing, and other technologies.

Various challenges in optimizing the digital economy and AI must be resolved, including infrastructure, human resources, digital literacy, regulations that must adjust, and a more conducive business climate. (Hartanto, 2021).

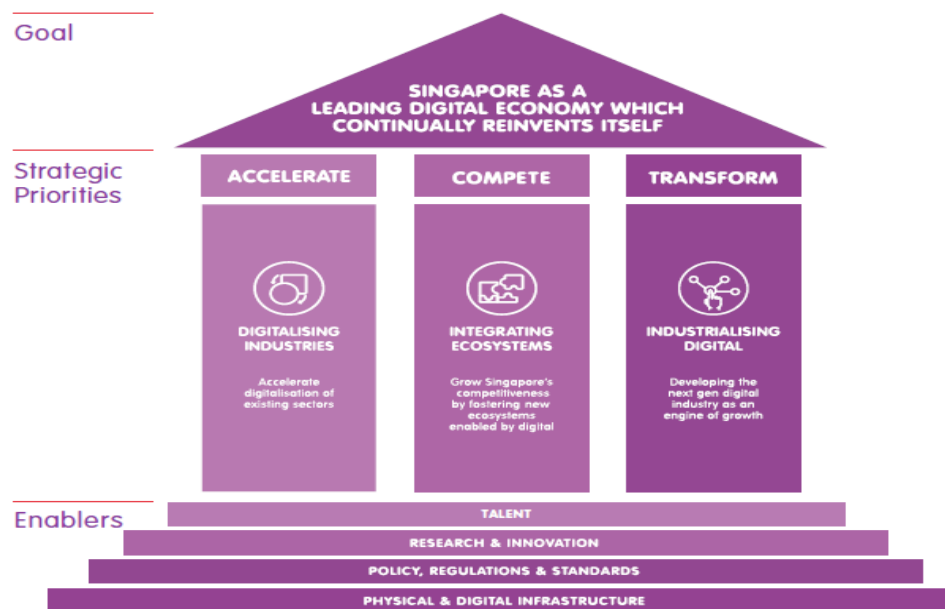
3.2.Digital Economics Development in Singapore

Singapore is one of the countries that is considered to be one of the United States' competitors in the digital field, this is evidenced by the development and achievements of Singapore in the increasing digital sector, Singapore is able to demonstrate the behavior of its people who have advanced in digital culture, Singapore has several special strategies in advancing the digital sector in the country, this is written and attached by the SGD framework For Action through 3 pillars, including;

- a. *Compete*, is the first pillar carried out for the formation of an ecosystem in digital culture that exists in the midst of Singaporean society and is believed to have an influence in a competitive position at the global level.
- b. *Accelerate*, is the second pillar that is used to emphasize or accelerate the digitalization process that exists in the economic sector, especially in the creative industry sector so that increased productivity in achieving profits can be achieved, with this achievement the opportunity that Singapore has to show Singapore's economic development through digital channels.
- c. *Transform*, is the third pillar that can be seen from the transformation of the existing life system in Singapore society so that it forms the aspect of

civilizing in the younger generation, so that it becomes a tool in Singapore's economic growth.

Through the three pillars above, Singapore hopes that these three pillars will become the main goal in achieving Singapore as a pioneer and also a leader in the digital economy in the years to come. Singapore is openly saying that it will not stop to innovate in digital technology and improve the quality of creative industries (Agency, 2021).



Picture 3.2.1 : Singapore's Digital Economy Development Scheme

Source: A Singapore Government Agency Website

The meaning of the picture above is the roof as Singapore's goal in achieving its success as a leader in the digital world which is supported by three pillars and four basic foundations, the three pillars of support are drawn explaining that these three pillars are one of the very priority strategies towards becoming the largest digital country, while The 4 foundations are; existing talent interests particularly in technology, research and innovation, policy standards, and digital facilities as well as infrastructure, which serve as the foundation in underpinning the three main pillars in achieving the goal of “Singapore as a digital economy leader” (DEVELOPMENT, 2021).

Singapore is one of the countries that are still significantly superior in the Southeast Asian region in terms of development and innovation that is believed to affect competitiveness between individuals, Singapore realizes that the digital economy has no boundaries so the Singapore government launched the Digital Singapore Movement to start and support the Singapore economy in the future. come. Singapore has significantly improved its digital infrastructure in recent years, mainly through the introduction of fiber optic and 4G networks, which played a role in dramatically increasing the speed of information transmission. For example, following the launch of a fiber-optic network, Singapore's average internet connection speed increased from 5.4 Megabits per second (Mbps) in 2012 to 20 Mbps in 2016, comparable to that of Japan and Finland. Similarly, Singapore's 4G

connection speed is one of the fastest in the world, partly due to continued network investment (Lim, 2012).

Despite the advancement of Singapore's digital infrastructure, the total number of fiber optic broadband and 4G subscriptions in Singapore has more than doubled over the past five years. Facilitated in part by faster internet speeds, Singaporean households are also gradually getting more active. to the digital space. In particular, between 2010 and 2015, there was a broad increase in the distance households engage in Internet activities such as online shopping and online financial transactions. Findings Based on an annual survey conducted by the Infocomm Media Development Authority (IMDA) (Lim, 2012).

On the corporate side, companies in Singapore are also increasing their investment in digital assets to enhance their digital capabilities. In particular, gross capital expenditure on digital fixed assets by enterprises rose at a Compound Annual Growth Rate of 7.1 percent between 2013 and 2015, resulting in significant digital fixed asset accumulation among enterprises during this period. Along with their investment in digital assets, companies are also encouraging the adoption of digital tools in their daily business activities. For example, according to the Infocomm Media Development Authority (IMDA), a higher share of companies use electronic payment systems and mobile services to do business.

Over the years, Singapore has made significant progress in improving its ICT infrastructure, which is the backbone of the digital economy. At the same time, more of our households and companies are also embracing the adoption of digital tools and digital capabilities. Collectively, these trends have supported the growth of the International Confederation of Midwives (ICM) sector and cross-border data flows in Singapore. Reflecting the progress made, Singapore has been placed near or at the top of various rankings regarding the international digital economy. Recently, Singapore ranked first in the World Economic Forum's Network Readiness Index – an index that measures how well an economy is using ICT to increase competitiveness.

Nonetheless, there is still room for improvement. For example, in terms of the use of ICT by individuals and businesses, we are ranked behind the top digital-ready economy in one of the sub-indexes of the Network Readiness Index. To that end, the Government will continue to assist individuals and companies to adopt and take advantage of digitalization, such as through the Skills Future for Digital Workplace initiative and the SME Go Digital program.

