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ICT in Business

The Strength of the Local Content
Requirement Regulation on ICT in Indonesia
as a Policy Approach

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List of Abbreviations

4G	:	Fourth-generation technology
ADB	:	Asian Development Bank
AGI	:	Indonesia Games Association
ASPILUKI	:	Indonesia Telematics Software Associations
BEKRAF	:	Creative Economy Bureau (Indonesia)
BOP	:	Balance of Payment
CAGR	:	Compound Annual Growth Rate
Capex	:	Capital Expenditure
CBL	:	Challenge-Based Learning (Apple)
CERTICS	:	Creditando Software Acreditando No Pais (Brazil)
CIF	:	Cost, Insurance, and Freight
DSB	:	Dispute Settlement Body
E2E	:	End-to-End
FDI	:	Foreign Direct Investment
FGD	:	Focus Group Discussion
FtF	:	Face-to-Face (interview)
GATS	:	General Agreement on Trade in Services
GATT	:	General Agreement on Tariffs and Trade
GDP	:	Gross Domestic Product
GT	:	Grounded Theory
HS	:	Harmonized Systems
ICT	:	Information Communication and Technology
IPRs	:	Intellectual Property Rights
ITA	:	Information Technology Agreement
LCR	:	Local Content Requirement
LTE	:	Long-Term Evolution
M2M	:	Machine-to-Machine
MCIT	:	Ministry of Communication and Technology
MFN	:	Most-Favoured Nation
Mifi	:	Modem WiFi
MNE	:	Multi National Economy
NITDA	:	National Information Technology Development Agency (Nigeria)
NT	:	National Treatment
NTM	:	Non-Tariff Measure
NTP	:	National Telecom Policy (India)
OECD	:	Organization for Economy Co-Operation and Development
OS	:	Operating System
OTT	:	Over The Top
QRS	:	Quantitative Restrictions
R&D	:	Research and Development
Rp	:	Rupiah
SDOC	:	Self-Declaration of Conformity
TDR	:	Team Developer Relation
TPRM	:	Trade Policy Review Mechanism
TRIMS	:	Trade-Related Investment Measures
TRIPS	:	Trade-Related Aspects of Intellectual Property Rights
UN	:	United Nation
WiFi	:	Wireless networking
WTO	:	World Trade Organization

Abstract

In the period 2009 to 2014, Indonesia experienced the trade balance deficit in the telecommunication and ICT sector. This trade balance deficit is a result of higher import value than the export value of telecommunication and ICT products. To balance this trade balance in the telecommunication and ICT sector, Ministry of Communication and Information technology (MCIT) issued the Ministerial Regulation on Local Content Requirement (LCR) in 2015.

This LCR regulation obliges companies that want to import their products in Indonesia to use a certain level of Indonesia's resources, such as local labour, component, and raw material. Those companies that are not able to comply with this regulation, cannot market their products in Indonesia. The inability of those companies to import and comply with this LCR regulation indicates that there is a market limitation due to the implementation of this LCR regulation. The indication of market limitation shows that the implementation of LCR regulation is at risk to be inconsistent with the World Trade Organization (WTO) agreement.

This study utilizes John Kingdon's multiple-streams approach. Kingdon has the concern with the process of agenda-setting and its effects situated in the federal government. He introduced the multiple-streams approach encompassing the problem, policy, and political streams that are being coupled to open the policy window by the policy entrepreneur. By applying Kingdon's multiple-streams approach in the LCR regulation, this study analyzes when, why, and how the issue for LCR can be considered and promoted to the agenda setting, governmental agenda, and decision agenda, as well as, how the policy window for this LCR regulation can be opened also delivered in this study. Moreover, since the implementation of the LCR regulation has the tendency of inconsistency with WTO agreement, by adopting Kingdon's multiple-streams approach, this study identifies the possibility of the policy window as the response to this inconsistency.

Keywords: LCR, trade balance, deficit, WTO inconsistency, Kingdon, Multiple-Streams, policy window

Chapter 1 Introduction

1.1 Background

Developing domestic economy, at times, need support and intervention from the government. One of the most popular methods used by the government to protect its domestic economy is the local content requirement (LCR). LCR is a requirement for companies to utilize a certain amount of local components in its final products. Through LCR, the products/goods are produced locally in the implementing country, local production is also made suitable with local interests and needs, and local people also have a stronger relationship for products/goods that are locally-manufactured (Subramanian & Sharma, 2004). In the case of Indonesia, the government applies this measure primarily to address high trade deficit in the telecommunication and ICT sector as well as a catalyst for local ICT industries to enhance its capabilities and competitiveness and reduce dependency to import.

LCR is a familiar term recognized by developed countries, which have applied this form of government intervention in the 18th century by the US, Germany in the 19th century, Continental Europe, Japan and Korea in the midst of the 20th century. This policy is seen to be appropriate in the efforts of countries to catch up with the development of the economy of the developed countries (Mario, Giovanni, Richard R., & Stiglitz, 2005). However, as has been pointed out by Friedrich List through his famous observation of 'kick away the ladder', countries with developed economy who used to employ the same protectionist policy outcast developing countries from applying the same policy so that developing countries will not be able to 'catch-up the same greatness' of economy (Wade, 2010). The unfairness lies when developed countries with their power and authority ensure to regulate this prohibition of applying LCR in the international trade agreement.

WTO Agreement for investment mechanism, The Agreement on Trade-Related Investment Measures (TRIMS Agreement) prohibits the application of LCR for all WTO members. This made Indonesia be at risk of being inconsistent with TRIMS Agreement and may be sued and taken to Dispute Settlement Body (DSB). Regardless of its inconsistency risk with TRIMS, the government claims that the implementation of this LCR regulation on telecommunication and ICT devices using 4G Long-Term Evolution (LTE) technology that was issued in 2015, has managed to promote capacity, investment, and employment for local industry. In 2017, it is noted that there were 43 brands product, 39 product owners, and 19 manufacturers that have already complied with this LCR regulation, with a total investment of 7 trillion Indonesian Rupiah, and has provided employment for 13 thousand local people (MCIT, 2017a).

Apart from its claim of benefits, there are still many debates on how effective LCR is as a policy instrument, both to achieve domestic development objectives and within international trade (Johnson, 2013). Therefore, this paper seeks to understand the policy formulation behind LCR regulation for telecommunication and ICT sector in Indonesia and assess if LCR is an effective policy instrument to address Indonesia's problem of high trade deficit and protect infant local ICT industries. The assessment of policy-making uses John Kingdon's theory of

Multiple Stream Approach which is expected to enrich literature on policy analysis on the use of Kingdon's theory in developing countries for LCR policy in the ICT context. The inconsistency of LCR with TRIMS agreement will also be assessed through examination of agenda-setting for trade negotiation and dispute settlement in WTO. This assessment is useful to understand the influence of agenda-setting in WTO in triggering the government to take measures to respond to the issue of LCR inconsistency with TRIMS.

The use of Kingdon's Multiple-Streams Approach in this research is under the consideration that Kingdon's theory has been widely used as a foundation for analyzing agenda-setting behind the policy-making. Kingdon is using multiple streams approach which includes analysis of problem stream, policy stream, and politic stream. This multiple-streams approach provides the basis in analyzing how policy is made. Problem stream is identified problem that triggered policy-maker to make policy. While policy stream is the process where policy maker discussed and give the decision to find a solution in a given problem. The political stream can be defined as a political environment that influence how this problem can be fixed through policy. Each of these streams is independent of each other but the intersection of these streams may open policy window. When the policy window is open, the policy is made. Therefore, it is very appropriate to use this approach to understand how policy is made.

1.2 Problem Statement

The LCR regulation is a measure adopted by Indonesia's government to require the companies that want to market their products in Indonesia to utilize Indonesia's local resources in their products. From Indonesia's perspective, the importance to implement the LCR regulation is driven by increasing number of import values that influence Indonesia's trade balance. This LCR regulation is perceived as an effective way to overcome the trade deficit.

Through this LCR regulation, companies that are not able to comply with this LCR regulation will be at a risk to be prohibited from conducting import. Based on this circumstance, this Indonesia's LCR regulation is potentially inconsistent with the regulatory framework of the World Trade Organization (WTO) agreements, especially with Trade-Related Investment Measure (TRIMS), and the General Agreement on Tariff and Trade (GATT) 1994. According to these WTO's regulation, any member is prohibited to apply certain domestic regulations that may restrict the importation and exportation of other countries. The existence of this LCR regulation can put Indonesia potentially at risk of being sued by other countries in WTO due to the inconsistency of this LCR regulation with WTO's agreement.

In this circumstance, Indonesia's government implements the LCR regulation to address the problem of a high trade balance deficit problem while this solution also brings the new problem of inconsistency with WTO agreement. Therefore, this research demonstrates the urgency to analyse the agenda-setting and policy process in the formulation of LCR through the utilization of Kingdon's multiple-streams and to identify how far agenda-setting in WTO may influence the opening of new policy window in the context of LCR implementation.

1.3 Research Gap

LCR has been viewed by many developing economists as a popular catalyst to boost economic development (Moon, 2009), protecting domestic infant industries (Shafaeddin, 2000) and achieve development objectives (Tomsik & Kubicek, 2006). This measure is even used by many developed countries when their economies were still developing (Moon, 2009). Regardless of its being popular measure, LCR as performance requirement is banned by WTO Agreements, especially TRIMS. Many literatures have discussed the implementation of LCR in sectors such as renewable energy (Kuntze & Moerenhout, 2013), and from the perspective of human rights (Moon, 2009). However, little has been studied how LCR is applied in telecommunication and ICT sector and how its implementation may put implementing country at risk of being inconsistent with TRIMS.

Few are the studies of how developed countries used the LCR measure to achieve their development objectives in the telecommunication and ICT sector. This is arguably because telecommunication and ICT is a relatively new sector, and developed countries have become dominant players in producing telecommunication and ICT products since the discovery of ICT technology. The dominance in the market made this industry, regardless of its infancy, may still survive in global trade, thus, eliminating the need for developed countries to protect their industries.

It is, therefore, a loophole that this research can fill to study how LCR is taken by a developing country, in this case, Indonesia, on how to save its economy in the sector of telecommunication and ICT. In addition, it is also very fitting to study the urgency that triggers the agenda-setting and policy process of the formulation of LCR and, due to its risk of inconsistency with TRIMS, compare the agenda-setting of dispute settlement of LCR in ICT context. With the intention to contribute to this context from the perspective of policy analysis, the researcher wishes to use Kingdon's Multiple Stream Approach. This research will also enrich literatures that have applied Kingdon's theory since the application of this theory have only been in the context of developed and high-income countries (Ery, 2009). Therefore, to sum up, it is hoped that this research will also contribute to the literature on how Kingdon's theory is applied in the formulation of LCR in telecommunication and ICT sector in the context of the developing country.

1.4 Research Objectives

In this section, the main objective of this research is ***to understand the policy formulation of Indonesia's LCR regulation on 4G LTE devices, to learn if LCR is an effective policy to address trade balance deficit and to assess if membership obligation to WTO may drive the opportunity of new policy window.*** This research is set in Kingdon's Multiple-Streams Approach.

From this main objective, here are the following sub-objectives that have been identified in order to support the achievement of this main objective, as follow:

1. To identify the agenda-setting process of the formulation of LCR regulation in Indonesia;
2. To understand the evolution of the trade balance on ICT;
3. To find out the perceptions of international companies on the LCR regulation;
4. To assess the compliance of the LCR regulation with the WTO agreement.

1.5 Research Questions

To achieve the objectives of the research, the key question of this research is: **“To what extent does the agenda-setting of Kingdon explain the discussion around the implementation of LCR regulation in Indonesia and its compliance with the international trade regime?”**

Based on this research question, there are sub-questions that compose this research question:

1. **What is the problem identified by the Government of Indonesia that the LCR regulation responds to and what policy is proposed through this regulation?** This question covers the analysis of the problem, policy procedure, and the political environment in the formulation of the LCR regulation.
2. **How does the implementation of the LCR regulation relate to the objective of improving the trade balance?** this question may cover the condition of Indonesia’s trade balance in telecommunication and ICT sectors in 4G LTE devices, and local software & game industry with the existence of LCR regulation.
3. **What is the perception of stakeholders of international companies on the LCR regulation?** This question can facilitate the identification of the real condition from businesses perspectives. By knowing their opportunities, obstacles, and challenges to satisfy this LCR regulation, the possibility of special treatment may be provided as the consideration from MCIT to come up with a win-win solution.
4. **What is the compliance of the LCR regulation with the WTO?** This question covers the implication of the LCR regulation that triggers a new problem stream in terms of perceived inconsistency with WTO agreement, and how the Indonesia’s government responds to this inconsistency to WTO agreement.

1.6 Research Approach

This research will focus on the implementation of Indonesia’s LCR regulation on telecommunication and ICT devices using the 4G LTE technology. To address the questions on this research, the researcher has chosen to use the inductive and deductive approaches. This research will be mainly conducted in Indonesia. The visits and interviews will be focused in the MCIT, Ministry of Industry, international vendors’ representative (Apple, Samsung, & Huawei), and 2 (two) associations, such as AGI (Indonesia Games Association), and ASPILUKI (Indonesia Telematics Software Associations).

Conducting an interview with the focal points of MCIT who deal with this LCR regulation is important. It is because the MCIT is a ministry of the Indonesia government that is responsible for telecommunication and ICT affairs and has a power and authority to issue, amend, and deregulate the regulations related to those affairs. The MCIT has Directorate General of Post and Informatics Resources which is dedicated to deal with this LCR regulation. Considering its essential role, MCIT can be the main object in which the researcher can obtain valuable information and data for this research.

The supportive information and data can also be generated from the Ministry of Industry. The Ministry of Industry is working together with MCIT in formulating the calculation of the LCR thresholds that have been determined by MCIT. The Ministry of Industry also provides the options of mechanism that can be chosen by companies in order to comply with LCR regulation. The data of LCR compliance also can be obtained from the Ministry of Industry as the governmental body which in charge in the assessment of LCR compliance.

Generating the information of the obstacles and challenges faced by international vendors in the effort to satisfy this Indonesia's LCR regulation is also crucial since they are the main actors obligated to comply this LCR regulation. The identification of the real condition of regulation compliance is necessary to get the insight on how effective this regulation is applied for the international vendors to achieve the objectives of this LCR regulations.

Further, the generation of data and information from AGI and ASPILUKI is also important. It is because these associations form the community of local developer/companies in the software and game industry. The impact of the implementation of this LCR regulation from software and game industry perspective can be identified from these associations. This necessary information can be analysed to support the findings of this research.

All the research approaches that are used in this research can be seen in table 1 below:

No	Research Objective	Research Question	Methodology	Data	Chapter
1.	to identify three streams of policy formulation in the formulation of LCR regulation in Indonesia and its interplay among those streams to create policy window	What is the problem identified by the Government of Indonesia that the LCR regulation responds to and what policy is proposed through this regulation?	site visit, interview, qualitative analysis	Article, document and news	6

2.	To understand the changes in the trade balance on ICTs	How does the implementation of the LCR regulation relate to the objective of improving the trade balance?	statistical analysis (linear regression)	Data of export, import provided by the government	7
3.	To find out the opportunity, obstacles, and challenges perceived by international companies that are imposed on the LCR regulation	What is the perception of stakeholders of international companies on the LCR regulation?	site visit, interview	Recorded audio, transcript of interview, and note	8
4.	To assess if the interaction among those multiple streams after the implementation of LCR regulation may open up new policy window	What is the compliance of the LCR regulation with the WTO?	site visit, interview, qualitative analysis	Recorded audio, transcript of interview, and note	9

Table 1. the relation of research instruments

1.7 Outline of the Research

Chapter 1 encompasses the introduction comprising the research's background, problem statement, research objectives, research questions, the research approach, and an outline of the research. The methodology of site visits, literature review, interviews, document interrogation, data collection and the data processing strategy is delivered in Chapter 2. Chapter 3 contains the research theory and literature review, while Chapter 4 explains Indonesia's telecommunication and ICT industry. Chapter 5 explains the LCR Regulation. Chapter 6 examines the agenda-setting towards the adoption of the LCR regulatory framework in Indonesia. Chapter 7 concerns the changes on the trade balance in association with the adoption and implementation of Indonesia's LCR regulation. Chapter 8 examines the perception by the foreign companies of LCR. Chapter 9 studies issues of compliance of the LCR regulation with the WTO agreement. Chapter 10 encompasses the conclusions, the analysis and discussion of the application of Kingdon's multiple streams approach in the formulation of the LCR regulation.

Chapter 2 Methodology

2.1 Research Strategy

The strategy used in this research is an iterative approach. The approach is taken to understand how far the Kingdon's multiple-streams approach can explain the policy formulation of the LCR regulation in the telecommunication and ICT industry, and measure the influence of implementation of LCR regulation in the emerging of new policy window opportunity.

2.2 Research Design

The design frame of this research is a case study with in-depth research that focuses on *the LCR regulation on the telecommunication and ICT devices using 4G LTE-Technology*. The analytical process of this research involves a literature review to obtain relevant theories and studies related to Kingdon's multiple-streams and the LCR regulation implementation. After having collected existing theories and knowledge, detailed exploration in a specific case will be conducted. An analysis will then be carried out to perform case result in the implementation of LCR regulation. This result explains how far the adoption of Kingdon's multiple-stream influences the process of policy formulation of LCR regulation and the possibility of new policy window after the implementation of LCR regulation that covers the coupling of 3 streams (problem, policy, and political streams).

2.3 Site Visit

In order to find sufficient information on how the LCR regulation can be implemented in Indonesia and is compatible with international agreement, it is necessary to conduct a site visit to other countries' governments, and the intergovernmental organization related to trade, such as WTO, and United Nations Trade and Development (UNCTAD). The site visit to other countries is aimed at investigating how countries can apply the LCR regulation that is consistent with WTO principles.

Based on the information that the researcher has identified from WTO's articles and website, it can be inferred that the implementation of LCR regulation is susceptible to be inconsistent with the WTO principles. However, there are possibilities for countries to take actions to derogate from WTO agreements, including to apply for a waiver. The waiver request can be granted after having approval from other WTO's member countries. Therefore, the researcher would like to obtain in-depth information related to those issues from other countries perspective so that it can help the researcher to find a suitable alternative as a recommendation for the implementation of LCR regulation in Indonesia.

To conduct the site visit, the researcher contacted the other countries representatives, such as China, Korea, Thailand, Malaysia, Singapore, Nigeria, the Philippines, and India. The researcher gave the information on the intention of the site visit to those countries representatives. However, there was only 1 (one) country which gave response over the site visit plan requested by the

researcher, that is India. Nevertheless, on the day of the appointment, India's representative could not be contacted, and the site visit was cancelled.¹

Other site visits were planned for trade-related intergovernmental organizations, such as WTO, and UCTAD. It was necessary to conduct the site visit to UNCTAD in order to find in-depth information, conduct a study, and understand more about the investment and economic development especially in developing country and least-developed country. The role of domestic regulation in the investment and economic development that may be related to the cooperation between the foreign company and the local company is also important to identify. While arranging the site visit with UNCTAD, there was a response from UNCTAD representative, and at that time, they tried to find suitable department that deals with the issue related to LCR regulation. However, the officer said that it was difficult to find the department that is suitable to respond to issues of LCR regulation.

Nevertheless, the site visit was successfully conducted with WTO in Geneva. During the site visit in WTO, the researcher had a chance to interview the WTO's representative. This interview aims to find out how the implementation of LCR regulation may comply with WTO agreement, how this LCR regulation may be a compatible instrument under the WTO agreement, and the potential consequence if the LCR regulation is not consistent with WTO agreement.

A site visit was also carried out at the headquarter of MCIT in Jakarta. This site visit is important because the MCIT is the Ministry which issued the LCR regulation on 4G LTE devices. It is necessary to meet directly with the representative of the department of MCIT that formulate this LCR regulation. The objectives of this site visit are to obtain the related data and in-depth information on how Indonesia's government was triggered to apply this LCR regulation in the telecommunication and ICT sector. These elements are crucial for the researcher in order to find valid data and information that are required for doing this research.

The site visit in the manufacturing industry, such as Samsung, Huawei, and Apple, have also been carried out. The researcher had the opportunities to meet the representative of these companies who deal with the government relation. These site visits are also important since these vendors are the main actors that

¹Judging from this experience, the researcher speculates that the discussion regarding the implementation of LCR regulation is very sensitive and political. It implies that there is no country that is willing to share its strategy regarding the implementation of this LCR regulation. It might be speculated that if other countries know that a particular country is implementing the LCR regulation, then this country fears that their policies are in a risk to be complained in WTO. This is because the implementation of the LCR regulation seems to be violating the WTO agreement, especially TRIMS and the GATT 1994. This complaint can be used as a political instrument by the complainer to obtain a trade-off from the respondent country (a country that is being sued). Therefore, it is very difficult to find a country that wants to open-up its strategy on the implementation of LCR regulation. This speculation would need further investigation.

are obliged to comply with this LCR regulation. The industry perspectives are also important to draw in order to obtain comprehensive information from industries. Since there is a software cooperation mechanism in the compliance of LCR regulation, the site visits to software and game associations are also necessary to be conducted. These site visits aim to get the information on how far the implementation of this LCR regulation can influence the development of software and games industry in Indonesia.

2.4 Literature Review

The literature review is conducted to identify the information related to the implementation of Indonesia's LCR regulation. It is conducted through the identification of articles, government reports, texts of regulation, and websites related to this research. The literature review encompasses the background that triggers Indonesia's government to implement this LCR regulation, the LCR threshold, measurement, and mechanism that are required to be satisfied by the companies that want to market their 4G LTE products in Indonesia. Moreover, the literature review is also important to identify the possibility of implication over the implementation of Indonesia's LCR regulation to international trade, and international agreements, such as in World Trade Organization (WTO), including the identification of implementation of the LCR regulation in other countries, and the positive and negative impacts that may be resulted from this LCR regulation implementation.

2.5 Interview

In this research, the researcher also uses the Semi-structured interview and Face-to-face interview (FtF) strategy to collect data and information. The semi-structured interview provides the combination of interviewee's concerns and the structure of predetermined questions listed by the interviewer, as well as enables the interviewer to freely follow-up some important points based on the interviewee's responses. While in the structured interview format, the interviewer is likely to have less opportunity to develop further questions to pursue an interesting comment given by the interviewee. The unstructured interview is also considered not suitable for this research. It is because unstructured interview has no pre-specified questions listed. Thus, gives more freedom to the interviewee to set the agenda (Thomas, 2017). This semi-structured interview is used frequently in policy research, that enables the interviewer to dive deeper into a topic to get more understanding and detail information upon the answer provided by the interviewee (Corporation, 2009).

Whereas, this FtF interview is asynchronous communication in which the interviewee and interviewer sit together in the same place, and at the same time. In FtF interview, the interviewer can take benefit to see directly the interviewee's social cues, such as voice intonation, body language, and the interviewer can also easily deliver additional questions to obtain deeper information (Opdenakker, 2006). By acknowledging the importance of these 2 (two) methodologies of the interview, this research will strive to generate comprehensive information from the interviewees using these 2 (two) methodologies in order to find the answer to the above-mentioned research questions.

The interviews are conducted to 3 (three) kinds of stakeholders, as follows:

1. Government Institution

It is important to obtain and identify the information and data from the government institution. In this research, the interview is conducted with the representatives of MCIT. There are 2 (two) representatives from different divisions invited as interviewees. The first representative is from the Department of Standardization in which the LCR regulation is formulated as the respondent 1. It is necessary to generate in-depth information and data about the reasons that have triggered MCIT to issue this LCR regulation. The reasons may cover the background, objectives, and mechanisms. The second representative is from the Division of International Affairs Centre as respondent 2. It is also necessary to conduct an interview with this key person since this division is Indonesia's focal point in the WTO. From this interviewee, the researcher wants to discover how Indonesia's government anticipates the possibility of being an inconsistency with WTO's agreement, what will be the implication if Indonesia is proven to be inconsistent with WTO, and what should Indonesia's government do to avoid this situation. The list of questions for the interview with the government can be seen in ANNEX 4.

2. Industry/Private Sector

The interviews with private sectors are important. They are the main actors that are imposed on this LCR regulation. The interviews are conducted to 3 (three) major telecommunication and ICT vendors, Samsung, Apple, and Huawei. Through this interview, the researcher wants to identify the real condition that they face during the compliance process to this LCR regulation. The interviews may cover the discussion about the opportunities, challenges, and obstacles in their efforts to satisfy the LCR regulation. How they feel to this LCR regulation, also should be identified. Their recommendations can also be a part of these interviews. The list of questions for the interview with the industry can be seen in ANNEX 3.

3. Software and Game Association

Since there is a development and application mechanism in order to comply with the LCR regulation, the interviews with software and game association are also important to be conducted. The interviews are conducted with AGI and ASPILUKI. These 2 (two) association deal with software and game industry. Through these interviews, the researcher wants to understand how far the implementation of this LCR regulation affect the growth of the local software and game industry. Their responses to provide input for the government from the software and the game industry's perspective can also be taken from these interviews. The list of questions for the interview with the software and game association can be seen in ANNEX 5.

2.6 Document Interrogation

Gathering data and information from the document differs from the process of collecting data and information from people. The challenge of gathering data from the document is to find out the right documents issued or published by the right people, institution, and company to satisfy the validity of expected data or information to support this research. The following documents are included in this research:

1. The regulations related LCR issued by MCIT, Ministry of Industry and Ministry of Trade
2. The official government reports that contain import, export, trade balance deficit of telecommunication and ICT devices using the 4G LTE technology
3. Other documents that comprise the supporting data for this research, such as the number of local company and the foreign company that establish the business of telecommunication and ICT sector in Indonesia, number of certificates, employment, and investment resulted from the implementation of this LCR regulation

2.7 Data Analysis

In this thesis, the researcher conducts analysis by using the inductive and deductive approaches. The analysis of information and statistical data can be described as follows:

a. Coding and Labelling

For the inductive approach, the researcher collects the information through interview and site visit to the respondents. The responses/information delivered by respondents then is recorded. The process of coding and labelling starts when the recorded information is transcribed. From this transcriptions, the researcher can generate the ideas, concepts, and categories. Based on this transcription, the researcher identifies the interesting events, behaviour, and phrases, then puts the label on them. The labelled concepts that have been identified are differentiated or integrated into sub-categories, categories, pattern and relationship in order to obtain the conclusion. From here, further interpretation, analysis, and review process are conducted. Moreover, the literature review can scientifically complement the validity of this collected information and data. The interpretation and analysis processes involve the Kingdon's streams theory to get the finding on how far these streams embedded in the implementation process of the LCR regulation and to emerge the opportunity of new policy window to make the LCR regulation consistent with WTO agreement.

b. The Process of Data Collection and Analysis

In the deductive approach, the researcher utilizes the export and import data generated from the government. The general data of export and import in telecommunication and ICT sector is obtained from the official MCIT's annual report provided by the Directorate of Standardization, and also published in MCIT website. For particular data of export and import of 4G LTE devices, researcher gains the data from the employee of the Ministry of Trade, and also from the official website of Indonesia's Central Bureau of Statistics. With this data, the descriptive statistics are conducted to visualize and analyse the comparison between the condition of trade balance before and after the implementation of the LCR regulation. This descriptive statistic is applied to test the hypothesis that has been set shown in the next sub-section.

2.8 Hypothesis

The implementation of the LCR regulation aims to overcome the high trade balance deficit by requiring the companies that want to market their products in Indonesia to use the local component comprising the local labor, raw material, and supporting industrial component. If the companies are failed to satisfy the requirement of utilizing this local component, then they cannot carry out the

importation. The mechanisms that can be used by companies to comply with this LCR regulation are hardware/manufacture cooperation, development and application development, and investment in innovation development. In this research, the identification will be focused on how far the LCR regulation can correlate with the trade balance deficit of 4G LTE devices that involve the import and export value trends. Based on this data, the researcher proposes the hypothesis as follows:

H0: the LCR regulation may not contribute to the trade balance trend

H1: the LCR regulation may contribute to the decrease of import value

H2: the LCR regulation may contribute to the increase of export value

H3: the LCR regulation may contribute to the positive trade balance

Chapter 3 Theoretical Framework and Definitions

This chapter describes the characteristics of the Multiple Streams Approach of John Kingdon as the theoretical framework for this research. The description will start with the public policy making the concept of John Kingdon, and the Multiple Streams Approach. The objective of this chapter is to understand the theoretical approach that is used to carry out the analysis process in this research that can be seen in the next following chapters.

3.1 The Conceptualization of John Kingdon

Through his book “Agendas, Alternatives and Public Policies” (1984), Kingdon spelt out eloquently how ideas are picked up to be policy-making agendas. His famous work then becomes underlying logic for people studying policy analysis to learn how issues are raised in prominence and chosen as governmental agendas and why some other issues are left unnoticed. Kingdon does not define the whole public policy processes, but he is more focus on the initial process of policy-making, the filtering process of issues to be agenda which he called agenda-setting.

Kingdon identifies two kinds of agenda in agenda-setting: governmental agenda and decision agenda. Governmental agenda are those issues that get serious attention of government officials, while decision agenda are governmental agenda that are already waiting to be decided by the government. A process of agenda setting can be analyzed by using the multiple streams approach in order to know how the event becomes an issue in the first place.

Kingdon employs a multiple streams approach to understand policy-making and agenda-setting processes. This approach is a result of redevelopment from ‘garbage can model’ by Cohen (1972). In his work, Cohen argues that there are 4 variables or streams (problems, solution, participants, and choice of opportunities) and decision making in an organization can be explained using garbage simulation process. From these streams, Kingdon refines these 4 streams into 3 streams which highly influence agenda-setting and policy process. These 3 streams are problems, policy, and politics.

3.1.1 Problem Stream

This stream triggers public official to consider issues and raise them on the governmental agenda. The government refines the collection of problems in order to get priority of problem that requires their deep attention (Carrillo, 2007). Kingdom views that problem can get to the attention of policy-makers through indicators, focusing events, crises, and symbols. In the problem stream, it is important to know that the situation recognized as the problem will be allocated on the governmental agenda, and not in the decision agenda. The cycle of a situation seen as a problem that is put in the governmental agenda can be seen in figure 1 below.

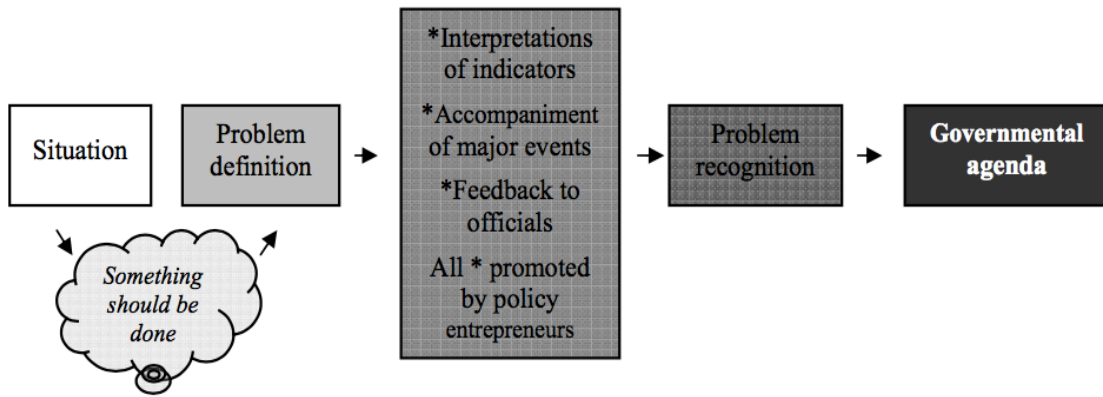


Figure 1. Problem Stream (source: John Kingdon)

3.1.2 Policy Stream

In this stream, Kingdon explains how policy communities – people who have expertise and responsibilities in certain fields – throw in their understanding, discuss and defend their ideas so as to survive in the policy-making process. Kingdon also mentions the process of ideas gathering, combination, and defense as “policy primeval soup” where policy specialist delivers divergent ideas that will be moved to the next stage to be combined, softened up, recombined, and defended in the policy area. After this, policy entrepreneur will create a favorable climate among the public and policy community to ease the proposal acceptance while the policymakers take serious consideration of the proposal. This process can be done through the activities of hearing, discussion, meeting, and advisory panel. It is, therefore, Kingdon claims that there is no idea that is definitely new because this idea is generated through the policy soup that involves a series of political mixture and recombination of ideas.

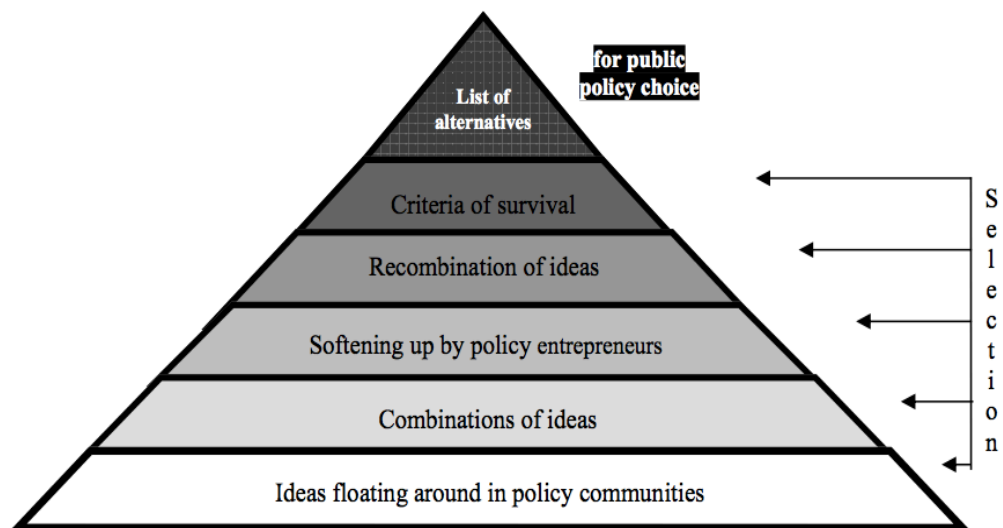


Figure 2. Policy Stream (source: John Kingdon)

3.1.3 Political Stream

This stream consists of some elements which include the national mood, political organization pressure, and changes of administrators (Carrillo, 2007). It is argued that, the political stream has the dominant role in the opening of the policy window (Dominguez, 2002). This is because the perception generated from the change of national mood can influence certain issue to be promoted in the agenda while the other agendas are detained. Therefore, the alteration of the national mood can open the opportunity of proposal promotion on the governmental agenda.

Each of these streams, problem, policy, and politic, are independent of each other and have their own lives and rules. Nevertheless, the coupling of these streams together will lead to the agenda change and the opening of the policy window. In order for these streams to come together, there are different actors that involve in the agenda-setting and policy process. These actors are called Policy Entrepreneurs (PE). Actors who are included in PE are the president, people in the administration, government officials, members of parliament, interest groups, academics, researchers, consultant, and the media.

Despite having mentioned as important actors behind the agenda-setting and the policy process, Kingdon does not explain the level of importance of each of the actors in pushing the issues into agenda or in coupling the streams together. Kingdon does not also explain which actors play the most part in agenda setting and policy process. The researchers argue that Kingdon views that the multiple streams approach should be applied case-by-case basis, and that different case may have different result of analysis of each of the streams and the coupling of the streams. Nevertheless, Kingdon's theory does have other setbacks in that it does not explain the policy network –a network of different PE's that together play part in agenda setting and policy process. Kingdon also regards that each of the streams is independent although he interplays of those streams may open policy window. However, the setback of its theory is sometime in agenda-setting, when an issue is raised to be governmental agenda, policy and political stream is not fully independent of each other. They sometimes intersecting each other and complementing to one another.

Regardless the setbacks in its theory, Kingdon's Multiple Streams Approach remain popular benchmark and literature among policy analyst. His theory has been used to analyze agenda-setting and policy process in a various number of works, such as by Brunner (2008), Howlett (1998), Zahariadis (1995), Nill (2002), Ridde (2009). The researcher intends to apply Kingdon's theory to analyze agenda-setting and policy process in the context of the telecommunication and ICT industry. However, bearing in mind Kingdon's setback, apart of using Kingdon's theory, the researcher would also like to use other theories to enrich the review and analysis

3.2 International Trade, Trade Balance, and Trade Deficit

3.2.1 International Trade

International trade is the trade relations that comprise the exchange of goods, and services from one country with other countries with the intention of fulfilling the domestic needs due to the disability of the country to meet the domestic

needs of those goods and services (Neraca & Dan, 2014). According to Pujoalwanto, countries' relation in trade is an integral part of the world economic system which knows no boundaries. International trade is inseparable and becomes the most important element in world economic development. International trade is trade among countries which usually represents the trade conducted by entities from one country with entities from other countries based on mutual understanding. The entities may constitute trade inter-individual citizens or trade inter-business with the government of a country or inter-governmental trade.

3.2.2 Trade Balance and Trade Deficit

The trade balance is the difference between export and import value of goods or services of a country in a certain period. The balance is measured by using the applicable currency. The definition of trade balance of a country according to Pujoalwanto, constitutes annotation or essence that takes note of all export and import transaction products in a country. The surplus of trade balance occurs when the export value is higher than the import value. While the deficit of trade balance occurs when the import value is higher than the export value.

There are several factors that influence trade balance. Further explained that these factors consist of foreign revenue, domestic revenue, and real currency exchange (Yusoff, 2007). The increase in foreign revenues will promote the demands for domestic products that subsequently will increase export. The increase of export will affect the increase of trade balance. This also applies to domestic revenues. As domestic revenue increases, there is additional revenue that can be used for import. The increase in import causes the decrease of trade balance. In addition, real currency exchange demonstrates the consequences of currency exchange towards trade balance. This parameter may worth positive, negative or nil. If the parameter worth positive, the increase of currency exchange will increase trade balance. On the contrary, if this parameter worth negative, the **increase** of currency exchange will damage trade balance.

In addition to the above-mentioned factors, there are additional factors that affect the trade balance of a country. This factor is the foreign trade policy of a country which aims at protecting the national economy from the negative effect of foreign trade. One of those policies, according to (Krugman, Obstfeld, 2008) is a tariff barrier, a policy instrument that is very simple to implement. Tariff, the oldest and most common trade policy has been used as the source of government revenues for so long, is the kind of tax applies to imported products. Imposing a tariff on a product will increase the price of a product in the importing country and decreasing the price of a product in exporting countries. Because of this price changes, consumers in importing countries are fortunate, while consumers in exporting countries are suffered. This effect is most of the time become the purpose of tariff imposition, which is giving protection to domestic producers towards low-cost import competition.

The other trade barrier instruments beyond the tariff is the non-tariff barrier. According to (Krugman, Obstfeld, 2008), the non-tariff barrier may comprise export subsidy, import limitation, voluntary export restraints, and local content requirement.

3.3 World Trade Organization (WTO)

3.3.1 WTO Establishment and Function

Since the implementation of LCR regulation is indicated to be inconsistent with WTO's agreements, such as GATT 1994 and TRIMS, it is necessary to understand the existence and function of WTO in international trade. The establishment of the World Trade Organization (WTO) is based on the Marrakesh Agreement which was concluded on 15th April 1994 in Marrakesh. The WTO has the mandate to provide a common institutional framework applied to its members to carry out the trade relations among members (WTO, 1994a). The agreements and associated legal instruments that are issued by WTO are referred to as "Multilateral Trade Agreement", and all of these agreements are legally binding to all WTO's members.

3.3.2 WTO Principles

The WTO members are bounded by the following principles while they are conducting their trade activities and trade relations with other WTO members. These principles are Most-Favored-Nation (MFN), National Treatment (NT), General Prohibition of Quantitative Restrictions (QRS), and Transparency (WTO, n.d.).

3.3.3 WTO Membership

In the WTO, its members are divided into four groups, these four-group memberships consist of the developed country, developing country, least-developed country, and transitional economies. Apart from these groups, there is another group of members which are approved by the Geneva Ministerial Conference, called "certain small economies". Overall, the members of this group are also members of the developing countries.

3.3.4 WTO Exceptions to derogate from the Agreement

The WTO's members sometimes take measures that may be inconsistent with the WTO's agreement. In the GATT 1994, there are some exceptions that can be taken by the members to derogate themselves from the provision of the WTO's agreements. These exceptions are General Exception, Security Exception, Restriction to Safeguard the Balance of Payment, and Waiver (WTO, 1994b).

3.3.5 WTO Agenda Setting

WTO, as an institution that regulates global trade, holds a legitimate position in facilitating multilateral trade discussions among member states and making a decision with regard to global trade issues. This legitimacy was granted to WTO upon the accession of member states to WTO. In addition to multilateral trade agreements and facilitating trade talks, WTO also provides dispute settlement mechanism, which based on the number cases taken to Dispute Settlement Body (DSB), seems to imply that countries have confidence with the dispute settlement system in WTO and prefer to resolve trade disputes to WTO (Bä, 2000).

The discussion on trade issues involves agenda-setting mechanism and strategy that enable issues to be raised in WTO agenda. This also includes agenda-setting in the dispute settlement mechanism. The arrangement and raising of

issues on the agenda of WTO or during WTO sessions were done before sessions take place. Every WTO sessions were preceded by pre-negotiation stage (Albin & Young, 2012), where countries that raise issues or file complaints would first deliver official request of issues to be placed in the agenda to WTO Secretariat. Regardless of this procedure, agenda-setting may be more or less influenced by power dynamics from the countries raising the issues. This agenda-setting involves competition among member states so that their issues are prioritized to be included in the agenda as opposed to others' issues from other countries. This procedure takes place before the negotiation period. Once the agenda is set, discussions and negotiation only revolve around the fixed agenda that has been set.

The practice of power dynamics in the agenda-setting of WTO, both in multilateral trade discussion and dispute settlement mechanism, was criticized as reducing the legitimacy of WTO (Rajewski, 2009). There are several case studies that show the imbalance of power in WTO decision making and agenda-setting. Structural power such as economic weight plays a dominant role here. In terms of structural power, power capacities- which is the size of market access of a country- become a pulling factor in negotiation for agenda-setting and decision-making. However, there are several cases where a group of developing countries managed to steer the agenda setting. These cases challenge the dynamic power practice during agenda-setting and show that unity, a collection of various economic size and proactive action have the power in WTO agenda-setting.

Meanwhile, in dispute settlement, structural power which also can be defined as an economic power plays role in various parts of litigation. Cases also show how developing countries can "borrow powers" by for example join the complaints as third parties. In dispute settlement, when countries managed to make ways for their issues to be in the agenda, countries which act as complainants were given agenda-setting power during the dispute settlement periods. In many cases, complainants will not file complaints to WTO until they are sure that their chance to win the case is high.

3.4 Local Content Requirement (LCR)

3.4.1 Definition and Coverage

Local Content Requirement (LCR) is the policy or regulation issued by the government that will be imposed to the firms/companies containing the requirement to use the product manufacture domestically, materials, or services supplied domestically in order to carry out their business in an economy or country (Federation, States, & Europe, 2016). The LCR components on goods comprise the domestic raw material utilization, design, and other activities, including manufacture, fabrication, assembly, and finalization of the products imported from other countries. Whereas, the LCRs components on services consist of local labour employment and utilization of equipment including software and other supported devices provided by local companies.

3.4.2 The Positive Impacts of LCR Regulation

Indonesia's LCR regulation has an investment mechanism. From the perspective of the economy, this type of cross-border investment can also be regarded as the most important manifestation that assists the process of globalization. The

MNE (Multi-National Economy) increasingly plays a significant role and dominates technology innovation, as other sources of capital become rare and technological change is ever-evolving. The wide distribution of technology is important in economic and development of a country. Technology has become the central enabler of economic activities. Therefore, the development of a country is assessed by uptake of technology in various sectors in the whole country.

According to (David J. Teece, 1977), the foreign firms can play the role in the acceleration of the new technology diffusion to the domestic market by introducing a new product or process, and the domestic firms can benefit from the technology resulted from foreign investment as part of employment and capital flows. The increase in productivity of a company can sometimes be generated by domestic firms through simple observation of the surrounding foreign firms. In other circumstances, the diffusion also occurs from the labor turnover of domestic employees' movement from foreign employee to domestic firms. Moreover, some studies have shown that on-the-job training programs are initiated more by foreign firms, rather than domestic firms (Ralph B. Edfelt, 1975; Reinaldo Gonclaves, 1986).

The domestic firms may get lots of benefits and positive influence from foreign firms. Domestic employees may obtain accumulative knowledge if they are hired by foreign firms. The experienced workers hired by foreign firms are likely to leave the firms, and this circumstance may lead to a higher possibility of the domestic human capital employment to domestic firms that increase the measured productivity for the domestic firms. The domestic industry, likewise, can receive transfer of knowledge from foreign firms as domestic industry launch new products, introduce new techniques for production and marketing, or earn technical assistance from upstream or downstream foreign firms. Maintaining the relationship with experienced employees and providing training for the employees will also benefit the foreign and domestic firms that participate in the joint ventures. All of these possible situations may increase domestic firms' productivity.

3.4.3 The Negative Impact of LCR Regulation

The implementation of the LCR policy can assist the government to achieve short-time goals and objectives, such as employment creation, transfer of technology, and industrial performance development. However, these LCR measures may undermine the long-term industrial competitiveness, such as declining the total number of importation and exportation in regions, increasing the cost of domestic production to LCR targeted industry, performing the LCR in various forms (Federation et al., 2016).

3.5 Multi-level Governance

The term multi-level governance is first coined by Gary Marks to refer to a concept of decision-making in the European Union (EU). In this sense, governance is a power vested to an institution in making, implementing and enforcing policies. Within this concept, multi-level governance can thus be defined as a sharing of this power with various actors, across institutions, in multi hierarchies. Multi-level governance is also a concept that highly relates to political

mobilization (politic), policy making (policy) and state structures (polity), thus discussion on multi-level governance must relate to those three fields (Piattoni, 2010). Therefore, it is appropriate to relate the theory of policy-making by Kingdon with the concept of multi-level governance. This is also because, as has been discussed in the previous sub-chapter, the weakness of Kingdon's theory can be complemented by another theory.

Policy-making process, both in domestic and international level, currently involves many actors in its formulation. These various actors influenced the policy process in the government at various different levels. Theory of multi-level governance explains the rise of these various different actors with their own powers and competencies that influence the policy process and change the order of policy-making and hierarchies. Thus, the process of multi-level governance in the policy-making is not only "multi-level" but also "multi-actors", creating its very own "policy networks" that engage government, interest groups, and supranational actors. The "multi-actors" then influence government at various level to change or insert their interests to be accommodated by the new policy (Marks et al, 1996). This theory complements Kingdon's ideas on different policy entrepreneurs that engage in agenda-setting and policy-making process.

Globalization and the existence of intergovernmental organizations and regional-multilateral cooperation also affect the process of policy-making domestically and in the international context. By joining into this regional-multilateral cooperation, such as WTO for trade, countries are bound to the agreements of the organization. They are willfully agreed to comply with the set of rules, even if that means that countries need to change or make domestic regulation consistent with the rules of the organizations. In this context, countries seem to let go of their sovereignty to make policies and stop acting in whatever they want.

In terms of policy making, the let-go of this country sovereignty in international context could have major impacts. If in the domestic field, countries can still enforce their own sovereignties. Even if they have engaged different actors and accommodate different interest, the government can still make decisions that fit with national priority agendas. However, in the international context, once countries have consented to be bound by international agreements, they cannot act inconsistently with the rules set in the agreement. This negating the power and sovereignty of each country. Unless, in reality, countries with super-power and a strong bargaining position may have a strong influence over the decision taken in the international, regional-multilateral organization. Countries with coercive power are able to push their interest, both to other countries or to the administration of the organization (Krasner, 1999).

Chapter 4 Indonesia's Telecommunication and ICT Industry

4.1 Indonesia Profile

Indonesia is an archipelagic country located in Southeast Asia. Indonesia is located in the strategic position between the Indian and the Pacific Ocean, which has direct neighbor countries of Malaysia, East Timor, Singapore, and Papua New Guinea. Indonesia is an attractive country for investors due to its rich natural resources, such as oil and gas, coal, minerals including gold, copper, nickel, and bauxite, as well as abundant agriculture products due to its fertile land (Widjaja, 2018).

Indonesia is the 4th most populous country in the world with a total population of 265 million people in 2018 (Widjaja, 2018)(Katadata, 2018). Indonesia's total area is about 1,916,862.20 sq.km with more than 16 thousand islands (BPS-Statistics, 2018). The population is concentrated in Java island, in which Jakarta as the capital city of Indonesia is located.

It is because the activities of business and government are centralized in Jakarta, therefore, Java island is considered as one of the most densely populated places on earth (CIA, n.d.). Whereas, for some areas near Sunda Strait, and the north-eastern coast near Medan, the most significant cluster can be found in those areas. Makassar and Banjarmasin are also considered having many populations.

Indonesia has a diversity of cultures with about 400 ethnic groups exist in Indonesia. This situation makes Indonesia rich of the diverse cultures. These cultures are manifested in the form of traditional arts, traditional dance, local languages, and others (Rachmawati, 2016).

In terms of economy, Indonesia has an investment realization from January to December 2017 that comprises the investment from Singapore for as much as 8.4 billion USD, from South Korea, for as much as 2.0 billion USD. Whereas from Hong Kong and China the investment was 2.1 billion and 3.4 billion USD respectively. Lastly, investment from Japan was around 3.4 billion USD, and investment from other countries was around 11.3 billion USD (Rachmawati, 2016).

By considering the number of population, strategic location, and natural resources, Indonesia has a lot of potentials that make other countries want to invest and run their business in Indonesia. Indonesia is not only a big market for those countries but also can be a good base for production, including in sector of telecommunication and ICT.

4.2 Telecommunication and ICT Governance in Indonesia

The telecommunication and ICT industry is under the supervision of MCIT. The MCIT has an authority to formulate and issue the regulation and policy related to this industry. This telecommunication and ICT industry encompasses the manufacture cooperation, software cooperation, and standardization of telecommunication and ICT devices, as well as skill-labor related to this industry. The LCR regulation is regulation issued by MCIT that sets out the requirement

applied to companies that want to market their telecommunication and ICT devices using 4G LTE technology in Indonesia. In this LCR regulation issued by MCIT, there are provisions that set out the threshold of LCR. Nevertheless, this Ministerial of MCIT regulation does not regulate the mechanism and formulation on how to satisfy the LCR threshold. Therefore, the MCIT is supported by the Ministry of Industry by issuing the Ministerial of Industry regulation that aims to regulate the LCR compliance mechanism and the LCR threshold formulation. To ensure the implementation of this LCR regulation can achieve its objectives, MCIT and the Ministry of Industry are required to establish intensively coordination. This coordination is important to provide a consistent legal certainty of LCR regulation that is mostly applied to international companies. By maintaining the consistency in the implementation of this LCR regulation, then these international companies will not be afraid to invest in Indonesia.

According to the Circular letter of Secretary General of MCIT, the Echelon II work unit (Director Level) has to initiate the research and assessment over the urgency or needs for a Ministerial Regulation from the aspect of substance covering cost-benefit analysis before conducting the establishment of a Ministerial Regulation draft. The research and assessment at least contain the introduction which includes the background, the target that will be achieved, identification of problems, goals, and uses for communities, businesses, and the government. The other aspects should be also covered in the draft, including a direction of arrangement, and scope, as well as content material. Afterward, the Proponent Echelon II Work Unit conveys an initiative proposal accompanied by a Policy Manuscript the need to formulate a Ministerial Regulation to the Secretary-General with a copy to the Legal Bureau.

Furthermore, in the drafting process of a Ministerial Regulation, the coordination with related work units are required, including with other related institution outside the MCIT. After that, the harmonization and public test of this Ministerial Regulation Draft are required to be conducted. The public test can be carried out through the meeting with stakeholders, and MCIT website. Those are the processes of formulating the Ministerial Regulation in MCIT, including the Ministerial Regulation on LCR.

4.3 Telecommunication and ICT Development and Potential as a Market in Indonesia

Indonesia is an archipelago country and 4th most populous country in the world. This big population can bring good potential in telecommunication and Information Communication and Technology (ICT) industries. Since people require fast, remote, and real-time communication, they will utilize the telecommunication device, such as a mobile phone. According to Ministry of Communication and Information Technology of The Republic of Indonesia (MCIT) (Susanto et al., 2016), the figure 3 below shows the number of people using the mobile phone device during 2011–2015 increased from 249,805,619 to 338,948,340 shown on the figure below. Whereas, during 2011-2015, the number of fixed/wire telephone subscriber fluctuated. In 2011, the number of fixed/wire telephone subscribers was 8,650,716, then decreased slightly to 7,667,184 in 2014, before increasing to more than 10 thousand subscribers. In 2014, the subscriber number declined to 9.8 thousand, then increased again to

10,378,037 in 2015.

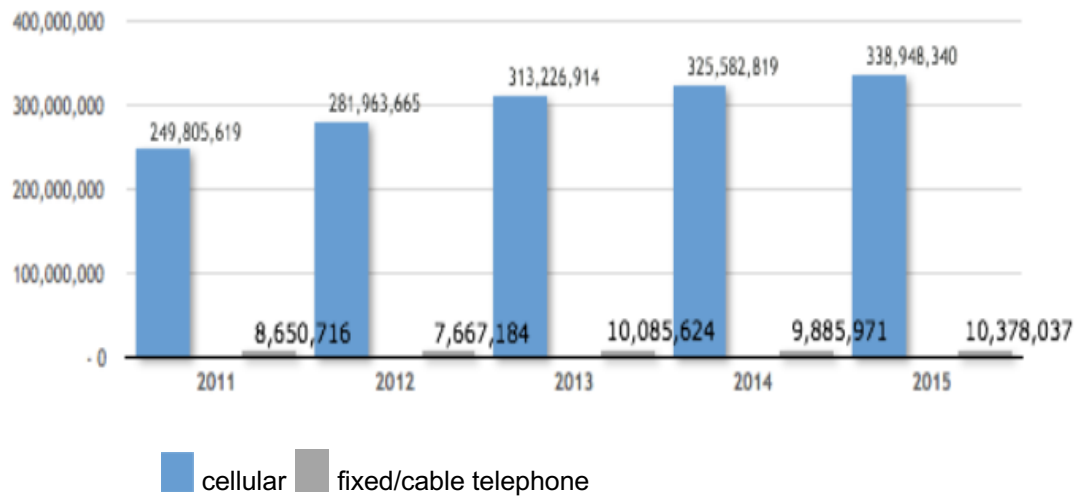


Figure 3. The user growth of telecommunication services in Indonesia (source: 2016 MCIT white book)

According to a survey that was conducted by APJII (Indonesia Internet Services Provider Association) in 2017, the number or internet usage penetration in Indonesia is 54.68%. This penetration number has resulted from the number of internet active user which is counted 143.26 million people out of 262 million people as the total population of Indonesia that can be seen in figure 4 below (APJII, 2017). By knowing that the internet active user in Indonesia is high, it becomes market potential for Indonesia in the telecommunication and ICT industry to attract the international vendors/companies to invest in Indonesia to produce the telecommunication and ICT devices.

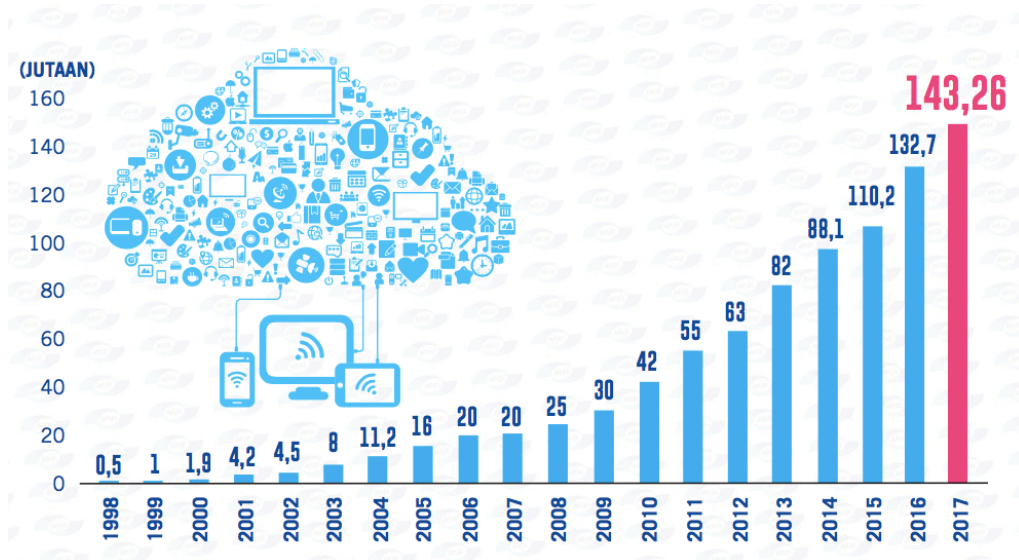


Figure 4. The internet usage penetration in Indonesia (source: APJII)

According to the press release of Public Relation Division of MCIT, in 2019, the domestic telecommunication and ICT industry is predicted to grow more than 11% per year. It is because the national “Nusantara Palapa Ring” that is the project of establishing the submarine broadband optic network will be finished by 2019 shown in figure 5 below. The establishment of Nusantara Palapa Ring aims to provide the highway for information dissemination to unite all Indonesia’s territories. The objectives of this program also cover the acceleration and equalization of social economy growth through the establishment of integrated telecommunication network infrastructure. This integrated infrastructure is provided to ensure the high quality of communication and internet that is secure and affordable (Kominfo, 2016).

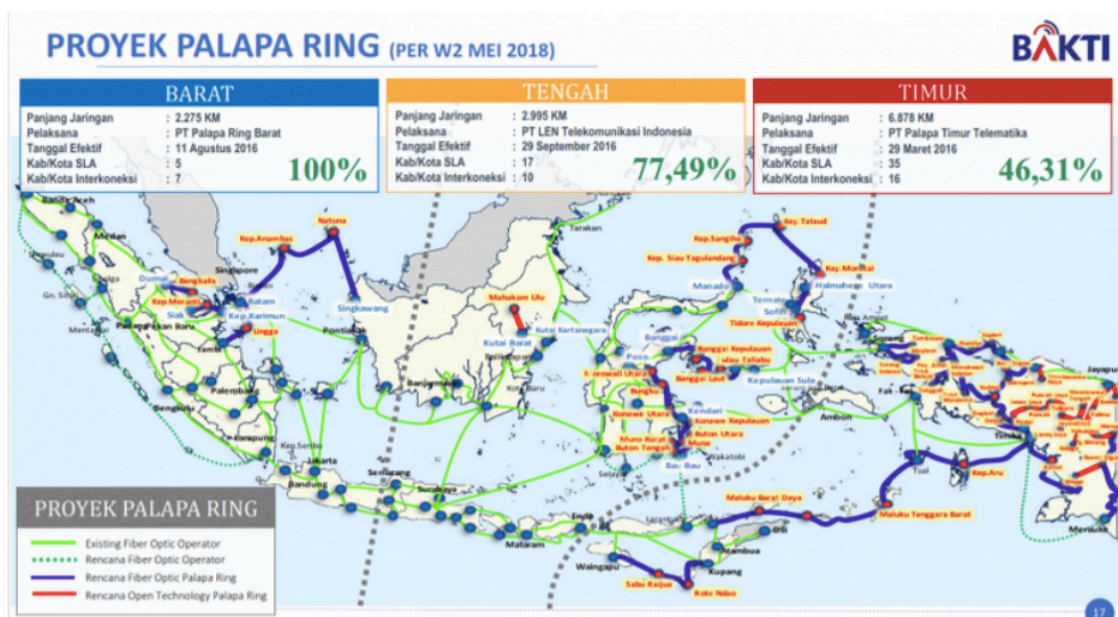


Figure 5. The Palapa Ring Project Implementation Update (source: MCIT)

Besides being supported by the Palapa Ring Network, the growth of domestic telecommunication and ICT industry will also be supported with the national program of economy digitalization 2020, digitalization on private sector and public services provided by the government, and domination of youth generation in Indonesia’s demographic. MCIT together with other 7 (seven) related ministries and government agencies under the coordination of the Coordinating Ministry of Economic Affairs has successfully compiled national road-map on e-commerce. In 2020, the value of transaction on e-commerce is predicted to achieve 130 billion USD. With the formulation of this e-commerce road-map, Indonesia’s government is able to increase the growth of Indonesia’s e-commerce industry ecosystem. So that, the digital economy can contribute positively to the growth of Indonesia’s GDP (Kominfo, 2016).

Furthermore, with these potential factors, such as big population, positive trend of internet active user penetration, the reliability of broadband infrastructure, make Indonesia become a potential market for telecommunication and ICT industry for international companies. Considering that this industry is also

supported by the positive trend prediction of the e-commerce transaction, will make Indonesia's market become more attractive for foreign companies to invest in Indonesia.

4.4 Indonesia's Manufacturing Value-Chain in Telecommunication and ICT Sector

Telecommunication and ICT infrastructure is an important element in the modern era. With telecommunication and ICT as an enabler, people can innovate and carry out their activities efficiently. They can communicate with each other without needing to be at the same place. Therefore, all daily life activities now can be done through automatic and digitalized ways. Also, now people can offer their products without requiring establishing the physical store. All activities can be carried out quickly.

Considering the importance of the existence of the telecommunication and ICT industry, Indonesia's government should manage this industry in a creative way, especially in formulating the regulation that can facilitate more cooperation among companies, including local and foreign companies. Efficiency and creativity in building the cooperation supported by robust regulation is a primary key to maintain the sustainability of telecommunication and ICT industry (Pambagio, 2016). Moreover, Indonesia's government should provide a robust regulation that prevents monopoly practice that is usually carried out by the incumbent company. Sharing or corporate mechanism should be promoted in order to ensure the sustainability of telecommunication and ICT industry, especially in the condition of the lack of mastery of technology and the continuing of the global economic recession.

Currently, Indonesia has several local manufacturing companies to respond to the high demand of Indonesia's market. These companies are Evercross, Mito, Advan, Polytron, and Smartfren Telecom. These companies produce telecommunication and ICT devices and sell to people at affordable prices compared to international companies' products, such as Samsung, Apple, and Huawei (Daftarharga.co.id, 2017). Nevertheless, according to Rizky Febrian, Associate Market Analyst, Indonesia Client Devices, the China-based vendors are becoming dominant in Indonesia's smartphone market. It is because the China-based vendors have aggressive strategies not only in terms of their products line-up but also in their overall marketing plans and activities. Local vendors face adverse condition to compete with these local China-based vendors, and with other big players, such as Samsung and Apple. The challenges are even made tougher with the knowledge that these international vendors have the tremendous fund to run their business in the market. This condition can be seen in figure 6 below provided by International Data Corporation (IDC) (IDC, 2017).



Indonesia Smartphone Market Share by Vendor Type, 2017Q1
(Units in Million)

Vendor Type	2015Q1 Market Share	2016Q1 Market Share	2017Q1 Market Share
China-based	12%	23%	31%
Global	48%	51%	47%
Local	34%	20%	17%
Others	6%	6%	5%
Total	6.3	6.4	7.3

Source: IDC Asia/Pacific Quarterly Mobile Phone Tracker 2017Q1

Figure 6. Indonesia Smartphone Market Share by Vendors (source: IDC)

According to the IDC data, the international companies both global vendors and China-based vendors are still major players in telecommunication and ICT market. During the period from 2015 to 2017, the China-based vendors' market shares increased, while global vendors fluctuated in which their market shares increased from 48% in 2015 to 51% in 2016 before slightly decreased to 47% in 2017. Whereas the market shares of local companies declined gradually from 34% in 2017 to 20% in 2016, then 17% in 2017.

According to the Ministry of Industry, the local companies' opportunity to join in the value chain of telecommunication and ICT manufacturing, can be in the form of cooperation on the assembly processes, the production of supporting components, such as battery chasing, earphone, box, USB cable, and charger.

Moreover, based on this data, the value chain of manufacturing on Indonesia's telecommunication and ICT industry is still dominated by international companies. Therefore, the implementation of this LCR regulation through the obligation of foreign companies to build cooperation with local companies, can promote the transfer knowledge, and increase investment to local companies so that the local industry will flourish and can compete with these international companies.

Chapter 5 The LCR Regulatory Framework in Indonesia

5.1 The LCR Regulatory Framework in Indonesia

In Indonesia, the requirement to utilize the local material/content is imposed on all industrial sector including telecommunication and ICT sectors. The degree of local content utilization is defined as the value presenting the percentage of local component used in the production of goods or delivery of services.

This research will focus on the LCR regulation imposed on companies that have the businesses in the production of telecommunication and ICT devices using 4G LTE technology, especially for subscriber station industry. In accordance with the circular letter of Directorate General of Post and Informatics Resources of MCIT Number 518 the Year 2017, the devices of subscriber station using 4G LTE technology can be divided into 3 (three) kinds of products in according to their Harmonized Systems (HSs), **Mobile Phone (HS 8517.12.00)**, **Handheld/Tablet Computer (HS 8471.30.90)**, and **Modem Wi-Fi (Mifi) (HS 8517.12.00)**(Informatica, 2017):

The government of Indonesia, especially MCIT emphasizes that the existence of this regulation is not to make vendors inconvenient to run their business in Indonesia but to stimulate them to give added-value to Indonesia such as lesson-learned and transfer-knowledge to Indonesia's start-up companies and enterprises. However, Indonesia's government needs to know the response of the related industries that are imposed on this LCR regulation and the implication to the international trade.

5.2 Objectives of Indonesia's LCR Regulation

The LCR regulation on telecommunication and ICT sectors in Indonesia aims to stimulate the growth and development of Indonesia's telecommunication and ICT industries, as well as to increase domestic capabilities by facilitating transfer knowledge and technology diffusion through the required cooperation and collaboration between local industry and foreign companies. With this LCR regulation, Indonesia's government believe that these foreign companies indirectly contribute to the emergence of new telecommunication industry and ecosystem by sharing their knowledge, technology, and other capacities as the added-value to Indonesia's telecommunication and ICT industry. Also, this LCR regulation ensures that the local industry can participate in the global value chain. The illustration of LCR regulation objectives can be illustrated in figure 7 below.

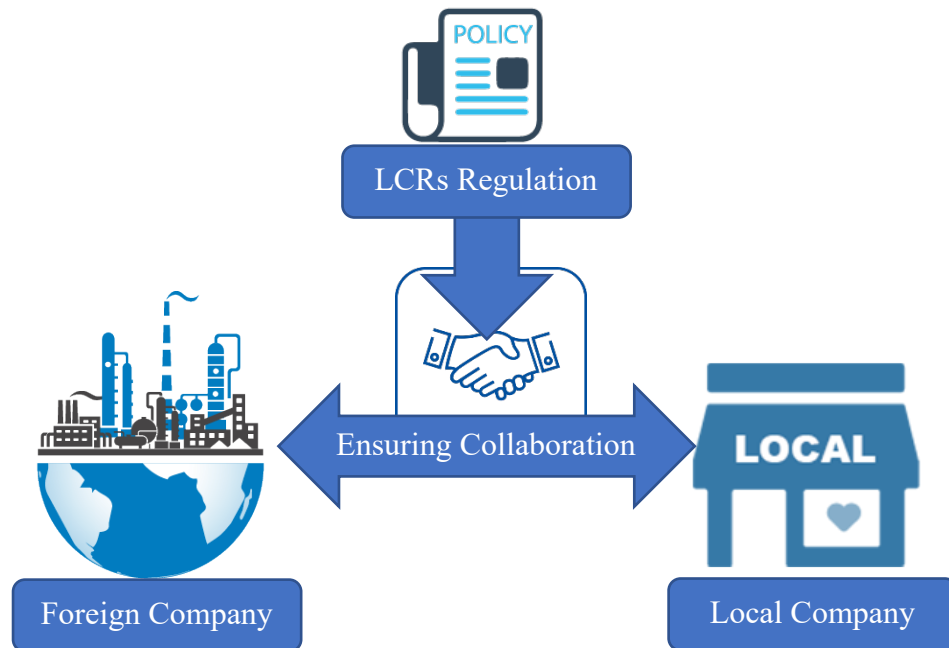


Figure 7. The objectives of the LCR regulation implementation in Indonesia (source: MCIT)

In addition to the above objectives, the underlying problem that LCR regulation responds to is the high trade balance deficit that has happened even since before 2008. This trade balance deficit happened due to the import value was far exceeding the export value. This long deficit according to Kingdon's multiple-streams approach can be considered as an indicator that opens the policy window. This problem window prompted the government to make policy that can decrease the trade balance deficit, put the trade balance to a positive value, decrease dependency to import and increase export value. The government believes that the cooperation between foreign companies and local companies will result in the benefits as mentioned above and will finally repair the problem of trade balance deficit. This problem window together with the other 2 streams will be explained in detail in the next chapter.

5.3 Indonesia's LCR Measurement and Procedure

To measure the LCR achievement, foreign companies need to conduct self-assessment system-compulsory assessment method enforced by Indonesia's government. Afterward, their LCR self-assessments will be verified by state-owned independent surveyors appointed by the Ministry of Industry, Surveyor Indonesia or Sucofindo. The process of self-assessment and its verification to get the LCRs certificate can be seen in figure 8 below.

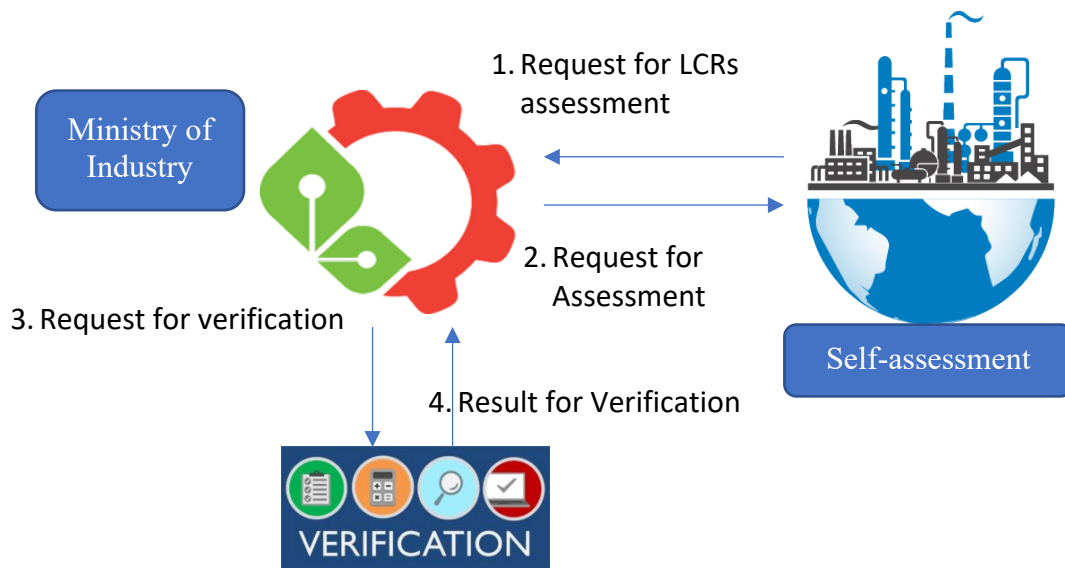


Figure 8. The procedure of LCR measurement in Indonesia (source: Ministry of Industry)

In terms of the telecommunication and ICT sectors, the compliance of the LCRs regulation will involve the set of processes stipulated by the Ministry of Communication and Information Technology (MCIT). These processes must be satisfied by the foreign companies to fulfil the LCRs requirement, especially for the 4G LTE devices, in order to obtain LCRs certificate for 4G LTE devices from the MCIT (MCIT, 2017b). The following processes can be seen in figure 9 below.

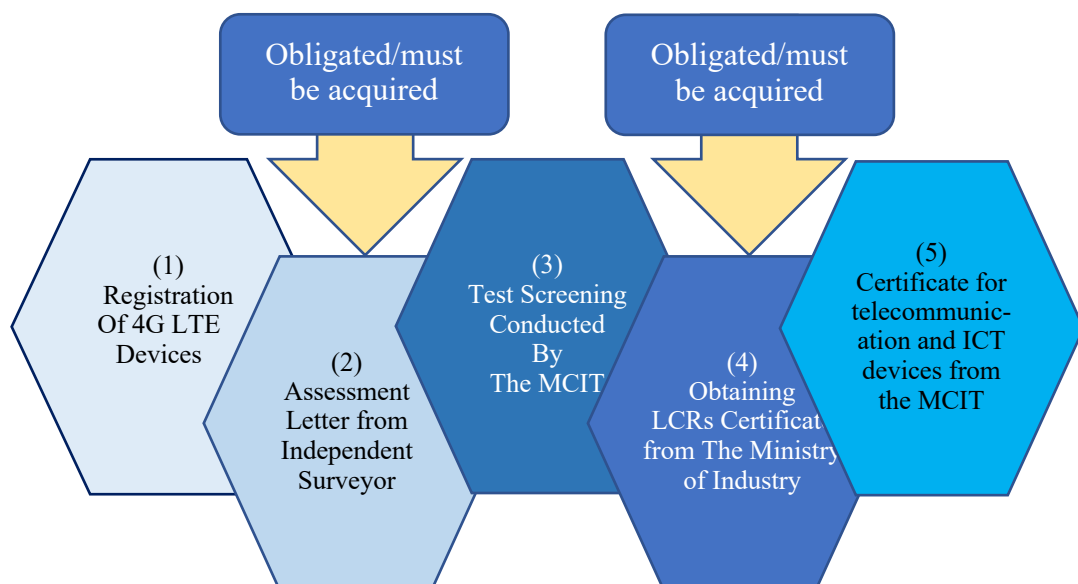


Figure 9. The process of certification for telecommunication devices (source: Ministerial of Industry Regulation no 65/2016)

5.4 The 3 (three) Indonesia's Ministerial Regulations on LCR

In Indonesia, the obligation to comply with LCR for telecommunication and ICT devices using 4G LTE technology is regulated by 3 (three) Ministerial Regulations issued by Ministry of Communication and Information Technology (MCIT), Ministry of Industry, and Ministry of Trade.

1. The Ministerial Regulation of Ministry of Communication and Information Technology Number 27 the Year 2015

According to this regulation, the LCRs requirement for telecommunication and ICT devices using 4G LTE technology is imposed on the smartphone, tablet computer, and tablet PC which are manufactured, assembled, and traded in Indonesia. These devices are obliged to meet the technical requirement as well as LCR (Komunikasi, Informatika, & Indonesia, 2015) for at least 30% (thirty percent) for Base Station and 20% (twenty percent) for Subscriber Station. However, the minimum threshold of LCR for devices which operates in certain radio frequency is increased respectively in 2017 and 2019 into at least 40% (forty percent) for Base Station and 30% (thirty percent) for Subscriber Station. Compliance with this LCR needs authentication from The Ministry of Industry.

2. The Ministerial Regulation of Ministry of Trade Number 41 the Year 2016

The Ministry of Trade does not have specific regulation concerning LCR for the telecommunication and ICT devices using 4G LTE technology. However, to support the implementation of the LCR policy, the Ministry of Trade also issued ministerial regulation that aims to expedite the investment on cellular phone, handheld and tablet computer by obligating foreign companies importing cellular phone, handheld and tablet computer to acquire recommendation of investment issued by the Ministry of Industry. This recommendation is a requirement to get import approval and to be certified as a registered importer (Trade, 2016).

3. The Ministerial Regulation of Ministry of Industry Number 65 the Year 2016 and Number 29 the Year 2017

According to these regulations, there are 3 (three) options of mechanism to comply with the LCRs, which consists of hardware, software, and direct investment. LCR Hardware mechanism requires companies to meet minimum 70% threshold for manufacture and respectively 20% and 10% threshold for development and application. While the LCR Software mechanism requires companies to meet the minimum threshold for 70% of the application, and a divided 20% and 10% threshold for development and manufacture. (Industry, 2016).

The difference between hardware and software mechanism lies on the greater percentage of application in software mechanism. These applications which also consist of games application need to be embedded in the devices. In addition to hardware and software mechanism, an investment mechanism is provided as another option for companies to comply with LCR regulation. The total value of compliance with LCR is calculated based on the total value of the investment.

5.5 Indonesia's LCR Regulation Implementation in Comparison with other Countries' LCR Regulation Implementation

In the implementation of the LCR regulation in Indonesia, there are 3 (three) mechanisms of the option to comply provided by the government. These options are manufacture cooperation, development and application cooperation, and the investment. In China, the LCR regulation is applied by China's government through the requirement imposed to international companies to obligate foreign companies to carry out a joint venture with its local companies in order to obtain favored treatment at the local market, and to carry out the transfer of technologies to China's local companies. This requirement for foreign companies to carry out transfer technology is perceived to be inconsistent with the WTO agreement. However, this policy is still applied, and China argues that even if the policy still prevails, it will not become an issue or dispute that can potentially be taken to the international trade court if there are still significant selling opportunity for foreign products in the local market (Federation et al., 2016). The transfer technology policy applied since 2001 has increased software technology in China. The import value on the software patent, industrial design, services and technology consultation, computer software, and product brands increased in the following year, whereas at the same time the import value on hardware and its assembly tend to decline (Federation et al., 2016).

In Nigeria, the objectives of the LCR regulation implementation are also similar to Indonesia's objectives, such as promoting value-added through the transfer of knowledge, increasing employment, and enhancing the domestic capability and local development. In 2013, Nigeria's government, the National Information Technology Development Agency (NITDA) introduced the "*Guidelines for Nigerian Content Development in Information and Communications Technology*" for the ICT sector. This guideline also covers the national objective to promote Nigeria's market environment and to give the protection for the Intellectual Property Rights (IPRs) in order to make Nigeria's market environment more favorable for the foreign investor in the ICT sector. The guideline regulates the requirement of LCRs for up to 50% for imported products that are marketed in Nigeria, and for the local software development. This LCRs are intended to increase the added-value by involving transfer knowledge, local labor employment, domestic products to produce a high-quality standard of goods and services in the ICT sector. The NITDA's guideline also contains the provision on local software development, for instance, during the software developer must include processes to design and develop product and services that utilize Nigeria's local language. Moreover, the multinational companies that have been registered and operated in Nigeria are also required to submit the development plan of local content to NITDA, comprising development plan for platforms and products. On this development plan of local content, the multinational companies are expected to provide employment vacancies for local engineers, to develop research and development activities, as well as to create a program for the development of local ICT capability (Technology, 2014).

Whereas, in Brazil, the implementation of the LCR regulation through the *Basic Production Process (Processo Productivo Basico)* that requires foreign companies to fulfil the minimum percentage of the local component in order to satisfy certain value local content requirement during the product development

and production process. This requirement is the same as the requirement imposed by Indonesia's government in the LCR regulation. In 2013, the Ministry of Communication of Brazil issued the Portaria no 87 that grants tax exception for eligible smartphone products including pre-loaded applications that are developed locally in Brazil. This tax exception is applied to decrease the smartphone price by up to 30%. Moreover, some regulations also require or give preference for local production of ICT product and services, especially for public/government procurement, including certification program (CERTICS). This program aims to support the development of local software. The requirement to develop local software applied by Brazil's government is also comparable with the requirement that Indonesia's government applies in the LCR regulation.

Lastly, India's government has formulated the National Telecom Roadmap to provide a regulatory framework for India's economic development in 2015. The LCR regulation is implemented in India in order to give the privilege to the local manufacture. This roadmap especially comprises 2 (two) objectives and strategies of NTP:

1. Promoting the ecosystem design, Research, and Development (R&D), IPR development, testing, standardizing and targeting India's manufacture on telecommunication sector for up to 60% in 2017, and 80% in 2020.
2. Providing preference for telecommunication products that are produced locally in India, especially for telecommunication products related to national security, and telecommunication products procured by the government for its own use while maintaining consistency with WTO commitment.

Comparing to the LCR threshold, Indonesia's LCR regulation threshold is 30% which is lower than India's LCR threshold. The implementation of the LCR regulation in India also covers the telecommunication products related to national security, while Indonesia's LCR regulation only cover for the commercial telecommunication and ICT products that use 4G LTE technology.

In conclusion, the implementation of the LCR regulation is likely more applied in developing countries, such as Indonesia, India, Brazil, and Nigeria. The objectives of the LCR implementation in those countries are similar to promote the added-value for the local companies, increase employment and investment. The mechanisms to comply with the LCR regulation is also similar, for instance in China, the mechanism covers the requirement of the joint venture and knowledge transfer. In Nigeria, the LCR regulation focus on the IPRs, software development, and investment growth. While in Brazil, the LCR regulation is applied by giving the privilege to the international companies with tax incentive facility in order to attract more investors. This tax exception is given to companies that produce the smartphone in Brazil. Software development is also the main concern for Brazil's government. In India, the LCR regulation covers the IPRs, R&D, and manufacturing of telecommunication products including the national security telecommunication devices. In Indonesia, all these LCR are also similar, however, there are slightly different on the LCR coverage, for instance, Indonesia's LCR does not cover the security telecommunication devices, and there is direct investment mechanism that can be chosen by international companies besides manufacturing cooperation and development and application cooperation.

Chapter 6 Indonesia's LCR Regulation – Agenda-setting and Implementation in the National Telecommunication and ICT Industry

In this chapter, the findings for the first research question of *what was the agenda-setting process and the problem identified by the Government of Indonesia that the LCR regulation responds to and what policy is proposed through this regulation?* will be delivered. This question covers the analysis of the problem, policy procedure, and the political environment in the formulation of the LCR regulation by utilizing Kingdon's multiple-streams approach that can be elaborated as follows:

6.1 Problem Stream: The Urgency to implement the LCR Regulation

According to MCIT, the main factor that triggers MCIT to implement the LCR regulation is the high trade balance deficit in telecommunication and ICT devices. This high trade balance deficit is the consequence of high dependency of Indonesia's telecommunication and ICT industry with the foreign companies. The high demand for telecommunication and ICT devices in Indonesia's market is not supported by the growth and capability of local industry to produce reliable devices. This situation makes Indonesia relied more on the importation rather than utilizing the local production. This situation makes the import values were much higher than the export values. According to the report issued by the Directorate General of Post and Informatics Resources, MCIT, the fulfilment of the high demand for telecommunication and ICT products from 2008 to 2015 still relied on imported products that are shown in figure 10 below. This situation is reflected by the high number of imported foreign ICT and telecommunication products. The table below shows the comparison between the number of exportation and importation of ICT and telecommunication products. According to statistic data published by MCIT (MCIT, 2015), during 2008-2015, the importation trend was relatively high with the highest number of more than USD 8.8 billion in 2014. Whereas, the exportation growth was relatively low that reach around 1.1 billion with the highest number of USD 2.6 billion in 2011. According to this data, Indonesia experienced a trade deficit in the telecommunication sector with the highest trade deficit was in 2014, around USD 7.7 billion.

Tahun	Ekspor	Impor
	Nilai (US\$)	Nilai (US\$)
2008	1.044.207.325	1.130.915.894
2009	1.886.732.217	2.503.657.803
2010	2.310.105.995	3.619.695.162
2011	2.681.090.192	4.246.802.605
2012	1.284.076.360	3.893.405.777
2013	1.115.003.309	4.058.390.415
2014	1.128.086.153	8.814.272.812
2015	1.659.538.464	5.979.863.039

Figure 10. Data of Import and Export of Telecommunication and ICT Devices
(source: BPS and Ministry of Trade)

Furthermore, Indonesia's telecommunication industry ecosystem is still weak. There is no local manufacturer that can produce the component and assembly of the telecommunication and ICT devices. The combination of the trade balance deficit due to the overwhelming number of imported ICT and telecommunication products, especially smartphone, computer, and other products related to the ICT equipment as well as the incapability of local industry to produce the telecommunication and ICT devices, has made Indonesia's telecommunication and ICT industry depends on international companies, such as Samsung, Huawei, and Apple to accommodate the high demand for telecommunication and ICT devices.

According to (EMarketer, 2015), an independent company that carries out research on the digital market, media, and trade, the number of smartphone users in Indonesia by 2014 was 44.7 million. Based on data provided in figure 11, It was predicted that by 2019 the number of smartphones users would reach approximately 92 million users in Indonesia with the predicted smartphone user penetration from 32.6% in 2014 to 47.6% in 2019.

Smartphone Users and Penetration in Asia-Pacific, by Country, 2014-2019 millions and % of mobile phone users							Smartphone Users and Penetration in Asia-Pacific, by Country, 2014-2019 millions and % of mobile phone users						
	2014	2015	2016	2017	2018	2019		2014	2015	2016	2017	2018	2019
Smartphone users (millions)							Smartphone user penetration (% of mobile phone users)						
China*	482.7	525.8	563.3	599.3	640.5	687.7	Singapore	83.1%	85.2%	86.3%	87.2%	88.0%	88.9%
India	123.3	167.9	204.1	243.8	279.2	317.1	Taiwan**	77.5%	83.1%	86.8%	89.3%	91.3%	92.5%
Indonesia	44.7	55.4	65.2	74.9	83.5	92.0	South Korea	79.5%	82.3%	84.3%	86.0%	87.6%	88.4%
Japan	46.2	51.8	55.8	58.9	60.9	62.6	Hong Kong	76.6%	80.7%	84.0%	85.9%	87.2%	88.3%
South Korea	32.2	33.6	34.6	35.6	36.5	37.0	Australia	74.3%	78.4%	81.0%	82.6%	83.6%	84.3%
Philippines	21.8	26.2	29.9	33.3	36.5	39.2	New Zealand**	65.2%	74.3%	79.0%	81.5%	83.0%	83.9%
Vietnam	16.6	20.7	24.6	28.6	32.0	35.2	China*	48.1%	50.9%	53.3%	56.0%	59.3%	63.3%
Thailand	15.4	17.9	20.0	21.9	23.4	24.8	Japan	44.0%	48.9%	52.4%	55.1%	56.9%	58.4%
Taiwan**	15.1	16.4	17.2	17.8	18.3	18.6	Malaysia	42.6%	46.6%	49.2%	51.3%	54.3%	57.3%
Australia	13.5	14.6	15.4	16.0	16.5	16.8	Thailand	34.9%	39.2%	42.8%	45.8%	48.1%	50.0%
Malaysia	8.9	10.1	11.0	11.8	12.7	13.7	Indonesia	32.6%	37.1%	40.4%	43.2%	45.4%	47.6%
Hong Kong	4.4	4.8	5.0	5.2	5.3	5.4	Philippines	32.0%	36.6%	40.0%	43.1%	46.1%	48.4%
Singapore	3.8	4.0	4.2	4.3	4.4	4.6	Vietnam	30.4%	36.2%	41.5%	46.8%	50.9%	54.6%
New Zealand**	2.3	2.7	2.9	3.1	3.2	3.3	India	21.2%	26.3%	29.8%	33.4%	36.0%	39.0%
Other	57.1	72.1	86.6	100.4	113.3	125.4	Other	20.9%	24.8%	28.0%	30.7%	32.7%	34.3%
Asia-Pacific	888.0	1,023.9	1,139.8	1,254.7	1,366.3	1,483.4	Asia-Pacific	37.3%	40.8%	43.6%	46.2%	48.7%	51.5%

Note: individuals of any age who own at least one smartphone and use the smartphone(s) at least once per month; *excludes Hong Kong; **forecast from Nov 2015
Source: eMarketer, July 2015

Note: individuals of any age who own at least one smartphone and use the smartphone(s) at least once per month; *excludes Hong Kong; **forecast from Nov 2015
Source: eMarketer, July 2015

Figure 11 e-Marketer's forecasting for smartphone user (source: e-Marketer)

This high demand for smartphone devices, however, is not supported by the growth of local industry in the telecommunication and ICT sector. Indonesia still relies on imported products. According to the report issued by the Directorate General of Post and Informatics Resources, MCIT, the fulfilment of the high demand for telecommunication and ICT products from 2008 to 2015 still relied on imported products that are shown in figure 8 below. This situation is reflected

by the high number of foreign ICT and telecommunication product importation. The table below shows the comparison between the number of exportation and importation of ICT and telecommunication products. According to statistic data published by MCIT(MCIT, 2015), during 2008-2015, the importation trend was relatively high with the highest number of more than USD 8.8 billion in 2018. Whereas, the exportation growth was relatively low that reach around 1.1 billion with the highest number of USD 2.6 billion in 2011. According to this data, Indonesia experienced a trade deficit in the telecommunication sector with the highest trade deficit was in 2014, around USD 7.7 billion.

By experiencing the high trade balance deficit and lack of local industry capabilities to produce the local brand devices, therefore, Indonesia's government sees the urgency to overcome this high trade balance issue immediately. Since the government sees that the high trade balance trend had been lasting for more than 8 years, there is the urgency to bring the trade balance in the positive track. The government consider the necessity to formulate the policy or regulation that can reduce the number of import value and bring the added-value to local industry in order to enhance the local industry capability that leads to the increase of export value, and the ability to supply the increasing demand of telecommunication and ICT devices as predicted by e-Marketer.

6.2 Policy Stream: The Selecting Process and Formulation Process of Alternatives

6.2.1 The Process of Alternative Selection

To formulate the policy or regulation to overcome the high trade balance deficit, MCIT as the regulator that deals with the telecommunication and ICT industry started the discussion internally that involves the relevant divisions. At the end of 2014, MCIT started to conduct the meeting and FGD to facilitate the discussion. The meeting was led by the Directorate of Standardization with the participant from Directorate of Telecommunication, Law Bureau, and International Affairs Center, including the representative from the Ministry of Industry and Ministry of Trade, as well as the companies, association, and academics. According to respondent 2 as Head of ICT investment in Multilateral Forum of MCIT and respondent 1 as Head of Information and Data of Post, Telecommunication, and Informatics Devices of Directorate Standardization of MCIT, the government considered 2 (two) most possible alternatives that could be proposed to overcome the high trade balance deficit. These alternatives are the regulation to implement the high import duties and LCR regulation.

During the series of FGDs, LCR regulation was chosen as a preferred alternative rather than the regulation of high importation duties. According to respondent 2, the reasons why this high importation duties regulation was not selected is, first, the foreign companies would pay tariff at any cost to market or import their products to Indonesia considering Indonesia's big market. Second, companies also consider high consumptive habit of Indonesian people that make products to be easily sold. Third, companies also considered the fact that besides having a big market, Indonesia's local industry is still infant. Having less competition in the market, the companies confident that even with the implementation of high import duties regulation, their products are still saleable. The fourth reason is since Indonesia has ratified the Information Technology Agreement (ITA) with

Singapore that regulates the import duties of all electronic devices originated from Singapore is free, the implementation of high import duties regulation will not be considered effective to reduce the import value. It is because, even if the products originate from China, the US or Europe, but when products entering Indonesia's market through Singapore, products will also be free of charge.

All these reasons made the option of implementing LCR regulation to be better than high import duties. The LCR regulation satisfies the criteria to survive as mentioned by Kingdon, the technical feasibility, and value acceptability. In terms of technical feasibility, the government believes that this LCR regulation can be implemented successfully and tackle the problem of high trade balance deficit. While the value acceptability indicates the policy communities can accept the LCR regulation as the alternative to reduce the high trade balance deficit. Through LCR regulation, the companies that want to import or market their products in Indonesia need to utilize a certain level of local resources, such as local labor, raw material, and supporting component. Failing to comply with the LCR regulation make these companies cannot carry out importation because this LCR regulation is obligatory. By complying with this LCR regulation, companies would establish cooperation with local industries, for instance, building a factory or establishing joint-cooperation with a local company for products assembly. This is expected to not only reduce the import value but also increase the export value because the production basis of final products of these companies would be moved to Indonesia. LCR regulation implementation is also considered to be able to facilitate knowledge transfer when local labors are hired by these companies.

MCIT as the policy entrepreneur took the action of softening up to policy communities over the LCR regulation as the alternative to solve the trade balance deficit. MCIT persuaded all companies to accept this alternative and heard their responses to this alternative. The companies accepted the LCR regulation as the alternative with the condition of the weight of LCR should be reduced to 20% for the first implementation during 2016 as previously proposed 30%. The government agreed for 20% of LCR weight until the end of 2016. However, the government wants to increase the weight to 30% by January 2017. Then, the companies agreed for this condition. With this involvement and agreement of all policy communities, both from inside and outside the government, the LCR regulation was drafted and then issued by the Minister of MCIT in 2015.