3.3. Dynamics of Cooperation between Indonesia and Singapore in the Digital Sector

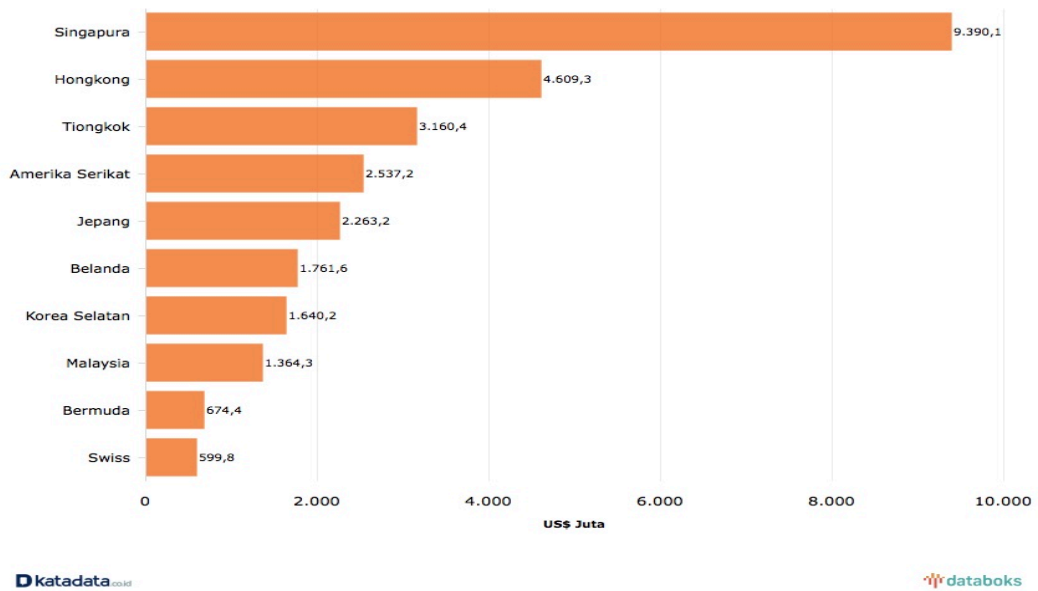
Indonesia and Singapore established cooperative relations for the first time since diplomatic relations between Indonesia and Singapore in 1967, cooperation also occurred due to factors from the layout of Singapore which is one of the

countries that is very close to Indonesia, Indonesia and Singapore have a foundation as members of the Blue-Print ASEAN or Community Blueprint which contributes a lot to strengthen ASEAN integration which focuses everything on the people to strengthen partnership, solidarity, and togetherness towards ASEAN. Blue-print has 3 main pillars namely; Politics, Security, and Economics. The economy has elements that are very high in capacity due to integrated integration such as; Investment, trade in goods and services, driving labor and existing business actors, seeing the pillars of the ASEAN Blue-print can be one of the reasons for bilateral cooperation (Kementrian Luar Negeri Republik Indonesia, 2018).

In the field of Economy, Indonesia and Singapore initially collaborated through the Growth Triangle, which developed into a Special Economic Zone or SEZ. SEZ is a form of cooperation carried out by developed and developing countries in advancing lagging regions, the form of cooperation carried out by Indonesia and Singapore through the SEZ is carried out based on the Decree of the President of Indonesia, Number 12 in 2006 with Law Number 44, 2007 which contains investment actions and activities so that they can attract the attention of the international market as well as special economic areas, namely Batam Bintan, Karimun (DPR, 2009). Then the cooperation between Indonesia and Singapore continues, Indonesia and Singapore see the weight of increasing the digital economy is very large, so that in 2017, the governments of Indonesia and Singapore again met

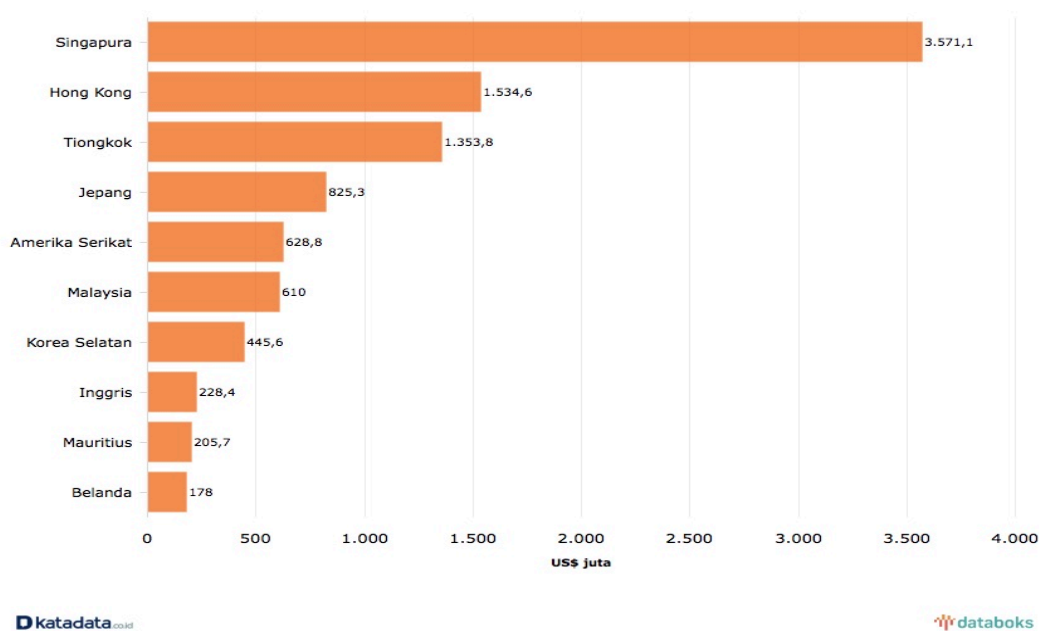
and made an agreement and diplomacy in designing cooperative relations in building the Batam area into a place to accommodate the seeds of the digital economy.

Indonesia and Singapore have a very good relationship in managing the digital economy, Singapore is the largest investor in Indonesia since the last 2 years, namely 2021-2022, this can be seen from the statistical data below



Picture 3.2 Indonesia's 10 biggest investors (2021)

Sources : Databoks.com 2022



Picture 3.3 Indonesia's 10 biggest investors (2022)

Sources : Databoks.com 2022

In accordance with the data above, that Singapore is still the largest investor owned by Indonesia, Singapore invested in Indonesia as much as US\$ 3.6 billion in the first quarter of 2022, not only that the investment project provided by Singapore is also a the largest and most large projects in Indonesia, the total projects awarded are 4,491 projects, this project is not counted from 2021 but from early January to March 2022 (Dihni, 2022).

Singapore assesses that Indonesia needs partners in developing the digital economy which can be seen from the various digitalization phenomena in Indonesia. Singapore is taking steps to encourage companies to make the leap overseas by leveraging the market through connectivity, infrastructure, and opportunities in the

digital world. Intraregional investment is growing rapidly, financial markets are becoming closer and more efficient, and countries are becoming more interdependent. The Nongsa Digital Park (NDP) investment is an infrastructure for Singapore-Indonesia cooperation in the digital economy as a center for digital-based creative industry activities in the form of application development, web, digital programs, animation, films, and so on.

Batam was chosen as the location for the digital park because it has advantages in three aspects of assessment, namely the availability of talent or human resources (HR) for the digital economy business, the area is strategic and very close to Singapore which is a gathering place for global digital economy business players, and the work ethic of people. good Indonesian. The NDP was built in Nongsa District, Batam, covering an area of 100 hectares (ha) as a form of bilateral agreement at the September 2017 meeting of S\$700 million (Arshad, 2017). Between Indonesia and Singapore by the President of Indonesia, Joko Widodo, and the Prime Minister of Singapore, Lee Hsien Loong. . The NDP was inaugurated by the Indonesian Minister of Foreign Affairs, Retno L.P. Marsudi, with Singapore's Minister of Foreign Affairs, Vivian Balakrishnan, on 20 March 2018.

With the inauguration of the NDP, Indonesia can open new access to various business sectors and invite other business people to enter, join, and strengthen the digital economy. Although there is collaboration in NDP investment, Singapore and Indonesia have different agendas in utilizing NDP for the benefit of each country.