By considering those reasons, MCIT chose LCR regulation as a selected alternative to solve the problem of high trade balance deficit. Indonesia's government believes that by implementing the LCR regulation can bring a positive impact to the trade balance and strengthen the local industry capability. The process of drafting process of LCR regulation in internal MCIT will be delivered in the next subsection.

6.2.2 The Process of Alternative Formulation

The process of a formulation of ministerial regulation on LCR is based on the Circular Letter of Secretary General of MCIT. The formulation of LCR regulation is initiated by the Directorate of Standardization. The Directorate of

Standardization became the initiator for this LCR regulation because this directorate is responsible to regulate the standardization, specification, and other technical requirements for telecommunication and ICT devices that are marketed in Indonesia. The formulation of regulation should be based on the study analysis of the urgency to regulate Ministerial Regulation. The study analysis was done through meetings and FGDs that engaged relevant stockholders, such as internal governmental institution, private sectors, and associations.

The formulation of the LCR regulation was initiated by MCIT. This regulation was first intended only to oblige cooperation in the hardware/manufacturing cooperation because the high import value came from the high import of devices. Private sectors then suggested that this regulation should have been more specified to only cover the telecommunication and ICT devices using 4G LTE technology, rather than all ICT and telecommunication devices.

During the formulation process, MCIT proposed to set 30% weight for LCR compliance. However, the private sectors suggested that the 30% weight of LCR compliance would be difficult to satisfy since the compliance to LCR regulation requires the establishment of cooperation with local industry. At that time, the international companies had not known yet about the readiness of local industry to support the implementation of this LCR regulation. Also, the foreign companies needed time to adopt this regulation since this regulation would affect their business process from mainly focusing on the importation to supply the market's demands to moving out production to Indonesia. By considering this circumstance and with the intention to provide a win-win solution, MCIT as policy maker agreed to reduce the weight for LCR compliance to 20% in 2016 after the regulation was issued. The weight would then be increased to 30% by January 2017. With this proposal, all stakeholder agreed with the content of LCR regulation.

After having agreement on the content of this LCR regulation, Directorate of Standardization delivered the initiative concept of this ministerial regulation to the Secretary-General. The draft was further discussed with other relevant divisions, such as Legal Bureau, Directorate of Telecommunication, International Affairs Center, academics, and associations.

Directorate of Standardization then sent the official memo for the harmonization process, and strengthening the conception of the draft of Ministerial Regulation of LCR to the Legal Bureau, and sent the copy to the Secretary-General. Legal Bureau then carried out the harmonization and strengthening conception of the draft of Ministerial Regulation with relevant divisions inside the ministry. After harmonization process, this draft went to public test through MCIT official website and meeting with the stakeholders to receive inputs from stakeholders.

Once feedbacks have been gathered from the public, the Directorate General of Post and Informatics Resources as the echelon I from Directorate of Standardization, approved the draft and request the signing of the draft to the Minister. The Minister signed this draft and the Ministerial Regulation on LCR was ready for implementation.

6.3 Political Stream: Political Environment that Supports the LCR Regulation as the Solution

The formulation of this LCR regulation was started with meetings and FGDs that involved the relevant stakeholders. The meeting was initiated at the end of 2014 after Joko Widodo (Jokowi) become the president of Indonesia. Jokowi took the helm of leadership on 20 October 2014. To run his cabinet, Jokowi appointed Rudiantara as the new Minister of MCIT that took the office since 27 October 2014.

Before being elected as the new president of Indonesia, during the campaign, Jokowi promised to increase the economic resilience and reduce the dependency to importation. This political promise is written in the document called “NAWACITA” (JK, 2014). The enactment of LCR regulation after Jokowi became the president is considered timely because the spirit of LCR regulation is in line with Jokowi’s promise and thus, may accelerate the approval and support from the president.

Furthermore, during the formulation of Ministerial Regulation, MCIT involved relevant stakeholders to get ideas, and inputs to build the conception of the ministerial regulation draft. Nevertheless, the authority to issue the ministerial regulation only lies in the hand of the minister. The formulation and approval processes were done in the internal MCIT. The draft of ministerial regulation does not require approval from parliament that consists of politicians because the level of the regulation is secondary to Law and only requires the involvement of the government in its whole formulation process. The formulation process was thus simple because it did not need the coalition form politicians to achieve the agreement for the ministerial regulation draft.

Therefore, according to respondent 1 and 2, the formulation process of Ministerial Regulation of LCR can be done quickly. Bearing in mind that the discussion for LCR regulation initiative was only started by the end of 2014, and was already signed by the minister in July 2015. The respondent 2 also said that this LCR regulation can be swiftly implemented since Indonesia’s government gave serious consideration on the issue of high trade balance deficit as an urgent problem that required a rapid and effective solution. Based on this serious consideration, MCIT together with relevant stakeholders worked intensively to formulate the LCR regulation. Moreover, the political environment also supported the formulation of this LCR regulation since this regulation was formulated right after the presidential election and this regulation is in line with one of the priority programs of the elected president.

Chapter 7 The Implementation of Indonesia's LCR Regulation in relation to the Trade Balance on ICT

In this chapter, the finding over the research question on **how does the implementation of the LCR regulation relate to the objective of improving the trade balance?** will be delivered. This finding covers the influence of LCR regulation on the trade balance of the telecommunication and ICT devices using 4G LTE technology, and the local software and game industry development. the researcher identified the following hypotheses:

H0: the LCR regulation may not contribute to the trade balance trend

H1: the LCR regulation may contribute to the decrease of import value

H2: the LCR regulation may contribute to the increase of export value

H3: the LCR regulation may contribute to the positive trade balance

7.1 Implication to Indonesia's import value in 4G LTE products

Based on the trade balance data that comprises the import and export values, and trade deficit values of telecommunication and ICT devices using 4G LTE technology provided by Ministry of Trade, the researcher tries to identify the correlation of the implementation of LCR regulation with trade balance. This section will focus on the analysis of import value trends from 2009 to 2017. The data analysis uses the linear model (regression) to see the different trend before and after the LCR regulation is implemented.

In this analysis, the researcher uses the import data as the dependent variable, while Month (2009-2017) and LCR regulation intervention as the independent variables. The categorical data is used to identify the dummy in which 0=before LCR implementation, and 1=after the LCR implementation. The regression formula used in this analysis is the following:

Linear Regression Formula:

$$Y^i = a + b_1x_1 + b_2x_2$$

The formula to find a value:

$$a = \frac{(\sum y)(\sum x^2) - (\sum x)(\sum xy)}{n(\sum x^2) - (\sum x)^2}$$

The formula to find b value:

$$b = \frac{n(\sum xy) - (\sum x)(\sum y)}{n(\sum x^2) - (\sum x)^2}$$

In this analysis, the hypothesis is stipulated beforehand. H0 = the LCR regulation may not contribute to the trade balance trend. While H1 = the LCR regulation may contribute to the decrease of import value. To test the hypothesis, the researcher begins with the test on the H0 as the standard in statistical analysis. Afterward, the hypothesis H1 is generated while the H0 is rejected. The test is performed by utilizing the IBM SPSS application.

First, to understand the correlation between the dependent and independent variables, the Pearson Correlation Coefficient is applied to see the strength of a linear relationship between these variables, that can be seen in table 2:

		Import	Month	Intervention
Pearson Correlation	Import	1.000	-.423	-.753
	Month	-.423	1.000	.776
	Intervention	-.753	.776	1.000
Sig. (1-tailed)	Import	.	.000	.000
	Month	.000	.	.000
	Intervention	.000	.000	.
N	Import	108	108	108
	Month	108	108	108
	Intervention	108	108	108

Table 2. The Correlation of The LCR Regulation Intervention, Month, and Import Value (*source: author*)

Based on the result, there is a significant correlation between import as the dependent variable, and Month and LCR intervention as independent variables, with the Pearson correlation values (Month: $r=-0.423$, $N=108$, $p<0.01$) and (LCR intervention: $r=-0.753$, $N=108$, $p<0.01$). Therefore, the researcher rejected the null hypothesis. However, according to (Masyitah, 2018), the absolute value of $r=0.313$ is categorized as a weak relationship. This means that the r -value for Month variable = -0.423 which is <0.5 , is considered as a weak relationship with the import trend, while the r value for LCR intervention = -0.753 , is considered as a strong relationship with the import trend. Moreover, the tendency of negative correlation among these variables also corresponds to the scatterplot result that is shown in figure 12. Hence, the implementation of LCR regulation is correlated with the import values trends. This result supports the hypothesis (H1) that *the LCR regulation may contribute to the decrease of import values*. Therefore, the H1 hypothesis is accepted.

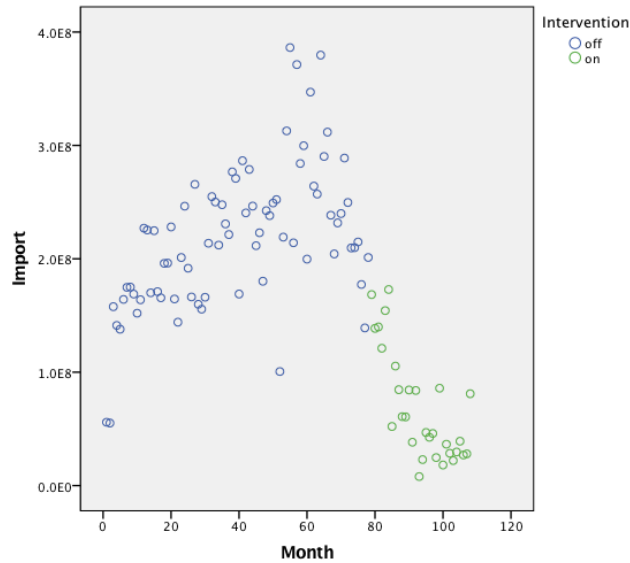


Figure 12. The Scatterplot of LCR Regulation Intervention, Month, and Import Value (source: author)

To understand the influence of LCR intervention and Month to the import value trend, the researcher applied the regression analysis, and Analysis of Variance (ANOVA) that shows in table 3 below:

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.447E+17	2	2.724E+17	89.832	.000 ^b
	Residual	3.183E+17	105	3.032E+15		
	Total	8.631E+17	107			

a. Dependent Variable: Import

b. Predictors: (Constant), Intervention, Month

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	172906023	12331917.1		14.021	.000
	Month	1157013.67	269362.385	.403	4.295	.000
	Intervention	-2.127E+8	18748533.0	-1.066	-11.344	.000

a. Dependent Variable: Import

Table 3. ANOVA and Regression Linear of LCR Regulation Intervention, Month, and Import Value (source: author)

Based on the results of ANOVA, it shows that the data of import value was significantly different among Month and LCR interventions. It can be seen from P-value <0.01. From the coefficients table, it can be seen the result of T-test conducted to identify the influence of among variables that the Month variable and LCR regulation intervention variable give significant effect to the import value with P<0.01. Therefore, the results ANOVA and T-test support the rejection of the null hypothesis. Moreover, the regression predicts the import value with the formula $y=172906023+1157013.67(\text{Month})-2.127E+8$ (LCR intervention).

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.794 ^a	.631	.624	55062705.4	.631	89.832	2	105	.000

a. Predictors: (Constant), Intervention, Month

Table 4. Model Summary of LCR Regulation Intervention, Month, and Import Value (source: author)

Furthermore, the result of table 4 shows the R square=0.631. This R square value presents that 63% of the import value trend can be explained by Month and intervention of LCR regulation, while the remaining 27% will be explained by other variables. Therefore, the H1 hypothesis is considered acceptable.

7.2 Implication to Indonesia's export values in 4G LTE products

Based on the trade balance data provided by the Ministry of Trade, we can see the number of export values of telecommunication and ICT devices using 4G LTE technology that can be used to identify the correlation of the implementation of this LCR regulation with the export values. This section will focus on the analysis of export value trends from 2009 to 2017. The data analysis uses the linear model (regression) to see the different trend before and after the LCR regulation is implemented.

In this analysis, the researcher uses the export data as the dependent variable, while Month and LCR regulation intervention are used as independent variables. The categorical data is used to identify the dummy in which 0=before LCR implementation, and 1=after the LCR implementation. Moreover, the hypothesis is stipulated beforehand. H0 = there is no significant correlation between the independent and dependent variable. While H1 = there is a significant correlation between the independent and dependent variable. To test the hypothesis, the researcher begins with the test on the H0 as the standard in statistical analysis. Afterward, the hypothesis H1 is generated while the H0 is rejected. The test is performed by utilizing the IBM SPSS application.

First, to understand the correlation between the dependent and independent variables, the Pearson Correlation Coefficient is applied to see the strength of a linear relationship between these variables, that can be seen in table 5:

Correlations

		export	Month	Intervention
Pearson Correlation	export	1.000	.456	.212
	Month	.456	1.000	.776
	Intervention	.212	.776	1.000
Sig. (1-tailed)	export	.	.000	.014
	Month	.000	.	.000
	Intervention	.014	.000	.
N	export	108	108	108
	Month	108	108	108
	Intervention	108	108	108

Table 5. The Correlation of The LCR Regulation Intervention, Month, and Export Value (*source: author*)

Based on the result, there is a significant correlation between export as the dependent variable, and Month and LCR intervention as independent variables, with the Pearson correlation values (Month: $r=0.456$, $N=108$, $p<0.01$) and (LCR intervention: $r=0.212$, $N=108$, $p<0.05$). Therefore, the researcher rejected the null hypothesis. There is a tendency of positive correlation that means the increase of LCR regulation intervention and Month correspond with the increase of export values. However, according to (Masyitah, 2018), the absolute value of $r=0.313$ is categorized as a weak relationship. Thus, the r -value for Month variable = 0.456 which is <0.5 , is considered as a weak relationship with the export trend, and the r -value for LCR intervention = 0.212 , is considered also as a weak relationship with the export trend. Moreover, the tendency of this positive correlation among these variables also corresponds to the scatterplot result that is shown in figure 13. Although there are weak relationships between the independent variables and the dependent variable, the implementation of LCR regulation is still considered to have the contribution to the export values trends. This result supports the hypothesis (H1) that *the LCR regulation as the independent variable may contribute to the increase of export values*. Therefore, H1 hypothesis is considered acceptable.

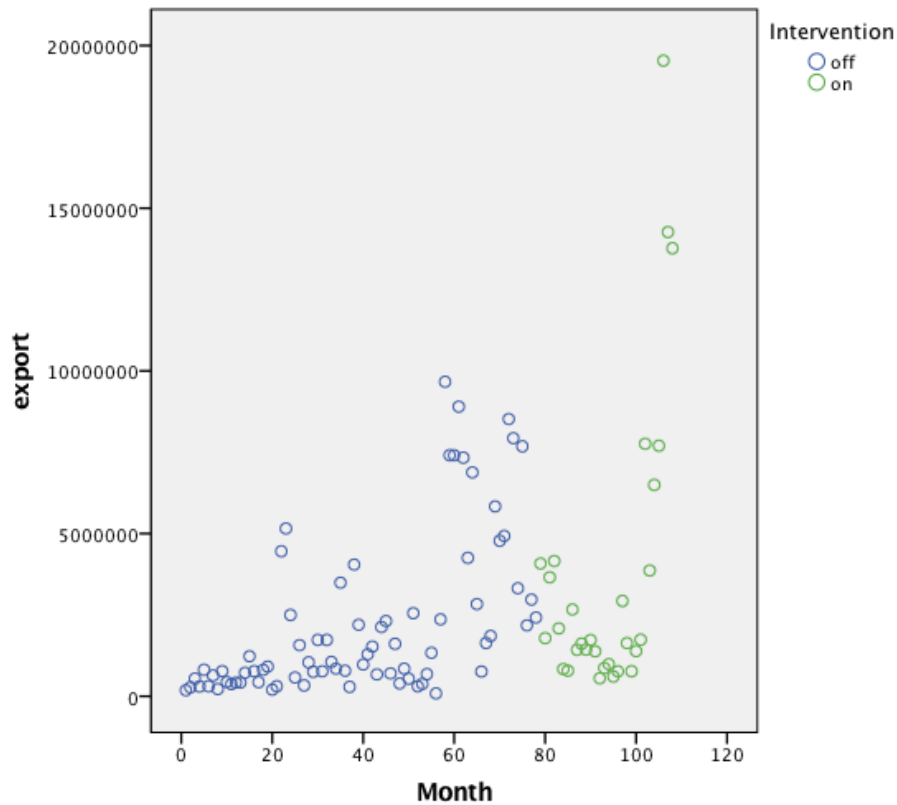


Figure 13. The Scatterplot of LCR Regulation Intervention, Month, and Export Value (source: author)

To understand the influence of LCR intervention and Month to the export value trend, the researcher applied the regression analysis, and ANOVA that shows in table 6 below:

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.952E+14	2	1.476E+14	18.289	.000 ^b
	Residual	8.473E+14	105	8.069E+12		
	Total	1.142E+15	107			

a. Dependent Variable: export

b. Predictors: (Constant), Intervention, Month

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-779660.08	636200.786		-1.225	.223
	Month	76406.773	13896.344	.732	5.498	.000
	Intervention	-2588492.9	967232.533	-.356	-2.676	.009

a. Dependent Variable: export

Table 6. ANOVA and Regression Linear of LCR Regulation Intervention, Month, and Import Value (source: author)

Based on the results shown by table 6, the ANOVA table shows that the data of export value was significantly different among Month and LCR interventions. It can be seen from P-value <0.01. Although the intercept in this model is not significant (P=0.223), our predictors show a significant relation to export value which is P < 0.01. Moreover, the regression model predicts the import value with the formula $y = -779660.08 + 76406.773(\text{Month}) - 25888492.9(\text{LCR intervention})$.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.508 ^a	.258	.244	2840672.39	.258	18.289	2	105	.000

a. Predictors: (Constant), Intervention, Month

Table 7. Model Summary of LCR Regulation Intervention, Month, and Export Value (source: author)

Based on the result shown by table 7, the R square=0.258. This R square value presents that 25.8% of the export value trend can be explained by the LCR regulation, while the remaining 74.2% will be explained by other variables. Based on this result, the implementation of LCR regulation as the independent variable may contribute around 25.8% to the increase of export values. Although this percentage is very low, there is still correlation of LCR regulation with the export trend. Therefore, the H1 hypothesis is considerably accepted.

7.3 Implication to Indonesia's trade balance deficit in 4G LTE products

The trade balance deficit values are obtained from the difference value of export and import values. To find out how far the LCR regulation contributes to the positive trade balance as the H1, the researcher conducts similar tests that were done with the import and export values in the previous sections.

In this analysis, the researcher uses the trade balance deficit data as the dependent variable, while Month and LCR regulation intervention as the independent variables. The categorical data is used to identify the dummy in which 0=before LCR implementation, and 1=after the LCR implementation. All tests are conducted by utilizing the IBM SPSS application.

First, to understand the correlation between the dependent and independent variables, the Pearson Correlation Coefficient is applied to see the strength of a linear relationship between these variables, that can be seen in table 8:

Correlations

		Trade_balan ce	Month	Intervention
Pearson Correlation	Trade_balance	1.000	.439	.758
	Month	.439	1.000	.776
	Intervention	.758	.776	1.000
Sig. (1-tailed)	Trade_balance	.	.000	.000
	Month	.000	.	.000
	Intervention	.000	.000	.
N	Trade_balance	108	108	108
	Month	108	108	108
	Intervention	108	108	108

Table 8. The Correlation of The LCR Regulation Intervention, Month, and Trade Balance Deficit (*source: author*)

Based on the result, there is a significant correlation between trade balance deficit as the dependent variable, and Month and LCR intervention as independent variables, with the Pearson correlation values (Month: $r=0.439$, $N=108$, $p<0.01$) and (LCR intervention: $r=0.758$, $N=108$, $p<0.01$). Therefore, the researcher rejected the null hypothesis. There is a positive correlation among variables that means while the Month and LCR regulation intervention increasing, then the trade balance deficit becomes positive. However, the r -value for Month variable = 0.439 which is <0.5 , is considered as a weak relationship with the trade balance trend, while the r value for LCR intervention = 0.758, is considered as a strong relationship with the trade balance trend. Moreover, the tendency of positive correlation among these variables also corresponds to the scatterplot result that is shown in figure 14. Hence, the implementation of LCR regulation is correlated with the trade balance trend. This result supports the hypothesis (H1) that *the LCR regulation may contribute to the positive trade balance*. Then, the H1 hypothesis is accepted.

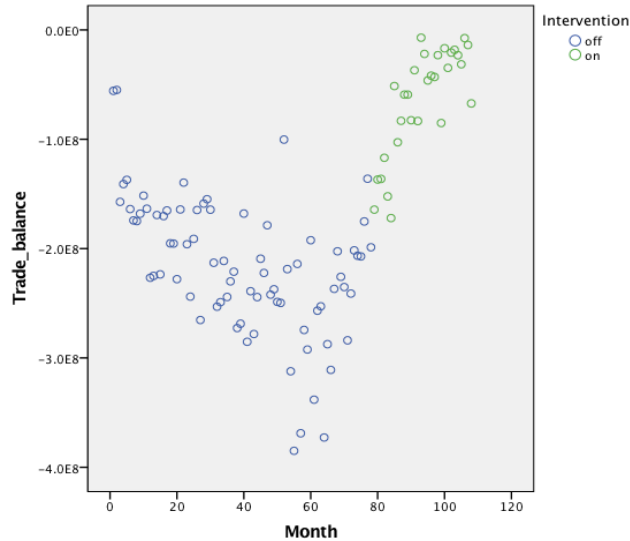


Figure 14. The Scatterplot of LCR Regulation Intervention, Month, and Trade Balance Value (source: author)

To understand the influence of LCR intervention and Month to the trade balance value trend, the researcher applied the regression analysis, and ANOVA that shows in table 9 below:

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.476E+17	2	2.738E+17	89.961	.000 ^b
	Residual	3.196E+17	105	3.044E+15		
	Total	8.672E+17	107			

a. Dependent Variable: Trade_balance

b. Predictors: (Constant), Intervention, Month

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.737E+8	12355987.7		-14.057	.000
	Month	-1080606.9	269888.152	-.376	-4.004	.000
	Intervention	210088112	18785128.1	1.050	11.184	.000

a. Dependent Variable: Trade_balance

Table 9. ANOVA and Regression Linear of LCR Regulation Intervention, Month, and Trade Balance Value (source: author)

Based on the results of ANOVA shown in table 9, the data of trade balance values were significantly different among Month and LCR interventions. It can be seen from P-value <0.01. From the coefficients table, it can be seen that the result of T-test that the effect of both Month variable and LCR regulation intervention variable (defined as intercept) give significant effect to the trade

balance value with $P < 0.01$. Therefore, the results ANOVA and T-test support the rejection of the null hypothesis. Moreover, the regression model predicts the trade balance value with the formula $y = -1.737E+8 - 1080606.9(\text{Month}) + 210088112(\text{LCR intervention})$.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.795 ^a	.631	.624	55170181.9	.631	89.961	2	105	.000

a. Predictors: (Constant), Intervention, Month

Table 10. Model Summary of LCR Regulation Intervention, Month, and Import Value

Furthermore, the result of table 10 shows the R square=0.631. This R square value presents that 63% of the trade balance trend can be explained by the LCR regulation, while the remaining 27% will be explained by other variables. Based on this result, the implementation of LCR regulation may contribute around 63% to the positive trade balance. Therefore, the H3 is accepted.

Based on the tests that have been conducted, the results show that the implementation of LCR regulation has contribution around 63% with the decreasing trend of import values, also 63% with the positive trade balance trends. Whereas, the LCR regulation has a weak contribution, around 25.8%, with the increasing trend of export values.

7.4 The Import, Export, and Trade Balance Trends identified from other Variables

In this section, the researcher also considers other factors that may influence the import, export, and trade balance trends. The factors that are being discussed comprise GDP, inflation, and exchange rate. The researcher obtains these data from Bank of Indonesia, Indonesia's Statistics Bureau, and the World Bank. Although these data are provided in annual basis rather than monthly basis, these data are useful to identify how far they may influence the import, export, and trade balance trends, that are shown in table 11:

year	import	export	trade balance deficit (E-I)	GDP	Inflation	BI rate
2009	1,773,966,846	5,284,808	-1,768,682,038	539.58	2.78	7.15
2010	2,333,522,943	17,912,817	-2,315,610,126	755.09	6.96	6.50
2011	2,514,484,687	14,686,084	-2,499,798,603	892.97	3.79	6.58
2012	2,847,491,224	18,134,310	-2,829,356,914	917.87	4.30	5.77
2013	3,127,329,447	33,564,914	-3,093,764,533	912.52	8.38	6.48
2014	3,302,684,556	58,510,728	-3,244,173,828	890.81	8.36	7.54
2015	2,047,337,552	43,100,412	-2,004,237,140	860.85	3.35	7.52
2016	690,297,998	14,822,634	-675,475,364	932.26	3.02	6.00
2017	466,619,547	81,855,481	-384,764,066	1015.54	3.81	4.56

Table 11. Table of Import, Export, Trade Balance, GDP, Inflation, and Exchange Rate (source: Bank of Indonesia, Indonesia's Statistics Bureau, and the World Bank)

Based on the data provided in table 11, they are analyzed by using SPSS application to discover the correlation of each other. The analysis result is shown in table 12:

		import	year	LCR_interven tion	GDP	inflation	BI_Rate
Pearson Correlation	import	1.000	-.484	-.789	-.116	.684	.574
	year	-.484	1.000	.822	.778	-.091	-.398
	LCR_intervention	-.789	.822	1.000	.429	-.520	-.342
	GDP	-.116	.778	.429	1.000	.150	-.536
	inflation	.684	-.091	-.520	.150	1.000	.234
	BI_Rate	.574	-.398	-.342	-.536	.234	1.000
Sig. (1-tailed)	import	.	.093	.006	.384	.021	.053
	year	.093	.	.003	.007	.408	.144
	LCR_intervention	.006	.003	.	.124	.076	.184
	GDP	.384	.007	.124	.	.350	.068
	inflation	.021	.408	.076	.350	.	.273
	BI_Rate	.053	.144	.184	.068	.273	.
N	import	9	9	9	9	9	9
	year	9	9	9	9	9	9
	LCR_intervention	9	9	9	9	9	9
	GDP	9	9	9	9	9	9
	inflation	9	9	9	9	9	9
	BI_Rate	9	9	9	9	9	9

Table 12. The Correlation of LCR intervention, Year, GDP, Inflation, and BI Rate to the Import Trend (source: author)

Based on the result shown by table 12, LCR intervention is significantly correlated with import ($P < 0.01$, and $r\text{-value} = -0.789$). There is a negative correlation between LCR intervention and import value that means if the LCR intervention continues to exist, then the import values are considered to decrease. Whereas, GDP is likely not correlated with the import trend by considering $P > 0.05$, and $r\text{-value} = -0.116$. However, according to Darwanto, the GDP factor can influence the demand of products because it shows the consumers affordability to get the products that they need. Indonesia's GDP trend during this period fluctuated but with the trend of increasing, that can be assumed that the consumer affordability also increased to buy the products, including the telecommunication and ICT devices. With the increasing consumer affordability, the import volume should also increase (Pradeksa & Darwanto, 2014).

Furthermore, the inflation is considered as the other factor that may influence the import trend with $P < 0.05$, and $r\text{-value} = 0.684$ that means inflation has a positive correlation with the import trend. If the inflation increases, then the import trend is considered to increase. This statement is supported by Fani and Dewi that said when inflation occurs, the domestic price will be higher than foreign price due to the increasing cost of local production so the local products are more expensive than foreign products. This condition makes local products less competitive in the global market (Fani & Putri, 2011). Since inflation affects the rising price of local products, there is a tendency that the import value will increase supply market demand with cheaper foreign products (Dewi, 2018).

While the exchange rate with $P = 0.053$ (almost equal with 0.05 as a significant level) and $r\text{-value} = 0.574$ is likely to have a slight correlation with import trend. According to (Pradeksa & Darwanto, 2014), If the rupiah exchange rate increase, this means that rupiah is stronger than dollar rate, and Indonesia has more money to carry out import.

Based on all of these conditions, it can be assumed that the dominant factors that may influence import trend are LCR intervention ($r\text{-value} = -0.789$), and inflation ($r\text{-value} = 0.684$), although the exchange rate is also considered to have low impact to the import trend ($r\text{-value} = 0.574$).

For the export trend, it is also analyzed with these data by utilizing the SPSS application, and the result of the analysis is shown in table 13:

		export	year	LCR_interven tion	GDP	inflation	BI_Rate
Pearson Correlation	export	1.000	.719	.438	.584	.248	-.307
	year	.719	1.000	.822	.778	-.091	-.398
	LCR_intervention	.438	.822	1.000	.429	-.520	-.342
	GDP	.584	.778	.429	1.000	.150	-.536
	inflation	.248	-.091	-.520	.150	1.000	.234
	BI_Rate	-.307	-.398	-.342	-.536	.234	1.000
Sig. (1-tailed)	export	.	.015	.119	.049	.260	.211
	year	.015	.	.003	.007	.408	.144
	LCR_intervention	.119	.003	.	.124	.076	.184
	GDP	.049	.007	.124	.	.350	.068
	inflation	.260	.408	.076	.350	.	.273
	BI_Rate	.211	.144	.184	.068	.273	.
N	export	9	9	9	9	9	9
	year	9	9	9	9	9	9
	LCR_intervention	9	9	9	9	9	9
	GDP	9	9	9	9	9	9
	inflation	9	9	9	9	9	9
	BI_Rate	9	9	9	9	9	9

Table 13. The Correlation of LCR intervention, Year, GDP, Inflation, and BI Rate to the Export Trend (*source: author*)

Based on the result shown in table 13, the data of LCR intervention, inflation, and exchange rate are weakly correlated with the export trend, that is shown with their respective conditions: LCR intervention: $P > 0.05$, $r\text{-value} = 0.438$, inflation: $P > 0.05$, $r\text{-value} = 0.248$, and exchange rate: $P > 0.05$, and $r\text{-value} = -0.307$. Nevertheless, GDP and year are likely to have a significant correlation with $P < 0.05$, and $r\text{-value} = 0.584$, and 0.719 respectively. From this result, it can be assumed that the factor that may influence the export trend is GDP, and over time, where there is an increase in export values trend, it can be considered that this is influenced by increased values in GDP. With the increasing of GDP, local companies' capability to carry out the production process to produce the products would be enhanced so that products can be exported to other countries (Adi, 2000).

In terms of trade balance, the deficit trend is also analyzed by using these data. The result of analysis can be seen in table 14 below:

		trade_balanc e	year	LCR_interven tion	GDP	inflation	BI_Rate
Pearson Correlation	trade_balance	1.000	.500	.796	.130	-.675	-.579
	year	.500	1.000	.822	.778	-.091	-.398
	LCR_intervention	.796	.822	1.000	.429	-.520	-.342
	GDP	.130	.778	.429	1.000	.150	-.536
	inflation	-.675	-.091	-.520	.150	1.000	.234
	BI_Rate	-.579	-.398	-.342	-.536	.234	1.000
Sig. (1-tailed)	trade_balance	.	.085	.005	.370	.023	.051
	year	.085	.	.003	.007	.408	.144
	LCR_intervention	.005	.003	.	.124	.076	.184
	GDP	.370	.007	.124	.	.350	.068
	inflation	.023	.408	.076	.350	.	.273
	BI_Rate	.051	.144	.184	.068	.273	.
N	trade_balance	9	9	9	9	9	9
	year	9	9	9	9	9	9
	LCR_intervention	9	9	9	9	9	9
	GDP	9	9	9	9	9	9
	inflation	9	9	9	9	9	9
	BI_Rate	9	9	9	9	9	9

Table 14. The Correlation of LCR intervention, Year, GDP, Inflation, and BI Rate to the Trade Balance Trend (*source: author*)

Based on the result on table 14, the trade balance trend is strongly correlated with the LCR intervention with $P < 0.01$ and $r\text{-value} = 0.796$. The other factors considered to have significant correlation are inflation with $P < 0.05$ and $r\text{-value} = -0.675$, and exchange rate with $P = 0.051$ (is almost equal with 0.05 as the significant level) and $r\text{-value} = -0.579$. From this result, the LCR intervention has a positive correlation with the trade balance deficit which means that the sustaining of LCR intervention will correspond to the positive trend of trade balance. Whereas, the inflation and exchange rate have a negative correlation that means if the inflation and exchange rate increase, then the trade balance will suffer from a negative trend. This is because inflation has a correlation with the possibility of increasing import value. Furthermore, the GDP and year are likely to not have a correlation with the trade balance trend with $P > 0.05$, and $r\text{-value} = 0.13$, and 0.50 respectively.

Chapter 8 The Implementation of Indonesia's LCR Regulation and The Perception of Stakeholders of the International Companies

This chapter contains the finding of the fourth research question of ***What is the perception of stakeholders of international companies on the LCR regulation?*** Based on the interviews that have been conducted to the telecommunication and ICT industry, some finding can be identified as follows:

8.1 The implementation and of LCR Regulation

During the implementation of this LCR regulation, the companies face some difficulties and challenges to comply with this regulation. These obstacles and challenges will be elaborated in next sub-section. To ensure the implementation of this LCR regulation to be productive in achieving its objective to reduce the trade balance deficit, it is important for the government to consider these obstacles and challenges. These obstacles and challenges are delivered by the companies as the feedback to the government over the implementation of LCR regulation as the government's program. This feedback is one of the elements in the problem stream as explained by Kingdon. Based on the interpretation of the government, these obstacles and challenges are recognized as the problem. In this occasion, the problem window opens due to the existence of feedback from the companies.

To response this problem, MCIT together with the Ministry of Industry, Ministry of Trade and other policy communities outside the government, such as companies, associations, and academics were invited to discuss the alternative as the solution to solve the problem. However, at that time, the Ministry of Industry took a lead for the discussion and facilitated the serial of meeting and FGD instead of MCIT. During the formulation of the regulation, the policy communities came up with the alternatives of application and development mechanism and investment mechanism to support the companies to comply with the LCR regulation that previously only manufacturer/hardware mechanism available. All policy communities agreed with these alternatives. Nevertheless, this regulation was issued by the Ministry of Industry rather than by MCIT. It is because MCIT focuses more on the initiator of LCR regulation formulation, rather than the development of the telecommunication and ICT industry, as well as the investment in this sector. Based on this jurisdiction, the Ministry of Industry issued the next ministerial regulation to support the companies to comply with LCR regulation. This occasion has been described by Kingdon called spillover. This spillover happens due to the precedence of the first formulation of LCR regulation. The open of the first policy window increase the probability to open the second policy window in the adjacent area that has a similar subject. With the similar support and climate in the political stream enables the Ministry of Industry as policy entrepreneur to seize the moment of coupling all streams in which the problem is recognized, the alternative is available attached to the problem with support from the political sphere.

8.2 The Perception of International Company to the Implementation of LCR regulation

Regarding the implementation of this LCR regulation, foreign companies are in support with Indonesia's government. One of the foreign companies perceives that this regulation is issued not to undermine business, but more to manage, and to make business more proper. This company follows and supports the objectives of the LCR regulation that include the employment of local talent/skilled-labor, and promotion of knowledge transfer so that Indonesia's local industry will be mature. This company understands its position in Indonesia market where the industry needs to support the government so that business can run well. This company supports Indonesia's government program in the implementation of this LCR regulation as long as the government provides a win-win solution that makes this company feasible to comply with this LCR regulation.

Moreover, according to one big foreign companies, they can help Indonesia's government to promote knowledge transfer through the establishment of the software and application Academy. This company believes that building its academy in Indonesia will help Indonesia's government to empower Indonesia's local industries and human resources to be more advanced and mature in software application development in the future. If local industries have attained this maturity level, there will be an enormous number of entrepreneurs on software application developments that will contribute to increase the national economic growth and provide more employment in Indonesia.

The companies can accept the implementation of this LCR regulation if the government can give more attention to the industry and maintain its consistency in providing legal certainty, regardless of the changing of leaders. The government also needs to improve the bureaucracy process and treat all companies fairly and equally. In fact, the government of foreign companies, such as China and Korea's government supports Indonesia's government to develop and grow Indonesia's economy through the implementation of this LCR regulation. Korea's government is aware of the objective of the implementation of this LCR regulation. Therefore, Korea's government does not bring this issue to WTO, as long as Indonesia's government give more attention to Korea's companies running the business in Indonesia, including Samsung. Nevertheless, there are still some complainant countries, such as Japan, The US, Taipei, and The EU that bring this issue to the WTO forum. Thus, according to respondent 2, although the private sector supports the implementation of LCR regulation, if their governments bring this issue to WTO, this LCR regulation would be discussed in WTO since these governments have the political right and power to do so.

8.3 The Mechanism of International Companies' Compliance to the LCR Regulation

The implementation of LCR was regulated by MCIT through the Ministerial Regulation of MCIT Number 27 the Year 2015. This regulation mainly focuses on setting out the percentage of LCR weight and the implementation of this regulation only covers the hardware/manufacturing mechanism. Since MCIT shares the task with Ministry of Industry to drive the growth of the domestic industry, especially on the telecommunication and ICT sector, the Ministry of

Industry in 2016 issued the Ministerial Regulation that regulates the mechanisms to comply with the MCIT's LCR regulation. According to the Ministry of Industry, the formulation of this regulation involved the policy communities comprising MCIT, Ministry of Trade, private sectors, and related associations, such as ASPILUKI and AGI.

At the first time, the LCR regulation only focused on the hardware/manufacturing mechanism to reduce the number of imported products to balance the trade balance. The government also considered that the implementation of the LCR regulation is expected to give added-value to local industry, such as knowledge transfer and technology diffusion. With these added-values, the government hopes that they would increase the opportunity of innovation that can be captured by local industry and entrepreneurs and to increase employment. To promote the attainment of this added-value, MCIT came up with the idea of development and application mechanism.

This development and application mechanism was proposed by ASPILUKI and AGI since they see that LCR regulation would not only bring benefit to the hardware/manufacturing industry but also to the software and game industry. Some private sectors also suggested that the mechanism of LCR compliance should not be confined to hardware/manufacturing cooperation only, the mechanism of investment was considered as an alternative to ease companies to comply with this LCR regulation, especially for those companies that cannot move their factories to Indonesia. The detailed information of the mechanisms of LCR regulation compliance is elaborated as follows:

8.3.1 Manufacture/Hardware Mechanism

According to respondent 1, many international companies comply with the LCR regulation through manufacture or assembly cooperation. The cooperation is well-known as "Tailor" mechanism, where the local company accepts the request for products assembly from other companies, including international companies. For instance, Asus built cooperation with PT. Panggung, a local company, to assemble Asus's products. The LCR compliance in this context is thus measured from the factory establishment, Over Head (OH) cost, workforce, components, and other factors.

Respondent 1 also said that among 3 (three) options of available mechanism to comply with this LCR regulation, manufacture cooperation, development and application cooperation, and investment, the most popular mechanism is manufacture cooperation. This is because besides this mechanism was the first mechanism regulated under MCIT Ministerial Regulation in 2015, the manufacture cooperation is simple, factories are available, and labor can be hired. While development and cooperation mechanism and investment mechanism were only regulated one year after the enactment of MCIT LCR regulation. These mechanisms are regulated under the Ministry of Industry ministerial regulation in 2016. This made company already chose hardware cooperation mechanism than any other mechanisms that were once not available.

In addition, the reason investment mechanism was less popular is, although the effort only requires money, the amount of investment is very large, greater than the amount of establishing hardware cooperation mechanism. Furthermore, the amount of investment is also calculated on the basis of types of products, so when companies launched a new type of product, they need to plant new investment with the amount calculated on the number of products to be marketed in Indonesia. With regard to development and application mechanism, companies think that complying with the regulation through this mechanism is not easy, because companies need to approve the quality of applications/software to be bundled in its devices to sustain customer satisfaction and brand reputation that they have built over the years. Companies also prefer to hire “blue collar” than “white collar”. Almost all 25 companies that have run their business in Indonesia use the manufacture cooperation mechanism.

There are 2 (two) big companies took the manufacturing mechanism to comply with the LCR regulation. According to one of these companies, the implementation of this LCR regulation has changed its business process. Previously, this company relied on import for its build-up/products assembly. Now, with the existence of its factory in Indonesia, the manufacturing process is its main business process. This company mobilized its first small production to Indonesia in the second semester of 2014. In 2015, this company produced its first cellular products in Indonesia. By establishing its factory in Indonesia in 2015, this company became the first international mobile phone company which complied with LCR regulation by meeting the LCR threshold of 22.23%.

Besides this company, there is one big company that complies with LCR regulation through a different mechanism. According to the Director of Indonesia Strategy Business Development of this company, considering the various business sectors that this company has, such as ICT infrastructure, End-to-end (E2E) product solution, devices, and network solution, each of these business sectors/products has a different mechanism to comply with LCR regulation. This compliance mechanism can be done on the basis of investment or local talent development where this company promotes knowledge transfer to local talents. While for devices, this company fulfils this 30% of LCR threshold through assembly cooperation with a third party (local company) in Surabaya, Indonesia.

8.3.2 Direct Investment Mechanism

In Indonesia, there is only one company that complies with the LCR regulation through investment mechanism. According to the Manager of Government Officer of this company, they took this option based on the consideration that direct investment mechanism is the most feasible and favorable option for them compared with other types of cooperation mechanisms under LCR regulation.

Choosing the option of hardware establishment cooperation requires this company to build a factory in Indonesia. This option is technically impractical since this company has a fixed timeline of production and products launching as well as a complex business process of production. Moving the company to Indonesia will disrupt the timeline already set because there will be some idle periods where this company only focus on building factories and cease temporarily their production processes. Furthermore, product components from

this company are imported from different countries, rendering the assembly process to be troublesome and time-consuming.

Meanwhile, software development cooperation mechanism also seems to be a less favorable option for them since this company is well-known as an exclusive brand in telecommunication and IT devices. If local software embedded in their handset fails to meet the standard quality, customer expectation and satisfaction, their brand reputation as high-end smartphone and trust of its customers that this company has built over the years may be jeopardized. The often updated Operating System (OS) also makes it difficult for local software developers to build software that can always keep up and compatible with the regularly updated OS of this company.

This company invests in Indonesia by establishing an innovation centre with a total investment of 44 million USD. With this investment, the Ministry of Industry issued the local content certificate for this company as evidence that they have complied with 30% of local content threshold. This local content certificate is then delivered to MCIT as a requirement to get telecommunication certificate for its products (Khairuddin, 2016).

This company, together with the University of Bina Nusantara, established the innovation centre in Jakarta. Besides Indonesia, this company has established its academies in Brazil and Italy. There are 6 (six) academies in Brazil and 2 (two) academies in Italy. In Indonesia, this company also plans to establish its academies in Surabaya, and Batam. The establishment of this innovation centre is a strong commitment shown by this company to comply with Indonesia's LCR regulation. By investing in innovation centre, this company does not need to move its factory from China to Indonesia. In fact, this company still can carry out the importation of its product from China to Indonesia without being imposed quantitative restriction or limitation on its products. Therefore, this investment mechanism brings mutual benefits both for this company and Indonesia's government.

8.3.3 Development and Application Mechanism

This development and application mechanism is not a popular mechanism for international companies to comply with the LCR regulation. According to respondent 1, international companies do not want to use software cooperation mechanism yet because they are feared that if the local software application will be considered not useful enough, their brands' reputation will be affected. According to ASPILUKI, the cooperation between local software developers and foreign vendors in terms of the compliance of this LCR regulation was very rarely heard. Therefore, the implementation of LCR regulation has not brought significant impact on the growth of the local software industry. Moreover, mobile phone manufacturers still regard themselves as the powerful player in the industry and software industry was regarded to only dependent on them. Therefore, local software developers need to create great applications that have strong bargaining power, like Facebook, to flip this reputation, and increase their bargaining positions with mobile phone manufacturers.

Furthermore, according to Mr. Jan Fariz Maid as AGI Operating manager, instead of realizing that this cooperation with game developers is a mechanism for vendors to comply with LCR regulation, the vendors instead asked the game studio to pay a certain amount of money to them. These vendors rather thought that this cooperation was a way to facilitate game developer to market their products more easily and rapidly. This experience managed to put off the willingness of game developers to build cooperation with telecommunication vendors and makes the software and development mechanism of LCR regulation become less interesting in the eyes of game developers.

8.4 The International Companies' Opportunities, Obstacles, and Challenges to comply with the LCR Regulation

In this section, the deep information over the opportunities, challenges, and obstacles faced by the companies to comply with the LCR regulation is delivered. This information is gathered through the interviews conducted with the private sectors. The detailed information about the opportunities, obstacles, and challenges to comply with this LCR regulation is as follows:

8.4.1 The Opportunity of Indonesia as a Potential market

According to the Government Relations-Senior Manager of one of big foreign telecommunication and ICT companies in Indonesia, Indonesia is a big and number 1 market for his company. With this large population, Indonesia is an important and primary market in South-East Asia that triggered his company to establish a business in Indonesia. His company also believes that there are many electronic manufacturers around the world that run businesses and compete in getting their market shares in Indonesia. This is because the market opportunity of Indonesia is considered high in the perspective of another big telecommunication and ICT company.

According to this company, Indonesia's market opportunity is based on several factors, that are population, demand, and volume. This means that there is a conversion between products/services and a population that can be harnessed by industry. Currently, this company presents in 170 countries, including in Indonesia where it has run its business since 2000. Indonesia is the biggest market for them especially in South-East Asia due to its high population. Moreover, although there is an increase on production cost as the consequence of the compliance of this LCR regulation, these companies can still earn profits due to the potential characteristic of Indonesia's market and the consumptive habits of Indonesian people.

8.4.2 The Obstacles and Challenges to comply with the LCR Regulation

1. Lack of Security Assurance and Facility for Investor

For one of the big companies, Indonesia is a potential market, especially for electronic products, however, Indonesia is not ideal for production base. Compared to Indonesia, Viet Nam is excellent for production base because Viet Nam's government provides good facilities for investors, such as land tenancy. This land facility is provided with free tax for 20-30 years and is given by Viet Nam's government in advance. While in Indonesia, it is difficult to find a strategic location to expand its factory. According to this company, this situation is a

disadvantage for business. In addition, regardless Indonesia is a big market for them, the lack of security assurance also make Indonesia be less ideal for production base due to the regular threat of labor strike which often occurs for at least once a year.