Indonesia has made NDP a "road" for trade integration of Indonesia's digital economy sector. There are many sectors that allow for collaboration between Singapore and Indonesia, such as e-commerce, fintech, artificial intelligence, and big data services.

The Indonesian government and Singapore officially formed the Indonesia-Singapore Business Council (ISBC) to strengthen business cooperation between the two countries. The MoU was signed by the Economic Development Board of Singapore (EDB) with the Investment Coordinating Board (BKPM) in Jakarta on July 28, 2018. The agreement was witnessed by the Minister of Trade and Industry, Lim Hng Kiang and the Coordinating Minister for the Economy Darmin Nasution.

Indonesia-Singapore made an agreement to strengthen cooperation in three types of priority sectors, namely the capital market, digital economy as well as tourism, and its supporting infrastructure. This is one of the points that became an agreement between Indonesia and Singapore in the 2nd Indonesia Singapore Business Council Meeting which was organized by the Investment Coordinating Board (BKPM) together with the Indonesian Chamber of Commerce and Industry in collaboration with the Economic Development Board (EDB) of Singapore and the Singapore Business Federation (SBF) ((BKPM), 2018).

Indonesia chose Singapore as a partner in implementing digital economic cooperation because Singapore as a developed country is superior in terms of

technology and information as well as e-commerce. The cooperation between Indonesia-Singapore is the right step and also mutually beneficial for both countries. Indonesia has benefited from many investors from Singapore and then has benefited because, through this cooperation, Singaporean companies can expand the market for their digital companies and can recruit cheap labor. and many from Indonesia ((BKPM), 2018).

3.4. Development of the Nongsa D-Town Batam Digital Area

Nongsa D-town is a development of Nongsa Digital park which was previously built by Indonesia and Singapore, this area was created to accommodate Startups. Batam has the opportunity to become a growth center for startups (startup companies) in line with the presence of NDP as a digital economy area and a center for the creative industry which makes Batam an Indonesian innovation to support the implementation of the Making Indonesia 4.0 roadmap (Ekarina, 2018). Apart from being a startup center, one of the priorities in developing NDP in Batam as a concrete form of agreement is to make Batam a digital bridge. the first phase of the NDP consists of nine office buildings that could absorb a total potential investment of over US\$500 billion with the creation of approximately 1,500 jobs, and the number continues to grow significantly as all NDP projects enter future phases. NDP is declared a digital bridge that will connect Singapore via Batam to other digital economies in Indonesia, the ideal location is also a platform for the digital industry and the development of startup incubators. In August 2019, it is known that the

number of tenants and startups in NDP has reached 50 companies, including several startups from Singapore, namely LiquidPay (Fintech) and Glints (start-up talent recruitment). On the other hand, the construction of the 3rd Apple iOS Development Center or Apple Academy in Indonesia is also targeted to be completed in 2020 in Batam, which had previously been built in BSD Tangerang and Surabaya. Surbana Jurong is mandated to work on the NDP master plan. Surbana Jurong Pte Ltd is a Singapore government-owned consulting firm focused on infrastructure and urban development.

Surbana Jurong has experience working on various projects in Indonesia, and in carrying out NDP planning also pays attention to inputs from parties within the NDP. NDP was born and developed from activities that have been running in Nongsa which is a tourism and digital area and is also supported by geographic, infrastructure, economic and political potential, so the concept used is "Work, Live, and Play". The development of NDP is one part of the collaboration between Indonesian and Singaporean companies which is being accelerated by the Indonesian and Singaporean governments through related agencies such as the Batam Business Administration (BP), Batam City Government (Pemko), the Ministry of Tourism and Creative Economy (Kemenparekraf) and also from the Ministry of Tourism and Creative Economy. Singapore government agencies such as the Economic Development Board (EDB). Through NDP, there is an investment in digital infrastructure with Singapore which is a provision for Indonesia to become

a country with a leading digital economy industry in the future. It is also important for Indonesia to hone HR capabilities in the field of technology, such as AI (artificial intelligence), big data analysis, virtual reality, and so on so that Indonesia can realize digital economic projections.

NDP is a strategic platform to grow e-business in Indonesia and has global support from the Governments of Indonesia and Singapore through various institutions including Temasek Foundation International, Singapore Polytechnic (SP), Ministry of Research, Technology and Higher Education of the Republic of Indonesia, and Batam Polytechnic, targeting the education sector which aims to improve the skills of Indonesian engineering students to empower world-class technical capabilities. In addition, NDP is also managed by Citramas Group and Infinite Studios in producing films and animations by attracting Indonesian IT talents from all over the country, facilitated by continuing education training programs, and providing employment opportunities for hundreds of animators throughout Indonesia.

As a realization and implementation of digital economic cooperation between Indonesia and Singapore, the two countries are working together in developing the Nongsa Digital Park (NDP). This NDP is an integrated digital park that provides a place for digital businesses to thrive. NDP is a form of infrastructure that supports digital economic activities. This NDP also provides broad

opportunities for digital activists in developing their businesses and also in conducting more in-depth research on the technology they create.

The construction of a digital telecommunications infrastructure named Nongsa Digital Park in Batam City, Riau Islands has the function to encourage the growth of digital startups in Batam. Nongsa Digital Park is a form of infrastructure to support digital economic activities. The Nongsa Digital Park will also be developed into a comfortable and conducive ecosystem for actors from the digital economy and technopreneurs to foster a culture of innovation. It is hoped that Nongsa Digital Park can become a model for the development of digital areas in cities in Indonesia (Marti'ah, 2017). The Indonesian government also continues to strive for the expansion of Indonesia's internet network so that more and more Indonesians become part of the digital economy transformation process.

A number of startup companies have invested in Nongsa Digital Park at an early stage, employing more than 1,500 workers. Several startups that have joined Nongsa Digital Park include Liquidpay, Glints, ProSpace, and many other startups. This number will increase as the overall NDP project is completed, which is targeted to attract potential investment of over USD 500 million. NDP is located in a high topography to the east of Batam island, away from seismic fault lines, NDP offers a much safer geographic location for data centers.

Supported by the presence of various kinds of good infrastructure on the island of Batam so it is believed to have great potential for conducting business activities. The total NDP development area is set at 180 ha, which is located in the area of Turi Beach Resort, Nongsa Point Marina, Nongsa Village, Nongsapura Ferry Terminal, and film and animation studios, and a golf course. NDP is here to be one of the gateways in the main digital economy in Indonesia and also strengthens and attracts the attention of investors and tourists alike. Nongsa is expected to become one of the preferred destinations for domestic and international tourism in the Riau Archipelago. This Nongsa area will be equipped with complete facilities such as offices and other supporting areas such as digital training centers, shopping centers, schools, flats, and hospitals to support the living needs of the community and workers in this area (Lestari, 2018).

The Governments of Singapore and Indonesia agreed to build the Nongsa Digital Park (NDP) which was inaugurated by the Indonesian Ministry of Foreign Affairs Retno Marsudi and Singapore's Minister of Foreign Affairs Vivian Balakrishnan in 2018. Nongsa Digital Park is a telecommunications infrastructure area built by the Singapore and Indonesian governments located in Batam, Riau islands. These two countries decided to build in the city of Batam because of the location of the city of Batam which is directly opposite Singapore, making it easier to access from the two countries. Nongsa Digital Park was built to accommodate and encourage the growth of digital start-ups in Indonesia and Singapore (Putra,

2021). At the initial stage, Nongsa Digital Park has employed as many as 1,500 workers, the total area of the Nongsa Digital Park development area is 180ha, this area is equipped with offices and other supporting areas such as hospitals, schools as well as several flats to support the lives of workers, Citramas group is holding company or as a holding company that builds and manages Nongsa Digital Park.