2. Long and Complex Bureaucracy Process

According to respondent 1, in order to market their products in Indonesia, the international companies that have complied with the LCR regulation can still carry out importation. However, the process to acquire certification to be eligible to import products involves 2 (two) governmental bodies, the MCIT and the Ministry of industry. The LCR certificate is issued by the Ministry of industry, while the product certificate (technological feasibility assessment) is issued by the MCIT. Before getting the LCR certificate, companies will be assessed by the independent surveyor (PT. Surveyor Indonesia, or Sucofindo) on their compliance with the LCR. Once approved, they will get the LCR certificate from Ministry of Industry as a requirement to obtain the product certificate from MCIT.

3. Preparation Time to Adopt the LCR Regulation

According to one of the companies, this company needs time to comply with 30% of the LCR threshold. At first, this company started with 20% of LCR threshold compliance. Evaluation is then conducted on the company's internal condition, they will then prepare to increase the threshold achievement from 20% to 30%. The difficulty to comply with this regulation depends on the market condition. Meanwhile, according to another company, another discouraging factor to comply with LCR regulation is Indonesia's long bureaucracy process to request for the facility that is time-consuming. For instance, to process a tax allowance request to the government, the bureaucracy process would take around 1 year or even more.

4. An inconsistency of Regulation Implementation

According to one of the companies that has requested tax allowance to Indonesia's government, this company experienced rejection in 2015 due to the nonexistence of regulation that could accommodate its request. Meanwhile, the government has promised companies that comply with LCR regulation through hardware/ manufacture cooperation mechanism, to be facilitated with tax allowance for the products to be marketed in Indonesia. The company that was tempted by the promise from the government then built factories in Indonesia and request tax allowance to the government.

Nevertheless, this company received rejection based on the reason that the authority for tax incentive belongs to the Ministry of Finance that then promised to provide a legal basis for tax allowance. In May or June 2015, the Ministry of Finance issued revision on regulation that accommodates tax incentive for the mobile phone industry. However, even after the enactment of the regulation, the tax incentive request from this company was still rejected in November 2015. This rejection upset the company that was promised to receive tax incentive after the establishment of a factory in Indonesia.

In this case, the rejection was due to the retroactive principle of the regulation that does not take effect backward, while this company has run its business

before this regulation was issued. With this unfortunate experience, this company feels that Indonesia's government does not pay serious attention to them, and Indonesia's legal certainty is unclear which makes it not ideal for business.

This company perceives that there is no consistency in the formulation of LCR regulation. In the beginning, this company was pushed to build a factory in Indonesia and finally invested 23 million USD on the establishment of a factory in Indonesia in 2014. However, Ministry of Industry issued another regulation that is meant to complement the LCR regulation that was issued by MCIT. This ministerial regulation on the calculation and mechanism of LCR compliance that was issued in 2016 through Ministerial Regulation of Ministry of Industry Number 65 the Year 2016 sets out more varied options to comply with the MCIT's LCR regulation. The introduction of 2 other mechanisms besides hardware mechanism has then caused disappointment to the company which has already built the factory in order to comply with LCR regulation. This company regrets that the government provides other mechanisms and only introduced the policy latter. On one hand, this company was forced to establish a factory in Indonesia, and on the other hand, once factory had been established, the government provides other mechanisms for other companies to comply with this LCR regulation.

5. Lack of Local Supporting Component and Local Industry Readiness

In doing the production process, one of the companies faced big challenges with the unavailability of raw material and supporting components that are necessary for the manufacture of the products, such as battery and LCD. Due to these circumstances, its factory can only carry out the assembly process. With the constraints of the incompetence of local industry and the unavailability of raw materials to support its production, this company expects the government to be fair and should not have forced them to produce their products in Indonesia. For another company, the readiness of local companies also become a challenge that influences the timeline for companies to launch its products to the market.

8.5 Indonesia's Government's Breakthrough in the Certificate Issuance Process

With regard to the long bureaucracy process that disrupts business, the government of Indonesia has applied Self-Declaration of Conformity (SDOC) as a breakthrough in the certification process. SDOC is an effort provided by Indonesia's government to simplify the bureaucracy system of licensing or investment process. With this SDOC mechanism, companies can use the result of product testing issued by a foreign recognized lab. Normally, the process for license takes 17 working days for lab test only, excluding the time for request process, waiting time for checking schedule and certificate publication. All of these processes would take 2.5 months. Nowadays, with the SDOC mechanism, it will take 2 days for certificate publication since the payment is made. However, this is excluding the checking process. According to a big company, with this SDOC mechanism, this company does not need to carry out the lab test to obtain the certificate. Previously, in order to obtain the certificate or license, the process required a long time. This long-time process is related to bureaucracy and approval system. Moreover, the existence of PT. Surveyor Indonesia and

Sucofindo as the independent surveyor to calculate the achievement of LCR threshold are also helpful to guide this company to understand the LCR formula.

8.6 The Perception of LCR Regulation Impact to Software/Game Industry

Based on the interviews with ASPILUKI and AGI, the researcher found that the requirement of LCR hardware to include local software as one of the implementation mechanisms for LCR can act as a driver to facilitate the cooperation between local software developers with foreign manufacture companies. The cooperation between the software developer and the manufacture companies are a good combination that may trigger big investment in this sector. The implementation mechanism of this LCR regulation also covered the protection of copyrights and the assurance to give Intellectual Property Rights of software products to the local software developers.

Regardless of the many efforts that the government has delivered on the implementation of the LCR regulation, no impact was made to the local software and game industry. According to ASPILUKI, until this time, there is no partnership between the local software industry and the manufacture companies. From the local software developers' perspective, this is because there is a difficulty to satisfy the manufacture companies' standards, especially on Quality Assurance (QA) and test scenario. Moreover, mobile phone manufacturers still regard themselves as powerful players in the industry and consider that software developer just depends on them. It is this challenge of negative mindset from manufacture companies faced by the local software industry that needs to be changed and turned into a reputation that the software industry has equal bargaining position with hardware manufacture companies.

From the local game industry perspective, the implementation of LCR regulation is perceived to be ineffective to boost the growth of the local game industry. According to AGI, there are many other ways that are more effective than the LCR, such as crowdfunding and direct capital investment. The voluntary basis of cooperation is considered to be more effective rather than obligatory basis through LCR. With this perspective, the implementation of LCR regulation does not bring significant impact to the local game industry. In addition, AGI thinks that manufacture companies are more interested with hardware mechanism rather than software/game requirement mechanism to comply with LCR regulation. This is aggravated by inconvenient experience by one local game developer against the manufacturing company when they were asked to pay a certain amount of money to bundle the local developer's game in the manufacture company's devices. This experience makes the software cooperation mechanism provided by the LCR regulation to be less interesting for local game developers according to AGI.

Whereas, according to respondent 1, from the manufacture companies' perspectives, the quality of local software is not trustworthy. These companies are feared that the software that is bundled on their devices are found not useful enough or even not reliable by customers that may influence or undermine the brand reputation of the devices in the eyes of their customers. This situation triggers companies to apply a high-quality standard for software developed by local developers.

Chapter 9 The Compliance of Indonesia's LCR Regulation with WTO Agreements

This chapter will deliver the findings for the second research question on ***What is the compliance of the LCR regulation with the WTO?*** This question covers the implication of the LCR regulation that brings new problem stream in terms of inconsistency with WTO agreement, and how Indonesia's government responds to this inconsistency to WTO agreement. The finding of this research question is as follows:

9.1 The Inconsistency of LCR Regulation with the WTO's Agreement

According to the respondent 1 and 2, the implementation of LCR regulation is perceived to be effective to contribute in the positive trend of trade balance. Based on the descriptive statistics that have been delivered in the previous chapter, the LCR regulation becomes one of the main factors that decrease the import values. However, the implementation of the LCR regulation brings a new problem for Indonesia. Based on the information delivered by respondent 2, the researcher found that the government of Indonesia is aware that the implementation of the LCR regulation is inconsistent with the WTO agreement, especially with the TRIMS Agreement in the illustrative list, point 2. According to this regulation, local content and words related to local content in the investment field and any fields related to investment are strictly prohibited. Under the WTO system, any member countries cannot apply high tariff and import duties to other WTO member countries. Although this tariff measure is usually taken for the national protection of domestic industries.

The implementation of LCR regulation in Indonesia has been one of the issues discussed in WTO. This is because some members raised this issue in WTO forums, which can be done through a complaint. If there are no WTO member countries sue or raise complaints to WTO on this issue, then this issue would not be processed or discussed. The implementation of Indonesia's LCR regulation is raised in WTO by some countries, including US, EU, Japan, and Taipei. To raise this issue in WTO, these countries do not need to have industries presence in Indonesia. As long as these countries have interests in Indonesia, they can raise the complaint.

This complaint is political in nature. Indonesia's government drew assumption on this reason on why these countries raised the complaint to WTO. For China, it might be that China dominates devices for middle-to-low income people. Among the countries raising complaints on LCR regulation, there are only two countries with the existence of industries actors, China Taipei, and the US. Meanwhile, Japan might only play in several spare parts. For EU, Indonesia is of the view that this complaint is unilateral in nature. This means that EU supports these countries so that they will support EU in other forums in return. This is considered as solidarity action.

Furthermore, Indonesia's LCR regulation is still being discussed in the TRIMS forum. In this forum, Indonesia is being investigated by WTO through the TPRM to see the consistency status of LCR regulation with WTO agreement. If this

meeting finds the evidence that Indonesia is not consistent with the WTO agreement, then this LCR regulation case will be brought to the DSB. The DSB meeting has the power to give recommendation or judgment over the case, and the decision must be executed by the members. If Indonesia is proved to be inconsistent with WTO agreement in DSB forum, then Indonesia will be judged and obliged to deregulate this LCR regulation, Indonesia is also at risk to pay the great amount of fine or embargo as the retaliations imposed by the complainant countries.

9.2 Indonesia's Strategy for the Implementation of LCR Regulation

Although Indonesia considers that this LCR regulation is inconsistent with WTO agreement and there is a risk of non-compliance with WTO agreements, Indonesia's government continues to implement this LCR regulation due to the high concern of Indonesia's government to solve the high trade balance deficit. Nevertheless, Indonesia's government still concern with this inconsistency with WTO agreement. Thus, according to respondent 2, the implementation of LCR regulation is carried out with the "buying time" strategy. This strategy means that although the compliance of this LCR regulation by the companies is obligatory, it will only be temporary. The government does not have the intention to implement this regulation forever. This regulation will be revoked after this regulation achieves its objectives, such as the import value trend decreases, the export trend increases, and the growth or maturity of the local industry is perceived to be increased. This industry growth can be measured through the increasing of joint-cooperation between the foreign companies with local companies. The government believes that the knowledge transfer and technology diffusion can be promoted through this cooperation that will lead to the enhancing of the local industry's maturity.

Furthermore, the other reason to deregulate this LCR regulation, according to respondent 2, is If Indonesia's LCR case is taken to DSB and Indonesia is judged guilty, Indonesia's government will then revise or abolish this LCR regulation. This LCR regulation will be revised only once the case received the recommendation from DSB, not while the case is brought to DSB. This is because after the case is brought to DSB, there will be several procedures that have to be passed, including 6-months consultation process and 6-months adjudication process. By considering this situation, instead of preparing the amendment draft for this LCR regulation, the government focuses on the implementation of this regulation.

9.3 Identification of Possible Strategy to comply with the WTO Agreement

Indonesia's government has not considered amending this LCR regulation. In fact, the government looks for some alternatives that can be adopted so that the LCR regulation can be consistent with the WTO agreement. These alternatives as the following:

1. Safeguard of Balance of Payment as a Possible WTO's Exception

Since the implementation of this LCR regulation is inconsistent with WTO agreement, Indonesia's government needs to find a solution on how to deal with this issue. One of the solutions is to rely on the exceptions provided in WTO agreements. There are 4 (four) kinds of exceptions set out in the GATT 1994:

General Exception, Security Exception, Safeguard for Balance of Payment, and Preferential Treatment (Waiver). According to respondent 2, Indonesia might use Safeguard for Balance of Payment, and waiver exceptions.

To adopt these exceptions, Indonesia's government needs to provide detail information as a reference that comprises the financial condition, objectives, and action plan for these exceptions. Then this reference will be delivered to IMF to get the recommendation for the exception of Restriction to Safeguard the Balance of Payment. To be eligible to safeguard of the balance of payment exception, Indonesia needs to prove that Indonesia cannot pay its foreign debts. However, until today, Indonesia can still pay its foreign debts. Otherwise, Indonesia will experience a monetary crisis. Whereas, for adopting the Waiver exception, this reference will be negotiated to other WTO's members and need to get approval at least from three fourth of WTO's members. Thus, according to respondent 2, these 2 (two) exceptions are very difficult to be adopted since the requirement for this exception is not satisfied.

2. The Amendment of WTO's Agreement to accommodate the LCR Regulation

With many countries applying LCR policies that are inconsistent with WTO agreements, another solution to deal with the issue of LCR regulation's inconsistency with WTO agreement is a proposition to revise TRIMS agreement that might accommodate the measures taken by countries applying LCR. In fact, LCR policies have long been used by developed countries to secure their domestic industries. These policies are now increasingly used by developing countries. However, making an effort to revise or amend TRIMS agreement is not an easy task. According to respondent 2, to revise the WTO agreement, such as TRIMS agreement, all WTO member countries must approve the revision or amendment in consensus, called "single undertaking". It is difficult for developing countries to reach a consensus or approval of the amendment in order to get the flexibility to implement domestic regulation such as this LCR regulation. It will also be difficult if developed countries propose the revision of the agreement to accommodate their interests. Although the provisions in WTO agreements are already in favor of developed countries because, since the establishment of GATT, developed countries have already secured their policies to be accommodated in WTO agreements so that there is no more inconsistency issue with WTO agreements, respondent 2 said.

3. Bilateral Meeting with the Complainant Countries to settle the LCR Regulation Case in WTO

Moreover, the other option that helps Indonesia to avoid the complaint on the implementation of the LCR regulation raised by the complainant countries is through a bilateral meeting. India is one of the developing countries that implement the LCR regulation and this issue is not taken to the WTO forum. According to respondent 2, India's LCR case will not be brought back to sessions, because they have solved the case through a bilateral meeting. It seems that India can still implement the LCR regulation by giving the trade-off to the country which raised the complaint to WTO. The trade-off used for this issue might be India's textile industry. This trade-off strategy can be a solution to be considered by a country intended to maintain the implementation of LCR

regulation. Moreover, respondent 2 said that in the case of India's LCR regulation, the coordination among industries and sectors in India may be very strong that makes India's LCR case can easily be solved and were not raised to TRIMS sessions and DSB. If Indonesia has a leading person or institution that can coordinate the cases that are brought to WTO, Indonesia may find a solution through bilateral meetings. Nevertheless, until now Indonesia has a lack of coordination among institutions and every institution is likely to work alone.

Chapter 10 Analysis, Discussion and Conclusion

In this chapter, the discussion of the way Kingdon's multiple-stream can be applied in the formulation of LCR regulation is referred to the information derived from the documents and interviews. The discussion covers the problem, policy, and political streams and is divided into the regulation formulation process since the end of 2014 until this LCR regulation was issued in July 2015, and the possibility of the policy window opening for the revision of LCR regulation to be consistent with WTO agreement.

10.1 Kingdon's Multiple Streams in The LCR Regulation Formulation

10.1.1 Problem Stream

According to Kingdon's approach, with the existence of a problem that convinces people on the urgency to provide a solution to a defined problem, policy window can be opened to trigger change on the policy or formulation of new policy. There are several indicators used to identify the issue in the problem stream, this consist of indicators, focusing event, and public feedback. In this research, the problem that makes Indonesia's government issue the LCR regulation will be identified through the problem stream approach.

According to MCIT, the problem of trade balance deficit in the telecommunication and ICT industry can be identified from the indicators provided in the trade balance data issued by Indonesia's Statistic Bureau. Based on this data, the high trade balance deficit was resulted from the high import value with a low rate of export value. Indonesia has experienced the trade balance deficit since 2008; therefore, this indicator shows the government that there is a serious problem of trade balance deficit that needs to be solved immediately. During 2008 until 2010, the import value increased gradually from more than 1.1 billion USD to more than 3.6 billion USD in 2010, while the export value is less than 1.1 billion USD in 2008, and rose steadily to less than 2.4 billion USD. However, from 2011 to 2013, the import value was much higher than export values. During this period, the import values fluctuated around 3.6 billion USD and 4.2 billion USD before rising dramatically of 8.8 billion USD in 2014. Whereas, the export value in 2011 was almost 2.7 billion USD before declined gradually to around 1.1 billion USD in 2014. The big difference between these import values and export values leads to high trade balance deficit. This trade balance deficit had occurred for the long period that drives Indonesia's government to urgently address this problem.

Furthermore, the high import value is also considered to happen due to the lack of local industries capability in technology and innovation to produce competitive products in the local market. It can be seen from the data provided by IDC stating that Indonesia's telecommunication and ICT market from 2015 until 2017 highly relied on the global brand products such as Samsung, Apple, and China brand products like Huawei, OPPO, and Xiaomi. In fact, the government feels that Indonesia needs more investment from foreign companies to expedite the growth of the national economy and increase the employment opportunity.

According to the interviewee, by considering this high trade balance deficit issue, MCIT conducted an internal meeting to get the consideration from relevant division about this issue. After having a discussion among internal division, then

the meeting concluded that this issue would be put in the governmental agenda list to be further considered. After this problem has been put in the government agenda, the MCIT convened the meeting that involved the related ministries, such as the Ministry of Industry and the Ministry of Trade, as well as other policy communities, for instance companies, academics, and association. This meeting aims to assess the urgency to provide an alternative to solve this problem. All related ministries agreed that this high trade balance deficit was an urgent issue. Based on this recommendation, then MCIT determined that this high trade balance deficit would be promoted in the decision agenda.

10.1.2 Policy Stream

The identification of the problem has been discussed in the problem stream. The most feasible alternative that can be discovered from many ideas gathered in the “policy primeval soup” process need to be identified to understand the policy stream. The process of the ideas emergence is called ideas floating, according to Kingdon. These ideas were generated through the meeting and FGD led by MCIT as the policymaker. MCIT invited the policy communities that comprise the officials from Ministry of Industry, Ministry of Trade, companies, academics, and associations. The criteria of alternatives are the one that can overcome not only the high trade balance deficit but also to give valued-added to local industry, such as facilitating the increase of investment, cooperation and employment to local industry.

MCIT as the policy entrepreneur, furthermore, carried out the softening-up process to identify the possibility of alternatives to be accepted for further consideration of policymaker through the meeting and discussion among policy communities. Based on this process, there were 2 (two) main alternatives delivered by the policy communities: the implementation of high import duties, and the implementation of LCR. These 2 (two) alternatives would be compared to identify the most feasible alternative that has criteria to solve the high trade balance deficit.

The implementation of import duties was considered not to be effective to solve the high deficit problem. It is because Indonesia has the ITA agreement with Singapore in which the import duties for electronic devices originated from Singapore is free. Many importing countries such as China, the US, and the EU can use this facility to import their products through Singapore in order to get fee import duties. Moreover, the government also consider that Indonesia has a big potential market in which the products would be easily sold. The high consumptive habit of Indonesian people is also a consideration for them. Therefore, according to the interviewee, these companies would pay any cost to market or import their products in Indonesia. Based on this consideration, the government examined that the import value would not decrease with the implementation of high import duties.

Whereas, the implementation of LCR was considered to bring effective impact to the decreasing the trade balance deficit. This LCR obliges the companies that want to market their products in Indonesia required to utilize the local resources, for instance, local raw material, supporting component, and labour. By requiring the companies to utilize the local resources, these companies were predicted to

move their business process to finalize their final products in Indonesia. This business process can be carried out through the cooperation with local industries that provide the raw material, supporting component, or assembly-process cooperation. By establishing the production base in Indonesia, the companies would reduce the import value of their final products. In fact, this LCR regulation can facilitate knowledge transfer and technology diffusion from foreign companies to local companies through cooperation.

Based on the consideration of each alternative criteria, then the policy communities selected the LCR measure as the proposal for policy-maker consideration. This LCR was believed could achieve its objective to reduce the import values. This alternative was considered could satisfy the criteria claimed by Kingdon: technical feasibility, and value acceptability. In terms of technical feasibility, this alternative was considered to solve the problem as its objective. Whereas in terms of value acceptability and anticipation for further constraints, this LCR measure could be accepted by the companies although they considered that there would be the increasing cost, they still generated profits from the market, according to the interviewee.

10.1.3 Political Stream

According to Kingdon, the political stream has some elements: national mood, organized political forces, election result, and change of administration. The formulation of LCR regulation in the political stream also can be elaborated through these elements. In term of the national mood, in 2014, there was the presidential election in Indonesia that attracted attention from the public. Kingdon said that the election or periodical rotation in the government can allow the existence of the institutional window. Jokowi as one of presidential candidate campaigned his mission, vision, and goals written down in NAWACITA. In this NAWACITA, Jokowi brought the program to increase economic growth, and decrease the dependency to the importation. In Indonesia, the program related to solving poverty, unemployment, health, and education, can attract the strong attention from the public. Through this program, Jokowi is eager to focus on the development of local industry. This NAWACITA became Jokowi's image and opinion, as well as the political promise to the public. This NAWACITA, therefore, was the element triggering the national mood that seduced the public to vote Jokowi as the new president. Eventually, Jokowi become the next Indonesia president that was elected in October 2014.

To run his government, Jokowi assigned Rudiantara as the Minister of MCIT, that change the previous minister. Rudiantara came from the private sector. He was the Director of PT Telkomsel and Commissioner of PT. Telekomunikasi Indonesia (telecommunication state-owned enterprise)(Institute, 2016). As the minister assigned by Jokowi, Rudiantara has the task to implement Jokowi's NAWACITA programs that are covered under the MCIT. The program to decrease the dependency with the import products become one of priorities program in MCIT. By having the high trade balance deficit as the indicator, and the spirit from the government to decrease the importation dependency, then the formulation of this LCR was conducted in the right time. With the support from the President and new minister as the key personnel due to the change of administration, the draft formulation of LCR ministerial regulation could be promoted to become the

priority strategic issues of MCIT. Based on this situation, the change of administration as the element that forms the political stream can show the Kingdon's claim.

This LCR is regulated in the level of Ministerial Regulation (MR). The formulation of MR does not need approval from the Parliament Member (DPR) that consists of politicians. It means that the element of organized political forces does not really play in this political stream. Thus, during the formulation of MR, there was no conflict of interest between politicians. The formulation process only involved the policy communities that encompassed the relevant governmental bodies/ministries, companies, academics, and associations. In fact, the formulation of LCR ministerial regulation was supported by other ministries, such as Ministry of Industry, and Ministry of Trade that have the intention to formulate the supporting ministerial regulation to support the implementation of MCIT's LCR regulation.

Based on this situation, Kingdon's political stream was implemented in the formulation of LCR regulation. With the moment of the presidential election, and the change of key personnel in the government that have the deep consideration on the issue can contribute to the opening of policy window. Nevertheless, the element of organized political forces was not applied in the LCR regulation case. The application of organized political forces as the element in the political stream is not explained by Kingdon in terms of the level differences or hierarchy of regulation formulation. Kingdon only elaborates this element in the political stream that applies in the government system that involves the political mobilization and political elites' behaviour that influences the governmental agenda through consensus and coalitions.

10.1.4 Policy Window

The condition in which all streams couple together can emerge the policy window possibility. According to Kingdon, the complete coupling of all streams can dramatically enhance the issue become firmly allocated in the decision agenda. The policy entrepreneur has an important role in the coupling of all stream to open the policy window and push the issue in the decision agenda. In this LCR case, the actor as the policy entrepreneur in the formulation of the LCR regulation is MCIT. MCIT identified the problem of high trade balance deficit base on the data provided by Indonesia's Statistics Bureau, attracted the intention of other relevant ministries, such as Ministry of Industry, and Ministry of Trade, as well as the public over the importance to solve the problem. Based on this situation, MCIT used its power, authority, and resources such as time and officials to couple all streams by using the high trade balance deficit as the problem window, and the election new president and turnover of the minister of MCIT as the political window. With all these supporting elements, MCIT seized the moment by attaching the LCR regulation as the solution to the high trade balance deficit problem in the right political events, that eventually coming up with the proposal of the LCR.

10.1.5 Multilevel-Governance and Policy Networks

The existence of multi-level governance in the formulation of LCR regulation - various different actors with various competencies, authority, and interest- shape

policy networks of different policy entrepreneurs engaged in the policy-making process. During the agenda-setting and formulation process, MCIT brought up the issue of the urgency to address the high trade deficit issue. The issue managed to raise in prominence due to its relevance with a political promise of the newly elected president. As argued by Kingdon, President holds powerful force in influencing the agenda-setting especially when the issue is in favour of his own political agenda. With this relevance, high trade deficit issue obtains fast support from the president.

Another important policy entrepreneur that highly influence agenda-setting is a minister of MCIT himself. Minister, being appointed by the president himself, should ensure that his program is in line with programs of the president, otherwise, his political position is at risk to be revoked. Knowing that this issue is relevant to programs from the president, with the authority that he holds in issuing a regulation under the sphere of telecommunication and ICT, Minister played a key role in ensuring the issue to be included in governmental agenda and raised in decision-agenda.

Other important actors in this process are government officials and civil servants who have authority in the management of this issue to be proposed in agenda-setting and manage the whole formulation process of LCR regulation. In addition, other interest groups outside the government such as association, representative of vendors or foreign companies, academics, also played important role in giving inputs and contribute to the formulation of LCR regulation. Each of these political entrepreneurs linked to the government in various different level to influence the policy-making and formed a web of policy networks.

This can be seen as evidence that government cannot work alone in policy making. The theory of multi-level governance helps explain the emergence of the importance of each of these policy entrepreneurs in the policy-making process. In the context of LCR regulation formulation, without the inputs from companies and Ministry of Trade and Ministry of Industry, the weight of LCR compliance would not be set in increasing order from 20% in 2016 to 30% in 2017. Nevertheless, this also reflects the interest from different policy entrepreneurs that needs to be accommodated by the government.

10.2 Kingdon's Multi-Streams on the Engagement of LCR Regulation with WTO Agreement

The implementation of LCR regulation as the solution to solve the problem of high trade balance deficit is perceived success. The contribution of LCR regulation in the positive trade balance has been explained in Chapter 7. However, the implementation of LCR regulation as a side effect in terms of international trade relations. This LCR regulation is considered inconsistent with WTO agreement. This section will elaborate the inconsistency of the LCR regulation and to find out the possibility to open the policy window for this inconsistency by utilizing Kingdon's multiple-streams approach.

10.2.1 Problem Stream

The implementation of LCR regulation is obligatory for the companies that want to import or market their products in Indonesia. If they cannot comply with this

regulation, then they cannot carry out the importation. According to interviewees of WTO, the implementation of LCR regulation that has the quantitative limitation is prohibited in WTO's TRIMS agreement. This violation issue is considered by Indonesia's government. In fact, they consider that there is an indicator stating that since the WTO was established, there have been 32 cases brought to the DSB, 20 out of them were cases related to LCR. All the LCR-related cases were proven inconsistent with WTO agreement. Although this indicator is considered by the government, they still implement the LCR regulation. In this LCR case, the element of the indicator of the problem stream does not fit. We assume that although there is the indicator if Indonesia has not experienced this indicator than this indicator cannot open the problem window. Kingdon's problem stream approach does not explain how far the indicator can open this problem window.

According to the interviewee, currently, Indonesia's LCR regulation is being discussed in TRIMS forum. Under this forum, Indonesia's government needs to justify the objective and implication of this LCR regulation. If this regulation is considered to have a quantitative limitation, then this LCR case will be delivered to the DSB. Under the DSB forum, there will be several procedures that have to be passed, including 6-months consultation process and 6-months adjudication process before the judgment will be decided. In this case, MCIT is likely can predict when the judgment will be given. By considering this condition, instead of preparing the amendment for the LCR regulation to be in line with WTO agreement, the government plays the "buying time" strategy. The LCR regulation will be deregulated before the DSB's judgment is about to be stipulated.

The government also still maintain its position to implement this LCR regulation, although there is the problem of inconsistency of LCR and retaliation as the consequence of this inconsistency. From this situation, it can be assumed that if there are two problems that cover both national interest and international interest, then the government will tend to prioritize in providing the solution to solve the national problem. According to the interviewee, the government is more responsible for the interest of their people rather than the international organization. This assumption can be supported by many other countries which also implement the LCR regulation although their LCR regulations are also being discussed in WTO, such as India, China, Nigeria, and Brazil. Based on this situation, Kingdon's problem stream approach also does not explain that if there is a problem that has a solution and is contradictive with another problem, which one should be a priority to be solved, and how to assess this situation.

Based on this LCR case, the researcher can assume that although there is indicator stating the possibility of certain problem emergence, if the emergence of this problem can be predicted, then the problem window will not open. Also, if there are 2 (two) problem appearing, especially between the national interest and international interest, then the government sees that the national interest as the high priority to be considered compared to international interest. The implication of predicted problem and the conflict between 2 (two) problems involved in problem stream cannot be explained by Kingdon in order to open the problem window.

10.2.2 Policy Stream

Since Indonesia's government can estimate when the judgment of DSB will be delivered over Indonesia's LCR regulation, the government has not decided yet to revise this LCR regulation to accommodate the complaints from other countries in WTO forum. Instead of amending this LCR regulation, the government seeks the alternative that can be used to drop the LCR regulation in the WTO forum. MCIT as the policy-maker, together with related policy communities has identified the exceptions provided by WTO to derogate Indonesia's LCR regulation from WTO agreement. Based on the ideas generation, there are 2 (two) kinds of exceptions related to LCR: a safeguard for the balance of payment, and waiver. The policy communities then do softening-up to these alternatives through meeting and discussion with Indonesia's representative for WTO in Geneva. Based on the discussion, adopting these 2 alternatives proves to be difficult. With regard to the safeguard for the balance of payment, Indonesia needs to obtain IMF's recommendation by sending the detail reference to IMF. This reference justifies that Indonesia is struggling in the economic and financial term so that Indonesia cannot pay the foreign debt. However, in reality, Indonesia still can pay the debt. Whereas, for the waiver, Indonesia needs to negotiate and obtain approval from other WTO's members by delivering the reference that contains similar information with the reference of safeguard for the balance of payment. Thus, this 2 (two) exception are difficult to be adopted.

Furthermore, the alternative to conducting the bilateral meeting is considered likely to adopt by the government and is supported by the academics. According to the interviewee, this bilateral meeting has been conducted by India to the complainant countries, therefore India's LCR regulation is no longer discussed in the WTO forum. Nevertheless, it will require solid national coordination among governmental bodies, since in the bilateral meeting there will be a negotiation as a trade-off for the complainant countries to drop the LCR regulation in WTO. It will be another challenge for Indonesia to create strong national coordination.

Based on the government perspective, in the policy stream, the government continues identifying the possible alternatives to comply with WTO agreement, but these alternatives are not the amendment of LCR regulation. It is because the issue of inconsistency can be predicted when it takes effect, thus it does not open the problem window. Therefore, MCIT as the policymaker has not had the intention to revise the LCR regulation due to the high trade balance deficit problem, is more urgent than the problem of inconstancy with WTO agreement. MCIT and other related ministries, such as Ministry of Industry, and Ministry of Trade as the policy entrepreneurs don't want to use their authorities, powers, and resources to support the amendment of this LCR regulation. This situation has been explained by Kingdon's multiple-stream approach, that the policy entrepreneur plays a crucial role in promoting an issue to the governmental agenda and decision agenda.

10.2.3 Political Stream

According to Kingdon, this political stream involves the elements of national mood, organized political forces, and alteration of administration. The condition of the inconsistency of LCR regulation with WTO agreement will be identified

through these elements. In term of the national mood, according to interview, the public mostly care about the improvement in the national level, especially related to economic growth and local industry development. In the telecommunication sector, the implementation of this LCR regulation is supported by local industry, developer, start-up, since they can see the benefits of this LCR regulation. The people believe that the LCR regulation can be another resource to promote investment, employment, and transfer-knowledge through joint-cooperation between foreign companies and local companies. This benefits to local industry are also considered by the foreign companies, and they support the government to implement this LCR regulation. According to them, although there is an increase in the production cost, they still can earn the profit from Indonesia's market. Whereas, the public does not really care about the problem of LCR inconsistency with WTO agreement. In fact, foreign companies do not know that this LCR regulation is prohibited in WTO agreement. Therefore, the national mood in this situation still focuses on the national improvement that can be generated through the LCR regulation.

In terms of organized political force, Indonesia has been complained by the complainant countries in WTO forum due to this LCR regulation. This complaint is the political force that comes from the external sphere. Nevertheless, the internal organized political force does not exist. Indonesia's politician in the parliament does not push the government to revise this LCR regulation. In fact, they support the government action to priorities the national interest that give more benefits to the public than the complaint from other countries. Moreover, this LCR regulation is also in line with the mandate of the president to decrease the import dependency.

Furthermore, in terms of turnover of administration, Rudiantara as the new minister of MCIT, has the point of view to execute the mandate from the president to grow the national economy and reduce the import dependency from the telecommunication and ICT sector as under his responsibility. He is the policy-maker of all ministerial regulations related to telecommunication and ICT industry, including the LCR regulation on telecommunication and ICT devices using 4G LTE technology.

In the case of LCR regulation, from the political perspective, the national interest is still the highest priority than other things. Therefore, Indonesia's government still wants to carry out the implementation of this LCR regulation. By considering all elements in the political streams, such as national mood, organized political force, and alteration of administration, support the implementation of LCR regulation and for the time being neglect the issue of inconsistency with WTO agreement, therefore the political window of this inconsistency issue does not open. This situation has been claimed by Kingdon, that if these 3 elements are not satisfied, then the policy window close. However, Kingdon does not explain how far the external political force can influence the internal political force if there is a contradictory position among them.

10.2.4 Policy Window

Since the problem window and political window of the inconsistency of LCR regulation with WTO agreement does not open. Then the policy window will not

also open. This condition is compounded by the condition in which the MCIT and other related ministries as the policy entrepreneur do not want to support the issue of inconsistency to be promoted in the governmental agenda. Without coupling of these 3 streams, the policy window to amend the LCR regulation to be consistent with WTO does not open. Although there is an indicator that all LCR case that had been discussed in DSB were judged inconsistent with WTO agreement, this indicator does not enough to open the problem window. Moreover, although there is the organized political force coming from external parties that raise the complaints in the WTO forum, it does not enough to open the political window. Because the other elements in political steam, such as national mood, internal political force, and change of administration, support the implementation of LCR regulation rather than focusing to overcome the issue of inconsistency of LCR regulation with WTO agreement. Therefore, the policy window does not open due to the close of the problem and political windows.

10.2.5 Multilevel-Governance and Policy Networks

The emergence of the need to build cooperation with other countries to address issues together, such as trade cooperation, security cooperation, human rights cooperation, and any other issues, brought about the establishment of intergovernmental organizations and regional-multilateral cooperation that requires countries to be members of these organizations in order to get benefits. By joining as a member of the organization, countries consented to the agreement prevails in this organization and have to harmonies their domestic regulation to be consistent with that international agreement. In this context, countries seem to have to voluntarily let go of part of its sovereignty and limit their own autonomies to make policies.

In the context of the implementation of LCR regulation that is inconsistent with WTO agreement, Indonesia, according to the concept of multi-level governance, must change its regulation to be consistent with WTO agreements or otherwise taken to DSB by other member countries which raised complaints on the inconsistency issue of LCR regulation in WTO forums. Indonesia must be willing to sacrifice its sovereignty or otherwise imposed trade-retaliation from other countries. In the context of international relation, sovereignty seems to be let go or shift upward to be hold by international organizations. This makes countries to not be able to act in autonomy and make policy as it pleases. Nevertheless, many countries including Indonesia, still prioritize to protect national interests, even if that means that they will have to act inconsistently with international agreements and non-compliance as the member of the international organization. In this context, Indonesia prefers to maintain the implementation of LCR regulation to address trade deficit issue and protect infant industry to secure its national interests and use “buying-time” strategy to address the risk of being taken to DSB of WTO.

Within WTO, different policy entrepreneurs play part and form policy networks. Countries who are not satisfied with the issue of inconsistency of Indonesia to TRIMS Agreement formed a web of different countries who would raise complaints in WTO forums. This policy network of policy entrepreneurs are those countries who either have interests in Indonesia’s market or simply showing solidarity to other countries. This shows that different interest groups become

policy entrepreneurs that together form policy network and influence policy-making in WTO. Once these policy entrepreneurs raised complaints to WTO, issue of LCR inconsistency with TRIMS Agreement will be further processed and taken to DSB. This makes Indonesia be prepared to find strategies to face and address the issue of non-compliance in WTO.

10.3 The External Factor Influencing Export and Import Trend in the Region

The assessment of the effectiveness of LCR regulation is done through an examination if the implementation of LCR regulation manages to meet its objectives and if it can serve the purpose of the urgency to implement this regulation. The objectives of LCR regulation is discussed in Chapter 5 that is to decrease the import values of telecommunication and ICT devices using 4G LTE technology and to drive the growth of local industry and increase domestic capabilities in providing telecommunication and ICT devices through cooperation between domestic and foreign companies. Chapter 6 also discussed the urgency to implement LCR regulation in reducing high trade deficit in telecommunication and ICT sector during 2008-2015 with the condition of low export growth and high import trend. Therefore, the effectiveness can be seen from the reduction in trade balance deficit resulted from the reduction of the import values and may be followed by the increase in export values. The researcher also assesses if there are other external factors that may contribute to affecting the trade balance and import-export values and thus affecting the effectiveness level of the LCR regulation.

With the data from Ministry of Trade that comprises the import, export, and trade deficit values of telecommunication and ICT devices using 4G LTE technology, the researcher analyzes data to see the correlation of the implementation of this LCR regulation with the trade balance deficit, especially the import value. Indonesia's Trade Balance deficit in Telecommunication and ICT sector from 2008-2015 can be seen in the graph below. The graph shows that deficit increased over time and reached its peak in 2014, the deficit then decreased significantly in 2015.



Figure 15. Indonesia Trade Balance Deficit in Telecommunication and ICT Sector 2008-2015 (source: Central Bureau of Statistics)

This trade balance deficit in telecommunication and ICT sector was due to high dependency of import for telecommunication and ICT devices, while the export of the same products from Indonesia cannot match the value of the imports. In addition, the local telecommunication and ICT industry cannot meet the domestic demand of these products. International brands and reputation of these telecommunication and ICT products have also attached to and dominated Indonesian customers that make them prefer foreign brands to local products. The high dependency to import for telecommunication and ICT devices using 4G LTE technology from 2009-2014. This period was the period in which the LCR regulation had not been implemented showing that the import value trend before the implementation of the LCR regulation rose gradually until 2014 as can be seen in figure 16. Whereas, the import value trend after the implementation of the LCR regulation decreased dramatically as shown in figure 17.

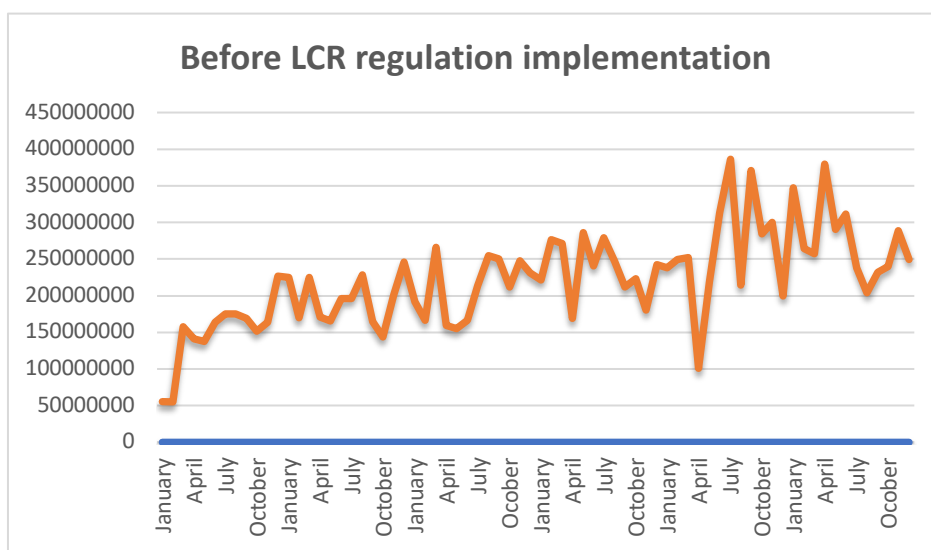


Figure 16. Import Trend before the Implementation of LCR Regulation (source: Central Bureau of Statistics)

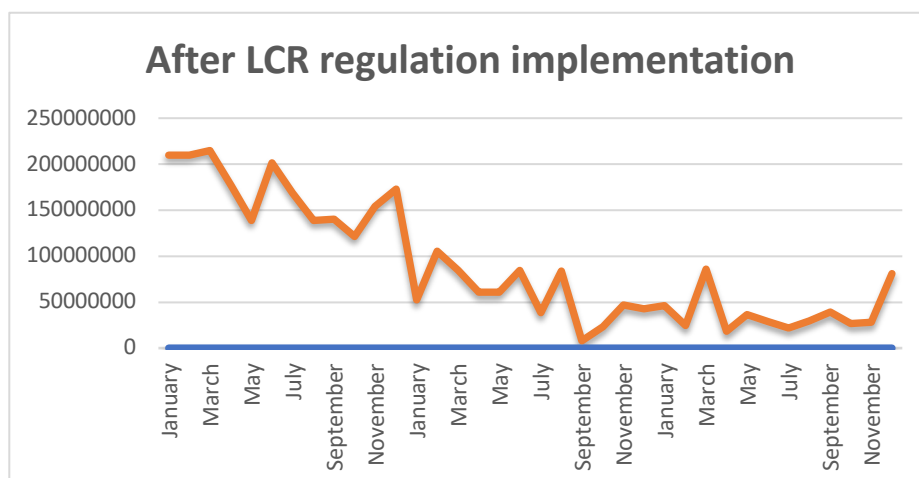


Figure 17. Import Trend after the Implementation of LCR Regulation (source: Central Bureau of Statistics)

Furthermore, the comparison of the import trend before and after the implementation of this LCR Regulation is provided in Annex 1 and 2 which can be visualized in the graph below.



Figure 18. The Graph of Import Value before and after the LCR regulation Implementation (source: Central Bureau of Statistics)

The graph depicted in figure 18 shows that the import trend for telecommunication and ICT devices using 4G LTE technology keeps increasing from 2009 and reached its highest peak in 2014 and starting to gradually drop in 2015. This drop in 2015 was arguably the impact of the enactment of LCR regulation in 2015. This graph is an evidence on how effective LCR regulation in reducing import values for telecommunication and ICT devices using 4G LTE technology.

LCR regulation managed to be an effective policy instrument since it obliged companies to comply with LCR through the hardware/ manufacturing mechanism. This mechanism triggered companies to either build factories in Indonesia or build cooperation with local companies to produce telecommunication and ICT products in Indonesia. The data on the companies complying with LCR regulation through cooperation with local companies to produce its products can be seen in Annex 8. Meanwhile, Annex 9 further detail the type and value of investment in telecommunication and ICT that were chosen by each company or brand along with the location and year of license that also marks the starting year of the investment.

According to the data and the interviews with major brands in telecommunication and ICT devices, companies like Advan, Acer, Oppo started their investment in 2015. While Samsung already built their factories in 2010, but for telecommunication and ICT products, the production only started in February 2015 after the government pushed Samsung to build the factory for producing telecommunication and ICT devices in Indonesia to further decrease the import values. The push from the government was due to the consideration that Samsung has a leading company in Indonesia's telecommunication and ICT

market and therefore by having local production, the import for telecommunication and ICT devices using 4G LTE technology can be further reduced.

In addition to Samsung, Huawei also planted investment in 2011. Although there was no specific information we received from the interview with Huawei with regard to the start of local production for its products, the data shows that Huawei planted its investment in 2011. Since Huawei only focus on telecommunication products and services, it can be inferred that they already started production in that year. Huawei even releases Huawei Batik edition for local smartphone customers that were not only produced locally but also embed local software in its products. Meanwhile, Singapore-based companies of Axioo through its Indonesian based companies PT. Axioo International Indonesia also built cooperation with local company PT. Teradata Indonusa to assemble phones for Asus smartphone (Indonesia, 2015a).

With local production done in the country, the volume and value of import for telecommunication and ICT devices decreased. The data on companies complying with LCR regulation and the decrease in import trend shows how LCR regulation is effective policy instrument that manages to compel foreign companies to locally produce its products in Indonesia thus reducing import values and managed to build cooperation with local companies to drive transfer of technology and increase domestic capabilities. It is also worth comparing the data of export trend before and after the implementation of LCR regulation to assess the impact and effectiveness of this regulation. The export trend of telecommunication and ICT devices using 4G LTE technology from 2009 to 2015 can be seen in the graph below.

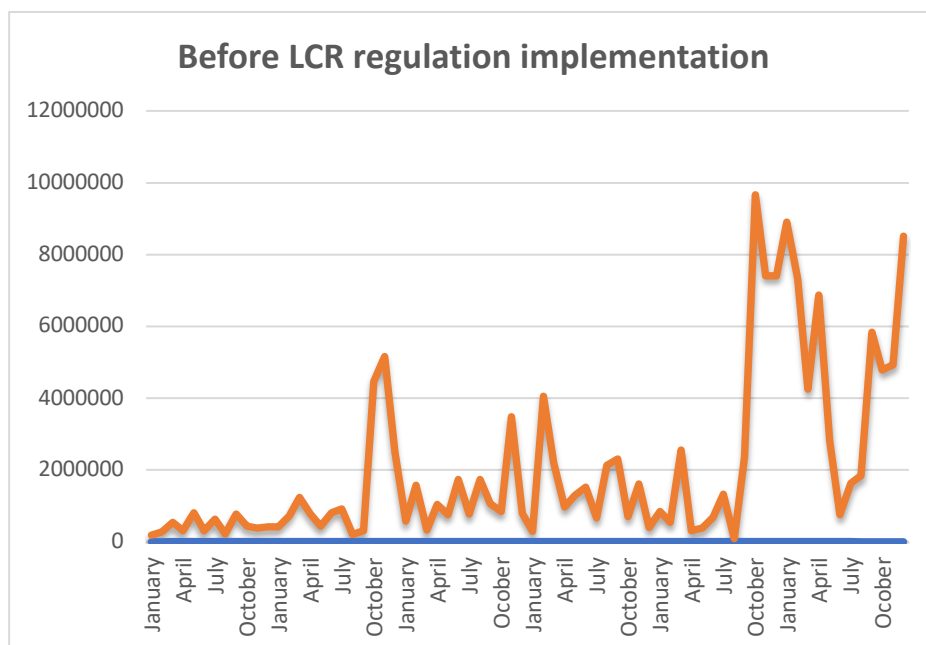


Figure 19. The Graph of Export Value before the Implementation of LCR Regulation (2009-2015) (source: Central Bureau of Statistics)

Meanwhile, the export trend of telecommunication and ICT devices using 4G LTE technology after the implementation of LCR regulation is in the following graph.

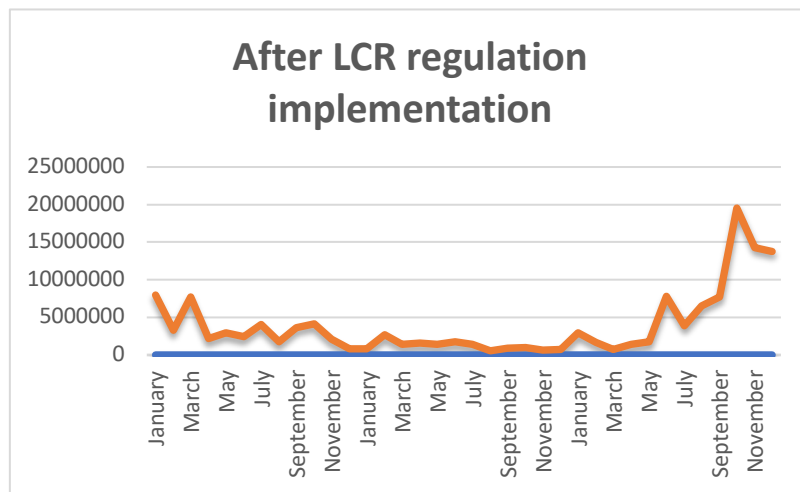


Figure 20. The Graph of Export Values after The Implementation of LCR regulation (2015-2017) (source: Central Bureau of Statistics)

The comparison of the graph in export values for telecommunication and ICT devices using 4G LTE technology before and after the implementation of LCR regulation shows that the export trend before the implementation of LCR regulation fluctuated but increased in 2014, while after the LCR regulation is implemented the export trend tend to decrease but started to increase again by the end of 2017. These graphs in import and export trend show that even with little significance in the increase in export values, the decrease in import values is significant thus give a significant impact in the reduction of trade balance deficit. The trade balance deficit moves to a positive value as can be seen in the graph below.

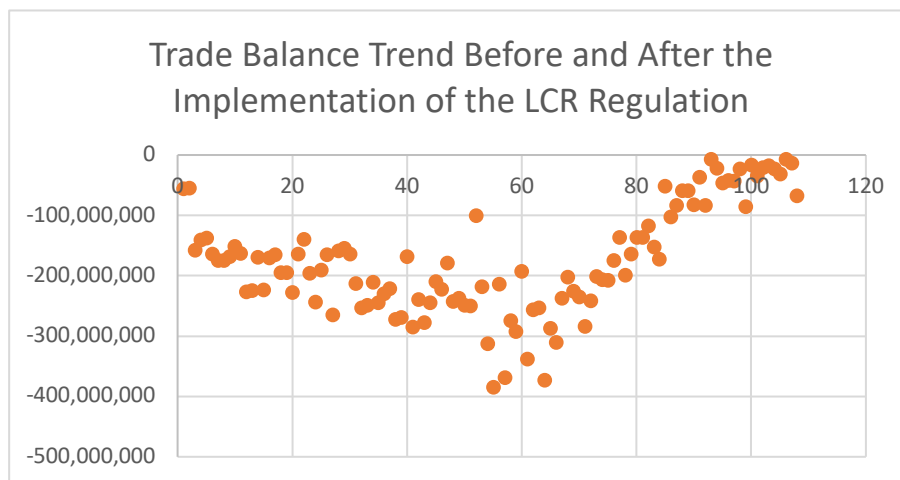


Figure 21. Trade Balance Trend of 4G LTE Devices before and after the Implementation of LCR Regulation (source: Central Bureau of Statistics)

With the data showing the improved condition in trade balance for telecommunication and ICT devices using 4G LTE technology, LCR regulation as an internal government intervention measure in addressing the trade balance deficit proved to be effective.

In addition to the assessment of the impact of LCR regulation on the condition of domestic trade, it is also worth seeing external factors that can contribute to the condition of import-export. The assessment of these external factors helps to understand if high import values trend and the trade balance deficit before 2015 was due to internal factors inside Indonesia or influence from outside the country. By assessing these external factors, the researcher would truly identify if LCR regulation is indeed an effective policy instrument.

However, the unavailability of trade data from other countries on the telecommunication and ICT sector especially for devices using 4G LTE technology makes it difficult for the researcher to compare and analyze the external factors that influence trade. Nevertheless, the researcher found general trade data of import-export from other countries that can become basis data for comparison. Therefore, in order to compare the general import-export data from other countries, the general import and export data should first be seen. It is also important to note that the trade balance deficit in the telecommunication and ICT sector is a part of general trade balance deficit of Indonesia. The trade balance deficit also happens in other sectors where the general value of import and export that have been released by WTO (WTO, 2015) and Indonesia Central Bureau of Statistics.

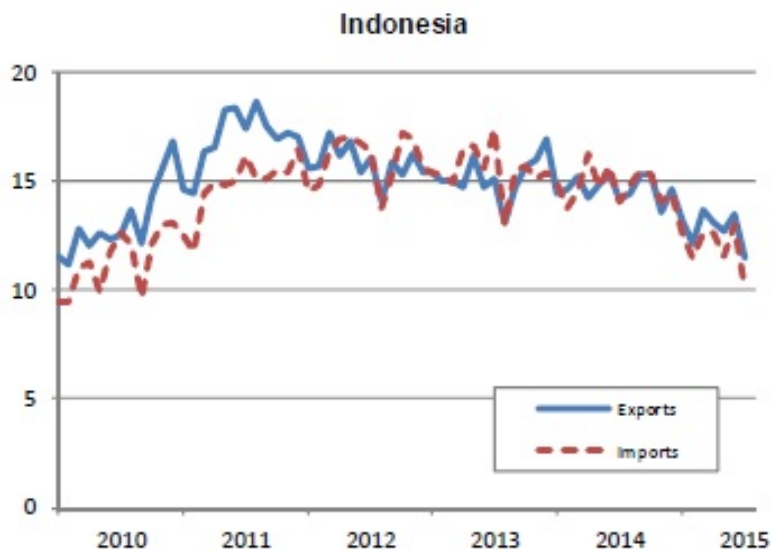


Figure 22. Merchandise Exports and Imports of Indonesia in Billion Dollars from January 2010-August 2015. (sources: IMF International Financial Statistics, Global Trade Information Services GTA Database, national statistics)

NO	Note	2013	2014	2015	2016	2017	TREND(%) 2013-2017
I	Export	182.551,8	175.980,0	150.366,3	145.186,2	168.828,2	-3,43
	Oil and Gas	32.633,0	30.018,8	18.574,4	13.105,5	15.744,3	-20,44
	Non Oil and Gas	149.918,8	145.961,2	131.791,9	132.080,8	153.083,9	-0,58
II	Import	186.628,7	178.178,8	142.694,8	135.652,9	156.985,6	-6,00
	Oil and Gas	45.266,4	43.459,9	24.613,2	18.739,3	24.316,0	-18,81
	Non Oil and Gas	141.362,3	134.718,9	118.081,6	116.913,6	132.669,5	-2,65
III	Total	369.180,5	354.158,8	293.061,1	280.839,1	325.813,7	-4,70
	Oil and Gas	77.899,4	73.478,7	43.187,5	31.844,8	40.060,3	-19,48
	Non Oil and Gas	291.281,1	280.680,1	249.873,5	248.994,3	285.753,4	-1,57
IV	Trade Balance	-4.076,9	-2.198,8	7.671,5	9.533,3	11.842,6	
	Oil and Gas	-12.633,3	-13.441,1	-6.038,8	-5.633,9	-8.571,7	
	Non Oil and Gas	8.556,4	11.242,3	13.710,3	15.167,2	20.414,3	22,61

Note: *) Provisional values

*) Provisional values

Period : 2013-2018

(Value : Million US\$)

Table 15. Indonesia's total Trade Balance Between 2013-2017 (source: Indonesia Central Bureau of Statistic, and Ministry of Trade)

Total values of Indonesia's trade balance deficit can be seen in the above table. The table shows the trade balance deficit happened in 2013-2014 and the positive trade balance was in 2015 and above. The data shows us again that 2015 is a crucial point where it became a turning point that changed the condition of trade balance deficit over the years. Government measures in turning back this condition of trade balance proved to be very successful.

However, regardless of the internal measures from the government that helped in recovering export and import, external factors may also contribute to this trade balance. Data from ASEAN Secretariat shows us that the fall in export and import and the trade balance deficit were also experienced by other countries in the region (Nations, 2016). Regardless of the different values of the deficit among countries due to the differences in each country's status of development, countries like Cambodia, Lao PDR, Myanmar, Philippines and Thailand experienced deficit since 2011/2012, while other countries such as Brunei Darussalam, and Malaysia, although not experiencing a deficit, but their trade balance decreased. Singapore's trade balance fluctuated but decreased

significantly in 2012. While Viet Nam although its trade balance fluctuated since 2012, but experienced high trade balance deficit in 2015. Indonesia's trade deficit reached its peak in 2013, where the deficit reached -4076.9 Million US \$. This data shows that external measures from outside the region influence regional trade.

(in US\$ Million)

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Brunei Darussalam	5,556.6	7,761.2	4,701.4	6,400.2	9,497.7	9,506.5	7,833.7	6,987.6	3,115.7	2,203.6
Cambodia	230.4	-58.5	1,084.9	-949.4	-978.4	-2,308.4	-1,545.7	-2,910.8	-3,239.7	-2,297.9
Indonesia	39,827.5	7,823.1	19,880.8	22,115.8	26,061.1	-1,657.6	-4,076.9	-2,198.8	7,587.5	9,533.4
Lao PDR	-329.3	-975.5	-487.8	72.1	-884.1	-1,000.4	-584.5	-1,880.2	-793.3	-982.9
Malaysia	29,295.3	50,197.1	33,560.4	33,989.9	40,612.9	31,145.8	22,427.3	25,076.9	23,147.1	21,022.0
Myanmar	3,144.2	2,825.7	2,491.6	3,875.5	-394.9	-423.5	-809.7	-5,195.4	-5,238.4	-4,186.4
Philippines	-5,048.0	-7,820.2	-7,199.3	-6,796.9	-15,867.2	-13,391.2	-11,152.4	-6,602.9	-11,537.7	-29,622.2
Singapore	38,947.0	17,949.6	23,755.2	40,167.2	43,649.4	29,795.9	31,884.8	37,463.0	49,808.0	46,173.8
Thailand	13,605.4	-2,600.9	18,727.6	10,371.0	-6,200.3	-18,243.3	-20,786.9	-378.7	11,645.1	20,659.1
Viet Nam	-13,404.6	-17,801.3	-12,539.8	-12,601.9	-9,844.2	1,228.2	554.2	2,405.9	-3,716.0	2,111.7
TOTAL	109,624.5	57,500.4	83,775.0	96,643.6	86,052.0	34,652.0	23,764.0	52,766.6	70,778.1	64,614.2
ASEAN6	119,983.8	73,510.0	93,226.1	106,247.2	97,953.6	37,156.1	26,129.7	60,347.1	83,765.5	69,969.7
CLMV	-10,359.2	-16,009.6	-9,451.1	-9,603.6	-11,901.5	-2,504.1	-2,365.7	-7,580.4	-12,987.5	-5,355.5

* Trade balance is the difference between the value of exports and value of imports.

Source: ASEAN Secretariat
 Note: ASEAN6 comprises Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, and Thailand; CLMV stands for Cambodia, Lao PDR, Myanmar, and Viet Nam.

Table 16. ASEAN Balance of Trade in Goods by Country, 2007-2016 (source: ASEAN Secretariat)

World Bank reported that trade drop came from developing countries, especially from Asia's emerging economies. The decline in Asia's emerging economies' import contributed to 94% drop of world trade volumes. WTO even reduced the projection for world trade growth to 2.8% from 3.3% in 2015. This drop in the world trade was influenced by the decrease in import demand from China, Brazil and other emerging economies, the drop in oil prices, and fluctuation in exchange rate. WTO further projected that 2015 became the 4th consecutive year where annual trade growth dropped (WTO, 2015).

World Bank suggested that the shift in China's domestic economy from investment to consumption that drove them to depend less on investment and manufacturing sectors became the primary sector of the decline in global import volume. Asia became the region that was most affected by China's transition in economic growth (Constantinescu, C., Matto, A., Ruta, 2016). This is because China is a major trading partner in Asia, so the transition in internal China that affected especially the manufacturing sector influenced Asia's trade because China's manufacturing sector is concentrated to import and relates to international value chains. With Asia is playing a dominant role in global trade, the contraction in Asia's trade in turn shock the global trade.

The contraction that China made to global import value, therefore, highly influenced the region's import values. As one of ASEAN's big trading partner, this explained why all countries in ASEAN experienced fluctuation, decrease and even deficit in their trade balances. The impact from the manufacture-dependent transition in China also decreases the demand from internal China thus affecting export values from other regions. With Indonesia's trade highly relates to China and the implementation ASEAN China Free Trade Agreements (ACFTA) in 2010, China's internal trade condition impact the import-export values in Indonesia. In addition, ACFTA also removes tariffs for products thus making China's products flood to Indonesia's market and making Indonesia

dependent on China's cheap products. Indonesia's dependency on trade with China can be seen in the following figure that shows the trade balance deficit with China (Indonesia, 2015b).

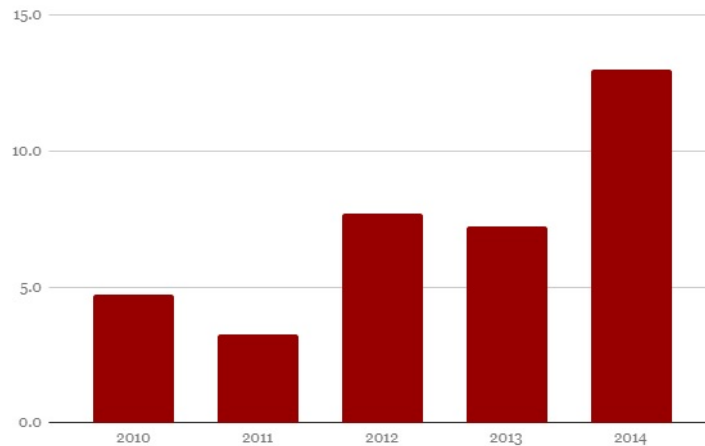


Figure 23. . Indonesia's Trade Balance Deficit with China (in Billion USD).
(Source: Ministry of Trade)

While it is hard to find data on trade dependency for telecommunication and ICT devices using 4G LTE Technology from China, to draw a similarity with the general dependency of Indonesia's trade with China, the researcher found data on the values of telecommunication equipment imported from China obtained from Indonesia's Central Bureau of Statistics.

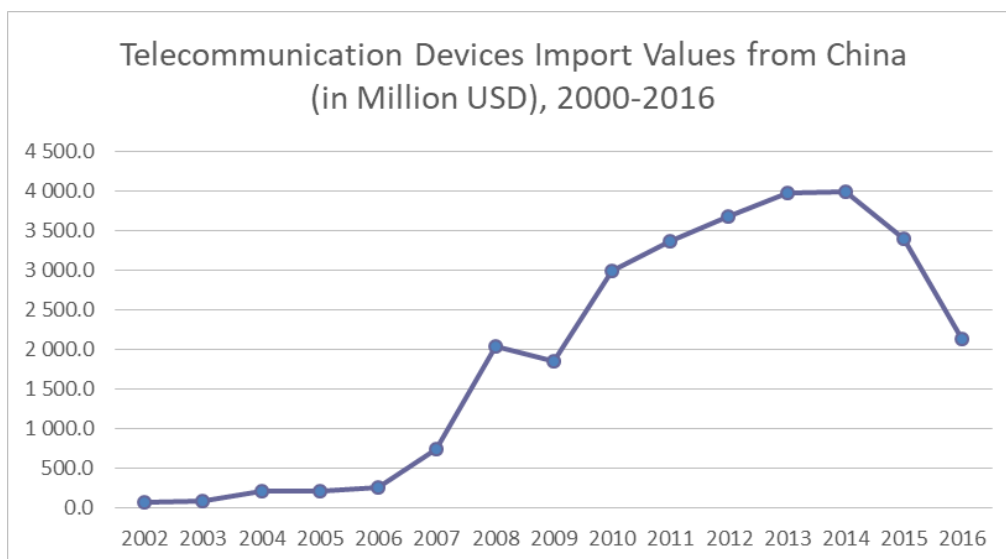


Figure 24. Indonesia's Import Values of telecommunication Devices from China, 2000-2016 (source: Central Bureau of Statistics)

The graph shows that an increase in import volumes happen from 2009-2014 and drop in 2015. If we relate this with the above-mentioned data on the general import data for telecommunication and ICT devices using 4G LTE technology, there is a similarity in the import trend where the trend increase until 2014 and drop in 2015 that coincides with the start of the implementation of LCR regulation. This can be inferred that China's internal economic transition become an external factor that influences the decrease in import trend and the deficit in

the trade balance in Indonesia, and the implementation of LCR regulation helped decrease the import values for telecommunication equipment, in this case, especially from China.

Data that the researcher gathered, both by considering internal and external factors that influence import trend and trade balance, provide evidence that import values drop in 2015 onwards and trade balance move to positive level since 2015 after the implementation of LCR regulation. Although the export values did not increase significantly, the major objectives behind the implementation of LCR regulation that are to decrease import values and trade balance deficit are accomplished. The government realized that an increase in export values is long-term objectives because it takes time to make domestic telecommunication and ICT industry ready to export products and compete with global brands. However, the readiness of this industry export has been driven by the cooperation among foreign and local companies that was facilitated by this LCR regulation. This cooperation drove the transfer of technology and increase domestic capabilities in the production of telecommunication and ICT devices using 4G LTE technology. With the data showing that cooperation and investment are established since 2015, the researcher concludes that LCR regulation managed to be effective policy instrument to meet its objectives of implementation.

10.4 Validity and Reliability

To highlight the conceptual relationship, the researcher needs to understand the concepts of validity and reliability (Golafshani, 2003). In this thesis, the research is conducted in the specific phenomena, which is the formulation of LCR regulation. During this research, many challenges during the gathering of information and data are found. Thus, it is necessary to measure the internal and external validity, as well as reliability. In this section, these validity and reliability are discussed to show the challenges and obstacles in collecting the data and information that may influence the result of this research.

This research uses the methodology of the face-to-face interview that presents many benefits and drawbacks. However, regardless of the benefits of obtaining direct information from the interviews, several studies highlight the limitation of this methodology compared to other methods of the interview using technology such as telephone interview, and internet interview. One study shows that face-to-face interview makes interviewees not having enough time to think about the answers to the questions and push interviewees to answer questions immediately (Van Wijck, Bosch, & Hunink, 1998). Nevertheless, the method that the researcher employs does not use the same procedure in that the researcher even sent the list of questions before the face-to-face interview conducted through e-mail. This will enable key informants to expect the kind of questions that will be raised and to prepare the answers to the questions.

However, in contrary to the expected benefits, apparently sending questions before the interview made key informant make up answers if they consider that the questions are sensitive or even cancel the appointment, as happened to interview appointment with a delegation from India during TRIMS session in Geneva. This methodology is also very costly, time-consuming, and necessitate

travel. This is in accordance with the limitations that the research faced during face-to-face interviews, particularly when the researcher needs to conduct interviews in Indonesia and Geneva while the researcher was based in Leiden during the research. To resolve this problem, the researcher made follow up interview using telephone interviews in order to gather more information. Telephone interviews can cover some of the drawbacks from the face-to-face interview because it is much less costly, eliminates the need to travel, it can be executed from one location and in a short time. Both of these methodologies provide the same outcomes in that the information obtained from face-to-face interview and telephone interviews does not have a significant difference (Van Wijck et al., 1998). One study even showed that either face-to-face interview or telephone interview is more superior than the other in providing the outcome of interviews (Rohde, Ph, Lewinsohn, Ph, & Seeley, 1997). The following sections will explain the internal and external validity related to this methodology of collecting data and information, as well as the reliability of this research.

10.4.1 Internal Validity

In this research, the formulation of LCR regulation was conducted by MCIT with involving other policy communities. This regulation was formulated under the Directorate of Standardization. To optimize the internal validity of this research, the interview was conducted with the interviewee who is the key person in charge of this LCR regulation formulation. The interviewee should have the strategic position and experience in the formulation of this LCR regulation, position, and authority to share this data and information in order to maintain the relevance of information and data gathered from this interviewee to ensure the validity of the interview result.

Respondent 1 holding the strategic position as the Head of Information and Data of Post, Telecommunication, and Informatics Devices of Directorate Standardization of MCIT is considered as the right interviewee to obtain the information how this LCR regulation was formulated, became an agenda in MCIT, and what the reason that make LCR regulation could be the best alternative considered by the government. He has the capability and capacity to answer these questions since he involves in the formulation process of this LCR regulation comprising the coordination with other relevant directorates or division, such as Law Bureau, Centre of International Affairs, and other communities, for instance, the private sector, association, and academics. Conducting an interview with respondent 1 is considered can ensure the validity of the result of the interview that is used in this research, since this research requires the input, data, and information from people who have a deep understanding regarding the process of formulation of LCR regulation.

Since this LCR regulation has the implication with the inconsistency with WTO agreement, the interview should be conducted with the person who is in charge in the WTO forum. In MCIT, the Centre of International Affairs is a division which deals with the issues related to WTO. The respondent 2 as Head of ICT investment in Multilateral Forum of MCIT was also involved in the formulation of LCR regulation and as the negotiator members of MCIT who is responsible to deliver Indonesia's position in WTO forum related to LCR regulation issue. By conducting the interview with the respondent 2, the researcher can capture the

newest status of LCR regulation in WTO forum that comprises the WTO agreement that prohibits the LCR regulation, the process of an issue to be discussed and judged in WTO forum, as well as the consequence imposed to the member that is proven guilty under DSB of WTO. The interviewee with respondent 2, therefore, can also contribute to enhancing the internal validity of this research.

The interview was also conducted to a big company who was the first company that builds the factory in Indonesia as the compliance with the LCR regulation. The interviews were also conducted to some other big companies. These interviews aim to generate the perspective of the private sector on the implementation of LCR regulation. This interview was conducted to obtain the information whether the private sector was involved in the formulation of LCR regulation, the implication of this LCR regulation to the business, the opportunity, obstacle, and challenges faced by the company to comply with this LCR regulation. Choosing the first company establishing the factory in Indonesia can optimize the internal validity since the input gathered from this company is relevant to this thesis. Moreover, the interviews were also conducted to other big companies in order to support the inputs from the private sector.

To ensure the consistency of response regarding the inconsistency of LCR regulation with WTO agreement provided by MCIT, it is necessary to conduct an interview with the WTO representative. The interview was conducted in WTO Headquarter in Geneva. It was difficult to arrange the appointment with the WTO representative. The implementation of LCR regulation is inconsistent with the TRIMS agreement of WTO. However, the interviewee of WTO is the person who is in charge of TRIPS agreement rather than TRIMS. Nevertheless, the interviewee still has the knowledge and capability to answer the question related to TRIMS. Therefore, conducting the interview with WTO representative can enhance the internal validity of this research.

In terms of statistical data, the validity of this data is determined from the relevance of the data used in the research in terms of appropriateness, meaningfulness, and usefulness, and how to obtain this data (Wainer & Braun, 1988). In this study, the trade balance deficit is provided officially by the government. Since this data is provided by the government, it can be assured that this data is valid. Moreover, the usage of the data of trade balance deficit trends comprising the export and import data to measure the effect of before and after the implementation of LCR regulation is relevant to this research. By comparing these data trends before and after the implementation of LCR regulation by using some statistical tests, the correlation of LCR regulation to these trends can be assessed. This research also involves other factors, such as GDP, inflation, and exchange rates that may influence to the trade balance, export, and import trends provided by the government and dedicated organization such as World Bank in order to ensure the validity of this data.

10.4.2 External Validity

This research, the interviews are conducted to stakeholders that are involved in the formulation of LCR regulation and in the WTO forum. Since this research is a qualitative basis and there is a difficulty to generalize the criteria of

stakeholders qualitatively, it is important to discuss how far the result from this research can be generalized to other research as the external validity (Ramadhani, 2018). This research involves some stakeholders comprising governmental institution, private sectors, and associations as the policy communities on the formulation of LCR regulation. This research also focuses on the stakeholders' perspectives on the formulation of LCR regulation. The result of this research, therefore, can be used for other researches with similar conditions, especially the case studies on LCR regulation formulation with the engagement with WTO agreement. Nevertheless, the user who wants to use the result of this research should be careful since this research is narrower and more specific on the formulation of LCR regulation in the telecommunication and ICT sector in Indonesia especially applied for the devices using 4G LTE technology.

10.4.3 Reliability

The definition of reliability refers to the stability condition in which a similar result will be obtained while the research is carried out for the second time (Golafshani, 2003). Reliability can be interpreted as the accuracy of the instruments employed where a particular type of instrument is utilized in the same situation on a repeated time basis and still consistently yield the same result (Heale & Twycross, 2015). To ensure the accuracy and consistency of the research, the data and information gathered from the recorded interviews and transcript of the interviews are stored and saved. These recorded interviews and interviews transcriptions can be used as the parameter of consistency of the data and information if the further study will be conducted. Thus, the result and conclusion will be similar to the first research in the same context of study and interviewees.

Moreover, the data used in this research are empirical data that means this data cannot be changed because they have occurred as the historical data. The data used in the statistical test involves all independent variables that affect import, export, and trade balance trends as dependent variables. Table 17 and 18 show the correlation between independent variables and dependent variables based on the level of significance ($\alpha=0.05$):

		N=108	$\alpha=0.05$
Independent variable	Dependent Variable	p-value	p-value< α
Intervention of LCR regulation	import	0.001	True
	export	0.014	True
	trade Balance	0.001	True

Table 17. The level of correlation of LCR regulation with import, export, and trade balance trends (*source: author*)

Based on table 17, the intervention of LCR regulation as the independent variable is the right variable measurement to identify how far this independent variable influence the import, export, and trade balance trends as the dependent variables. It can be seen from the table showing that the p-value of the intervention of LCR regulation is less than the level of significant (0.05).

Whereas, the GDP, inflation, and BI rate only correlate with particular dependent variables as shown in table 18. For instance, GDP only has a correlation with the export trend, while inflation only correlates with the import trend, and BI-rate is likely has a very low correlation with import and trade balance trends. This output arguably can happen due to the lack of data variance for conducting this test. Since the data of GDP, inflation, and BI_rate are only possible to obtain in yearly basis which is only 9 (nine) variants of data (2009-2017), the output of the test upon this data shows that these data have lack correlation as can be depicted on the table. This is because of the lacking number of data variants for GDP, inflation, and BI_rate. A larger sample will provide better research result because it will give more reliability to the finding and enable the utilization of more complex statistical analysis. However, experts have common believe that thirty is a minimum number of sample for statistical analysis that at least will give reliability to the research (Cohen, L., Manion, L. and Morrison, 2007). Therefore, the test output of these data makes the reliability level for these independent variable low. The inability to obtain the monthly basis for the GDP, inflation, and BI_rate data is a part of limitation from this research. Thus, for further research, these data should be collected in monthly basis in order to obtain adequate data for the analysis, and the output of the correlation test that is done to identify how far GDP, inflation and BI_rate are valid to import, export, and trade balance trends could be better and reliable.

Independent variable	Dependent Variable	N=9	$\alpha=0.05$
		p-value	p-value< α
GDP	import	0.384	False
	export	0.049	True
	trade Balance	0.370	False
Inflation	import	0.021	True
	export	0.260	False
	trade Balance	0.023	True
BI_Rate	import	0.053	False
	export	0.211	False
	trade Balance	0.051	False

Table 18. The level of correlation of GDP, Inflation, and BI_rate with import, export, and trade balance trends (source: author)

10.5 Limitation and Recommendation for Future Research

Within the context of implementation of LCR regulation, Kingdon’s Multiple Streams Approach is useful to help understand the opening of policy window in the formulation of LCR regulation, helps assess the effectiveness of the implementation of LCR regulation and analyze if agenda-setting in WTO influence the opening of new policy window to revise policy that is consistent with WTO agreement. However, the data and interviews available for this research is limited and therefore affects the whole analysis and discussion on this issue.

1. With limited time availability and the availability of respondents for the interviews, the researcher only managed to interview some key informants to obtain data and explanation on the formulation and impact of the implementation of LCR regulation. This few numbers of interviewees affect

- the data gathered and limits the analysis and explanation of this issue. Regardless of the limited number of interviewees, the researcher expects that the interviews conducted can represent the stakeholders involved in the formulation process of LCR regulation and those who are affected by this regulation. Nevertheless, there are still other key informants that represent big foreign companies, small companies, vendors, developers and other interest groups whose inputs and explanation can be drawn to construct a comprehensive assessment of this issue.
2. Limited data on GDP, inflation, and BI_rate that are only available on a yearly basis make the calculation of the impact of these factors to trade balance to be less optimal. There should be a sufficient number of data variant for these variables in order to conduct the statistical analysis.
 3. Unavailability of data on trade dependency for telecommunication and ICT devices using 4G LTE technology from China makes it hard to draw specific picture on trade dependency for this this particular devices. However, this limitation is covered by the available data on trade dependency for telecommunication and ICT devices in general from China.

Therefore, for future research, this study can be enhanced by increased in data and interviews that can help build more comprehensive and optimal finding and analysis. It is also suggested that this study can be further enhanced with the gathering of relevant trade and financial data, such as exchange rate, GDP, inflation, import and export values in at least monthly basis to form more optimal finding. With various data and variables, more appropriate analysis on factors that influence trade balance can be drawn. Thus, analysis on the effectiveness of LCR regulation can be made more precise.

10.6 Conclusion

In this section, the research questions including their answers are delivered as the conclusion. These research questions and the answers are delivered as follows:

10.6.1 Overall Research Questions and Theoretical Framework of Kingdon

The implementation of LCR regulation to address high trade balance deficit in telecommunication and ICT sector is seen as an effective strategy by the government, regardless of its potential conflict with WTO-TRIMS Agreement. The government hoped that LCR mechanism can reduce high trade balance deficit while driving local industries to enhance its capabilities and competitiveness that will finally reduce dependency to import. With the complexity of protecting national interest and the obligation to comply with international regime, this research studies the policy-making behind LCR regulation by using John Kingdon's theory of multiple streams. This theory helps to analyse how the issue of high trade balance deficit drove policy makers to apply LCR regulation, and how this issue received the attention of policymakers to be raised in the governmental agenda.

By considering this, the researcher applies this overarching question of "To what extent does the agenda-setting of Kingdon explain the discussion around the implementation of LCR regulation in Indonesia and its compliance with the international trade regime?". In order to answer this overarching question, the researcher identified the following sub-questions that needs to be answered (i)

What is the problem identified by the Government of Indonesia that the LCR regulation responds to and what policy is proposed through this regulation? (ii) How does the implementation of the LCR regulation relate to the objective of improving the trade balance? (iii) What is the perception of stakeholders of international companies on the LCR regulation? (iv) What is the compliance of the LCR regulation with the WTO?

The utilization of Kingdon's theory is based on the consideration that Kingdon's theory focuses on the initial process of policy-making, which is the filtering process of issues to be agenda which he called agenda-setting. This agenda-setting is divided by Kingdon into governmental agenda and decision agenda. Governmental agenda includes those issues that get serious attention of government officials, while decision agenda are governmental agenda that are already waiting to be decided by the government. The process of agenda setting is analyzed by using the multiple streams approach which includes problems, policy, and politics stream.

Problem stream triggers public official to consider issues and raise them on the governmental agenda. The government refines the collection of problems in order to get priority of problem that requires their deep attention. Kingdon views that problem can get to the attention of policy-makers through indicators, focusing events, crises, and symbols. In the policy streams, ideas are gathered in the process that Kingdon called "policy primeval soup" where policy specialist delivers divergent ideas that will be moved to the next stage to be combined, softened up, and defended in the policy area. After this, policy entrepreneur will create a favorable climate among the public and policy community to ease the proposal acceptance. The last stage is the political stream which consists of some elements of national mood, political organization pressure, and changes of administrators. It is argued that the political stream has a dominant role in the opening of the policy window.

Each of these streams, problem, policy, and politic, are independent of each other but the coupling of these streams together will lead to the agenda change and the opening of the policy window. In order for these streams to come together, there are different actors that involve in the agenda-setting and policy process. These actors are called Policy Entrepreneurs (PE) that may include among others the president, people in the administration, government officials, members of parliament, interest groups, academics, researchers, consultant, and the media

10.6.2 Findings on 4 Sub-Areas (Problem, Policy and Political Stream)

The 4 sub-questions is analyzed based on Kingdon's theory of multiple streams and resulted in the following findings:

j) What is the problem identified by the Government of Indonesia that the LCR regulation responds to and what policy is proposed through this regulation?

The problem stream that triggered MCIT to implement LCR regulation was indicator high trade balance deficit. Data from MCIT showed that this trade balance deficit existed even since before 2008. This high trade balance deficit

was the consequence of the high dependency of Indonesia's telecommunication and ICT industry with the foreign companies while the local industry cannot meet the high demand for telecommunication and ICT devices. Indonesia's telecommunication industry ecosystem is still weak and no local manufacturer can produce the component and assembly of the telecommunication and ICT devices. This caused the number of import values increased while the number of export values are still low.

PE, in this case, MCIT saw the urgency to overcome this high trade balance issue immediately with the consideration of high trade balance deficit and lack of local industry capabilities to produce the local brand devices. MCIT understood the necessity to formulate the policy or regulation that can reduce the number of import value and bring the added-value to local industry in order to enhance the local industry capability that can increase local industries' capability to supply the increasing demand of telecommunication and ICT devices and increase the export value.

In addition to the issue of high trade balance deficit that managed to rise in the agenda setting, another problem is identified during the formulation of LCR regulation. At that time, foreign companies considered that the local companies were not ready to support foreign companies, especially in providing raw materials and supporting components for the assembly so that companies can comply with this LCR regulation through the establishment of a factory for assembly. In addition, foreign companies need time to adopt this LCR regulation and establish communication and coordination with local companies.

In the *policy stream* of LCR regulation formulation case, the MCIT as the policy entrepreneur applied policy primeval soup strategy of Kingdon where MCIT invited policy communities comprising relevant governmental bodies, private sectors, associations, and academics to discuss a possible alternative to address high trade balance deficit. During the discussion with policy communities in the stage of idea floating and gathering, 2 (two) alternative options were identified: (1) the implementation of high import duties, and (2) implementation of LCR regulation. These 2 alternatives were softened up, compared and refined based on some criteria for consideration. However, the high import duties alternative was not considered to solve the trade balance deficit problem because Indonesia has signed the ITA agreement that regulates zero duties for all electronic products imported from Singapore. By legally bound to this agreement, Indonesia can import products through Singapore to get zero duties. Therefore, the application of high import duties will not be effective and was considered to only continue to increase the import values. Therefore, the LCR regulation was selected to be promoted in the decision agenda.

In addition, to respond to the problem from companies that need time to comply with this regulation, MCIT with the support from the Ministry of Industry, and Ministry of Trade that first proposed 30% weight of LCR compliance finally agreed to set the weight of LCR compliance to 20% for 2016, and increased to 30% starting from January 2017.

In the *political stream*, the element of the national mood, and the turnover of administration play a dominant role in the formulation of this LCR regulation. The idea to formulate the LCR regulation as the alternative to solve the trade balance deficit problem was conducted right after President Jokowi was inaugurated. Before being elected, his political promises called NAWACITA was used as key campaign and successfully attracted public attention. One of his priority programs was reducing dependency on import and increasing the national economic resilience. This program triggers national mood to focus on the national development agenda that give more attention to developing and strengthening local industries. The formulation of LCR regulation that aims to reduce the import values and increase the export values corresponds with Jokowi's NAWACITA. Moreover, the appointment of Rudiantara as the new minister of MCIT, also affect the increasing support for the implementation of this LCR regulation. In this case, it can be argued that by implementing LCR regulation that corresponds to the president's NAWACITA program, the new minister secured its political position by proving that he has the capability to meet Jokowi's expectation. The national mood during the formulation process proved to support the implementation of LCR regulation. MCIT as the policy entrepreneur and Rudiantara as the policymaker for this LCR regulation played an important role to couple the problem stream and political stream in the opening of policy window to formulate this LCR regulation.

Since this LCR is regulated in the level of Ministerial Regulation (MR), it does not need approval from the Parliament Member (DPR) that consists of politicians. This means that the element of organized political forces does not really play in this political stream and there was no conflict of interest between politicians. The formulation process only involved the policy communities that encompassed other PEs such as Ministry of Trade and Ministry of Industry, academics, and associations.

(ii) How does the implementation of the LCR regulation relate to the objective of improving the trade balance?

The assessment of the effectiveness of LCR regulation over the benchmark to improve trade balance is carried out without employing Kingdon's theory which can only be used in the analysis of policy-making. The statistical analysis is conducted by using SPSS application to measure how far the implementation of LCR regulation is effective to reduce the trade balance deficit and import values, as well as to increase the export values of 4G LTE devices. Based on the analysis the implementation of LCR regulation is perceived to be productive in reducing both the number of import values and trade balance deficit. The LCR regulation contributes as much as 63% to the declining of import values and trade balance deficit. The LCR regulation has a negative correlation to the import values, whereas LCR regulation has a positive correlation to the trade balance, in which the sustainable implementation of LCR regulation can increase the positive trend of trade balance. Whereas, the effectivity to increase the export values is lower than the percentages of effect in the decrease of import values and trade deficit. This is considered that LCR regulation has a positive correlation to the increase of export values, although the contribution to the increase of export values only around 25.8%. Based on this result, and according to MCIT,

the implementation of LCR regulation is achieving its objectives to reduce the trade balance deficit if it can prove to decline the number of import values.

Moreover, this research also studied other relevant factors that may affect the trade balance deficit, import, and export values of 4G LTE devices, such as GDP, inflation, and exchange rate values. Based on the result, GDP is likely to not correlate with the import values due to $P > 0.05$. However, according to Darwanto, GDP reflects the level of people's affordability. Thus, if GDP is high, then the affordability of people will increase to get the products that they need, including imported products. Therefore, if consumers' affordability increases, then the import volume should also increase (Pradeksa & Darwanto, 2014). The inflation seems to have a correlation with the import value. Based on the result, inflation has a positive correlation with import values. If inflation increases, import values is considered to increase. Because, when inflation occurs, the price of local products will be higher than the price of imported products. Therefore, local products are less competitive than imported products (Fani & Putri, 2011). This condition leads to an increase in imported products to supply the market demand (Dewi, 2018). Meanwhile, the exchange rate is shown to have a positive correlation with import values. This makes Indonesia be able to carry out more import when the rupiah rate is stronger than the dollar (Pradeksa & Darwanto, 2014).

In terms of export values, based on the result, GDP, inflation, and exchange rate are likely to not affect the import values of 4G LTE devices. Nevertheless, GDP has a positive correlation with the export values. The increasing of GDP may enhance the local companies' capability to produce more products that will be exported to other countries (Adi, 2000). Whereas, in terms of trade balance deficit, inflation and exchange rate have a negative correlation that means if the inflation and exchange rate increase, then the trade balance will suffer from a negative trend. It is because inflation has a correlation with the possibility of increasing the import value. However, GDP is considered to not have a correlation with the trade balance trend.

Based on the result of the statistical test, it can be assumed that the implementation of LCR regulation has a higher impact than other factors (GDP, inflation, exchange rate) in reducing the number of import values and balancing the trade balance. However, the export values are slightly affected by LCR regulation. These results are supported by MCIT. By comparing the data of import and export values before and after the implementation of LCR regulation, the government believes that the implementation of LCR regulation is productive in solving the trade balance deficit. This data becomes an indicator for the government to sustain the implementation of LCR regulation.

The effectiveness of the implementation of LCR regulation can also be seen and measured from available trade data. Data shows that after the implementation of LCR regulation in 2015, import value continued to decrease dramatically while trade balance deficit rose to a positive level. The effectiveness of LCR regulation can also be measured by the number of investment that foreign companies made to comply with LCR regulation.

The data on companies complying with LCR regulation and the decrease in import trend shows how LCR regulation is an effective policy instrument that manages to compel foreign companies to locally produce its products in Indonesia thus reducing import values and managed to build cooperation with local companies to drive transfer of technology and increase domestic capabilities. It is also worth comparing the data of export trend before and after the implementation of LCR regulation to assess the impact and effectiveness of this regulation. Research shows that foreign companies such as Samsung, PT. Axioo and Huawei increasingly built factories and planted investment to comply with LCR regulation. This condition shows that LCR regulation is effective mechanism to compel companies to build cooperation with local industries so that there will be a transfer of knowledge, transfer of technology and will drive local industries to increase its capabilities and competitiveness and may, in turn, meet domestic demand and reduce dependency to import.

(iii) What is the perception of stakeholders of international companies on the LCR regulation?

The problem stream. During the implementation of LCR regulation, not all foreign companies can comply with the LCR regulation. After MCIT LCR regulation that set out the percentage of LCR weight and hardware/manufacture mechanism is enacted, Ministry of Industry in 2016 issued the Ministerial Regulation that regulates development and application mechanism and investment mechanism to support the companies to comply with the MCIT's LCR regulation.

There was one company that could not comply with the regulation through the both hardware and development and application mechanisms. This non-compliance for hardware mechanism is due to the incompetence to build a factory in Indonesia in short period of time while they have fixed timeline of production and products launching as well as a complex business process of production. Meanwhile, software development cooperation mechanism also seems to be a less favorable option for them since these companies maintain their exclusive reputation and customer satisfaction. The often updated Operating System (OS) also makes it difficult for local software developers to build software that can always keep up and compatible with the regularly updated OS of this company. Therefore, the company can utilize the investment mechanism to comply with LCR regulation. This company then chose the investment mechanism by investing in Indonesia through the establishment of the innovation centre.

In addition to the available mechanisms to comply with LCR regulation, many challenges emerged during the implementation process of this policy. The companies expressed that there is lack of security assurance and facility for investor, long and complex bureaucracy process, long preparation time to adopt the LCR regulation, inconsistency on the implementation of LCR regulation and lack of local supporting component and local industry readiness.

The policy stream. With these problems emerged in the problem streams during the implementation of the policy has opened the problem window, and the government responded to this problem through its policies. With regard to the problem of the inability of one company to comply with LCR regulation through

hardware and development and application mechanism, the government accommodates the proposal to include investment mechanism as an option to comply with LCR regulation. This is manifested through the ministerial regulation issued by the Ministry of Industry that regulates the mechanisms to comply with the MCIT's LCR regulation. This situation has been mentioned by Kingdon called spillover. This spillover is explained as the increase of probability to open the policy window in an adjacent area due to the success of the first open policy window. With the formulation of LCR regulation issued by MCIT, pushes another policy window to open that can be seized by the policy entrepreneur to formulate another alternative to response the problem recognized during the implementation of LCR regulation. In the formulation of the ministerial regulation, several policy entrepreneurs comprising MCIT, Ministry of Trade, private sectors, and related associations, such as ASPILUKI and AGI were involved.

In responding to the challenges faced by foreign companies during the implementation of LCR regulation, the government applies SDOC to answer the problem of long bureaucracy process. SDOC is a breakthrough system in the certification process that simplifies the bureaucracy system of licensing or investment process. Through the SDOC mechanism, companies can use the result of product testing issued by a foreign recognized lab. The government also cut the bureaucracy time to get the certificate from 2.5 months to 2 days.

Although there are some challenges and obstacles faced by the companies, these companies support the implementation of this LCR regulation by considering the objective of the government in order to balance the trade imbalance instead of protecting the local industry. These companies also considered that they still can generate profits due to the potential characteristic of Indonesia's market and consumer habit. Moreover, some government of these companies, for instance, Korea and China government also consider and support Indonesia's government to implement this LCR regulation. This support can be seen from their actions not to bring this LCR regulation issue to the WTO forum.

(iv) What is the compliance of the LCR regulation with the WTO?

In the problem stream, the LCR regulation is inconsistent with the WTO agreement, especially with the TRIMS Agreement in the illustrative list, point 2. According to this regulation, local content and words related to local content in the investment field and any fields related to investment are strictly prohibited. The implementation of Indonesia's LCR regulation is raised in WTO by some countries, including US, EU, Japan, and Taipei. This complaint has only been discussed in TRIMS forum, this means that the case has not reached DSB. The government still maintain its policy because the government understands the procedures of adjudication in the DSB. This enables the government to predict if and when LCR regulation is taken to DSB. Furthermore, there was an indicator of 32 cases that have been brought to DSB, 20 of them are LCR case and has been proven inconsistent with WTO.

In the policy stream, the government continues identifying the possible alternatives to comply with WTO agreement, but these alternatives are not the amendment of LCR regulation. It is because the issue of inconsistency can be predicted when it takes effect, thus it does not open the problem window.