Not only in 2021, Indonesia and Singapore will meet again to increase the NDP area to be bigger, the development of the NDP is motivated by several considerations in the potentials that occur in the digital economy in Singapore, in the development of this NDP area, Citramas Group and Sinar Mas Land, which is under the auspices of the company PT Citra Sinar Global, is cooperating in the process of developing and expanding the NDP Area, the expansion being carried out is the addition of the NDP area which was originally 180ha to 5000m² and which initially only accommodated 1,500 workers is now projected to accommodate as many as 8000 workers, the increase in area also makes the construction of facilities increase such as hotels, co-working, shopping centers, digital training centers, and also office buildings that will be used to support the needs of people's lives, in addition to the addition and improvement of the NDP area, Nongsa Digital Park also changed its name to Nongsa Digital Town (Nongsa D-town). Below is a description of the area in Nongsa D-town;



Picture 3.4 ; Nongsa digital Town in Batam

Sources ; Nongsa digital.com, 2021

Nongsa D-town was inaugurated by the Coordinating Minister for Economic Affairs of the Republic of Indonesia, namely Airlangga Hartarto and the Minister of Trade and Industry of Singapore Chan Chun Sing on Tuesday, March 2, 2021.

Nongsa D-town will provide access to Singapore in business development and providing job opportunities for all Indonesian people , Nongsa D-town also makes it easier for Indonesia and Singapore to grow and complement each other in the digital economy sector (Nongsa Digital Park, 2021).

CHAPTER IV

ANALYSIS & RESULTS

4.1. Forms of Indonesian and Singaporean Economic Diplomacy in the Development of the Nongsa D-Town Batam digital area

An agreement on June 25, 2006, took place between the governments of Indonesia and Singapore. The Batam, Bintan, and Karimun (BBK) Islands were eventually designated as a Special Economic Zone (SEZ). The birth of the SEZ in Riau makes the islands into an archipelago that cannot be separated from the history of the region that always gets privileges. Batam has been designated as a warehousing area as well as a bonded area with the coverage area being extended to Rempang and Galang islands.g (Batam, 2006).

The Singapore Economic Development Government at a meeting held together with the Batam exploitation agency stated that Singapore is interested in investing in ten industrial sectors that have potential in Batam, Bintan, and Karimun. This sector consists of the creative industry sector and the digital economy in Batam, the oil and gas storage industry and shipbuilding in Karimun and Batam, as well as the potential in other areas, both Bintan and Tanjung Pinang (Qouted from : <https://ekonomi.bisnis.com/read/20160907/257/582102/batam-bintan-karimun-diincar-investor-singapura> On June 18 2022, 20:20 WIB).

Indonesia's diplomacy towards Singapore through the digital sector is based on Indonesia's many needs in an effort to develop a digital culture in all local communities, Singapore itself is a target for Indonesia in targeting investors in building a digital economy. This suspicion is strengthened by seeing Singapore continue to innovate in its digital sector, Singapore become the most advanced neighboring country in digital competitiveness in the world according to the Institute of Management Development (IMD) Digital Competitiveness.

This chapter will explain the form of economic diplomacy that has taken place between Indonesia and Singapore based on the last 3 years which will start with Indonesia's diplomatic efforts in 2018-2020. Before entering into the elaboration of the forms of diplomacy carried out by Indonesia and Singapore, the explanation of the diplomatic actors must also be explained first, the actors in economic diplomacy are carried out by the Ministry of Foreign Affairs, but not only the Ministry of Foreign Affairs can carry out diplomacy but This can be done by other ministerial institutions, for example, several institutions outside the Indonesian Ministry of Foreign Affairs cooperate in the digital economy such as the Financial Services Authority (OJK) which collaborates with the Singapore Money Authority (MAS) in technology development, the Ministry of Education with Ngee Ann Polytechnic, and several companies- big companies from Indonesia with big companies from Singapore. It is believed that this involvement can strengthen relations with Indonesia, the conclusion is that diplomatic relations do not only rely

on the Ministry of Foreign Affairs but the Ministry of Foreign Affairs will continue to be a facilitator towards the Indonesian Embassy in Singapore.

In 2018 Singapore was named the Chair of ASEAN and at the same time hosted two high-level conferences (KTT) at the 32nd Summit and the 33rd Summit which took place on 27-28 April and 13-15 November 2018 (KEMLU, 2019). In general, Indonesia's economic diplomacy towards Singapore has taken place since 2018 as many as 16 business mission activities, 4 bilateral cooperation, 5 exhibition activities, 20 business forum activities, and 1 workshop or training activity, the result of the achievements of Indonesia's economic diplomacy towards Singapore in 2018 is:

- a. The results of strategic projects resulted in 4,708 projects
- b. The workforce produced is 105,472 people
- c. Investment realization that occurred directly for the January 2018-September period was 6.77 billion
- d. Improvement and development of facilities for 5,150 people as business actors in forming business activities, exhibitions, workshops, and seminars (KEMLU, 2019).

The results of the economic diplomacy carried out by Indonesia against Singapore resulted in a mutual agreement from the results of diplomatic relations

(Memorandum of Understanding) which formed 8 agreements between the two countries which will be explained in this table;

Table 4.1 The results of the agreement between Indonesia and Singapore
in 2018

NO	Year 2018	Results of the Agreement
1	March	Educational technical development and equity in the <i>E-commerce</i> supply chain
2	October	<ul style="list-style-type: none"> -Determination and signing of bilateral cooperation agreements in the form of investment -Determination of the MoU on technology learning programs for higher education providers, and the ministry of technology research. - Determination of the MoU on the cooperation of the financial authorities (<i>OJK</i>) between financial technology and the Monetary Authority of Singapore -Stipulation of <i>MoU</i> PT. Pelindo III and Star Cruises - Executive Program for 2019 to 2021 through arts and heritage - MoU on resource development by the Ministry of Transportation of the Republic of Indonesia with the <i>Maritime and Port Authority of Singapore</i> - MoU on industrial 4.0 development by Enterprise Singapore and the Indonesian Ministry of Industry

Source ; Processed from various sources (Kemlu, 2019), (Harususilo, 2019), (Chairunnisa, 2019), (Dewi, 2019), (Kementrian Perindustrian, 2019)].

The table above explains that the agreement in the development of the digital economy sector is based on the detailed report of the Indonesian Embassy in Singapore in the form of programs; Development and equity of technical education in the E-commerce supply chain, Determination and signing of bilateral cooperation agreements in the form of Investment, Determination of MoU on technology learning programs for higher education providers, and the ministry of technology research, Determination of MoU on cooperation between financial authorities (OJK) between financial technology with the Monetary Authority of Singapore and the establishment of an MoU for PT. Pelindo III and star Cruises (KEMLU, 2019). The results of Indonesia's diplomacy have resulted in the above cooperation agreements, the agreements and programs are classified in the development process of the digital economy sector because they involve all forms of technology as objects in conducting and compiling a program, such as learning methods or financial technology cooperation as well as several supply chains for programs. E-commerce (KEMLU, 2019).