Therefore, MCIT, as the policymaker has not had the intention to revise the LCR regulation due to the high trade balance deficit problem is more urgent than the problem of inconsistency with WTO agreement. Based on the ideas generation, there are 2 (two) kinds of exceptions that can be used in relation to LCR: a safeguard for the balance of payment, and waiver. The government also considers another alternative such as conducting the bilateral meeting with complainant countries. This bilateral meeting had been conducted by India and resulted in India's LCR regulation is no longer discussed in the WTO forum. In addition, the government also employs "buying time" strategy where the government will deregulate LCR regulation before the case of LCR regulation receives judgment from the DSB.

In the political stream, some elements that exist in this case is national mood and alteration of administration. In term of the national mood, according to interview, the public mostly cares about the improvement in the national level, especially related to economic growth and local industry development. Therefore the implementation of LCR regulation is supported by local industry, developer, start-up. With regard to changes of administration, with Minister Rudiantara taking the helm of MCIT, he attempts to strengthen his political position by showing the President that he has the capacity to protect the national interest, increase domestic economy and reduce dependency to import.

10.6.3 Comparison On The Findings of 4 Sub-Areas Per Stream

The analysis of the policy-making of LCR regulation both on the formulation and in the implementation that uses multiple stream approach may have similarities and differences. Therefore, it is useful to compare the findings of each sub-question on the basis of each stream in order to understand the link in the policy-making and the extent to which Kingdon theory is helpful in the analysis of the agenda-setting.

Problem Stream

The difference of problem stream in the formulation of LCR regulation is that the problem was found through an indicator of high trade balance deficit. This indicator then shows the PE on the urgency to respond to the issue. While the difference of problem stream in the implementation of the policy is that the problems were found through feedback from companies. Without the feedback, the government would not understand the problems that exist and thus cannot make policy that responds to the problem. The problem faced by the company that cannot comply with LCR regulation through hardware and development and application mechanism can only be identified after the companies expressed its concern to the government. The obstacles and challenges faced by companies during the implementation of LCR regulation can also be found once companies gave feedback to the government. All of these problems were identified by the researcher through the interview with Key Informants.

Meanwhile, the problem stream in the compliance to WTO regime was found through indicators that showed 20 out of 32 cases that are brought to DSB at this point are LCR cases. This indicator shows the government that there is an urgent problem in the problem stream where there is concern that Indonesia's LCR regulation can be taken to DSB as other cases of LCR from other countries.

Nevertheless, this indicator fails to open the problem window. The similarities of all these sub-areas in the problem stream are that the interpretation of the urgency to respond to the issue in the problem stream lies to MCIT as PE. When MCIT interprets that the issue is urgent, then the problem window may be open. Meanwhile, if MCIT interprets that certain issue is not too urgent to tackle, then problem window will be closed.

Policy Stream

The difference of policy stream in the first sub-area during the formulation of LCR regulation is that MCIT has full authority in responding to the issue on the problem stream and make policy through formulating LCR regulation. As a government institution that has authority in the affairs of telecommunication and ICT sector, MCIT plays the role of the policymaker. Since there is no LCR regulation before, so there is no spill-over in the policy stream.

Meanwhile, in the third sub-area after the implementation of the policy, the difference lies in the existence of the precedent of the success formulation of LCR regulation before. This spillover can increase the possibility of the policy window to open in adjacent areas. This can be seen in the enactment of the ministerial regulation that regulates two mechanisms to comply with MCIT LCR regulation. This ministerial regulation was issued not by MCIT, but by the Ministry of Industry that shared responsibility with MCIT in developing national industries.

With regard to the last sub-area of the compliance with WTO, since problem window was not opened regardless the existence of the indicator, MCIT as the PE was not willing to use all of its resources, time and energy to facilitate “policy primeval soup” discussion. The similarity between the first and the third sub-areas is that PE recognizes that there is an opportunity for policy window to open so MCIT is willing to facilitate policy communities for discussion, ideas gathering and combining to find the solution for the issue in the problem stream.

Political Stream

In comparing political stream in the finding of three sub-areas, there are no differences found in the first and third sub-areas. This is because the political stream of these sub-areas was based on the mandate from the President-elect at that moment to reduce the dependency to import. This mandate that was originated from his political promise during the presidential campaign became the future direction in the agenda-setting. To realize his political promises, Jokowi as President-elect, appointed Rudiantara as Minister of MCIT that has authority as a policymaker in the telecommunication and ICT sector. The appointment of this new minister shows that there is the alteration of administration in the political stream.

Meanwhile, the political stream in the fourth sub-areas has the difference. In the engagement of compliance to WTO sub-area, there is external organized political force element from the countries that raised complaints to WTO. Nevertheless, there is no internal organized political force from inside the country. In this case, Kingdon could not explain if there are elements in conflict. In addition, since problem window is not open regardless of the existence of the indicator, the

political window cannot also be opened, this caused MCIT to not open policy window, and not make a policy.

10.6.4 Comparison of the finding of four sub-areas and the finding of 3 streams
The table below shows the comparison of finding in each sub-area with the findings that have been identified through 3 streams in accordance with sub-area.

Sub-area	Problem Stream	Policy Stream	Political Stream
<p>1. Problem is recognized based on the government interpretation over the trade balance deficit data as an indicator that open the problem window. Political window open due to the president political promise and the alteration of the new administration. The opening of the problem and political windows lead to the open of policy window. With the open of policy window, MCIT as PE together with policy community formulates LCR regulation as the solution of the problem.</p>	<p>- an indicator of high trade balance deficit that existed even since before 2008 - high dependency to import for telecommunication and ICT devices - low capabilities of local industry to meet domestic demand, low competitiveness of local industry</p>	<p>- in the policy primeval soup, MCIT invited policy communities including relevant governmental bodies, private sectors, associations, and academics discuss a possible alternative to address high trade balance deficit - 2 (two) alternative options were identified: (1) the implementation of high import duties, and (2) implementation of LCR regulation - LCR is selected as an effective measure - MCIT set the weight in increasing order per year, 20% in 2016 and 30% in January 2017</p>	<p>- a mandate from President-elect that was originated from his political promise during the campaign to reduce dependency to import and increase domestic economic resilience - national mood focus on the decreasing import values and increase domestic industry - alteration of administration, Minister Rudiantara is appointed as Minister of MCIT</p>
<p>2. The effectiveness of the policy of the implementation of LCR regulation on the benchmark of the objective of improving trade balance has been approved with the statistical test. It is also because the LCR regulation satisfy the criteria to survive of</p>	<ul style="list-style-type: none"> • LCR regulation contributes as much as 63% to the declining of import values and trade balance deficit • the implementation of LCR regulation has a higher impact than other factors (GDP, inflation, exchange rate) in reducing the number of import values and balancing the trade balance. • GDP is likely to not correlate with the import directly inflation has a positive correlation with import values • in terms of trade balance deficit, inflation and exchange rate have a negative correlation, GDP is considered to not have a correlation with the trade balance trend • trade data shows that since 2015 import value continues to decrease dramatically while trade balance deficit rose to a positive level. 		

<p>technical feasibility, and value acceptability</p>	<ul style="list-style-type: none"> foreign companies such as Samsung, PT. Axioo and Huawei increasingly built factories and planted investment to comply with LCR regulation LCR regulation is an effective mechanism to compel companies to build cooperation with local industries to increase their capabilities, competitiveness. 		
<p>3. The perception of international companies regarding the implementation of LCR regulation is supportive to the government, including the government of these companies. However, there are some feedbacks they deliver to the government that later on open the new problem window. Political stream supports the formulation of the alternative to solve the problem that indicates the open political window. Thus the new policy comes to exist.</p>	<ul style="list-style-type: none"> - the incompetence of the company to build the factory in Indonesia in a short period of time and adopt development and application mechanism and investment mechanism - opportunities faced by foreign company: Indonesia is a big potential market - obstacles and challenges: lack of security assurance and facility for investor, long and complex bureaucracy process, long preparation time to adopt the LCR regulation, inconsistency on the implementation of LCR regulation and lack of local supporting component and local industry readiness. 	<ul style="list-style-type: none"> - Ministry of Industry issued ministerial regulation (spill-over) that regulates 2 mechanisms to comply with MCIT LCR regulation: development and application mechanism and investment mechanism as response to the problem face by companies to comply with LCR regulation -MCIT builds SDOC to answer the problem of long bureaucracy process. SDOC is a breakthrough system in the certification process that simplifies the bureaucracy system of licensing or investment process 	<ul style="list-style-type: none"> - a mandate from President-elect that was originated from his political promise during the campaign to reduce dependency to import and increase domestic economic resilience - national mood focus on the decreasing import values and increase domestic industry - Other PE in adjacent area/jurisdiction which is Ministry of Industry support the formulation of regulation to response the problem while complying to MCIT's LCR regulation
<p>4. The compliance of the LCR regulation with the WTO is that the LCR regulation is inconsistent with TRIMS agreement of WTO. However, the problem and political windows do not open that lead to the close</p>	<ul style="list-style-type: none"> -An indicator of 32 cases that have been brought to DSB, 20 of them are LCR case and has been proven inconsistent with WTO. -The complaint was raised by countries in TRIMS session, yet has not been 	<ul style="list-style-type: none"> - The issue of inconsistency with the WTO and the likelihood Indonesia case is taken to DSB can be predicted when it takes effect, thus it does not open the problem window 	<ul style="list-style-type: none"> -national mood, the public mostly care about the improvement in the national level, especially related to economic growth and local industry development -changes of administration, with Minister Rudiantara

<p>policy window for the government of Indonesia to revise the LCR regulation</p>	<p>brought to DSB. The government understand the procedure of the adjudication in DSB and can predict when the issue will reach DSB.</p>	<ul style="list-style-type: none"> - 2 (two) kinds of exceptions that can be considered in relation to LCR: a safeguard for the balance of payment, and waiver - The government applies buying time strategy and consideration of conducting bilateral meeting 	<p>taking the helm of MCIT, he attempts to strengthen his political position by showing the President that he has the capacity to protect the national interest</p>
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Table 19. The comparison of findings between sub areas and findings of multiple streams on each sub area (*source: author*)

Based on the table it can be seen that the problem window and political window play an important role to open the policy window. With the available alternative, the problem of trade balance deficit can be dramatically pushed from the governmental agenda to the decision agenda that is ready for the legislative enactment. The PE also plays important role in coupling all streams together in a critical time, the alternative is attached to the problem as the solution that is supported by the political climate such as the president's mandate and the new minister as the alternation of administration. Spill-over also takes a place during the implementation of MCIT's LCR regulation. With the precedent of the formulation of LCR regulation, increase the probability to open the new policy window in the adjacent area. By recognizing the problem faced by companies to comply with the LCR regulation, with the interpretation of the government, this problem has to be solved in order to obtain the productive outcomes from the implementation of LCR regulation. To response this problem, Ministry of Industry that also share jurisdiction with MCIT in terms of the development of telecommunication and ICT industry take a lead to formulate the alternative. In this occasion, the Ministry of Industry plays the role as the PE. With the similar support and climate in the political stream, then the formulation of the second regulation is issued by the Ministry of Industry to support the compliance of companies to MCIT's LCR regulation. However, this LCR regulation has put Indonesia in the risk of inconsistency with TRIMS agreement of WTO. Nevertheless, the government of Indonesia does not interpret this condition as the problem, although there is an indicator containing the cases brought to DSB mostly related to LCR measure. The government prioritizes the national interest rather than the international interest although Indonesia as the member of WTO must comply with WTO regulation and agreement. Moreover, the ability to predict when the LCR issue will be brought to DSB also contribute to the government interpretation to not consider this inconsistency as the problem. Therefore, the problem window on this occasion does not open. Furthermore, there are external organized political forces from complainants countries that raise this issue at TRIMS forum. However, it does not sufficient to open the political window because the internal political climate still supports the implementation of LCR

regulation. With the absence of both problem window and political window, the policy window for the amendment of LCR regulation does not open. Moreover, the PE does not want to invest its resource, time, and energy in the policy stream since there is no probability of the policy window to open.

10.7 Conclusion of the overarching question

Based on the findings discovered in all sub-areas, then these findings can help to answer the following overarching question: ***“To what extent does the agenda-setting of Kingdon explain the discussion around the implementation of LCR regulation in Indonesia and its compliance with international trade?”***

With the complexity behind the formulation and implementation of LCR regulation, Kingdon theory helps to understand the flow and the formulation process of LCR regulation through its multiple-stream approach. This approach and its ‘policy primeval soup’ are used to analyze the process in formulating LCR regulation, the policy-making and multiple actors involved in the formulation of LCR regulation by assessing problem stream, policy stream, and political stream. The interplay of these 3 streams in opening new policy window also helps the researcher in understanding the interaction of the streams in policy-making. Nevertheless, as has been admitted by Kingdon, his theory cannot assess the importance of each actor in pushing issues into the agenda and in opening up the policy window. His theory cannot also be used to understand which actors and which network of actors play the dominant role in agenda-setting and policy-making. Thus, in assessing the formulation of LCR regulation and its compliance with international trade, Kingdon theory needs to be complemented by other theory such as multi-level governance and policy network.

With regard to the complexity behind compliance issue with international trade regime, Kingdon theory helps in assessing the urgency to address the compliance issue of LCR regulation implementation with international trade regime. Kingdon also helps in assessing the intent of the government to find alternatives to address the issue of non-compliance and analyzing which alternative policy that the government considers more likely to adopt. Nevertheless, Kingdon’s theory failed to point out which problem or interest is dominant when there are 2 interests are in conflict. In this regard, when there is a conflict of interest between national and international interest, Kingdon’s theory cannot justify which interest should be prioritized. It is then the subjectivity of the government that is playing.

There is also an exception to Kingdon’s theory that is found in the compliance issue to the international trade regime. Regardless Kingdon succeeds in analyzing the problem stream through indicators, focusing event and feedback, there is an exception when the existence of indicator cannot open problem window. His theory does not explain how far indicator can open the problem window as one of element to open the policy window or explain the reason behind the failure of problem window to open.

It can be inferred that Kingdon theory is important in the assessment of this research to the extent that it can be helpful in identifying the problem, assessing

the policy-making and the political will in the formulation of LCR regulation as well as in addressing the compliance issue of LCR regulation in international trade regime. It helps to understand the agenda-setting and policy-making, yet fails to explain the importance of each policy entrepreneurs or policy communities and role they play in the agenda-setting policy-making. This interaction of policy entrepreneurs and policy networks are covered by other theory of multi-level governance and policy networks.

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ANNEX

ANNEX 1. Regression for Import Value before the Implementation of the LCR Regulation

n	Month	x	y	x ²	xy	y' = a + bx
1	January	1	55,890,831	1	55,890,831	147,852,034.19
2	February	2	55,165,216	4	110,330,432	149,907,641.87
3	March	3	157,807,054	9	473,421,162	151,963,249.56
4	April	4	141,277,785	16	565,111,140	154,018,857.24
5	May	5	137,913,145	25	689,565,725	156,074,464.93
6	June	6	164,174,465	36	985,046,790	158,130,072.61
7	July	7	174,844,184	49	1,223,909,288	160,185,680.30
8	August	8	175,063,111	64	1,400,504,888	162,241,287.98
9	September	9	168,869,062	81	1,519,821,558	164,296,895.67
10	October	10	152,003,562	100	1,520,035,620	166,352,503.35
11	November	11	163,885,428	121	1,802,739,708	168,408,111.03
12	December	12	227,073,003	144	2,724,876,036	170,463,718.72
13	January	13	225,379,440	169	2,929,932,720	172,519,326.40
14	February	14	170,036,307	196	2,380,508,298	174,574,934.09
15	March	15	224,825,340	225	3,372,380,100	176,630,541.77
16	April	16	171,041,044	256	2,736,656,704	178,686,149.46
17	May	17	165,602,121	289	2,815,236,057	180,741,757.14
18	June	18	196,008,930	324	3,528,160,740	182,797,364.82
19	July	19	196,291,811	361	3,729,544,409	184,852,972.51
20	August	20	228,126,728	400	4,562,534,560	186,908,580.19
21	September	21	164,557,494	441	3,455,707,374	188,964,187.88
22	October	22	144,101,785	484	3,170,239,270	191,019,795.56
23	November	23	201,134,552	529	4,626,094,696	193,075,403.25
24	December	24	246,417,391	576	5,914,017,384	195,131,010.93
25	January	25	191,687,359	625	4,792,183,975	197,186,618.62
26	February	26	166,335,331	676	4,324,718,606	199,242,226.30
27	March	27	265,643,378	729	7,172,371,206	201,297,833.98
28	April	28	159,871,430	784	4,476,400,040	203,353,441.67
29	May	29	155,561,880	841	4,511,294,520	205,409,049.35
30	June	30	166,133,243	900	4,983,997,290	207,464,657.04
31	July	31	213,718,065	961	6,625,260,015	209,520,264.72
32	August	32	254,840,565	1,024	8,154,898,080	211,575,872.41
33	September	33	250,071,529	1,089	8,252,360,457	213,631,480.09
34	October	34	212,118,463	1,156	7,212,027,742	215,687,087.78
35	November	35	247,722,705	1,225	8,670,294,675	217,742,695.46
36	December	36	230,780,739	1,296	8,308,106,604	219,798,303.14
37	January	37	221,391,598	1,369	8,191,489,126	221,853,910.83
38	February	38	276,698,396	1,444	10,514,539,048	223,909,518.51

39	March	39	270,894,664	1,521	10,564,891,896	225,965,126.20
40	April	40	168,939,881	1,600	6,757,595,240	228,020,733.88
41	May	41	286,513,102	1,681	11,747,037,182	230,076,341.57
42	June	42	240,489,857	1,764	10,100,573,994	232,131,949.25
43	July	43	278,796,547	1,849	11,988,251,521	234,187,556.93
44	August	44	246,489,317	1,936	10,845,529,948	236,243,164.62
45	September	45	211,572,063	2,025	9,520,742,835	238,298,772.30
46	October	46	222,975,018	2,116	10,256,850,828	240,354,379.99
47	November	47	180,236,479	2,209	8,471,114,513	242,409,987.67
48	December	48	242,494,302	2,304	11,639,726,496	244,465,595.36
49	January	49	238,079,438	2,401	11,665,892,462	246,521,203.04
50	February	50	249,247,989	2,500	12,462,399,450	248,576,810.73
51	March	51	252,233,520	2,601	12,863,909,520	250,632,418.41
52	April	52	100,583,380	2,704	5,230,335,760	252,688,026.09
53	May	53	219,137,842	2,809	11,614,305,626	254,743,633.78
54	June	54	312,840,373	2,916	16,893,380,142	256,799,241.46
55	July	55	386,273,765	3,025	21,245,057,075	258,854,849.15
56	August	56	214,134,711	3,136	11,991,543,816	260,910,456.83
57	September	57	371,269,910	3,249	21,162,384,870	262,966,064.52
58	October	58	284,032,316	3,364	16,473,874,328	265,021,672.20
59	November	59	299,751,944	3,481	17,685,364,696	267,077,279.89
60	December	60	199,744,259	3,600	11,984,655,540	269,132,887.57
61	January	61	347,053,245	3,721	21,170,247,945	271,188,495.25
62	February	62	264,120,197	3,844	16,375,452,214	273,244,102.94
63	March	63	257,045,472	3,969	16,193,864,736	275,299,710.62
64	April	64	379,631,176	4,096	24,296,395,264	277,355,318.31
65	May	65	290,261,553	4,225	18,867,000,945	279,410,925.99
66	June	66	311,732,299	4,356	20,574,331,734	281,466,533.68
67	July	67	238,456,769	4,489	15,976,603,523	283,522,141.36
68	August	68	204,302,848	4,624	13,892,593,664	285,577,749.04
69	September	69	231,665,867	4,761	15,984,944,823	287,633,356.73
70	October	70	239,910,611	4,900	16,793,742,770	289,688,964.41
71	November	71	288,830,669	5,041	20,506,977,499	291,744,572.10
72	December	72	249,673,850	5,184	17,976,517,200	293,800,179.78
72	6,906,384	2,628	15,899,479,703	127,020	644,256,296,929	
Σn	$(\Sigma x)^2$	Σx	Σy	Σx^2	Σxy	

ANNEX 2. Regression for Import Value after the Implementation of the LCR Regulation

n	month	x	y	x ²	xy	y' = a + bx
1	January	73	209,607,799	5,329	15,301,369,327	154,870,336.21
2	February	74	209,884,548	5,476	15,531,456,552	154,870,336.21
3	March	75	214,845,325	5,625	16,113,399,375	154,870,336.21
4	April	76	177,336,844	5,776	13,477,600,144	154,870,336.21
5	May	77	139,064,902	5,929	10,707,997,454	154,870,336.21
6	June	78	201,209,792	6,084	15,694,363,776	154,870,336.21
7	July	79	168,430,346	6,241	13,305,997,334	154,870,336.21
8	August	80	138,673,883	6,400	11,093,910,640	154,870,336.21
9	September	81	139,932,751	6,561	11,334,552,831	154,870,336.21
10	October	82	121,095,575	6,724	9,929,837,150	154,870,336.21
11	November	83	154,328,539	6,889	12,809,268,737	154,870,336.21
12	December	84	172,927,248	7,056	14,525,888,832	154,870,336.21
13	January	85	52,141,554	7,225	4,432,032,090	89,007,086.00
14	February	86	105,396,453	7,396	9,064,094,958	89,007,086.00
15	March	87	84,586,722	7,569	7,359,044,814	89,007,086.00
16	April	88	60,842,609	7,744	5,354,149,592	89,007,086.00
17	May	89	60,629,534	7,921	5,396,028,526	89,007,086.00
18	June	90	84,310,768	8,100	7,587,969,120	89,007,086.00
19	July	91	38,247,919	8,281	3,480,560,629	89,007,086.00
20	August	92	83,879,694	8,464	7,716,931,848	89,007,086.00
21	September	93	7,969,837	8,649	741,194,841	89,007,086.00
22	October	94	22,926,961	8,836	2,155,134,334	89,007,086.00
23	November	95	46,808,368	9,025	4,446,794,960	89,007,086.00
24	December	96	42,557,579	9,216	4,085,527,584	89,007,086.00
25	January	97	45,978,461	9,409	4,459,910,717	23,143,835.79
26	February	98	24,729,308	9,604	2,423,472,184	23,143,835.79
27	March	99	85,888,448	9,801	8,502,956,352	23,143,835.79
28	April	100	18,179,488	10,000	1,817,948,800	23,143,835.79
29	May	101	36,491,597	10,201	3,685,651,297	23,143,835.79
30	June	102	28,500,172	10,404	2,907,017,544	23,143,835.79
31	July	103	22,055,523	10,609	2,271,718,869	23,143,835.79
32	August	104	29,623,299	10,816	3,080,823,096	23,143,835.79
33	September	105	39,128,053	11,025	4,108,445,565	23,143,835.79
34	October	106	27,015,765	11,236	2,863,671,090	23,143,835.79
35	November	107	28,023,811	11,449	2,998,547,777	23,143,835.79
36	December	108	81,005,622	11,664	8,748,607,176	23,143,835.79
36	10,614,564	3,258	3,204,255,097	298,734	269,513,875,915	
$\sum n$	$(\sum x)^2$	$\sum x$	$\sum y$	$\sum x^2$	$\sum xy$	

ANNEX 3. List of questions for the interview with the industry

No	Questions
1.	How important is Indonesia's market for your company?
2.	Does the national stability (in terms of security, monetary) influence your company's business, or investment?
3.	Does the Local Content Requirements (LCR) regulation change your company's existing business process? How?
4.	What are the obstacles and challenges that your company faces to comply with the LCR regulation?
5.	How does your company satisfy the LCR regulation? (through plants establishment, software and hardware cooperation, or direct investment)?
6.	What are the benefits or disadvantages that your company gets from compliance with LCRs regulation? a. In terms of the increase/decrease of the value of exportation and importation b. In terms of Cost and Profit (increase/decrease/effective/efficiency) c. Is there any correlation between compliance to LCR with customer satisfaction, introducing new product penetration to the market, diffusion of technology?
7.	Do you think the LCR regulation influence the innovation for Indonesia's industry?
8.	What do you think about the quality of government services in serving the company's proposal for LCR compliance?
9.	Does this regulation affect your company's business in other countries or regions? How?
10.	Does the LCR regulation offer a win-win solution for your company and local companies?
11.	Is there any advice, input, and ideas that your company wants to deliver in response to the LCRs Regulation?

ANNEX 4. List of questions for the interview with Indonesia's government (MCIT)

No	Questions
1.	What are the goals or objectives of the implementation of the LCR regulation?
2.	What is Indonesia's government strategy in implementing this LCR regulation?
3.	How effective is the impact of the implementation of the LCR regulation to the national industry?
4.	Does this LCR regulation also apply to local companies, and there is no discrimination?
5.	Does Indonesia's government aware that LCR regulation is inconsistent with WTO's agreement?
6.	Which WTO's provision or agreement that prohibits the LCR?
7.	How can the LCR issue be raised in WTO forum?
8.	Which countries have raised complaints to Indonesia in WTO due to the implementation of this LCR regulation?

9.	What is the solution that can be adopted to settle the complaints from other countries?
10.	Can Indonesia's government use the exceptions provided in the WTO agreement (the GATT 1994)?
11.	How is the procedure for an issue to be raised in Dispute Settlement Body (DSB) of WTO?
12.	How many cases that have been raised in DSB? And what kind of cases?
13.	What the WTO's members must do if they are proven to be inconsistent with WTO agreement in DSB?
14.	What will happen if Indonesia is proven to be inconsistent with WTO agreement or lose in DSB?
15.	How can the amendment of WTO agreement get approval?

ANNEX 5. List of questions for the interview with the software and game association (ASPILUKI and AGI)

No	Questions
1.	What do you think about the implementation of this LCR regulation?
2.	Does this LCR regulation significantly grow the local software industry or national industry?
3.	How close the cooperation between local software developers and foreign vendors before the existence of LCR regulation?
4.	How far does LCR regulation accommodate the interest of the local software industry?
5.	Can the implementation of this LCR regulation promote the knowledge transfer and diffusion technology from foreign vendor to local industry?
6.	Do you have suggestion or inputs for revision of this LCR regulation, especially for software cooperation mechanism so that the regulation can benefit local software company/developer?

ANNEX 6. The correlation of different question lists based on the kind of interviewees

List of questions according to the interviewee			Research Question
Industry (a)	Government (b)	Software & Game Association (c)	
	1b, 2b, 5b, 6b	1c	Q1: Is there any urgency to protect the national ICT growth through this LCR regulation, and is there another way to apply domestic regulation that is consistent with WTO principles?
	4b, 5b, 6b, 7b, 8b, 9b, 10b, 11b, 12b, 13b, 14b, 15b		Q2: How to comply with the WTO agreement by providing the possible recommendation for the regulations amendment?

3a, 5a, 6a, 7a	2b, 3b	1c, 2c, 3c, 4c, 5c, 6c	Q3: How significant is the growth of the telecommunication and ICT Industry in Indonesia after the application of this LCR regulation?
1a, 2a, 3a, 4a, 6a, 8a, 9a, 10a, 11a			Q4: What are the opportunities, obstacles, and challenges perceived by international companies to comply with this regulation?

ANNEX 7. Concept List of Coding

Goal	Category	Sub-category	Concept
Measuring the implementation of LCR regulation that is compatible with WTO agreement?	Indonesia's LCR regulation implementation	Urgency	<ol style="list-style-type: none"> 1. <i>#LCR_urgency_high_import_deficit_due_to_lack_of_usage_local_component(resources_and_people)</i> 2. <i>#indonesia_experienced_trade_deficit_in_3G_products</i> 3. <i>#urgency_to_implement_LCR_regulation_due_to_high_trade_balance_deficit</i> 4. <i>#indonesia_experience_high_trade_deficit_in_telecommunication_&_ICT_sector</i>
		Objective	<ol style="list-style-type: none"> 5. <i>#LCR_regulation_goals_decrease_trade_deficit</i> 6. <i>#LCR_regulation_goals_foster_domestic_industry</i> 7. <i>#LCR_regulation_goals_require_foreign_companies_to_use_local_content_to_market_their_products</i> 8. <i>#LCR_regulation_objectives_fiscal_policy</i> 9. <i>#Indonesia_government_objectives_reduce_import</i> 10. <i>#Indonesia_government_objectives_require_vendors_produce_product_in_Indonesia</i> 11. <i>#the_possibility_of_knowledge_transfer_through_LCR_regulation</i> 12. <i>#LCR_regulation_advantage_to_local-software_developer</i> 13. <i>#LCR_regulation_advantage_can_bring_long_and_big_investment</i> 14. <i>#LCR_regulation_function_protection_copyright_and_IPRs_of_local_developer</i> 15. <i>#LCR_regulation_function_promoting_local_people_employment</i>

			<p>16. #LCR_regulation_function_requiring_local_sever_localization</p> <p>17. #LCR_regulation_function_bringing_benefits_for_local_industry</p> <p>18. #LCR_regulation_function_facilitating_knowledge_transfer</p>
		Compliance	<p>19. #LCR_regulation_is_obligatory_but_temporary</p> <p>20. #indonesia_government_strategy_in_LCR_regulation_implementation_buying_time</p> <p>21. #LCR_regulation_implementation_applied_to_local_and_foreign_companies</p> <p>22. #LCR_regulation_implementation_no_discrimination</p> <p>23. #after_complying_LCR_regulation_companies_can_do_import</p> <p>24. #samsung_satisfy_the_LCR_threshold_by_building_local_manufacture</p> <p>25. #samsung_local_packaging_process_LCR_compliance</p> <p>26. #samsung_LCR_compliance_trough_manufacture_mechanism</p> <p>27. #samsung_establish_assembly_factory</p> <p>28. #korea's_government_aware_LCR_implementation_in_Indonesia</p> <p>29. #korea's_government_supports_LCR_implementation_in_Indonesia</p> <p>30. #different_devices_has_different_LCR_mechanism</p> <p>31. #LCR_compliance_depends_on_the_business_sector</p> <p>32. #huawei_complies_mainly_in_manufacture</p> <p>33. #china_government_is_fine_with_indonesia_LCR_regulation</p> <p>34. #LCR_regulation_seems_providing_win-win_solution</p> <p>35. #LCR_regulation_function_may_increase_the_cooperation_local_software_developer_and_vendors_through_firmware_mechanism</p> <p>36. #LCR_regulation_provision_already_support_game_industry_interest</p>
		Opportunity	<p>37. #improvement_in_bureaucracy_processes</p> <p>38. #breakthrough_on_bureaucracy_process_shorten_time_to_get_license</p>

			<p>39. #innovation_of_new_system_of_certification_with_SDOC(self-document of conformity)</p> <p>40. #SDOC_breakthrough_procedure</p> <p>41. #SDOC_process_is_better</p> <p>42. #improving_in_time_from_2.5_month_becoming_17_working_days</p> <p>43. #local_company_starts_being_ready_to_corporate_with_foreign_company</p> <p>44. #the_importance_of_existence_of_independent_surveyor</p> <p>45. #interest_of_establishing_cooperation_with_Apple_academy</p> <p>46. #local_game_developers_have_intention_to_build_cooperation_with_vendors</p>
		<p>Obstacle and challenge</p>	<p>47. #LCR_regulation_obstacle_lack_of_detailed_information</p> <p>48. #obstacle_unwell-prepared_detail_information_of_LCR_measurement</p> <p>49. #LCR_implementation_obstacle_no_local_manufacture_to_produce_supporting_component</p> <p>50. #difficulty_of_software_mechanism_requirement</p> <p>51. #LCR_compliance_obstacle_challenge_unavailability_of_raw_material</p> <p>52. #LCR_compliance_obstacle_challenge_lack_of_supporting_component</p> <p>53. #LCR_compliance_obstacle_challenge_difficulty_find_strategic_location</p> <p>54. #inconsistency_of_LCR_regulation</p> <p>55. #local_industry_incapability_to_support_production_process</p> <p>56. #indonesia's_complex_bureaucracy_process</p> <p>57. #indonesia's_long_bureaucracy_processes</p> <p>58. #LCR_compliance_obstacle_inconsistency_of_legal_certainty</p> <p>59. #LCR_regulation_has_political_issue</p> <p>60. #LCR_regulation_obstacle_challenge_time_to_comply_the_threshold</p> <p>61. #LCR_regulation_obstacle_challenge_local_industry_readiness</p> <p>62. #LCR_regulation_obstacle_challenge_tick-time_to_engage_with_local_company</p> <p>63. #LCR_regulation_obstacle_challenge_market_condition</p>

			<p>64. #challenge_to_shift_the_vendors_mind_set_to_establish_cooperation_with_game_industry</p> <p>65. #vendors'_mindset_of_having_power_in_market</p> <p>66. #vendors_don't_realize_the_LCR_compliance_through_application_mechanism</p> <p>67. #game_industry_lack_of_LCR_regulation_awareness</p> <p>68. #assumption_vendors_prefer_manufacture_mechanism</p> <p>69. #game_industry_prefer_simple_mechanism</p> <p>70. #LCR_mechanism_is_considered_complex_process</p> <p>71. #LCR_regulation_implementation_obstacle_to_bridge_cooperation_between_vendors_and_software_developer</p> <p>72. #local_software_industry_challenge_high_quality_required_by_vendors</p> <p>73. #local_software_industry_challenge_high_technical_standard</p> <p>74. #local_software_industry_challenge_vendors'_powerful_position_in_market</p> <p>75. #local_software_industry_challenge_increase_bargaining_position_over_vendors_in_market</p> <p>76. #local_software_industry_challenge_vendors_have_political_power</p> <p>77. #the_requirement_to_have_new_local_team_to_promote_software_industry</p> <p>78. #LCR_regulation_development_and_application_difficult_requirement</p>
		Impact	<p>79. #LCR_regulation_change_the_business_process</p> <p>80. #LCR_regulation_make_huawei_move_production_to_indonesia</p> <p>81. #samsung_still_generates_the_profit_while_implementing_LCR_regulation</p> <p>82. #cost_increase_while_implementing_LCR_regulation</p> <p>83. #cost_increase_due_to_equipment_procurement_salary_and_insurance</p> <p>84. #LCR_regulation_impact_import_final_product_decrease</p> <p>85. #LCR_regulation_impact_import_raw_material_is_similar</p> <p>86. #LCR_regulation_local_produced_product_increase</p>

			<p>87. #LCR_implementation_no_correlation-with_customer_satisfaction</p> <p>88. #LCR_compliance_promotes_innovation</p> <p>89. #samsung_provides_training</p> <p>90. #samsung_establishes_R&D_center</p> <p>91. #promote_innovation_through_training_in_china</p> <p>92. #promote_innovation_through_capacity_building</p> <p>93. #huawei_has_program_every_year_for_local_talent_education</p> <p>94. #LCR_compliance_no_impact_with_company's_business_in_other_countries</p> <p>95. #LCR_compliance_positive_impact_to_national_industry</p> <p>96. #import_for_final_product_could_be_conducted_freely_before_LCR_implementation</p> <p>97. #import_value_can_be_affected_by_the_obligation_set_out_on_LCR_regulation</p> <p>98. #LCR_compliance_increase_cooperation_with_local_industry</p> <p>99. #LCR_regulation_doesn't_really_affect_companies_with_many_business_sectors</p> <p>100. #less_correlation_between_local_factory_establishment_and_customer_satisfaction</p> <p>101. #LCR_regulation_effectivity_may_decrease_import</p> <p>102. #LCR_regulation_effectivity_many_factories_are_built</p> <p>103. #LCR_regulation_impact_is_significant</p> <p>104. #many_factories_built_after_LCR_regulation_implementation</p> <p>105. #25_factories_have_been_established</p> <p>106. #LCR_regulation_has_not_brought_significant_impact_to_national-software_industry</p> <p>107. knowledge_transfer_is_still_low_in_software_industry</p> <p>108. #LCR_regulation_is_not_effective_in_game_industry</p> <p>109. #game_industry_prefer_voluntary_basis_cooperation</p>
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			110. #LCR_regulation_less_impact_to_game_industry
		Industry's recommendation	111. #LCR_compliance_recommendation_maintaining_regulation_consistency 112. #indonesia_government_increases_consistency_regulation 113. #indonesia_government_needs_to_reduce_the_long_time_bureaucracy_process 114. #indonesia_bureaucracy_needs_to_be_simplified 115. #the_requirement_for_win-win_solution_getting_input_from_industry 116. #LCR_threshold_can_be_declined 117. #LCR_recommendation_for_mechanism_to_be_simplified 118. #recommendation_promote_the_collaboration_between_local_softwaredeveloper_and_vendors
		Alternative	119. #effective_alternative_of_LCR_regulation_crow_funding 120. #effective_alternative_of_LCR_regulation_direct-investment 121. #local_game_investor 122. #foreign_game_investor
	Consistency status with WTO agreement	Inconsistency of LCR	123. #wto_agreement_TRIMS_prohibits_LCR 124. #LCR_regulation_opposes_TRIMS_agreement 125. #wto_agreement_prohibits_high_tariff_and_duties_among_members 126. #indonesia_government_aware_LCR_regulation_oppose_wto_agreement
		Consequence of LCR	127. #indonesia_government_awareness_for_inconsistency_of_LCR_regulation_with_wto_agreement 128. #indonesia_needs_to_dissolve_or_deregulate_the_domestic_regulation_or_program_if_lose_in_DSB 129. #indonesia_must_deregulate_the_LCR_regulation 130. #indonesia_needs_to_pay_a_penalty_if_lose_in_DSB 131. #indonesia_will_be_imposed_a_embargo
		Difficulty of using exception	132. #Safeguard_for_Balance_of_Payment_possible_exception_can_be_adopted_by_indonesia

			<p>133. <i>#Safeguard_for_Balance_of_Payment_requires_intensive_national_coordination</i></p> <p>134. <i>#exception_requirement_IMF_recommendation</i></p> <p>135. <i>#exception_requirement_reference_from_bank_indonesia</i></p> <p>136. <i>#exception_requirement_proposal_from_president_to_bank_indonesia</i></p> <p>137. <i>#exception_requirement_bank_indonesia_send_financial_data_to_IMF</i></p> <p>138. <i>#exception_requirement_IMF_verifies_indonesia's_financial_data</i></p> <p>139. <i>#exception_requirement_government_still_can_pay_the_foreign_debt</i></p> <p>140. <i>#the_process_of_exception_adoption_requires_long_time_process</i></p> <p>141. <i>#Indonesia's_condition_for_exceptions_is_not_satisfied</i></p>
		Required action to compatible with WTO	<p>142. <i>#the_regulation_deregulation_taken_before_DSB_decision_stipulated</i></p> <p>143. <i>#requirement_to_revise_LCR_regulation_after_being_proven_not_consistent_with_wto_agreement</i></p> <p>144. <i>#indonesia_must_deregulate_this_LCR_regulation_if_indonesia_is_proven_guilty_in_DBS</i></p>
		Alternative solution to compatible with WTO	<p>145. <i>#strategy_to_implement_LCR_conducting_bilateral_meeting_with_the_complainant_countries</i></p> <p>146. <i>#implementation_of_LCR_by_giving_trade_off_to_complainers</i></p> <p>147. <i>#negotiation_can_be_solution_to_avoid_complaints</i></p>

ANNEX 8. Manufacturer Companies

No	Brand	Manufacture
1	Acer	PT. Satnusa Persada, Batam
2	Asus	
3	Hisense	
4	Xiaomi	
5	Infinix	
6	Blaupunkt	
7	Lava	
8	Sharp	
9	Gionee	

10	Wiko	PT. Sentras Solusi Teknologi
11	Haier	PT. Haier Electrical Appliances
12	Lenovo	PT. Tridharma Kencana
13	MOTO	
14	ZTE	
15	LG	PT. Adireka Mandiri
16	Blackberry	
17	Samsung	PT. Samsung Electronic Indonesia
18	OPPO	PT. Selalu Bahagia Bersama
19	Vivo	PT. Vivo Mobile Indonesia
20	Huawei	PT. Panggung Citra Buana
21	Coolpad	
22	Meizu	
23	Himax	PT. Dwi Utama Pratama
24	Venera	PT. Satnusa Persada
25	IVO	
26	Nubia	
27	Advan	PT. Bangga Teknologi Indonesia
28	OSMO	PT. VS Technology
29	Digicoop (Indi)	
30	Digicoop (Jala)	
31	Evercross	PT. Aries Indo Global
32	Elevate	
33	Luna	PT. Evercross Teknologi Indonesia
34	Andromax (Haier)	PT. Haier Electrical Appliances
35	NUU Mobile	PT. Panggung Citra Buana
36	Mito	PT. Maju Express Indonesia
37	Axioo	PT. Terra Data Indonusa
38	Zyrex	PT. Zyrexindo Mandiri Buana
39	Polytron	PT. Hartono Istana Teknologi
40	SPC	PT. Supertone
41	Gosco	PT. Sinar Bintang Nusantara
42	Aldo	PT. Alpha Dunia Online
43	Whizphone	PT. Surya Multindo Industri
44	ALDO	PT. Alpha Dunia Online
45	Asiafone	PT. Zhou Internasional
46	Indoapps	PT. Tridharma Kencana

ANNEX 9. Investment in Telecommunication and ICT Sector

No	Smartphone Manufacture	Location	Year of License	Status	Investment (Rp. Billion)	Employment (people)	Brand
1	PT. Satnusa Persada	Batam	2015	Local Investment	930	1,762	Acer, Asus, IVO, Hisense, Venera

2	PT. Bangga Teknologi Indonesia	Semarang	2015	Local Investment	248	315	Advan
3	PT. Aries Indo Global	Semarang	2014	Local Investment	11	250	Evercross, Elevate
4	PT. Harier Electrical Appliances	Cikarang	2015	Foreign Investment	USD 186,950,838.53	2,546	Infinix, Harier-Andromax
5	PT. Bahagia Selalu Bersama	Tangerang	2015	Local Investment	652	1,100	OPPO
6	PT. Hartono Istana Teknologi	Kudus	2014	Local Investment	815	1,381	Polytron
7	PT. Samsung Electronic Indonesia	Cikarang	2010	Foreign Investment	550	1,715	Samsung
8	PT. Pangung Electric Citrabuana	Surabaya	2011	Local Investment	446	1.942	Huawei, ZTE
9	PT. Sinar Bintang Nusantara	Tangerang	-	Local Investment	-	-	Gosco
10	PT. Santras Solusi Teknologi	Tangerang	-	Local Investment	-	-	Wiko
11	PT. Maju Express Indonesia	Tangerang	2011	Local Investment	10	100	Mito
12	PT. Tridharma Kencana	Serang	2014	Local Investment	10	148	Lenovo, Indoapps, ZTE
13	PT. Axioo Indonesia	Jakarta	2014	Foreign Investment	130	136	Axioo
14	PT. Adireksa Mandiri	Cikarang	2016	Foreign Investment	USD 36,538,608.28	15	LG
15	PT. Adi Pratama Indonesia	Jakarta	2011	Local Investment	9	148	SPC
16	PT. VS Technology	Tangerang	2013	Foreign Investment	USD 22,000,000	1,500	OSMO

ANNEX 10. Coding of Interview with Respondent 2 (MCIT)

Actors	Questions	no
Noly	: Would you tell us your profile and your involvement with LCR regulation as well as any international negotiation with regard to the issue?	

Responde nt	:	I am Head of ICT investment in Multilateral Forum in The Ministry of Communication and Information Technology (MCIT). I am in charge of dealing with investment and trade issues in international forum, especially in WTO. I am also in charge of LCR issue because LCR is first discussed in multilateral forum or in WTO, then this issue is taken to many regional and bilateral forum, such as USTR and ASEAN-Japan.	
Noly	:	How far is your involvement in LCR issue?	
Responde nt	:	<p>I have been involved in LCR issue since before the formulation of LCR regulation by MCIT, to the implementation of LCR regulation by Ministry of Industry –which is basically an indirect implementation from LCR regulation by MCIT, until today. I was also involved in many negotiation on LCR in WTO forum since 2014 to 2018, and actively contributed to those forums. This issue is still under discussion in WTO forum. Our strategy is buying time in these negotiation until our domestic industries are mature and we are ready to deregulate LCR regulations. By doing this, we can still get the benefits of implementing LCR policy without being sued in DSB.</p> <p>I also help in drafting various arguments for WTO negotiations, from reviewing General Exception provisions in GATT and GATS, article 20, 14 to Special and Differential Treatment (SNDT). However, no provisions allow LCR policy, so Local Content is surely prohibited.</p>	
Noly	:	Which WTO provision or agreement that explicitly prohibit Local Content?	5b
Responde nt	:	TRIMS in Illustrative List point 2. #WTO_agreement_TRIMS_prohibits_LCR	
Noly	:	Does it explicitly set out the prohibition for Local Content policy?	
Responde nt	:	<p>Yes. Local content and words related to local content in investment field and any fields related to investment are strictly prohibited, and this covers everything. #WTO_agreement_prohibits_LCR. Because on the establishment of WTO, in 1994, developed countries by then knew what developing countries would do, and this practice on Local Content has long been executed by developed countries #LCR_had_been_caried_out_by_developed_country. Only recently, developing countries start implementing Local Content policy.</p> <p>Under the WTO system, any member countries can not apply high tariff and import duties to other WTO member countries #wto_agreement_prohibits_high_tariff_and_duties_amon_g_members. Whereas this is usually done for national protection of domestic industries.</p>	

	<p>However, if Indonesia or other developing countries do not join WTO, Indonesia will not get equal opportunities given to other WTO member countries#implication_not_to_join_wto_lose_equal_opportunity. Indonesia will then need to make bilateral negotiation to other countries#implication_not_to_join_wto_need_make_bilateral_negotiation. However, these counterpart countries are allowed to apply tariff higher than what WTO applies to Indonesia#implication_not_to_join_wto_other_countries_can_impose_high_tariff. Indonesia can apply LCR regulation and no countries bring this issue to WTO nor apply trade ban to us#implication_not_to_join_wto_free_to_apply_domestic_regulation_including_LCR, but without joining WTO, Indonesia's products will be imposed high tariff or import duties. This will make our products expensive and decrease its marketability#negative_impact_of_high_tariff/duties. Eventually our industries will suffer. Therefore, until today, we have no option but to join WTO so that we can get equal treatment as any other member countries of WTO.</p>
Noly	: Does WTO apply low import duties for all member countries?
Respondent	: It depends, tariff and import duties have its own regulation in GATT# import_tariff_is_regulated_under_wto . You may have heard of non-tariff measure (NTM)?
Noly	: Yes.
Respondent	: NTM is one of measures taken by WTO member countries to filter products entering their countries# NTM_measure_of_filtering . Because we cannot apply high tariff measures# wto_members_cannot_apply_high_tariff_measure_among_members , so one of measures we can take to protect national industries are through non-tariff policy in technical natures# NTM_to_protect_national_industries . For example, for 4G devices, screens cannot exceed, let's say 8 inch, TV's screens cannot exceed 52 inch.
Noly	: Is it allowed by WTO?
Respondent	: Yes, that is allowed in WTO. So, NTM is basically a flexibility given by WTO to member countries# NTM_is_wto_flexibility . However, this does not prevail in Indonesia# NTN_does_not_prevail_in_indonesia .
Noly	: Why?
Respondent	: In Indonesia, manufacturer/producer would pay tariff at any cost because Indonesia has big market, so products can easily be sold# indonesia_has_big_market_make_producers_sell_their_products_at_any_cost . However, our industries are not as big as our market# indonesia_has_big_market_but_not_local_industry . So, even if we import many products, it will still be saleable in the market.# there_is_no_competition_from_local_industry
Noly	: And habit become the factor?

Respondent	:	Yes. Indonesian people have high consumptive habit# indonesian_people_have_high_consumptive_habits , for example: many of them may change mobile phones more than once per year. That's why many industries and government of other countries would pay anything to enter Indonesia's market# indonesia_has_high_consumptive_habit_make_producers_sell_their_products_at_any_cost . Those governments even apply dumping policies for their domestic products, so that their products will cost higher in their domestic markets than in foreign countries.	
Noly	:	But dumping is not allowed, right?	
Respondent	:	Yes, it is not allowed.# dumping_is_not_allowed	
Noly	:	Okay, let's get back to LCR issues. How can LCR issue be raised in WTO forums?	6b
Respondent	:	Raising issues in WTO forums can be done through complaint# raise-issue_in_wto_through_complaint . If there are no WTO member countries sue or raise complaints to WTO on that issue, the issue will not be processed or discussed.# issue_raised_in_wto_depends_on_the_complaints	
Noly	:	What are the goals of this LCR regulation?	1b
Respondent	:	The goals are to foster domestic industries # LCR_regulation_goals_foster_domestic_industry , because many foreign companies with domestic presence do not use domestic resources and domestic workforce so we experience quite high import deficit in several sectors and industries# LCR_urgency_high_import_deficit_due_to_lack_of_usage_local_component(resources_and_people) , such as automotive, agriculture and telecommunication. We finally apply regulation that require them to use domestic components if they want to market their products in Indonesia. # LCR_regulation_goals_require_foreign_companies_to_use_local_content_to_market_their_products	
Noly	:	So, the goal is to lower the deficit rate then?	
Respondent	:	Yes, the goal is to decrease the trade deficit# LCR_regulation_goals_decrease_trade_deficit . If you have received data from Directorate of Standardization, we experience deficit in telecommunication and ICT sectors for 3G products# indonesia_experienced_trade_deficit_in_3G_products , even though we have surplus in other sectors in the US. Telecommunication services sector is an interesting sector and is often considered as a trade-off sector for other sectors being negotiated.	
Noly	:	How effective the impact of the implementation of the LCR regulation to the national industry?	3b

Respondent	:	I think the impact is great# LCR_regulation_effectivity . According to Directorate of Standardization of MCIT, the number of import value of telecommunication and ICT devices using 4G LTE decrease since the implementation of this LCR regulation# LCR_regulation_effectivity_may_decrease_import . It is because many companies establish factories in Indonesia, or build cooperation with local companies# LCR_regulation_effectivity_many_factories_are_built	
Noly	:	How are the promulgation process of this LCR regulation to those foreign vendors?	
Respondent	:	First, according to Law Number 11 Year 2012 on the Formulation of Legislation, there are no obligation for law or regulation to have approval from industry or society #according_to_regulation_government_is_not_required_to_get_approval_from_industry . The law is absolute right of legislative body or People's Representative Council/ DPR). In this case, Ministry of ICT holds the absolute right for the formulation of the Ministerial Regulation. Second, the enactment of legislation from its highest position along with its derivative, from Law to Regional Regulation, is considered to have sufficiently promulgated and thus Indonesian people are considered to have known and exposed to the law. #all_people_and_companies_in_indonesia_are_considered_to_have_known_the_regulation So, it can be inferred that promulgation of law to industries or vendors is not the obligation of the government of Indonesia #the_government_does_not_have_obligation_to_do_promulgation_to_industry . The government has an authority to make and apply policies #the_government_has_authority_to_make_and_apply_policy . So, even if there is promulgation of the law, it is an act of consciousness from the government so that industries have higher level of awareness to the law.	
Noly	:	So, let's get back to LCR regulation, does the government of Indonesia aware that LCR regulation is inconsistent with agreements in WTO?	4b
Respondent	:	Yes, Indonesia's government is aware that LCR regulation is inconsistent with WTO's agreement #indonesia's_government_aware_inconsistency_LCR_regulation_with_wto_agreement , from the previous explanation, we can infer that LCR regulation is inconsistent with several WTO regulations, among others Illustrative List Number 2, TRIMS and GATT point 8, if I am not mistaken. #LCR_regulation_is_inconsistent_with_wto_agreement_TRIMS_and_GATT	
Noly	:	If it is inconsistent with WTO agreements, can the government of Indonesia use exceptions in GATT WTO?	9b

Resp onde nt	:	There are 4 (four) types of exceptions, first: General Exception, Two: Security, Three: Safeguard for Balance of Payment and Fourth: Preferential Treatment. #wto_four_exceptions
Noly	:	From all those four exceptions, which do you think is the most appropriate exception that we can use?
Resp onde nt	:	We might use Safeguard for Balance of Payment #Safeguard_for_Balance_of_Payment_possible_exception_can_be_adopted_by_indonesia , this exception, however, when applied in Indonesia, it needs an intensive national coordination #Safeguard_for_Balance_of_Payment_requires_intensive_national_coordination #indonesia_requires_intensive_national_coordination_o_adopt_exception
Noly	:	Why?
Resp onde nt	:	<p>Because, first, in order to prove Indonesia experience deficit, there should be recommendation from IMF (International Monetary Fund) #exception_requirement_IMF_recommendation that enclose references made by Bank of Indonesia #exception_requirement_reference_from_bank_indonesia as an institution in charge of measuring the balance of payment. In order to do this, President should send proposal to Bank of Indonesia and Bank of Indonesia should accept President's request) #exception_requirement_proposal_from_president_to_bank_indonesia. President, in this case represented by State Secretariat should have accepted the request from MCIT. #exception_requirement_request_from_MCIT</p> <p>Bank of Indonesia will then send data and references to IMF, and IMF will then calculate and verify if Indonesia experience imbalance. So, Indonesia must have recommendation from IMF stating that the country does experience deficit trade balance. #exception_requirement_bank_indonesia_send_financial_data_to_IMF, #exception_requirement_IMF_verifies_indonesia's_financial_data</p> <p>Second, Indonesia cannot pay its foreign debts #exception_requirement_government_cannot_pay_debt_anymore. However, until today, we can still pay our foreign debts #exception_requirement_government_still_can_pay_the_foreign_debt. Otherwise, we will experience monetary crisis like we had back then in 1998, where our exchange rate to US dollar fell to IDR 20.000. #exception_requirement_low_exchange_rate. until today, our exchange rate still stands around IDR 14.000. #exception_requirement_indonesia_exchange_rate_still_below_2000</p>

	Third, the process to request such recommendation from IMF takes long time# the_process_of_exception_adoption_requires_long_time_process . Bank of Indonesia will not approve our request for exception to WTO, because the conditions for exception is not fulfilled# Indonesia's condition for exceptions is not satisfied .	
Noly	: How is the procedure for an issue to be raised in DSB?	10b
Respondent	WTO has several committees which conducts sessions several times per year to ensure member countries' consistency to those agreements# wto_regular_meeting_for_maintaining_members_consistency_to_wto_agreement . These sessions called regular meeting. If a country is inconsistent with agreement, a complaint should be raised to those sessions. #wto_regular_meeting_as_the_place_to_raise_complaints	
Noly	Which countries raised complaints to Indonesia in WTO sessions?	7b
Respondent	Many countries, including US, EU, China Taipei and Japan #complainant_countries_to_indonesia's_LCR_regulation	
Noly	About what?	
Respondent	About 4G devices.	
Noly	Do those countries which raised complaints to Indonesia, have industries in Indonesia?	
Respondent	They do not need to have industries present in Indonesia, as long as they have interests in Indonesia# complainant_countries_do_not_need_to_have_industry_in_indonesia , they can raise complaint. This complaint is political in nature# complaints_is_political_issue . In terms of China, they dominate devices for middle-to-low income people, and China needs comply with LCR regulation. So, in this case, we only have two industries actors, China Taipei and US, Japan might only play in several spare parts. For EU, we are of the view that this complaint is unilateral in nature. This means that EU supports these countries so that they will support EU in other forums. This is called solidarity.	
Noly	Is there any possibility for TRIMS to be revised so that it can facilitate developing countries to be more flexible to foster their economy? Such as the possibility to implement LCR regulation?	
Respondent	Before we go on to the revision on regulation, we need to have the same perspective on the term "developing countries' in WTO. WTO is not UN bodies# wto_is_different_from_UN and they look down on other forums outside WTO. If only countries in the world are split in two, there will only be two forces, WTO and Security Council. Because trade is important thing for economy and security is important to ensure sustainability of trade and communities.	

	<p>#trade_is_important_for_economy, #security_is_important_to_sustain_trade</p> <p>In UN system, Indonesia is developing country. But from WTO perspective, Indonesia is not developing countries#in_wto_indonesia_is_not_developing_country. The term of developing country is those countries with GDP under US\$ 3 per capita#developing_country_GDP, meanwhile Indonesia has per capita GDP for as much as US\$ 5#indonesia_GDP. In addition, in order to be acknowledged as developing countries, a country should get acknowledgment from all WTO member countries#indonesia_does_not_get_acknowledge_from_other_members_as_developing_country. Therefore, Indonesia is not acknowledged as developing country by other member countries.</p> <p>WTO has a system of one country, one vote#wto_system_is_consensus. While in UN, the system is based on how much the contribution each country pay per year to the UN#wto_system_is_different_from_UN_system_in_terms_of_decision_making. For example, US pay contribution for US\$ 20 billion per unit, while per unit costs only US\$ 1 billion. So, this means that, when voting takes place, US gets 20 votes, while Indonesia gets only 1 vote. Meanwhile in WTO, there is only one country, one vote system#wto_system_one_country_one_vote, so that each country has the same right. That's where the difficulty lies, maybe Indonesia needs to conduct bilateral consultative to 93 countries to get the status of "developing countries".#indonesia's_difficulty_in_getting_acknowledgement_as_developing_country</p> <p>Let's move on to the amendment. There are several mechanisms to amend the agreement. Currently, African countries are proposing to amend TRIMS, in terms of broaden the coverage of TRIMS#example_of_agreement_amendment. They do not propose to change anything with regard to TRIMS provisions, although it is excluded for developing countries. Developing countries ask to be given Gross Period for 7 years plus 5 years to adopt the WTO agreement. That's the proposal.</p>	
Noly	: Since the agreement is signed?	
Respondent	: Since last year, African countries have proposed the amendment to Council of Trade in Goods (CTG), a dedicated council for trade in goods #CTG_is_trade_in_goods_council . Indonesia was also asked its final argument on that proposal. Our position is to support or observe the progress of the proposal. Since the proposal did not receive sufficient vote in CTG, so this proposal will be raised to other councils by African countries.	
Noly	: So, how can the proposal of amendment over the WTO regulation get approval?	14b

Resp onde nt	:	the proposal or amendment needs to get approval from all member countries, so it's "single undertaking" in nature. #agreement_amandement_requires_approval_from_all_members	
Noly	:	Can the process of approval for such proposal or amendment based on majority votes?	
Resp onde nt	:	No, it has to be single undertaking, all WTO member countries must approve. #agreement_amandement_cannot_satisfy_from_majority	
Noly	:	That would be very difficult.	
Resp onde nt	:	Yes, exactly.	
Noly	:	If it's single undertaking in nature, it would be possible to have developed countries reject the proposal from developing countries and the other way around then?	
Resp onde nt	:	Yes, exactly, that can happen. Even if developed countries received rejections from developing countries, the provisions in WTO agreements is in favour of developed countries. Since the establishment of GATT, they have secured the policies for developed countries. #wto_agreement_in_favour_developed_country	
Noly	:	How many cases that have been raised in DSB? And what kind of cases?	11b
Resp onde nt	:	Yes, since WTO established in 1994 to 2015, there has been 32 cases brought to DSB #32_cases_in_DSB_until_2015 . The cases were not only discussed in TRIMS session, but also brought to DSB. Among other 20 cases are related to LCR, and all cases were proven inconsistent with WTO agreements #20_cases_are_related_to_LCR , the rest of the case is withdrawn before the DSB came up with the judgement.	
Noly	:	By changing or abolish their policy?	

Responde nt	: Yes, by changing or abolish their policies before the DSB came up with the decision# the_regulaion_deregulation_taken_before_DSB_decision_stipulated . So, majority of cases brought to DSB is LCR cases# case_in_DSB_majority_is_related_to_LCR , the rest is related to tariff, import duties, and national treatment# case_in_DSB_tariff # case_in_DSB_import_duties # case_in_DSB_national_treatment . 2/3 of all cases is LCR cases and from developing countries. Today, there are 9 cases, 7 of them is LCR cases# 7_cases_in_DSB_now_related_to_LCR . Some of the cases are China case which used “indigenous technology to term technology made by Chinese people”# implementation_of_LCR_china . This case has just been raised last year and still have time for long discussion in TRIMS sessions. Nigeria also apply local content regulation, the same case as Indonesia, and they use local content. # implementation_of_LCR_nigeria	
Noly	: What about India? Because when I attended last TRIMS session, India’s LCR case did not become one of agendas for discussion.	
Responde nt	: India’s case will not be brought back to sessions# implementaion_of_LCR_india_will_not_brough_to_DSB , because they have solved the case through bilateral meeting. # istrategy_to_implement_LCR_conducting_bilateral_meeting_with_the_complainant_countries	
Noly	: What do you mean by that?	
Responde nt	: It seems that they can still implement their LCR regulation, but they give trade-off to the country which raise the complaint to WTO# implementation_of_LCR_by_giving_trade_off_to_complainers , although I don’t know what is the trade-off. Maybe India trades-off with textile industry.	
Noly	: Can that be a solution to settle the complaints from other countries?	8b
Responde nt	: Yes, it can. # bilateral_meeting_and_giving_trade_off_to_complainant_countries_can_be_solution_to_implement_LCR	
Noly	: With regard to 4 (four) countries that brings Indonesia’s LCR cases to WTO, is there any possibility that we raise complaint back to those country over their policies at WTO sessions?	

Respondent	: Yes, we can #possibility_to_raise_the_complaint_back_to_complainant_countries . In other sessions such as Technical Barriers to Trade (TBT), Indonesia has won the case with regard to palm oil #indonesia_won_complaint_in_TBT . The case is about the US prohibiting Indonesia's palm oil to enter the market in America, with excuses of (1) palm oil is not sustainable, due to the opening process of their land for palm oil agriculture is done through forest fire so it disrupts the health of the environment; (2) derivative of palm oil is high cholesterol. At that time, only Indonesia received this treatment. So, we raised complaint to DSB and in 2-years time, the case has been solved. With regard to India's previous case, maybe the coordination among industries and sectors in India is very strong #india_strong_national_coordination_factor , so the India's LCR case can be solved and did not receive complaints at TRIMS sessions and DSB. Maybe if we have someone or institution who can coordinate the cases that are brought to WTO, we may find solution through bilateral meetings. Because until now we have lack of coordination and are likely to work alone in each sector. #indonesia_lack_of_national_coordination
Noly	: You said that Indonesia's LCR cases have been raised in TRIMS session in 2014, until when is Indonesia's LCR case remain in DSB and receive judgment?
Respondent	: Depends on complainer countries which brings the case to WTO. #case_is_brought_to_DSB_depends_on_complainant_countries
Noly	: On what ground LCR regulation case can be brought to DSB?
Respondent	: Things that are listed in TRIMS Illustrative List point 2 can be the ground for Indonesia's LCR case to be brought to DSB. #specific_wto_agreement_opposes_LCR_regulation
Noly	: Roughly why have the complainer countries not raised the Indonesia's LCR issue to DSB?
Respondent	: We don't know precisely why they have not brought this case to DSB, but we assume that this is because our LCR regulation starts to be flexible and offer several options to comply with LCR regulation #indonesia_government_assumption_that_the_case_has_not_been_brought_to_DSB . The regulation used to only require local content for hardware, now there is another option of local content for software and investment #indonesia_LCR_regulation_flexibility_mechanism . Maybe they think that by giving pressure to Indonesia in TRIMS sessions, Indonesia will revise out policy on local content.
Noly	: So, the point is, in order to a case to be brought to DSB depends on the complainant countries?

Respondent	:	Yes.	
Noly	:	What are our strategies in implementing LCR regulation?	2b
Respondent	:	By buying time. #indonesia_government_strategy_in_LCR_regulation_implementation_buying_time	
Noly	:	So, What the WTO's members must do if they are proven to be inconsistent with WTO agreement in DSB? if LCR case is taken to DSB and we are judged guilty, then will Indonesia need to revise or abolish the LCR regulation?	12b
Respondent	:	Yes #requirement_to_revise_LCR_regulation_after_being_proven_not_consistent_with_wto_agreement . But we also need to observe maturity level of our domestic industry. Because we don't have another strategy except "buying time" #indonesia_government_strategy_in_LCR_regulation_implementation_buying_time . We are aware that the LCR regulation is inconsistent with WTO agreement. #indonesia_government_awareness_for_inconsistency_of_LCR_regulation_with_wto_agreement	
Noly	:	So, once the case is brought to DSB, we will consider revising or abolishing the LCR regulation?	
Respondent	:	Once the case received recommendation from DSB #time_to_revise_LCR_regulation , not as the case is brought to DSB. Because when we bring the case to DSB, there will be several processes, starting from consultation for 6 months and adjudication for another 6 months #one_year_time_for_receiving_DSB_recommendation . All regulations with regard to LCR will be revised in accordance with the guidance from Ministry of Industry #LCR_regulation_revision_based_on_ministry_of_industry_guidance . However, it does not mean that LCR regulation need to be abolished, all LCR regulations will be integrated, so that it will all be under Ministry of Industry. #LCR_regulation_will_be_integrated_under_ministerial_of_industry_regulation	
Noly	:	Does this LCR regulation also apply to local companies, there is no discrimination?	3b
Respondent	:	Yes, no discrimination. #LCR_regulation_implementation_applied_to_local_and_foreign_companies , #LCR_regulation_implementation_no_discrimination	
Noly	:	How is the calculation method of 30% for LCR regulation by MCIT?	
Respondent	:	In accordance with guidelines from Ministry of Industry and at that time the LCR scheme option is only hardware.	
Noly	:	From those 3 schemes: hardware, software and investment, which do you think is the most popular option for foreign vendors?	

Resp onde nt	:	We think investment #LCR_investment_mechanism_is_popular , because this is the easiest mechanism and we do not need to change their devices.	
Noly	:	And they still can import their products?	
Resp onde nt	:	Yes, and because devices are used for their function, so when your devices used local component, and the LCD for example use local component that makes the performance low, will you buy it again? Surely not, and we will likely to move to other brands. #after_complying_LCR_regulation_companies_can_do_import	
Noly	:	But if they still can import their products, will the goals to decrease trade deficit still be accomplished?	
Resp onde nt	:	As long as there is investment that goes into foreign exchange reserves, fiscal policy. #LCR_regulation_objectives_fiscal_policy	
Noly	:	So, if Indonesia proved to be inconsistent with WTO agreement or lose in DSB, will it has effect on Indonesia?	13b
Resp onde nt	:	The real example is on Timor car case and horticulture #example_of_indonesia_case_proven_inconsostent_in_DSB . So, the Timor national car case proved to be inconsistent in DSB, the issue was raised by the US and Singapore. At the beginning of national car establishment in 1998, we start the industry of national car. Soon after, there is a forum initiated under WTO called Information Technology Agreement (ITA). When we were about to signed ITA, Singapore stated that they would withdraw the complaint against Indonesia on national car case in WTO as long as Indonesia signed ITA. We are expected to sign ITA so that all electronic devices entering Indonesian market from Singapore, can get free import duties. We surely reject Singapore request because we would be flooded by products from Singapore since we have not had the ability to produce our own devices. All products originating from Europe and China enter Indonesian market through Singapore for free. But the offer from Singapore to withdraw complaint against our national car case is taken into consideration. We finally signed ITA, so until today import duties for products from Singapore are free. All electronic devices from Singapore are duty free, not tax free. However, Singapore did not withdraw the complaint, the case went further into consultation in DSB and was made stronger by other countries joining as complainants. We lost in DSB. We were recommended to immediately dissolve National Car Industry, deregulate Presidential Regulation which by then as legal foundational for national car case. If it's not withdrawn then, Indonesia would seek to file embargo to those countries #indonesia_needs_to_dissolve_or_deregulate_the_domestic_regulation_or_program_if_lose_in_DSB , #indonesia_will_be_imposed_a_embargo	
Noly	:	Embargo means that products from Indonesia cannot be sold to other countries?	

Respondent	:	Embargo means that products from Indonesia cannot enter their markets #the_meaning_of_embargo . What makes it interesting is the complainant country can choose which products from Indonesia that will suffer from embargo #embargo_execution_by_complainant_countries . For example, our telecommunication sector case is lost in DSB, the complainant countries can choose to either embargo our telecommunication products from entering their domestic market or our woods products. They have their own calculation on their import balance, how much lost they suffer in import balance and which Indonesian commodities is the strongest import in America. The strongest commodity for import from Indonesia will then be banned. So, other industry may suffer from our losses. But before that, once the recommendation is circulated, we have to withdraw our regulation #indonesia_needs_to_dissolve_or_deregulate_the_domestic_regulation_if_lose_in_DSB . If we do not withdraw our regulation in Grass Period of 6 months #time_to_deregulate_regulation , we have to pay other countries' damages, if we do not want to pay #indonesia_needs_to_pay_a_penalty_if_lose_in_DSB , embargo will be applied to us. Now, our case is in horticulture sector, there are 8 regulation needs revising, Law on Horticulture is among others. You know that it takes very long time to revise Law in People's Representative Council (DPR) and we will have presidential election next year (2019), people in parliament will all be busy going to regions to collect their votes for next election. No one seems to want to work. US knows that Law on Horticulture has not been deregulated, and they have imposed fines for as much as 700 trillion if have not deregulated by the end of this year. If by the end of the year, the law has not been deregulated and we don't pay fines, US will retaliate our embargo.
Noly	:	That's very upsetting.
Respondent	:	Yes, indeed.
Noly	:	Thank you, if there are other information that I still look for, may I contact you again?
Respondent	:	Yes, anytime.

ANNEX 11. Coding of Interview with Respondent 1 (MCIT)

Actors	Questions	no
Noly	: Could you tell me how you get involved in the local content regulation?	

Respondent	:	I am involved in the formulation of this local content regulation	
Noly	:	How many regulations related to local content issued by the Ministry of Communication and Information Technology (MCIT)	
Respondent	:	There are local content regulations on digital TV and 4G LTE (Long Term Evolution)	
Noly	:	For local content regulation, which number of Ministerial Regulation on digital TV?	
Respondent	:	For the new Ministerial Regulation on Digital TV, we have not had the number yet, but for the previous one is number 9 year of 2014	
Noly	:	Can you tell me the objective of local content regulation?	1b
Respondent	:	For facilitating transfer knowledge, declining import, and adding employment #LCR_implementation_objectives_facilitating_transfer_knowledge , #LCR_implementation_objectives_declining_import , #LCR_implementation_objectives_adding_employment	
Noly	:	I have obtained the data of trade balance on telecommunication devices issued by MCIT, where does MCIT get these data?	
Respondent	:	From Ministry of Trade, which provided importation data provided by them	
Noly	:	I thought the MCIT has its own data	
Respondent	:	No.. because MCIT does not deal with import. But, we have data of certificate/license. For example, data on digital TV certificates from 2014 to 2018. In 2014, when the regulation was issued, we have issued 147 certificates on digital TV devices, 98 out of them are Indonesia's products. But we don't have import data,	
Noly	:	Are the objectives of Ministerial regulation on local content on digital TV similar with the Ministerial Regulation on Local content for 4G LTE? Such as knowledge transfer?	
Respondent	:	Actually, it's more than that, because the digital TV is national issue, because it will be implemented in national level, national analogue switch-off	
Noly	:	When will it be completed? If I am not mistaken in 2018, right?	

Respondent	:	In 2020. The national analogue switch-off, in America was completed in 2009, In England was completed in 2012, whereas in Singapore and Malaysia were completed in 2015. Indonesia is planned to complete the switch-off between 2018 and 2020. The local content measures on digital TV is different from those on mobile phone (4G LTE), because digital TV technology consists of PC and set-top box. By the way, the local content that you want to identify as your research is the local content on devices or local content in general?	
Noly	:	I will focus on device (4G LTE), because if I do a research on general local content, it will be too broad	
Respondent	:	Yes of course	
Noly	:	In terms of local content for 4G LTE..	
Respondent	:	This research is specified for 4G LTE, only right?	
Noly	:	Yes. So, what is Indonesia's government strategy in implementing this LCR regulation? will next technology such as 5G, also be imposed the local content regulation, like 4G LTE?	2b
Respondent	:	Actually, we will see how successful the implementation of local content regulation on 4G LTE. If the implementation is perceived to be successful, then this regulation will be deregulated #the_LCR_regulation_will_be_deregulated_after_it_is_perceived_to_be_successful . As has been said by minister of MCIT that the implementation of regulation is mandatory but temporary. #LCR_regulation_is_obligatory_but_temporary	
Noly	:	What are the indicators that the implementation of this regulation is successful?	
Respondent	:	If the industry has grown in here (Indonesia). So, if the local industry has been well-developed #LCR_success_indicator_local_industry_grows , many factories are built #LCR_success_indicator_many_factories_built , then the responsibility will be taken over by the Directorate of Industrial Empowerment, Ministry of Industry. MCTI is responsible to give stimulus in implementing the local content regulation as mandatory thing to oblige the foreign companies to establish cooperation with local company #MCIT_role_stimulus_the_LCR . We can see now that there are many factories already established #many_factories_built_after_LCR_regulation_implementation . However, after the industry has been developed, the empowerment responsibility does not belong to MCIT anymore. #ministry_of_industry_is_responsible_for_industry_empowerment	
Noly	:	For 4G LTE, how many companies/vendors have built factories in Indonesia?	

Respondent	:	Let me check.. (checking computer). There are many companies, 25 companies# 25_factories_have_been_established
Noly	:	Are they all foreign companies/vendors?
Respondent	:	No, there is PT. Panggung, Indonesia's company. a "taylor" company, meaning that, for instance Asus might assemble its products in PT. Panggung# company_use_taylor_cooperation_mechanism , taylor_is_assembly_mechanism
Noly	:	But, who is the owner?
Respondent	:	The owner is Indonesian people
Noly	:	So Asus give the PT. Panggung the money or..
Respondent	:	They act like "Taylor". They accept the request for assembly of other companies' products# taylor_cooperation_mechanism . PT. Tri Dharma is also Indonesia's company. Vivo, Selalu Bahagia are China's companies. I only from the perspective that their factories are built in Indonesia# whatever_the_brand_is_as_long_as_the_factories_are_in_indonesia_it_can_be_considered_as_indonesia's_company
Noly	:	Okay, so the "Taylor" term that you just said, is the way/measure taken by the foreign companies to comply with this local content regulation?
Respondent	:	Yes, that's right# taylor_manufacture_mechanism_as_compliance_to_LCR_regulation . The local content implementation is measured from, first, the factory establishment, Over Head (OH) cost, workforce, then components, etc, and one of the measures can be implemented through "taylor/assembly cooperation"# LCR_measurement
Noly	:	Okay. The local content regulation on 4G LTE which issued by MCIT is number 27 year of 2015. Before the Ministerial of Industry Regulation of Ministry of Industry, no 65 year of 2016 was issued, how to calculate the local content component implementation under this Ministerial Regulation of MCIT (no 27/2015), For example, requirement for local content threshold is 30% for subscriber station. Can it only be done through manufacture/factory/assembly?
Respondent	:	If I am not mistaken, the mechanism of local content calculation is regulated under the Ministerial Regulation of Ministry of industry no 69. We (MCIT) don't regulate the mechanism of calculation# ministry_of_industry_regulates_the_LCR_calculation_mechanism , but we only determine the threshold of the local content# MCIT_regulates_the_LCR_threshold . I think we don't need to talk about that calculation mechanism, because it will be complicated, since the calculation is carry out by the independent surveyor.

Noly	:	Does our government aware that this LCR regulation is likely to be inconsistent with WTO agreement?	5b
Resp onde nt	:	Yes, our ministry (MCIT) aware of this issue# indonesia_government_aware_LCR_regulation_oppose_wto_agreement . But, we need to do this because of the high trade balance deficit that we experienced in 2014# urgency_to_implement_LCR_regulation_due_to_high_trade_balance_deficit	
Noly	:	So, which WTO's agreement that this LCR regulation is prone to be inconsistent with? Or which WTO's agreement prohibits LCR?	6b
Resp onde nt	:	As far as I know, and after having discussion with our government representative in WTO, the LCR regulations is inconsistent with TRIMS agreement# LCR_regulation_opposes_TRIMS_agreement	
Noly	:	So, what do you think, the impact of this local content regulation, such as promoting transfer knowledge, declining trade deficit, so far has the impact been significant or not?	3b
Resp onde nt	:	Significant# LCR_regulation_impact_is_significant , for example, Xiaomi's price now is low, around 1.5 million rupiahs, every component is assembled in Batam (Indonesia). In fact, we have 1 type of exclusive edition of Xiaomi, which was made in Indonesia. Before this, Xiaomi's Chief Officer came to Batam, to build glass, casing, and battery factories in Indonesia. Import and export number are also significant	
Noly	:	Export means that the products are produced by our local industry?	
Resp onde nt	:	We have exported the products/devices to Singapore# local_products_is_imported_to_singapore	
Noly	:	Is it the final products, or?	
Resp onde nt	:	Yes, final product(smartphone)	
Noly	:	Can you tell me the local big players?	
Resp onde nt	:	Xiaomi, Xiaomi products are made in Batam, and then exported. Asus has also been exported# xiaomi_one_of_big_players_in_telecommunication_and_ict_industry	
Noly	:	Although the brands belong to foreign companies/vendors, as long as they are made in Indonesia, then it can be deemed that they are local/Indonesia's product?	
Resp onde nt	:	Yes# indonesia_government_does_not_see_the_brand_name_as_long_as_they_produce_the_product_in_indonesia_it_can_be_considered_as_local_product , because then Xiaomi's products are "made in Indonesia", because its factories are located in Indonesia	
Noly	:	Okay	

Responde nt	:	For components, there are some components that are still imported from foreign countries. However, Xiaomi, for instance, its glass, battery, and devices are built here#xiaomi_build_factory_for_supporting_component_in_indonesia	
Noly	:	So, this regulation is imposed to both local and foreign companies, right, and there is no discrimination on this LCR regulation implementation?	4b
Responde nt	:	This regulation is imposed to the companies that wish to import their products to Indonesia. We don't see whether they are local or foreign companies, also the certificate does not consider the brands. Therefore, all companies are treated fairly#LCR_regulation_is_applied_fairly, #companies_want_to_import_their_products_must_comply_LCR_regulation	
Noly	:	Okay, so far, among 3 (three) mechanism for companies to comply with this local content regulation, such as manufacture(hardware), software, and investment, which one is the most popular?	
Responde nt	:	Manufacture(hardware)#manufacture_mechanism_is_popular_mechanism_to_comply_with_LCR_regulation	
Noly	:	Can you tell me why?	
Responde nt	:	Simple, there are factories available#manufacture_mechanism_easiness_factory_availability, then the labors can be hired#manufacture_mechanism_easiness_local_people_hired. For investment, it's about money#investment_mechanism_requires_a_lot_of_money, and many companies consider that to build software research and development is not easy#development_and_application_mechanism_the_requirements_are_difficult. So much better hire "blue collar" than "white collar". And almost 25 companies which I have mentioned before, took the option of manufacture(hardware) mechanism	
Noly	:	So, very few companies taking the option of software?	
Responde nt	:	It's not like that. We have worked together with the Creative Economy Bureau to facilitate the meeting between companies and Indonesia's youth (software developer)#MCIT_efforts_to_promote_development_and_application_mechanism. However, it is true that those companies don't want to use the software mechanism yet. They are still considering it. They are afraid of using the application/software (local), that will impact to their brands reputations#companies_do_not_trust_local_application_quality. These applications (local) software) are considered not to be useful enough	
Noly	:	Sir, do you mind if I ask for the data from you?	

Respondent	:	No problem, what data?
Noly	:	Data related to 25 companies you mentioned, and the total number of labours
Respondent	:	I don't have labours data. Because our regulation which was related to labours requires the labours cannot be hired up to 3 (three) times.
Noly	:	Do mean "contract" system?
Respondent	:	Yes, contract can possibly be extended up to 3 (three) times, and after that they cannot be hired anymore, because they will conduct protest/demonstrate to companies to hire them as fixed labour/employee. This regulation is issued by the Ministry of Labour and Transmigration. So, if we are asked the number of labour, the number of labour now will not be the same as the number in the future. For instance, Xiaomi wants to make 1000 smartphone, it hires labours to do so, after that, it will end the contract with the labours. However, there is employment resulted from local content regulation implementation.
Noly	:	So, the data is in Ministry of Labour and Transmigration?
Respondent	:	Yes, we (MCIT) don't have this (labour) data
Noly	:	Let me go to the investment mechanism, does this mechanism (investment) can be used only for the first investment?
Respondent	:	Yes, one investment for one type of product #investment_mechanism_one_type_one_investment . For example, Apple invests for certain types of products (they will follow the mechanism for each product). For the next type, such as Apple iPhone X, it will invest again. Also, there will be an increase on local content percentage, 30%, so there will be additional investment. Or maybe Ministry of Industry will increase the percentage to be 40%.
Noly	:	So, if Apple invest in Indonesia by establishing the Apple Academy to comply with the local content regulation, then it can import its products to Indonesia as usual?
Respondent	:	Yes #companies_can_do_import_after_complying_LCR_regulation , in 1 device
Noly	:	What do you mean?

Respondent	:	Yes, the import should be a final product, not a component. That's why, in my data, I put Apple's data in red colour, because it's products are made in China# Apple_is_only_company_can_import_all_final_product_to_indonesia . I have presented this data to minister, and he asked me why I made it in red colour. Then, I explained to him that Apple's products made in China, because Apple choose to comply with local content regulation through investment mechanism
Noly	:	So, how big the Apple's investment?
Respondent	:	I forget, I will find later. But, the threshold is not less than 20% at that time.
Noly	:	For the company that already have the factory in Indonesia, such as Samsung, then it's already complied with 30% of local content threshold. Then, it will run its business as usual?
Respondent	:	Yes,
Noly	:	Unless, there will be an increase of threshold in next year, so what mechanism that it will choose?
Respondent	:	So.. for example, Samsung Galaxy note 9, which is marketed in Indonesia is different with the one that you buy in other countries. Samsung Galaxy note 9 which are made in outside Indonesia uses Qualcomm for chipset, in Indonesia using Chinos. The memory capacity (of Samsung Galaxy note 9 which was made) in Indonesia is also not that big. But products which was made outside Indonesia has memory of 256. However, the products made In Indonesia has more software application than the one made outside# the_differences_of_devices_produced_in_indonesia_and_other_countries . So that Samsung can play price strategy. The higher the component value of the device, the less value for the local content component.
Noly	:	Is that so?
Respondent	:	Yes. For example, Qualcomm is expensive, so the component for local content is still low according to the calculation set out under the regulation of Ministry of Industry. That's why, Samsung prefers to give more software in their products here (which was sold to Indonesia), but the price is not much different with products sold outside Indonesia
Noly	:	So far, do you convene regular meeting with foreign companies/vendors regarding the implementation of this local content regulation?

Respondent	:	Yes, they understand and support it. In fact, they make association #foreign_companies_support_the_LCR_regulation_implementation . If I am not mistaken, there is APSI, association for smartphone, then Gabel (Indonesia Electronic Businesses Association). Also, there are some other 4 associations, but I forget their names. And association for factories owners	
Noly	:	Yes, it's true, I have interviewed Huawei and Samsung, they are supportive to the implementation of this local content regulation	
Respondent	:	Yes, there is no problem	
Noly	:	However, there are still the complainant countries raising this LCR issue, in WTO, do you know which governments that bring this LCR issue to WTO?	8b
Respondent	:	As far as I know, Korea government does not bring this issue to WTO, Amerika does #america_one_of_complainant_country . America is indicated that they are reluctant if developing countries become industrial/developed countries. Because with the implementation this regulation, the developing countries will develop #indonesia_assumption_over_america_complaint	
Noly	:	But from Apple itself, are they supportive (with this regulation)?	
Respondent	:	They do, otherwise, why would Apple invest Apple Academy in Indonesia and provide allowance to Indonesia's youth #Apple_support_LCR_regulation_implementation	
Noly	:	Okay. From our discussion, I understand that, the implementation of this local content regulation is temporary. If the success indicators have been achieved, such as establishment local industry, then this regulation will be deregulated	
Respondent	:	Yes #LCR_regulation_is_obligatory_but_temporary , it is because, if we will continue to implement this regulation without any plan to stop, the question is, how many the threshold for local content will be set, it will be possible to stop in 30%. In our regulation no 80, there is provision stating that if a company complies 50% of local content, then this company will get 50% discount for the certificate fee. However, until this time, as far as I now, the highest threshold is 34% by PT. Bangga, factories for Advance. Motorola also achieved 33%. This January 2018 (threshold) is increasing, since there is an increase of local content percentage since 2017 #government_consideration_of_LCR_threshold_compliance_difficulty . Lastly, I heard that Samsung complies with 40% of local content, but it is not official information. I have checked to independent assessor, there will be more software mechanism chosen by companies to comply with this regulation. It's okay, because this mechanism is set out in this regulation	
Noly	:	So far, you also conduct regular meeting with local industry regarding the implementation of this regulation? they think that the implementation of this regulation will bring positive impacts?	

Respondent	:	We have conducted the meeting, however nowadays we don't convene the meeting anymore	
Noly	:	But they feel this regulation is helpful for their businesses?	
Respondent	:	We have conducted monitoring and evaluation activities. This local industry just like a new-born baby, that's why we need to monitor them. But, after the local content threshold is set out 30%, and there are many certificates are registered, with a total of more than 100. this means that the cooperation between foreign companies and local companies has already established. However, there is one company, Motorola that has stopped its business in Indonesia. It is because its product is not popular in Indonesia. This is business problem	
Noly	:	Maybe there is also innovation factor as a problem	
Respondent	:	But, it does not mean that the factory is stop doing its business. This factory still operates to produce/assembly products, such as Lenovo	
Noly	:	Okay, next question, do you know how the LCR regulation can be raised in WTO?	7b
Respondent	:	Like I said, there are some countries raise complaint in WTO forum, one of them that I know is America (the US) #members_can_raise_complaint_in_wto	
Noly	:	So, what do you think that what solution that should Indonesia take to avoid the complaints?	9b
Respondent	:	I am not sure, maybe you can ask detail information related to this question to International Affairs Centre of MCIT, as our negotiator team. But I think, we can ask them or negotiate with complainant countries, so that they will not continue to raise this LCR issue in WTO forum #negotiation_can_be_solution_to_avoid_complaints	
Noly	:	Do you have another opinion, for instance using the exceptions provided in WTO agreement, such as GATT?	10b
Respondent	:	Hmm.. I am not sure, I don't have enough capability to answer this question, because my Directorate responsibility only to formulate and issue this LCR regulation. Again, you can ask somebody in International Affairs Centre	
Noly	:	Ohh I see. Hmm.. so the question related to WTO, can not be delivered to you? For instance, how is the procedure for an issue to be raised in Dispute Settlement Body (DSB) of WTO? And how many cases that have been raised? and how can the amendment of WTO agreement get approval from other members?	11b, 12b, 15b
Respondent	:	I am sorry, I don't really know about it.	

Noly	:	But do you know what will happen to Indonesia if Indonesia is proven to be inconsistent with WTO agreement or lose in DSB?	14b
Respondent	:	If I can remember, based on our internal meeting, there was also representative from International Affairs Centre, the consequences will be Indonesia must deregulate this LCR regulation, otherwise, Indonesia must pay the penalty or fine, or Indonesia will file embargo #condition_if_indonesia_is_proven_guilty_in_DBS , #indonesia_must_deregulate_the_LCR_regulation , #indonesia_must_pay_penalty/fine , #indonesia_will_file_embargo	
Noly	:	So what Indonesia must do if we are proven to be inconsistent with WTO agreement in DSB?	13b
Respondent	:	Like I said, Indonesia needs to deregulate this LCR regulation, otherwise we need to pay the penalty/fine or get embargo #indonesia_must_deregulate_this_LCR_regulation if_indonesia_is_proven_guilty_in_DBS	
Noly	:	Okay, thank you so much for your time	
Respondent	:	You're welcome	

ANNEX 12. Coding of Interview with Samsung

Actors		Questions	no
Noly	:	Sir, would you please tell me a brief of your profile? How long have you been in Samsung? What position are you?	
Respondent	:	I have been working in Samsung for 5 years, my position is government relations, in Corporate Affairs division. My responsibility is to monitor all regulation from the government, and any other regulation which are not from the government. I also monitor all the media regarding any news about Samsung. If there is any issues or bad news regarding Samsung, I am in charge to fix it. I also work with and help other division, such as division that works on immigration and tax issues, so all affairs that are external relations in nature are under my responsibilities. But basically, I am mostly in charge of government relations.	
Noly	:	Let's go straight to my questions. How important is Indonesian market place for Samsung?	1a
Respondent	:	In South East Asia, Indonesian market is very important because it has large population #Indonesia_strength_large_population . In South East Asia, Indonesia is the primary market #Indonesia_strength_primary_market , all eyes are on Indonesia. Samsung cannot let go of Indonesia's market that easy #samsung_cannot_forsake_Indonesia_market . All electronic manufacturer in the world must have their subsidiaries in Indonesia.	

Noly	:	Compare to other Asian countries, like Vietnam?
Resp onde nt	:	Vietnam's market is less interesting#vietnam_market_less_interesting, not as big as Indonesian market.
Noly	:	In terms of population?
Resp onde nt	:	But Vietnam is very ideal for production base#vietnam_ideal_for_production_base,
Noly	:	Could you explain more about production base?
Resp onde nt	:	If we map out countries for production base, Vietnam gives very good facilities for investor, such as land#vietnam_good_for_investor_land_facility.
Noly	:	Land? For Samsung ownership?
Resp onde nt	:	Yes. Land is provided with free tax facilities for 20-30 years#vietnam_good_for_investor_free_tax_facility, and this facility is given in advance#vietnam_good_for_investor_in-advance_facility. After we signed agreement with the government to invest in Vietnam for some million dollar amount, government will then provide the facility. It doesn't take long for government to provide the facility#vietnam_good_for_investor_fast_government_bureaucracy.
Noly	:	And no burdensome requirement?
Resp onde nt	:	No burdensome requirement#vietnam_good_for_investor_no-burdensome. The other way around with Indonesia.
Noly	:	Would you share your experience?
Resp onde nt	:	In Indonesia, after handed in our investment, we request the tax allowance facility, and the process can take up to 1 year#Indonesia_weakness_for_investor_long_bureaucracy_processes. And this is Indonesia's weakness. That's why in my opinion Indonesia is not good for production base investment #Indonesia_weakness_for_investor_bad_for_production-base, but Indonesia is in no 1 position for market#Indonesia_strength_no-1_market.
Noly	:	Okay.
Resp onde nt	:	In Vietnam, we also have assurance from the government#vietnam_good_for_investor_goverment_assurance.
Noly	:	What kind of assurance?
Resp onde nt	:	Assurance in terms of labor strike#vietnam_good_for_investor_goverment_assurance_labor_strike.
Noly	:	Okay.
Resp onde nt	:	The possibility of labor strike threat is very low, unlikely in Indonesia#vietnam_low_labor_strike_threat.
Noly	:	Yes.

Respondent	: In Indonesia, there is almost labor strike threat every year# Indonesia_high_labor_strike_threat , with different reasons such as Regional Minimum Allowance # Indonesia_high_labor_strike_threat_cause_regional_minimum_allowance . Therefore, Vietnam is more appealing.	
Noly	: What about regulation changes in Vietnam? The ever-changing regulation in Indonesia gives uncertain investment environment for investor. Is it the same case with Vietnam?	2a
Respondent	: I am not sure with regulation environment in Vietnam. But, I know that Vietnam's government gives protection to investor. # vietnam_good_for_investor_goverment_protection The government listen to complaints from investors and they will try to make improvements as soon as possible# vietnam_good_for_investor_goverment_Improvement_initiative . They also have good loading and unloading system in the harbor. The government pays big attention to investor.	
Noly	: Do you think Indonesia's national stability, such as financial and security conditions affect Samsung business or investment in general?	2a
Respondent	: It does not really affect the business in general, but if Rupiah continues to weaken against Dollar, then production cost will increase# Indonesia_bad_financial_condition_influence_production_cost .	
Noly	: So, it does affect production cost?	
Respondent	: Yes, it does.	
Noly	: This LCR regulation took effect since 2015, right? And Ministerial Regulation of Ministry ICT regulates 30% LCR, right?	
Respondent	: Ministry of ICT precisely regulates LCR since 2011.	
Noly	: 2011?	
Respondent	: Yes. We don't know about the existence of this regulation# LCR_regulation_obstalce_lack_of_detailed_information , because it only explicitly states on its article that LTE technology with frequency of 2,3 GHz should achieve LCR of 30%, and in 5-years time, it should achieve 50% LCR.	
Noly	: That was in 2011?	
Respondent	: Yes, in 2011 which Ministerial Regulation was issued.	
Noly	: What number is that?	
Respondent	: We do have it. Number 19 month 9.	