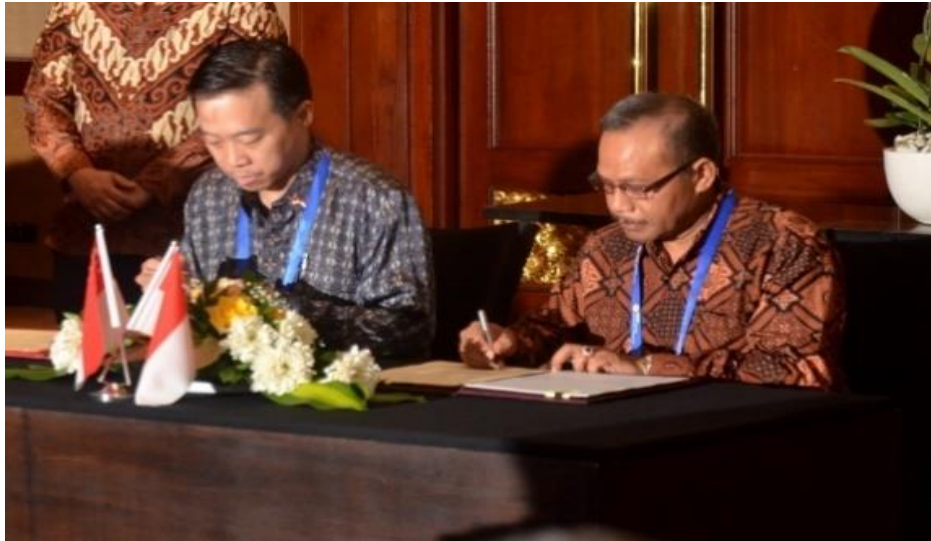
Picture 4.1 : Determination of the MoU on the cooperation of the financial authorities (OJK) between financial technology and the Monetary Authority of Singapore

Source : News and Activities the Cooperation of the Financial Authorities (OJK) ojk.go.id, 2018

The most visible digital economic collaboration between Indonesia and Singapore is the collaboration between the financial authorities (OJK) between financial technology and the Monetary Authority of Singapore, which discusses how to access the financial technology industry (Fintech) with transaction security. market prey (OJK, 2018).

Then, was followed by a meeting between the Indonesian Ministry of Industry and Enterprise Singapore which was held on October 11 2018 in Bali, this

friendship is part of a series in achieving the development and success of cooperation projects in the midst of the industrial revolution 4.0. (KEMENPERI, 2018).



Picture 4.2 : The signing of the MoU by the Indonesian Ministry of Industry with Enterprise Singapore in Bali, 11 October 2018.

Sources : Kemenperin.co.id, 2018

After the signing of the MoU, the next activity carried out by the two countries was discussing the implementation of the results of diplomacy that had been approved by the two countries, the implementation of this program was organized by the government and involved government actors such as large private companies. The programs that have been held are the development of digital creative industrial areas including several large forums. The biggest cooperation program in the digital economy carried out by Indonesia and Singapore is the development of a

digital area that has been planned by Indonesia and Singapore in 2017 and was officially held after the formation of the MoU and the agreement resulting from diplomacy in 2018, the area is called the Nongsa Digital Park (NDP).) which is located in Batam, NDP is one of the collaborative projects of large private companies in Indonesia and also Singapore, namely Citramas Group and Sinar Mas Land. (Nongsa Digital Park, 2021).

This NDP area is designed as a digital economy that will then become a liaison between various types of digital and technology companies between Indonesia and Singapore. The digital economy in Indonesia has great potential as well as great prospects because it has a high number of computer and internet users. These internet users can become a very broad target market for e-business players or technopreneurs (Abdurrahim, 2011). The potential referred to here is as stated by the Managing Director of the International Monetary Fund (IMF), Christine Lagarde, that the potential for the digital economy in Indonesia is very large because there are 1,700 domestic startups. But at this point, the task of the government is to ensure that the digital economy must support economic growth (Breuer, 2018). The digital economy is required to be able to ensure that it is not only a driver in terms of productivity and growth, but can also be a foundation that has benefits for all people.

The form of digital economic growth that occurs in Indonesia has a goal to encourage domestic demand, provide increased inter-regional trade, as well as

provide an opportunity for economic diversification. Thus, control is needed by using improve the quality of digital infrastructure and also an education system that is suitable for the future.

Digital economic cooperation between Indonesia and Singapore was also agreed upon at the Six Bilateral Economic Working Groups Ministerial Meeting (6WG) held in Singapore on September 7, 2018. This collaboration was attended by ministries from each country. The representative from Indonesia is the Coordinating Ministry for Economic Affairs. A representative from Singapore is the Ministry of Trade and Industry (MTI) (BKPM, 2018).

The meeting that was held had the aim of reviewing how the development of 6 working groups had been achieved, which consisted of working groups for the economic zones of Batam, Bintan, and Karimun; Working groups in the Investment Sector; the field of Manpower; Transportation; Agribusiness and tourism. Indonesia chose Singapore as a partner country in digital economic cooperation because Singapore is a developed country that has an advantage in terms of information technology and E-commerce.

Cooperation between Indonesia and Singapore is a good and appropriate step to take because it not only benefits one party but also benefits both parties or both countries. Indonesia benefits from a large number of foreign investors and start-ups from Singapore who then invests and joins Nongsa D-Town, as well as transfer

technology from Singapore, such as coding, software, websites, and graphic design. Singapore will also gain an advantage, namely by expanding its digital company market share and also being able to recruit cheap workers and many of them come from Indonesia. (Nongsa Digital Park, 2021).

The construction of a digital telecommunications infrastructure named Nongsa D-Town in Batam, Riau Islands, which is an integrated digital park that provides a place for digital businesses to develop, a site that will be ideal for data center development. Nongsa D-Town is a form of infrastructure that supports digital economic activities. Nongsa D-Town provides vast opportunities for digital activists in developing their business as well as by conducting research related to the technology they have created.

The Indonesian government always strives to expand the internet network in Indonesia with the aim that more and more Indonesians will become part of the digital economy transformation process. Indonesian Minister of Foreign Affairs Retno Marsudi at the inauguration of Nongsa D-Town in Batam emphasized that there are four main points that will be reflected through the development of Nongsa D-Town, namely the digital development of the Indonesian economy in the future, namely an expansion of internet access, access to capital, access to talented youth as well as international cooperation and investment. With the cooperation between Indonesia and Singapore, it is hoped that Indonesia can fulfill its vision, which is to become the largest digital economy power in Asia. (Nongsa Digital Park, 2021).

The next major activity involving several digital economic development actors from Indonesia and Singapore is the ASEAN meeting agenda at the 75th ASEAN-BAC Meeting which will be held on June 4-7 in Singapore. ASEAN-BAC (ASEAN-Business Advisory Council) has actually been formed in 2003 with the aim of accelerating economic development through the private sector and also being a tool for economic integration of ASEAN member countries. The meeting in 2018 focused on the benefits of the digital economy for the ASEAN region. This activity was successfully attended by 450 participants, 40% of whom came from outside Singapore, and Indonesia also contributed to the activity (ASEAN BUSINESS ADVISORY COUNCIL, 2018).



Picture 4.3 : Delegates 75th ASEAN-BAC Meeting 2018 in Singapura

Source : Asean-bac.org, 2018

The ASEAN-BAC meeting in 2018 is actually a multilateral diplomacy agenda for Indonesia. However, in this forum, Singapore is the host and most of the participants are from Singapore. This program is also a diplomatic platform for activity participants to share ideas to build ASEAN. Singapore, which was the host, also shared its ideas in addition to advancing the development of its digital economy so that Indonesia could learn what Singapore has done. The results of the 2018 ASEAN-BAC activity were connected with the 33rd ASEAN Summit which was held on 13-15 November 2018 in Singapore. The meeting was a continuation of the ASEAN-BAC where the 2018 ASEAN Summit became the culmination of the activities of previous ASEAN meetings in various fields (Association of Southeast Asian Nations, 2018). The 2018 ASEAN Summit discussed the digital development of ASEAN, the results of which were written in a report entitled Advancing Towards ASEAN Digital Integration. Digital integration in ASEAN is focused on five development sectors, including; Manufacturing, Agriculture, Retail, Transportation/logistics, and Information and Communication Technology (ICT). For the transportation sector, the report proves that digital companies Grab (Singapore) and Gojek (Indonesia) are competing in seeking digital market share in ASEAN countries. Grab and Gojek can be called as companies that unite or carry out digital integration from one service to another, such as initial transportation can be a message/delivery service. The location of digital integration is to help food business owners (Food and Beverages) improve their digital capabilities to register

themselves as partners for Gojek (Go-Food) and Grab (Grab Food). (Hoppe, May, & Lin, 2018).

The existence of digital integration helps increase the value of the digital economy for countries that already operate the two transportation services, especially Indonesia itself which has the largest market share among other ASEAN countries, and also becomes an added value when Indonesia also has a digital company known by the ASEAN community such as Gojek.

Next is an activity in the form of a visit or a business mission in Batam organized by a digital company from Singapore, namely E-27. The activity was named E-27 Startup Academy which lasted for three days and was attended by UPB (Universitas Putera Batam) students on November 28-30 2018. E-27 Start Up Academy became the implementation of the Financial Technology Learning Program MoU for higher education providers between Kemenristekdikti RI with Ngee Ann Polytechnic from Singapore. Two UPB student startups, namely redsign.id and quadrantechnology.com participated in this activity as a training platform for startup operations. The workshop agenda held at the E-27 Startup Academy is "A Startup Guide to Understanding the Southeast Asia Market", which is an introduction to the startup world in the Southeast Asia region and introduces the market or community of digital service users. The next session is training on making unique products that are in demand by the market with the name "The Practical Guide to Building Radical Products", and followed by the "Exploring Alternative

Fundraising Methods” session, namely alternative ways to increase profits or funds in running a startup. The last two sessions were a seminar with the name "Best Strategy for Startup Scaling" which is a strategy for startups to find opportunities and placements in the needs of the community and continued with training on how to manage finances in startups "Financial and Cashflow Management" as the closing of the E-27 Startup Academy activities. (Universitas Putra Batam, 2018). This training activity can improve the quality of Indonesian Human Resources in digital competitiveness so as to increase the value of knowledge indicators and future-readiness.

The E-27 Startup Academy activity is an optimization of the Nongsa Digital Park (NDP) in Batam as a digital creative industry area so that it is not only used as a work area but also a training place for local people in developing digital creative industries through startups. Startup training activities at NDP are directly supported by the government and companies from both Indonesia and Singapore who are involved in strategic projects to digitize the community's economy so that NDP can become a forum for startup incubators, namely startup development facilities from the initial establishment to work operations so that company valuation can increase. NDP can also be interpreted as Indonesia's basecamp with Singapore in increasing digital competitiveness and also investing in macroeconomic value growth.

Singapore, which is the Asian country with the highest digital competitiveness, can help Indonesia, which has a large market potential so that the

two countries can benefit from each other. NDP also has a sustainability value in terms of technology infrastructure development that supports all forms of digital transformation in the future. (Dwi, 2021). The existence of the NDP is the success of Indonesia's economic diplomacy with Singapore in 2018 from development, and inauguration, to organizing training programs for the community.

2018 is the first step for Indonesia to continue to carry out digital transformation in the following years so that it can increase digital competitiveness both in terms of knowledge, availability of technology infrastructure, and future-readiness according to IMD indicators. World Digital Competitiveness through the addition of the implementation of programs as a follow-up to the Indonesia-Singapore digital economy cooperation.

Table 4.2 : Digital Sector Development Activities in Indonesia-Singapore Economic Cooperation 2018

No	DATES (2019)	Name of Activities	As an Implementation of the Agreement (MoU)	Lokasi Kegiatan
1	January 9 (opened by the Minister of Education and Culture)	Delivery of 1,000 Indonesian Vocational High School (SMK) teachers to Singapore by	Agreement between the Ministry of Education of Indonesia and Singapore in 2017	Singapura

		the Ministry of Education and Culture (Kemendikbud)	(re-realization in 2019)	
2	July 18 th	The meeting of Indonesian digital companies, namely PT. Data Indonesia Algorithm (Data Science Education Center Algorithm) with Ngee Ann Polytechnic for data science training.	MoU on Financial Technology Learning Program for regional and higher education institutions between the Ministry of Research, Technology, Higher Education (Kemenristekdikti RI) and Nge Ann Polytechnic	
3	July 23 rd	Nusantara Pitch: Indonesia Startup Nation 2019	Memorandum of Understanding on Archives Cooperation	Jakarta, Indonesia
4	October 9 th	Construction of Apple iOS Development Center as NDP digital vision development	1. Signing of the RI-Singapore Bilateral Investment Treaty (BIT) investment cooperation agreement 2. MoU on Cooperation in the Development of Industry 4.0 between the Ministry of Industry (Kemenperin RI)	Batam, Indonesia

			and Enterprise Singapore	
5	July 26 th	2 nd Indonesia Investment Day 2019, “Towards Indonesia 4.0”	Signing of the RI-Singapore Bilateral Investment Treaty (BIT) investment cooperation agreement	
6	22 nd -23 th November	Southeast Asia Startup Summit 2019 (continuation of Indonesia Startup Insight 2018)	-Financial Technology Cooperation between the Indonesian Financial Services Authority (OJK) and the <i>Monetary Authority of Singapore</i> (MAS) - Memorandum of Understanding on Archives Cooperation	

Source ; Processed from various sources (Kemlu, 2019), (Harususilo, 2019), (Chairunnisa, 2019), (Dewi, 2019), (Kementrian Perindustrian, 2019) (].

The development of the Nongsa Digital Park was inaugurated by the Indonesian Ministry of Foreign Affairs (Kemlu RI) in 2018. This development is an industrial land development project for digital companies that want to open an office in Batam. There are 50 digital companies already established in NDP, and Apple is building a business unit in the region. The development is the development of an

Apple company under the name Apple iOS Development Center and is the third development for the company in Indonesia. Citramas Group as a property company from NDP has also collaborated with university partners in Indonesia such as the Batam Institute of Technology, Batam Putera University, and Andalas University Padang. In addition, there are two higher education partnerships in Singapore, namely Temasek Polytechnic and Nanyang Polytechnic (Ahdiat, 2019).

Indonesia and Singapore's digital economy cooperation programs in 2020 are more likely to continue the programs that have been implemented in the previous year through agreements signed in 2018 and 2019 this is also explained in the following table;

Table 4.1.4 : Digital Sector Development Activities in the Implementation of Indonesia-Singapore Economic Cooperation in 2020

No	Dates (2020)	Name of Activities	As an Implementation of the Agreement (MoU)	Activity Location
1	October 27th	3 rd Indonesia Investment Day, “Driving the Role of Industry 4.0 Towards Sustainable Investment in Indonesia”	Signing of the RI-Singapore Bilateral Investment Treaty (BIT) investment cooperation agreement	Virtual

2	November 6 th and 10 th December	Webinar on Tanjung Pinang Free Trade Zone (FTZ)	MoU antara BP Tanjung Pinang dengan Chairman Hong How Group on Feasibility Study of the Development of Industrial Park in Tanjung Pinang Free Trade and Free Port Area	Virtual
3	November 12 th	Webinar on Indonesia Economic Outlook and Business Opportunities	Signing of the RI-Singapore <i>Bilateral Investment Treaty</i> (BIT) investment cooperation agreement	Virtual
4	November 25 th -28 th	<i>Indonesia Startup Insight (ISI) 2020</i>	Memorandum of Understanding on Archives Cooperation	Virtual
5	December 13 th	Singtel collaboration with Halodoc for the health needs of Indonesian citizens in Singapore	Memorandum of Understanding on Archives Cooperation	Virtual

The first program is the 3rd Indonesia Investment Day which will be held on 27 October 2020 virtually. This activity was held online for the first time considering the high number of Covid-19 cases in both Indonesia and Singapore. The theme of the activity is "Driving the Role of Industry 4.0 Towards Sustainable Investment in Indonesia" which is an important role in industry 4.0 regarding sustainable investment in Indonesia. From this theme, the focus of the discussion is on

developments and investment opportunities in 2020. Various business potentials are discussed in these online activities in all sectors of the digital economy, such as the high growth of digital market share. (Kementerian Investasi, 2020).

There were 226 participants who took part in this activity, and the Indonesian Embassy in Singapore also held a Road to Indonesia Investment Day activity as a pre-activity for 11 weeks. Of that duration, there were 42 meetings with investor interest in the special economic sector, industrial estates, tourism, manufacturing, transportation, and logistics. This activity also extends the realization of the Bilateral Investment Agreement (Bilateral Investment Treaty) since 2018 (Kementerian Investasi, 2020).

From the classification of the table above, it can be seen that most of the programs that are the implementation of Indonesia-Singapore economic diplomacy in the development of the digital sector are commercial diplomacy, especially investment promotion. These programs are seminars or webinars, conferences, and the inauguration of the largest project of the Indonesia-Singapore collaboration, namely Nongsa Digital Park. Promotion of investment in economic diplomacy instruments is also supported by the existence of a bilateral investment cooperation agreement (Bilateral Investment Treaty) between Indonesia and Singapore which was signed in 2018.

4.2. The Impacts and Challenges of Indonesia's Economic Diplomacy to Singapore in the Development of the Nongsa D-Town Batam digital area

The impact of diplomacy carried out by Indonesia and Singapore has formed a policy target in the development effort or the development of the Nongsa D-town area in Batam, the Ministry of Communication and Information has approved policies made regarding the development of the digital economy in Indonesia. (Kementerian Komunikasi dan Informatika, 2019). The achievements and policies that have occurred as a result of the diplomatic relations carried out between Indonesia and Singapore have had a good impact on the Indonesian economy, especially in the digital field. in the following table:

Table 4.2.1 : Indonesia's achievements in the digital field 2018-2020 in building the Nongsa D-town digital area

No	Name of Activities	Indonesia's Achievements
1	Inauguration of Nongsa D-town batam	<ul style="list-style-type: none"> - Investment gates for digital companies from Indonesia and Singapore to open new bases in Nongsa D-town also get investment promotions in building a digital Economic Zone - Bringing in investment of Rp. 16 trillion - The creation of employment as many as 16,500 workers - Entrance to IT Investments globally

2	Delivery of 1,000 Indonesian Vocational High School (SMK) teachers to Singapore	Gaining access to technology that aims to learn technology 4.0 so that it can be developed in vocational education in Indonesia
3	Nusantara Pitch: Indonesia Startup Nation 2019	Promotion of investment opportunities in Indonesia for startups as well as promoting products that are followed by Indonesian and Singaporean digital industry players
4	Construction of the Apple iOS Development Center at NDP	Get product promotion and trade related to apple products as a third base in Indonesia for distribution (trading) of Apple products as a form of implementation of trade.
5	Southeast Asia Startup Summit 2018-2020	Get a promotion event for registered startups as well as get a lesson for Indonesian startups to compete in introducing company profiles
6	Digital Talent Development in Indonesia	-Increasing the number of start-ups from year to year - Digital Talent Scholarship Program: (5,519 participants graduated, 1,210 participants were absorbed by industry) from the Fresh Graduate category (4,657 participants graduated, 737 participants were absorbed by industry) from the Vocational Graduate category

With the development of the digital economic area of Indonesia and Singapore, and mutually beneficial relations received by the two countries, Indonesia is slowly achieving its target in economic development through the digital

field, as described in the table above, Indonesia is getting promotions and even many benefits in cooperation as a result of Indonesia's diplomacy towards In Singapore, the Nongsa D-town area is used as a location for activities in the field of Information (IT) and Tourism.

Nongsa D-town has the concept of "Work, Live, Play", which means Nongsa D-town is not only a place to work, but a place where Indonesian people can live and learn by using digital technology, implementing digital economic cooperation built by Indonesia and Singapore implemented also through infrastructure. NDT has a very large contribution to the Indonesian economy, this is evidenced by the existence of;

1. This investment in the NDT area brought in an investment of IDR 16 trillion from large companies in Indonesia and Singapore, this investment greatly affected the graph of an increase in regional and national income, Indonesia also received benefits such as promotion of investment opportunities in Indonesia for startups while promoting products that are followed by Indonesian and Singaporean digital industry players (Nongsa Digital Park, 2022).
2. Creation of Jobs, in addition to being a tool for finding investors, NDT also creates jobs, so as to reduce the population in Indonesia, NDT is one of the ways in which companies need workers with people who have special advantages. In ICT, NDT has a workforce of 16,500 workers. This number

will continue to grow as long as the NDT area development process continues (Nongsa Digital Park, 2022). (Nongsa Digital Park, 2022).

3. Information and Communication Technology Training In the process of the NDT area developing startups, NDT is also active in implementing various pieces of training in the ICT field, such as the Digital Talent Scholarship Program which was attended by more than 7000 participants, 5,519 participants graduated, 1,210 participants were absorbed by the industry, from the Fresh category Graduates 4,657 participants graduated, 737 participants were absorbed by industry from the Vocational Graduate category and the Ministry of Education and Culture (Kemendikbud) sent 1,000 Indonesian Vocational High School (SMK) teachers to Singapore. This program is a follow-up to the technology 4.0 training collaboration, and actually, the agreement has been in place since 2017 namely between the ministries of education from Indonesia and Singapore, but the realization can be held in early 2019. The governments of Indonesia and Singapore encourage the younger generation to improve their abilities, especially in vocational fields which tend to be more technical so that teachers and vocational students both have the ability to meet the needs of the industrial revolution 4.0. The program was opened by the Minister of Education and Culture, Muhadjir Effendy on January 9, 2019, at the Ministry of Education and Culture Office, Jakarta. The teacher exchange activity is also useful for understanding how the education system or curriculum in Singapore

develops technology while preparing generations to be able to face the industrial revolution 4.0 (Harususilo, 2019).

4. Technology Transfer, Singapore is one of the countries that master digital technology and cooperates with Indonesia in distributing technology transfer in the NDT area, this technology transfer is in the form of several pieces of trainings held as has been carried out according to point 3, on technology transfer Indonesia and Singapore are expected to exchange information and mutual knowledge (Harahap, PENERAPAN KERJA SAMA EKONOMI DIGITAL INDONESIA- SINGAPURA DI BATAM TAHUN 2017-2018, 2019).
5. Encouraging the growth and development of startups, one of the references in measuring the strength of a country's digital economy is to see the potential of digital startups in the country, NDT makes a major contribution in producing large startups that are able to compete with international classes, the role of NDT in supporting the development of digital startups namely by providing facilities and programs such as startup incubators. A startup incubator is a facilitator who will accompany and provide support to startups that are in the initial phase, this support can be in the form of providing facilities such as offices, technology equipment, and non-physical support such as business planning, training, and also financial planning. (JPNN, 2017).

In addition to the positive impact received by Indonesia from the results of diplomacy with Singapore, the development of the digital economy through the development of the Nongsa D-Town digital area also experienced challenges and obstacles. Where in the development of the digital economy that occurs in Indonesia, consists of unequal telecommunication infrastructure, low mastery of digital technology, cybercrime, and also the absence of clear regulations governing the digital economy. (Abdurrahim, 2011). In anticipating these obstacles and challenges, the Indonesian government has also prepared a vision to design a roadmap for creating a digital economy.

Cooperation with Singapore, which is more advanced in terms of the technology and digital sectors, will be an important part. Nongsa D-Town is expected to be able to become a part of the economic locomotive of the digital creative industry in Indonesia with the aim of bringing foreign exchange in building a digital ecosystem by creating job opportunities for young IT talents in Indonesia that are needed by startup companies, medium or MNCs in Singapore.

In this case, the obstacle to the development of the digital economy is when in the future entrepreneurs who in running their businesses are unable to deal with the development of the digital economy, they have the potential to go bankrupt and workers will also be threatened with layoffs. Therefore, internet technology will make it easier for humans to have convenience in all things and must be anticipated especially for stakeholders in the field of employment. Companies that are able to

manage the transformation that occurs properly, will be able to survive and face developments. But the opposite will happen when the company is not able to deal with developments. Therefore, Indonesia is expected not only to see and focus on existing technology but also to focus on efforts to provide learning space for each of its people so that they can keep up with digital 4.0 developments.

In addition, there are 5 things that can be a challenge for Indonesia in facing the existing digital era, including (Badan Koordinasi Penanaman Modal, 2017):

1. **Cyber Security.** Cyber Security is one of the big challenges that Indonesia must face in the process of improving the country's economy. Likewise with digital investment in the Indonesian economy, as a developing country that has many great opportunities, the flow of online transactions that is increasing every year brings great opportunities for irresponsible parties to carry out attacks on the cyber world, it is known that Indonesia gets 1,225 billion cyber attacks every day. . Cyber is ransomware that can be used to attack websites that operate in the digital economy, a case that can be seen in the use of ransomware is the breach of the central banks of Bangladesh and Malaysia which incur huge losses.
2. **Competition** is getting tougher, the digital economy brings enormous market competition, the existence of e-commerce is one of the doors in the entry of products from other countries into Indonesia and causes local products to have very big competition if they do not have development.

3. **Human Resource Development**, Human resources are an important part in dealing with digital economy investment. Seeing the importance of human resources, Indonesia as a developing country has a task in increasing the workforce not only in terms of quantity but also the quality of human resources is an important task. . Google in 2017 stated that the role of professional resources in Southeast Asia was minimal to boost the growth of the digital economy. The development of human resources in developing countries is still dominated by unskilled labor who are part of the economic system. Of course, in terms of providing workers who have more abilities, it becomes a job that needs to be looked at again by governments in developing countries by increasing education that can provide more education about the times, of course, it is one way to solve problems so that the creation of human resources who can more competitive in the digital world.

4. **Availability of qualified Internet access**. Being an important part and needs to be considered in addition to the human resource factor, the presence of Infrastructure is a part that can support the potential for the development of the digital economy in Indonesia. The internet is an important part of the infrastructure in the digitization process, by providing equal access to the Internet, it can help digitize the Indonesian economy. Equitable Internet access is only concentrated in the big islands such as Java, Sumatra, Bali, and Nusa Tenggara, while other areas that have great

potential in the digital economy in Indonesia are considered to be still very minimal in internet availability, such as Kalimantan, Sulawesi, to Papua. according to the Association of Internet Service Providers in Indonesia 2017. Of course, improving good infrastructure will encourage economic development in Indonesia.

5. **Regulations that have not kept up with the times.** The presence of regulations and legal basis must be able to continue to develop and keep up with the times, so that the presence of these regulations and legal basis can assist and expedite the movement of the digital economy in Indonesia. The government is an important part in the presence of regulations and legal basis. Become an important part in regulating the digital economy nationally, so as to create security in protecting the rights and obligations of consumers and all economic actors so that they can have a better impact on running the economy (Badan Koordinasi Penanaman Modal, 2017).

Therefore, in addition to focusing on the development of activities and digital development, Indonesia must further improve digital security and must also have solutions in the face of the digital era for all its people so as not to experience gaps in current capabilities and developments.

CHAPTER V

CLOSING

5.1. Conclusion

Diplomatic activities and activities carried out by Indonesia against Singapore are a form of Indonesia's achievement to improve the Indonesian economy through the digital economy. In improving their digital economy, the Indonesian and Singaporean governments have agreed on cooperation in the digital economy in the form of an MoU that was agreed upon and signed in 3 forums, namely the Indonesia Singapore Business Council (ISBC) meeting, a bilateral meeting between the President of the Republic of Indonesia and the Prime Minister of Singapore, and at the 8th bilateral economic working groups ministerial meeting.

This study shows that the implementation of digital cooperation carried out by Indonesia and Singapore is by establishing the Nongsa Digital Park (NDP) which has now developed into Nongsa Digital Town (NDT) in Batam. NDT is a digital area that has been integrated into providing a place for digital businesses to learn and grow. NDT is a form of infrastructure that supports digital economic activities, especially in the development of digital startups. NDT greatly contributes to supporting economic development, NDT can attract foreign investment so as to increase national income, absorb a lot of labor and encourage startup growth by providing various kinds of supporting facilities such as Co-Working spaces, and

places to encourage technology transfer through the implementation of various pieces of training. information technology (IT) for young people. The digital economy cooperation between Indonesia and Singapore through the development of NDT will not only benefit one party but both parties.

5.2. Suggestion

Seeing the large opportunities that can be obtained by the Indonesian government through economic diplomacy, especially in the digital field that can improve the country's economy, the researcher suggests to the Indonesian government that;

1. Pay more attention to security, especially cyber security, so that technological developments are balanced with data security and also the privacy of technology users in Indonesia.

2. The increasingly fierce competition makes the Indonesian government have to look at the impact of the digital economy, the government must pay more attention to the position of local goods in digital development in order to obtain a balance in international competition.

3. The Indonesian government should pay more attention to the learning platform for the entire community regarding the development of the digital economy so that all Indonesian people can use and apply it to their daily lives. It's not only a

forum for the Indonesian government to pay more attention to the distribution of Internet access so that it can be accessed by all corners of Indonesia.

the government must pay more attention to the impact of digital developments that are growing from year to year for all Indonesian people, especially those who are not familiar with technology, equitable introduction of technology is very important in various types of society, the great potential of the digital economy is projected in line with various kinds of digital infrastructure development that can accessible to all regions of Indonesia, with the development of infrastructure, market competition will be increasingly stringent for that the government must overcome the gaps that occur between the community and also technological developments through introduction, learning, and practice in order to improve the quality of human resources in Indonesia.

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