Noly	:	Okay.
Respondent	:	at that time none of mobile phone players were aware that this LCRs regulation contradicts with the smartphone. It because, at the beginning this regulation were made for WiMAX project. At that time, this project was not successfully implemented, and we did not know the reason why the frequency allocated for WiMAX shifted for cellular (smartphone). There were 2 (two) kinds of telecommunication techniques, TDD and FDD. TDD frequency is from 2.3 GHz to 2,4 GHz, and FDD frequency is under 900 GHz to 1000GHz. Since LTE mobile phone frequency is in the same frequency as TDD, the frequency that was first used for WiMAX project, mobile phone players were then have to comply with this regulation. However, we did not know about this information back then in 2013, because the government did not disseminate this information. We talked about history then, the question become broader
Noly	:	Is it okay? Because you mentioned we can do interview until 10 AM
Respondent	:	No problem
Respondent	:	So, in 2011, we did not know that MCIT had issued this LCRs regulation. In 2012, Samsung management was called upon by the Minister of Finance and Minister of Trade. Both ministers asked Samsung to build the factory in Indonesia. We were continuously forced by them to do so. Why?? Because then, they understand that our import value for telecommunication and ICT devices, especially smartphone was very high# indonesia_experience_high_trade_deficit_in_telecommunication_&_ICT_sector . If I am not mistaken the import value was to 50,3 million in 2012.
Noly	:	Was it for all product brands, not only for Samsung?
Respondent	:	Yes. The government predicted this import value was the 5 th position that contribute to the national trade deficit# Indonesia_government_trade_deficit_prediction . Therefore, they want to do something that can decrease this trade deficit by reducing the import value, and require vendors to produce their products in Indonesia# Indonesia_government_objectives_decrease_trade_deficit # Indonesia_government_objectives_reduce_import , # Indonesia_government_objectives_require_vendors_produce_product_in_Indonesia . Samsung was in number 1 st position in Indonesia (market), that's why the government really asked us to move our factory to Indonesia# samsung_no-1_vendor_in_Indonesia
Noly	:	Where was the Samsung's factory located before?
Respondent	:	In Viet Nam# samsung_factory_was_in_vietnam
Noly	:	Okay, because the convenience that was given by the Viet Nam's government?

Respondent	: Yes. Samsung was forced to build the factory in Indonesia. Until in 2012, the Ministry of Trade issued the regulation no 82, December 2012. One of the articles of this regulation, article 8, sets out the obligation to build the factory/industry in Indonesia
Noly	: Building the Industry?
Respondent	: Yes. In several years, maybe 3 years. So, in 3 years we after the regulation was issued, we must build the factory or establish the industry in Indonesia #samsung_requirement_establishing_factory_in_Indonesia
Noly	: After what?
Respondent	: In 3 years after the regulation was issued, we need to already build the industry/factory here. In 2012, we were still assessing, negotiating, examining the objective of this regulation and the mechanism to implement this regulation. We did not get the detail information of this article, but suddenly were forced to implement the mandate of this article #obstacle_lack_of_information_of_LCR-related_regulation . Due to the lack of detail information, therefore we looked for the clarification to Ministry of Industry. There are 3 (three) Ministries that are related to the LCRs regulation, Ministry of Communication and Information Technology (MCIT), Ministry of Trade, and Ministry of Industry. Actually, the MCIT was the ministry that initiated this LCRs regulation #MCIT_is_initiator_LCR_regulation , the Ministry of Industry and ministry of Trade did not know that the telecommunication and ICT devices that was regulated under this LCRs regulation might contain the local component #obstacle_lack_of_information_poor_coordination_among_government . Therefore, they were not well-prepared for the detail formulation on how to measure the LCRs #obstacle_unwell-prepared_detail_information_of_LCR_measurement . The Ministry of trade got the information only from MCIT. Then, in 2013, the pressure became stronger, and at that time we (business player) were also just aware of this LCRs existence #samsung_just_aware_existence_of_LCR_regulation_in_2013 . Besides we were forced to build the factory, we also would be imposed with LCRs regulation. After we had discussion with MCIT, and we were made aware that there would be LCRs for 4G LTE devices #LCR_regulation_plan_for_4G-LTE , it became chaotic. This happened in the end of 2 nd semester of 2013. In 2013, Ministry of trade issued Ministerial regulation no 38 Year of 2013 that sets out in article 8, if I am not mistaken, the obligation of building industry was abolished #LCR-related_regulation_history_ministry-of-trade_no_38_2013_abolishment_building_factory_requirement
Noly	: Oo was the regulation revised? (requirement to build industry) was abolished?
Respondent	: It was revised, but we did not know why suddenly it was revised, because at the same time we were pushed to build industry ##obstacle_poor_coordination_government-industry

Noly	:	By MCIT?
Respondent	:	Yes, by MCIT and Ministry of Trade, but why the regulation might be revised, the obligation was removed. During 2013 and 2014, we started to implement the regulation but we were unsure how to calculate the LCRs. However, we were still forced to build the factory in Indonesia. We discussed with the Ministry of Industry on how to execute the requirement of this regulation. Then, in 2014, the Ministry of Industry issued the Ministerial Regulation number 69 Year of 2014 that sets out the general method to measure the compliance of LCRs LCR-related_regulation_history_ministry-of-industry_no_69_2014_general-method_to_measure_LCR-compliance .
Noly	:	Was it still general and not specified?
Respondent	:	The point is, there was 80% of local component for manufacture/factory, and 20% of development #LCR_regulation_history_formulation_threshold_manufacture_80% , #LCR_regulation_history_formulation_threshold_development_20% . That's all. They made it simple but not specific. The point was, the weight/threshold for factory was 80%. For development, usually it was related to software development, such as Operation System (OS), display, feature #LCR_regulation_formulation_development_example_operation-system , #LCR_regulation_formulation_development_example_display , #LCR_regulation_formulation_development_example_feature . By then, we were still negotiating and analyzing. After we analyzed, we came to the conclusion that if we built it (factory and development) here, target of 30% will not be accomplished #samsung_history_difficulty_to_comply_30%_in_2013
Noly	:	the LCRs?
Respondent	:	Yes, in the MCIT regulation the percentage of LCRs is 30%. But, we are not sure can achieve the expected target. Roughly, maybe around 10% #samsung_history_able_to_comply_10%_in_2013 . Why, because there is no local fabric or manufacture that can provide or produce the mobile phone component for Samsung's products #LCR_implementation_obstacle_no_local_manufacture_to_produce_supporting_component
Noly	:	At that time?
Respondent	:	Yes, in 2014. There was no local industry that could accommodate that. Then, we discussed again with the MCIT, we said that this regulation should be revised, it's possible to achieve 30%. Which foreign companies, could run industry here (Indonesia) if the local component for production was not available. The Ministry of Industry checked our statement, and they found the same thing that is difficult to achieve 30% of LCR. Finally, the Ministry of Industry conducted discussion with the MCIT.

	<p>In 2014, we were still forced to build factory in Indonesia. By the second semester of 2014, we mobilized our small production to Indonesia#samsung_first-time_moved_factory_in_2014. We imported production machines, and we provided the training for employees#samsung_first-time_moved_factory_in_2014_import_production-machine, #samsung_first-time_moved_factory_in_2014_provide_training_for_employees.</p> <p>In February 2015, we did a test for the first time to produce our cellular in Indonesia#samsung_first-time_in_2015_produce_sellular_in_Indonesia. Simultaneously, we were still waiting for the MCIT's decision in the assessment that there was no single foreign company that can fulfill this 30% LCRs. As a big company, we could not do that, the local companies could not even achieve this 30% threshold for the LCRs#local_company_can_not_achieve_30%_LCR_threshold.</p> <p>Eventually, in 2015, the MCIT issued the regulation no 27, 2015,#LCR_regulation_MCIT_no_27_year_2015 to revise the threshold contained in the LCRs regulation to become, in 2015 and 2016, the percentage of LCRs that must be satisfied by the foreign companies was 20%,#LCR_regulation_MCIT_no_27_year_2015_threshold_20%_in_2015-2016, in 2017 would be 30%,#LCR_regulation_MCIT_no_27_year_2015_threshold_30%_in_2017. Although it became lower up to 20% for LCRs, we still struggled to fulfill this requirement. At that time, we finally could comply the LCRs around under 22.23%#samsung_LCR_regulation_compliance_22.23%_in_2016.</p>
Noly	: It was only slightly over the threshold?
Responde nt	: <p>Yes, it was very slightly. In 2015, MCIT issued regulation on LCR reduction. After that, Ministry of Industry revised the formula for LCR calculation under the Ministerial Regulation from Number 69 to 68, Year of 2015. The revision was the calculation is based on cost, such as import tax, valued-added tax, income tax, each tax has their own weight/threshold and calculation. In 2015, LCR regulation was divided into hardware 80%, and R&D 20%.</p> <p>In the end of 2016, we still had discussion about idea delivered by Ministry of Industry to revise the regulation with the threshold option of hardware from 100% (0% software), 75% (with 25% software), 50% (with 50% software), and 25% (with 75% software), and option for LCR software coupled with decreasing percentage for hardware. At that time, we strongly opposed this idea, because it's possible. We could not imagine that if we have to build the factory, then we did not need to meet software requirement. Also, if we chose to develop software, then we did not need to build the factory.</p>
Noly	: I see

Responde nt	<p>At that time, we calculated that if the company chose to develop software only, it only needed to provide budget around 2 millions USD. Then, it had complied with LCRs regulation. We (Samsung) were pushed to build the factory required budget tens of millions USD. We had firstly invested 23 million USD#samsung_first_investment, excluding salary, insurance for employees. For software, only with 2 millions USD maybe less, with small office, 4 (four) engineers#samsung_requirement_for_software_compliance, can be done. I think is not fair#unfair_LCR_mechanism, since the there was no option software mechanism, only manufacture (hardware) mechanism. The software mechanism should not exist. We (Samsung) refuses it.</p> <p>Finally, that proposal was canceled. In 2016, Ministry of Industry issued the Ministerial Regulation no 65, Year of 2016. The formulation was revised to be 70% for hardware, R&D 20%, and application 10%. The application mechanism still exists due to the proposal from another brand who refuses the LCRs regulation. They refuse the proposal because they do not produce smartphone, only software. Due to this proposal, the condition was chaotic again. This is because if we refer to Indonesia's dictionary, the industry is more related to manufacture, and not software. Software is another domain. We did not understand why suddenly software mechanism was provided in the proposal and parked long-debate. that crated long-debate. Again, at that moment we saw the inconsistency of government.#debate_on_software_mechanism</p> <p>Eventually, the software mechanism is set out on the regulation. Many brands cannot fulfill the requirement for this mechanism#difficulty_of_software_mechanism_requirement. Only one brand can do so. In 2016, there are 2 (two) options to comply with LCRs regulation, hardware (manufacture), and software. If you take hardware option, then 70% is manufacture, 20% is R&D, 10% application. Whereas, for software option, software threshold is 70%, 20% R&D, and 10% manufacture. 10% manufacture, I think it's only assembly#LCR_mechanism_threshold_compliance.</p>
Noly	: Yes
Responde nt	<p>So, there are 2 options. If software option is easy to fulfill, we don't need to build the factory here. But, the Ministry of Industry said that the requirements for software mechanism are not that easy#difficulty_of_software_mechanism_requirement. There is only one company in this world who can comply with LCR regulation through software mechanism (*actually there is another mechanism, which is investment. The interviewee forgot to mention in this option, but he mentioned in next question)</p>
Noly	: Can you mention the company's name?
Responde nt	Apple
Noly	Apple?

Responde nt	<p>That's why There is no Apple's factory in Indonesia#Apple_does_not_have_factory_in_Indonesia, until this time Apple is allowed to import its products#Apple_can_still_import. Many brand companies don't agree with the decision of Ministry of Industry. But still, government is government. We cannot refuse the government's will, although it does not match with the original purposes, to build manufacture, and reduce import. I think, LCRs is about physical component, such as moor, PCB (Printed Circuit Board), and not software. So that, for me the definition of LCR become unclear. However, we still follow this regulation.</p> <p>During 2015-2016, there were many products sold illegally (black market) #black_market_activity, we asked government to anticipate this so that this practice could be decreased. Finally, in 2016, the Ministry of Trade responded this issue, by issuing the Ministerial Regulation Number 41 Year of 2016 on 9 May 2016#government_anticipation_of_black_market. According this regulation, "the companies wanting to import the 4G product, must have license for production, they need to be company of telecommunication manufacture", the general company cannot import 4G products, only 3G products. We accept this, and for the moment we'll see the situation.</p> <p>In 2017, the Ministry of Industry revised the regulation again, on 29 July 2017. Previously, under the regulation no 65, there are hardware, and software mechanisms, and the third mechanism.. ohya I forget to mention; the third mechanism is investment#LCR_mechanism_compliance. This investment mechanism is formulated for Apple#LCR_compliance_investment_mechanism_for_Apple, while Samsung and other companies choose hardware(manufacture) mechanism. I think nobody takes software mechanism because its requirements are difficult to satisfy. In 2017, investment mechanism was revised to be innovation center#LCR_mechanism_investment_revised_become_innovation_center_in_2017, which is only one company takes this mechanism.</p>
Noly	Apple?
Responde nt	Apple, we don't know why the third mechanism is formulated especially for Apple.
Noly	You mean the government is give special facility for Apple in order to comply this LCR regulation?
Responde nt	Yes, why Apple is not pushed to build factory like Samsung# Apple_privilege , and Samsung also can create software.
Nolly	yes
Responde nt	So, I think, there is no consistency on the LCRs regulation# inconsistency_in_LCR_regulation
Noly	You mean the regulation has political issue?

Resp onde nt	Yes, political# LCR_regulation_has_political_issue . In fact, the Apple's CEO from America came to Indonesia to meet the Minister of industry, Minister of MCIT. Also, the Minister of MCIT was invited to come to America	
Noly	Mr. Rudiantara?	
Resp onde nt	Yes. He was invited to see the Apple's facilities. And we did not know what they discussed. Also, the Vice President of America, I forget the name, came to Indonesia to ask about LCR and its revision	
Noly	Samsung was forced to build factory during the leadership of which minister of MCIT? Mr. Tifatul or Mr. Rudiantara?	
Resp onde nt	At that time, the Minister of Trade was Mr. Gita, Minister of Industry was Mr. Hidayat, and Ministry of Finance was Mr. Chatib basri. MCIT did not push us to build factory. MCIT just issued the regulation in 2011, while Mr. Tifatul was the Minister of MCIT. In 2014 we have new President, Mr. Jokowi. Then, in 2015, Mr. Rudiantara replaced Mr. Tifatul as the Minister of MCIT. He is the one who proposed the software mechanism to be set out in the LCRs regulation. That made the chaos. Therefore, in 2016, the regulation was revised to contain 2 options, hardware and software. (*actually, the interviewee forgot again to mention the third mechanism, which is investment mechanism)	
Noly	Okay	
Resp onde nt	That's story	
Noly	We proceed to the next question, does this regulation change the Samsung's business process?	3a
Resp onde nt	Yes, indirectly, this regulation changes our business process. Previously we rely on import to build-up the business, now we move to manufacturing process# LCR_regulation_change_the_business_process .	
Noly	Oh ya	
Resp onde nt	yes	
Noly	was the import level of Samsung very high? The products were imported from Viet Nam?	
Resp onde nt	Some from Viet Nam, and from China	
Noly	Okay, before the LCRs regulation is applied, Samsung can import full-products?	
Resp onde nt	Yes #company_can_import_before_the_implementation_of_LCR_regulation	

Noly	Until this time, what are the obstacles and challenges for Samsung to comply the LCR regulation? has Samsung complied fully with this regulation? bearing in mind that Samsung has built factory here.	4a
Respondent	Yes, we have complied	
Respondent	The major challenge is the unavailability of raw and supporting materials/components to support the implementation of this LCR regulation #LCR_compliance_obstacle_challenge_unavailability_of_raw_material #LCR_compliance_obstacle_challenge_lack_of_supporting_component . We hardly find these materials in Indonesia. Also, it's difficult to find the strategic location to expand the factory. #LCR_compliance_obstacle_challenge_difficulty_find_strategic_location	
Noly	Raw material?	
Respondent	Ya, there is no raw material here #LCR_compliance_obstacle_unavailability_of_raw_material	
noly	Can you give me examples of raw material?	
Respondent	We can only carry out packaging, earphone producing from local industry #samsung_local_packaging_process_LCR_compliance	
Noly	For board on the smartphone?	
Respondent	But if LCD	
Noly	Ya LCD	
Respondent	Yes, LCD and battery are still imported #supporting_component_LCD_imported #supporting_component_battery_imported . There is no factory for smartphone battery in Indonesia	
Noly	Yes	
Respondent	There is no factory for it	
Noly	Okay	
Respondent	That's the challenge, there is no raw material, and land to expand the factory, is difficult to find the strategic location	
Noly	Okay. Actually you have answered this question, which mechanism that Samsung takes to comply with LCR regulation? manufacture as the first mechanism?	5a

Resp onde nt	Yes. We are the first PMA (foreign company for smartphone) which exists and builds the factory in Indonesia in the beginning of 2015# samsung_LCR_compliance_trough_manufacture_mechanism # samsung_first_foreig_company_establish_factory_in_Indonesia_2015 . I still remember when we were pushed to build factory in May or June 2014. We need to build the factory otherwise our quota would be decreased, such as 100 thousand.# build_factory_to_get_import_quota
Noly	What kind of quota you mention here?
Resp onde nt	Import quota
Noly	Ohh I see
Resp onde nt	So, every time we want to import our products, then we need to ask or request the approval from ministry of industry# import_quota_approval_ministry_of_industry
Noly	Ohh that's the mechanism/process? After getting approval, the Samsung can carry out import?
Resp onde nt	Yes
Noly	Okay
Resp onde nt	After process in the Ministry of industry, then we have to seek approval from Ministry of Trade# import_quota_approval_ministry_of_trade . Afterwards, the import approval can be given. But the quota is pressed from If I am not mistaken from 100 thousand to 60 thousand
Noly	Per month or per year?
Resp onde nt	Per request
Noly	Ooo per request, how many time in one year you are allowed to request?
Resp onde nt	It's up to you, as you like
Noly	okay
Resp onde nt	But usually, per request, the quota is 100 thousand, the decrease if I am not mistaken to 60 thousand, then 40 thousand, finally the quota is pressed to be 10 thousand# import_quota_per_request_per_type # import_quota_decrease
Noly	So that is only 10 thousand?

Respondent	<p>Ya, per model/type. So, for example Samsung S4, the given quota per request is 10 thousand devices. Our quotas were pressed, although at that time we have the selling value more than 1 million per month. Due to this pressure, then eventually we build the factory here.</p> <p>The question is, if the government can push us (Samsung), why not other companies? In this case, we see that the government is not fair#unfair_LCR_mechanism. Why other brands are not pushed or threatened? We were pressed by 3 ministries. Also, there was discourse that if we did not build the factory, then the quota of import would be continuously declined. But, the problem is in the Ministry of Industry, in which if there is replacement in the board management/governance, then the regulation is prone to be changed. At the beginning, Ministry of Industry pushed us, then in 2015 became flexible and loose#inconsistency_of_LCR_regulation.</p>	
Noly	But it has been not fair for Samsung since the beginning, because Samsung has established factory and invested with big amount of money here	
Respondent	Yes, our leader has delivered the statement to Indonesia's government that the Indonesia's government is not consistent. Ya, we have established the business in Indonesia long time ago, but we don't get the good attention and awareness from Indonesia's government# samsung_does_not_get_proper_attention_from_Indonesia_government . However, for the new players, the government give the flexibility, so they can still import their products. We don't want to have strong contention with the government by bringing this issue to the court. Because it will undermine our reputation. But we still want to deliver our opinion to the government	
Noly	So, regarding the factory, what kind of factory that you build in Indonesia? Because you have mentioned that battery and LCD are still imported, is it assembly?	
Respondent	Assembly# samsung_establish_assembly_factory , because when we proposed to the government, we only could do the assembly. As long as the local industry was not ready to support the Samsung's production, then we only could carry out assembly in Indonesia# local_industry_incapability_to_support_production_process . Raw materials and spare parts are imported	
Noly	Mostly from China and Viet Nam	
Respondent	All industries in Indonesia are still assembly. The TV industries that have been here since 20 year ago still assembly industry	
Noly	Oya, because we don't have local industry to support the production?	
Respondent	Yes	
Noly	With this policy, in general, what are the benefits and disadvantages for Samsung? whether the cost production will increase or other impacts?	6a

Responde nt	If we talk about cost, we still have profits# samsung_still_generates_the_profit_while_implementing_LCR_regulation . The cost can increase due to the equipment procurement, salary and insurance payment, and land tenancy# cost_increase_while_implementing_LCR_regulation . #cost_increase_due_to_equipment_procurement_salary_and_insurance But, even if the production cost increases, the import tariff and duty is 0% # import_tariff_is_0% . So, if import tariff is 0%, why do we need to produce in here?	6a (b)
Noly	How you get 0% import tariff? What kind mechanism or agreement is that? I think WTO regulates low tariff, but I believe it's not 0%	
Responde nt	The history is, the Ministry of Trade or Ministry of Industry in 2007, they had the meeting that discussed about ITE agreement, bilateral meeting. I don't know how Indonesia agree to open its market in telecommunication and ICT sector. At that time, the government did consider that the telecommunication and ICT industry would advance briefly in the future. The government only think that this agreement would cover the computer only. By signing this agreement, the Indonesia's government agreed that there would be 0% duties for telecommunication and ICT products imported from Singapore# import_tariff_is_0%_from-singapore . Now, the Indonesia's governments regret their decision because they see now that the telecommunication and ICT industry grows beyond their expectations. And they consider that they took the wrong decision.	
Noly	Is this regulation/agreement still applied?	
Responde nt	Yes, it's still applied. Since this agreement is international agreement, Indonesia's government had no option but to ratify it. By knowing that there is no duty or 0% for products imported from Singapore, which companies want to establish their factories here. Also, they don't need to hire employees, pay their insurances, and taxes# LCR_regulation_againts_0%_import_tariff_policy . The Ministry of Industry promised to us that they would give facilities, help, or incentive if Samsung wanted to build the factory here# government_promise_to_give_facilities . However, in reality, our proposal for tax incentive/tax allowance was rejected in 2015# samsung_tax_incentive_rejected_2015 . We were very shock at that time. How come we have been here, but our proposal is rejected?	

	<p>The governments, that related to this issue, Ministry of industry, Investment Coordinating Bureau had agreed to give the incentive to Samsung. However, there was no regulation that could accommodate the tax incentive proposed by Samsung#no_regulation_accommodating_samsung_tax_incentive_2015. In February 2015, we had started our production, and we asked to Ministry of Finance about the regulation than can accommodate our request#samsung_first_production_february_2015. It is because, at that time, the regulation of Ministry of Finance did not accommodate the tax incentive for smartphone industry. They said that they would revise the regulation to accommodate Samsung's will. There was no certainty when the regulation would be revised and issued. I am not sure the regulation number, I think it's government regulation number 8.</p> <p>Samsung has started its business in February, and the revised regulation was issued in May or June. If I am not mistaken, the regulation number is 18. The smartphone industry is regulated on this regulation. So that, the tax incentive then can be requested. We requested the tax incentive in June or July, and we shock that our request was rejected in November. We asked why we could not get it? They said that, Samsung has run its business before this regulation was issued. Therefore, Samsung could not use this regulation as the base to request the tax incentive##samsung_tax_incentive_rejected_inconsistent_regulation. We don't understand, we are pushed to build factory as fast as we can, but why this regulation eliminates Samsung's right to obtain tax incentive.</p>
Noly	: Objectively, Samsung should get the privilege.
Respondent	<p>Yes. The condition that we experience in Indonesia is contradictive with the condition in Viet Nam#indonesia_weakness_over_vietnam_strength. The Vietnam's government is consistent and clear from the first discussion and negotiation. If we invest in Viet Nam with big amount of money, the government will give discount/privilege in advance.</p> <p>Indonesia's government eventually, The Ministry of Industry, and Investment Coordinating Bureau could do nothing, because the tax incentive is the domain of Ministry of Finance#indonesia's_complex_bureaucracy_process. So, Samsung's headquarter is disappointed with the government decision, they felt that the Indonesia's government was not transparent, honest, and fair#indonesia_government_is_not_fair_according_to_samsung. How come, we have been here, following the government instruction to establish factory, and our proposal of tax incentive is rejected. With silly reason, we cannot get the tax incentive because we have run our production and business activities before this regulation is issued#unfair_condition. We asked clarification, explanation, and</p>

	<p>consideration of this issue with the Ministry of Finance, and Ministry of Economy. It took 2 years from 2016 to 2017. Eh sorry, until this time we are still waiting their confirmations, then it has been 3 years. #indonesia's_long_bureaucracy_process #indonesia's_government_uncertainty</p> <p>In 2015, actually, our request for tax incentive had been rejected. However, in 2016 and 2017 we were asked to add our investment. At that time, we were upset. How come we have the willingness to add our investment, while at the first investment we get bad experience (tax incentive denied)</p>
Noly	: Which department in MCIT that asked Samsung to carry out the additional investment? Directorate of standardization, or other directorates?
Respondent	: In MCIT is Directorate of Standardization, but for investment is requested by Ministry of industry. Mr. Rudiantara (Minister of MCIT) also asked Samsung to establish R&D in Indonesia. The pressure became greater, because at that time Indonesia experienced high trade deficit. Therefore, Indonesia needed more investment, that's why we were forced to do the investment #indonesia_need_more_investment_due_to_high_trade_deficit
Noly	: I think the government wants to decrease the trade deficit and need the money that can be earned through investment in establishing factory in Indonesia in order to decrease importation
Respondent	: At that time, it was very difficult, we did not have enough time to fulfill the government's request #difficulty_to_comply_LCR_regulation_no_enough_time . Otherwise, we were threatened that the import quota would be limited #threat_of_quote_limitation_for_LCR_non_compliance .
Noly	: Now, is there still threat from the government?
Respondent	: It's not threat, but the requirement to comply with the LCR regulation should be satisfied. Therefore, we need to add the investment in order to pass the LCR threshold. To do so, we add some machines to build local manufacture. #samsung_satisfy_the_LCR_threshold_by_building_local_manufacture
Noly	: Now how many percent of LCR threshold has been achieved by Samsung?
Respondent	: Now, we have achieved 30% #samsung_achieved_30%_LCR_threshold . The additional investment is necessary to increase from LCR threshold of 20% to 30% by January 2017. We asked the MCIT's consideration to delay the implementation of this requirement until the next couple years. But, MCIT could not grant that. MCIT did not want to revise or deregulate its regulation. We felt unhappy, and the Ministry of Industry could not give any solutions. Then, in 2016, the Ministry of Industry issued the regulation that sets out the formulation of LCR calculation. But Samsung still needs to invest again, such as another machine

Noly	:	So, next time, what kind of investment Samsung will do?	
Resp onde nt	:	We don't have investment plan until situation and regulation become clear# samsung_does_not_invest_unless_the_regulation_is_clear . We cannot do investment if the regulation is not clear. For example, Freeport, under the authority of Ministry of Energy and Mineral Resources, Freeport was required to build shelter, then in the next 2 years, the regulation was revised setting out the shelter building was not obligatory. This condition is bad for industry. We don't want to experience the same thing as Freeport did.	
Noly	:	So, the obstacle to comply with the regulation is the inconsistency of legal certainty?	4a
Resp onde nt	:	Yes# LCR_compliance_obstacle_inconsistency_of_legal_certainty . We want to do the business in Indonesia. Again, if the local industry is not ready to support our production, the government should be fair and does need to force us to produce the products here. That is our disadvantage# samsung_disadvantage_lack_of_local_industry_capability . We are promised to get incentive after the next investment. But we think it should not be like this. The first tax incentive should be granted first, before we add the investment# no_additional_investment_plan_unless_the_first_tax_incentive_is_given . Finally, we do have the plan to invest in the Surface Mount Technology (SMT), this machine can print the MCB and produce the Printed Circuit Board (PCB)# samsung_investment_plan_for_SMT . This investment worth of 20 or 24 million USD)# samsung_investment_plan_budget . This investment was registered in October 2017 to comply with the 30% threshold of LCR. But again, although the letter has been issued and approved, the implementation process is not that easy. There are other requirements needed to fulfill.	
Noly	:	This investment is approved by..?	
Resp onde nt	:	The Investment Coordinating Bureau	
Noly	:	And what are other requirements?	
Resp onde nt	:	Ya, there are still other requirements	
Noly	:	From the Investment Coordinating Bureau or other bureau?	
Resp onde nt	:	Yes, from the Investment Coordinating Bureau, the letter must be authorized by the Ministry of Finance. The bureaucracy process is still long way to go # indonesia's_long_and_complex_bureaucracy_process . So, if we have received the approval letter, it does not mean you can directly execute the investment, we still need to wait 3 or 4 months later to implement the investment.	
Noly	:	So, it's not convenient for the investor, right?	4a

Responde nt	: Exactly #LCR_compliance_obstacle_challenges_long_bureaucracy_process . So, we felt slightly disappointed. Maybe, at that time, Mr. President Jokowi has not aware this burdensome bureaucracy system. In 2017, Jokowi asked to all related ministries and government bureau not to make the investment system complicated and difficult for investors #president_mandates_to_ease_the_investors_in_bureaucracy_process . Then, he initiated to simplify the licensing/investment process by launching the online single submission #breakthrough_bureaucracy_process_single_submission . Actually, Mr. Jokowi wants to create good environment for investor to come to Indonesia, however, he does not know yet the bureaucracy system that requires a lot of improvement. #indonesia_bureaucracy_process_needs_a_lot_of_improvement	
Noly	: Moving on to the next question, so, does Samsung's import value decrease?	6a (a)
Responde nt	: Import value of final product decreases #LCR_regulation_impact_import_final_product_decrease , however, the import value for raw material is similar, so significant change #LCR_regulation_impact_import_raw_material_is_similar . And our local-produced products increase #LCR_regulation_local_produced_product_increase . I will give the data later to you	
Noly	: is there correlation between building the factory here and customer satisfaction? such as new product can be introduced sooner to the market? Does it make distributing products faster?	6a (c)
Responde nt	: No, there is no correlation #LCR_implementation_no_correlation-with_customer_satisfaction . I think it depends on each company's strategy, how to promote the products to customers	
Noly	: Oo, Promotion strategy	
Responde nt	: Based on the data, in 2017, import is recorded at 11.4 million. In 2016, import is recorded at 18 million. We hope in 2018, the import will decrease to 3 million, hopefully it will become 800 thousand only in the next couple years. The highest import was in 2013, around 62 million #import_data . If in 2013, it has been 62 million, the government has predicted that in 2019, it would be 90 million products imported per month #import_value_prediction . (that's the reason why the government apply the LCR regulation) We also ask the government, if there is manufacture mechanism, why government still gives the import license (final products) to other companies. So, on one hand, you ask me to build factory in order to reduce import, but on the other hand you still give the license for other companies to carry out import (final products) #contradictive_of_LCR_implementation_according_to_samsung . The companies, from business perspective, will choose the import license rather than building the manufacture.	

		It's better, if government ask Samsung to produce the products of those companies that still import their products. By doing that, we can increase the employment and taxes income #alternative_for_LCR_implementation . That's our question, why the license for import is still given by government to particular company.	
Noly	:	Have you communicated this issue to Mr. Rudiantara? What is his response?	
Respondent	:	He only said, "ya, we will see, and do it step-by-step"	
Noly	:	He was also from telecommunication business players, I think he will understand Samsung's condition from business perspective	
Respondent	:	Yes, still, he only said it would be processed step-by-step	
Noly	:	But, he is aware the Samsung's condition and feeling?	
Respondent	:	He cares, but his LCR program must carry on. But the responsibility to formulate the LCR calculation belongs to Ministry of Industry and Ministry of Trade. MCIT just regulate the threshold of LCR	
Noly	:	Do you think with the application of LCR regulation, will promote the innovation through the transfer knowledge to local industry? Or innovation and diffusion of technology from Samsung to local company through the LCR cooperation	7a
Respondent	:	Yes, #LCR_compliance_promotes_innovation , here, we provide training and recruitment for students, especially students taking electronic program #samsung_provides_training . Also, we have R&D center, we hire local people such as students who have graduated from university, for instance Bandung Institute Technology #samsung_establishes_R&D_center	
Noly	:	R&D establishment is also carried out in order to comply with LCR regulation?	
Respondent	:	Yes. Our R&D focuses on application development and innovation, with total number of local engineers is 100 to 140 people #LCR_compliance_with_R&D #samsung_R&D_focuses_on_application_development_innovation	
Noly	:	When was it build?	
Respondent	:	2012, it means the R&D has been established 6 years	
Noly	:	For getting LCR certification, what do you think about the quality of government performance/services in serving the company's proposal for LCRs compliance? Such as PT. Surveyor Indonesia, or Sucofindo (independent surveyors for LCR)?	8a

Responde nt	:	There is improvement compared to the last 2 or 3 years# improvement_in_bureaucracy_process . MCIT also delivered breakthrough in licensing process. Beforehand, the process for license that requires 2 to 2.5 months. Normally, if there is no problem, it takes 17 working days for lab test only, excluding the time for request process, waiting time for checking schedule and certificate publication# improving_in_time_from_2.5_month_becoming_17_working_days . All processes will take 2.5 months. With the Self Declaration of Conformity (SDOC)# innovation_of_new_system_of_certification_with_SDOC , it will take 2 days for certificate publication since payment is made. However, this is excluding checking process.	
Noly	:	Can you tell me how much Samsung needs to pay for each certificate? Does It depend on the kind of products?	
Responde nt	:	No, according to government regulation, the certificate fee of SDOC is 50 million rupiahs for one model/type# cost_per_type_per_certificate_SDOC_system . For physical checking, the fee is different, I don't know precisely about the fee because there are many components required to be tested, such as Bluetooth, Wi-Fi, LTE, etc. There are charges for all component checked. The physical checking will be conducted in lab, and will take 17 working days# long_checking_process . Why it's so long, because we need to wait for the checking schedule for up to 3 weeks# long_waiting_time_for_checking_process . It because the over-capacities request for checking, since each company generally wants to check more than 5 model/types	
Noly	:	Last month, I met with Mr. Ismail as Director General of Standard and Frequency Recourses of MCIT. The foreign company, such as Samsung can bring the result of products lab test from other countries' labs	
Responde nt	:	Ya, that's SDOC. Result issued by foreign recognized lab, can be used in MCIT's (Indonesia) lab # SDOC_breakthrough_procedure	
Noly	:	Next question, does this LCR regulation also bring impact to or affect Samsung's business in other countries?	9a
Responde nt	:	No. we only need to move our production process to Indonesia. There is no impact to the process # LCR_compliance_no_impact_with_company's_business_in_other_countries	
Noly	:	does this LCR regulation give win-win solution for Samsung?	10a

Respondent	:	To implement the LCR regulation, the government needs to get some inputs from industry, because not all brands/companies can comply with the standard stipulated #the_requirement_for_win-win_solution_getting_input_from_industry . Otherwise, it is difficult to reach win-win solution. For instance, the requirement to fulfill 30% of LCR in 2013, then cumulatively increase to be 50% in the next 5 years. At that time, no one can comply with that requirement.	
Noly	:	Up to 50%?	
Respondent	:	Yes, in 2011, MCIT issued the regulation for LCR with requirement/threshold of 30%, then in the next 5 years, the threshold become 50%. No company can comply with that. Therefore, the government should consider the input from industry to provide win-win solution in the implementation of LCR regulation. Before determining the standard for LCR threshold, the government should conduct a study. It is a mistake to make regulation without conducting any studies #the_requirement_for_win-win_solution_conducting_study_before_determining_the_LCR_threshold	
Noly	:	So, in formulating the regulation, the government did not invite the private sectors? The industry is not involved?	
Respondent	:	No	
Noly	:	Really, you have never been engaged?	
Respondent	:	In the previous era (former minister era), No	
Noly	:	But, in the era of Mr. Rudiantara, the government started to engage industries?	
Respondent	:	Yes, and in the era of Mr. Jokowi as the president	
Noly	:	For the last question, for the calculation or the threshold of LCR, what is your recommendation or input?	11a
Respondent	:	Our recommendation is, since the implementation of this LCR regulation has been running 3 years, we only ask government to be more aware, and consider our position, and input #LCR_compliance_recommendation_enhancing_the_awareness_to_industry_input/position . The threshold of LCR will increase, for instance in January 2018, the Ministry of Industry proclaims that the LCR threshold to be 35% for next year (2019)	
Noly	:	For all products?	

Respondent	:	For smartphone. If it has become discourse in ministerial level, we remain to request to the government to always gives attention to industry, maintain the consistency. The government should not revise the regulation, although the era of leader changes #LCR_compliance_recommendation_maintaining_regulation_consistency
Noly	:	So, implicitly, the implementation of LCR regulation can be accepted, as long as the government can maintain its consistency in providing the legal certainty?
Respondent	:	Yes. Since we have established the business here, and we cannot pull out our business here, because otherwise it would result in big disadvantage. Now, if I am not mistaken, according to data published by Ministry of industry, it has been 40 brands, and 23 factories present here that bring positive impact to employment #LCR_compliance_positive_impact_to_national_industry . Therefore, the LCR regulation should not be easily revised, and should be maintain the consistency of its provisions. We can learn from the failure of WiMAX, in which there was many companies that invested to WiMAX, I think this failure caused many companies afraid to invest in Indonesia. Therefore, if I may suggest, maintain the consistency, don't provide industry with other options to comply with LCR regulation.
Noly	:	Lastly, this regulation actually has been revised to accommodate the industry will? What do you think?
Respondent	:	I think, from the beginning, the objectives of this regulation are good #LCR_regulation_objectives_are_considered . However, the government should implement this regulation fairly #indonesia's_government_needs_to_be_fair , maintain the consistency #indonesia's_government_needs_to_maintain_consistency , and don't provide another option of mechanism to comply with this regulation for particular company
Noly	:	The application or investment mechanism?
Respondent	:	The investment, this mechanism seems like to give privilege to particular company, it's not fair #investment_mechanism_perception . The implementation of this regulation, has been an issue in WTO, some members resist to this because they assume that the implementation of LCR regulation is to protect the market. The objective of the implementation of this LCR regulation is to grow the local industry. Then, WTO does not bring this issue to DSB. If there is discrimination in the implementation of this regulation, I believe the WTO will raise again this issue.
Noly	:	Yes, also I think, it's not consistent with the TRIMS agreement. does the government of Korea realize the Samsung's condition in Indonesia? What do they say? They will raise this issue in WTO? Or they will conduct bilateral meeting with Indonesia's government?

Respo nde nt	:	They are very aware #korea's_government_aware_LCR_implementation_in_Indonesia . The government representative, Mr. Moon Jae-In has meet Mr. President Jokowi, and proposed to president to give more attention to Korea's companies that run the businesses in Indonesia. We never request more than that. In fact, the Korea's government support Indonesia to develop and grow its economy #korea's_government_supports_LCR_implementation_in_Indonesia . It's not only Samsung investing in Indonesia, there are many other Korea's companies also investing here. Again, we ask to Indonesia's government to give more attention to us, be fair, and the Indonesia's bureaucracy system should be simplified #indonesia_bureaucracy_needs_to_be_simplified , as well as the regulation should be formulated simpler. We ask this, because it takes weeks for us to get the license. Consistency to implement the regulation still low #indonesia_government_increases_consistency_regulation . The regulation sets out that the licensing process takes 5 days, however, in reality, it can take 2 or 3 weeks. We also have requested for import license. Government said it would take only 5 days, but it took 1.5 months. #indonesia_government_needs_to_reduce_the_long_time_bureaucracy_process
Noly	:	Thank you for the interview today
Respo nde nt	:	Yes, no problem, I only can give you the attached data

ANNEX 13. Coding of Interview with Huawei

Actors	Questions	no
Noly	:	How long have you been working for Huawei?
Respo ndent	:	I've been working for 6 years for Huawei
Noly	:	In which department?
Respo ndent	:	From whom you got my contact? From Andry?
Noly	:	Doni or Andry. From Mr. Respondent of MCIT standardization division
Respo ndent	:	Oh yes.
Noly	:	I work in International Affairs Center
Respo ndent	:	I've been working for 6 years for Huawei, the division was called Career Solution Development which deals with business proposal things, now the division is called Indonesia Strategy Business Development. Before working in Huawei, I had been worked in operator, in XL.

Noly	:	You often met with Mr. Rudiantara, then?	
Respondent	:	Yes, quite often.	
Noly	:	also with Mr. Andriana?	
Respondent	:	Yes, I often met with Mr. Dedy.	
Noly	:	okay	
Respondent	:	Yes. I once worked for vendor and operator.	
Noly	:	Shall we go directly to the question?	
Respondent	:	Yes, please.	
Noly		From Huawei perspective, how important is Indonesia's market, compared to other countries, like Vietnam?	1a
Respondent	:	If we talk about market, there are many components. If the demand is high# market_means_demand , it means we talk about volume# demands_means_volume . If we talk about volume, then we also talk about population# volume_means_population . So, the market opportunity of Indonesia is high# indonesia's_market_opportunity_is_high . If we talk about industry trend, we cannot predict it precisely, because it can come or change suddenly# industry_trend_cannot_predicted_precisely . For instance, who would predict that suddenly video on demand, and Over The Top (OTT) will boom. It means that there is conversion between products/services and population# population_is_market_opportunity . The industry can harness this opportunity. Eventually, if we talk about population, Indonesia's population is very big# indonesia's_market_is_big , also we consider about the distribution process# distribution_process_is_important_factor . They are important factors to consider	
Noly	:	How many countries that Huawei runs its business?	
Respondent	:	We present in 170 countries# huawei_runs_business_in_170_countries	
Noly	:	Which country is the biggest market for Huawei in South East Asia? It's based on population, right?	
Respondent	:	Yes, from population. It seems Indonesia is the biggest market, because it's the 4 th most populous country in the world.# indonesia_is_the_biggest_of_huawei_market	
Noly	:	Does the Indonesia's condition influence Huawei's business? Is it from the financial or security stability that made Huawei wanted to invest here?	2a

Respo ndent	:	Factor to invest, firstly, is about industry trend. There is also a causal link# investment_factor_industry_trend . The demand of subscriber/consumer has correlation with the company's business# investment_factor_industry_trend_correlate_with_demand , in turn the company/operator can develop its products in response to the industry trend. Market, revenue and performance of company are also the factors to invest# investment_factor_revenue_and_performance_of_company . ICT as enabler today# investment_factors_ICT_as_enabler , triggers Huawei to invest here in this sector. Secondly, politics, economy, social and technology are also factors to invest as parts of macro analysis# investment_factor_politics_economy_social_technology . If the result of macro analysis states that it is possible and beneficial to invest, then we will invest.# investment_factor_feasibility_based_on_macro_analysis	
Noly	:	When did Huawei officially enter Indonesia's market?	
Respo ndent	:	In 2000.	
Noly	:	The LCR regulation was issued by MCIT in 2015, however the regulation that sets out the LCR calculation was set out by Ministry of Industry in 2017, how is the calculation mechanism for LCR threshold from 2000 until now? Does this LCR regulation change the Huawei's business process?	3a
Respo ndent	:	Actually, to implement this LCR regulation, there are some factors, including industry, ecosystem, and readiness# LCR_regulation_implementation_factor_industry , # LCR_regulation_implementation_factor_ecosystem , # LCR_regulation_implementation_factor_readiness . The regulation is made not to undermine the business, but more to manage the business, to make it more proper. During the drafting process of the regulation, Focus Discussion Group (FGD) is required to undertake. This FGD is conducted to understand the industry readiness# FGD_to_understand_industry_readiness . There are some formulas for LCR calculation. Each mechanism is different, for example devices, the formula may comprise capex, investment, business, LCR per device.# different_devices_has_different_LCR_mechanism For mobile phone equipment, we follow the business-based investment# huawei_applies_investment_mechanism . Huawei put LCR in End-to-end (E2E) product solution# huawei_achieves_LCR_threshold . Huawei complies with 30% of LCR threshold from site-based services, and PTS site. We make production for some products in Indonesia, which previously we import all products from outside.# LCR_regulation_make_huawei_move_production_to_indonesia	

Noly	:	Before this regulation was issued, the mechanism of cooperation with local companies was voluntary basis. However, after this LCR regulation was issued, establishment of cooperation with local companies become an obligation, what are the obstacles, challenges to comply with this regulation?	4a
Respo ndent	:	Actually, all foreign companies (overseas company), especially that conduct business in manufacturing telecommunication devices, like smartphone, face many challenges. Although there are challenges, the solutions also can be identified. Since the cooperation with local companies is obligatory, we need to look at carefully on the formula of LCR calculation which are already set out in the regulation, the function and engagement system/cooperation system with local companies. By identifying this formula, we can modify, and manage our business to comply with the LCR regulation. Then, if we find the feasible way to engage with the local companies based on our formula identification that match with our products in overseas, then we will do it	
Noly	:	So, does Huawei welcome/support the implementation of this LCR regulation?	
Respo ndent	:	Yes. Huawei supports this	
Noly	:	So, for the 30% LCR threshold, is it difficult for Huawei to comply?	4a
Respo ndent	:	Actually it's about timing. To comply with 30% of threshold LCR, it does not mean we directly/instantly fulfill this 30% #LCR_regulation_obstacle_challenge_time_to_comply_the_t_hreshold . First, we start with 20%, we then conduct observation on the condition, and prepare to increase the threshold achievement from 20% to 30%. The difficulty to comply with this regulation depends on the market condition% #LCR_regulation_obstacle_challenge_market_conditio_n . Because when we talk about 30% LCR threshold, it means there is obligation to comply with this requirement. The challenges to engage with local companies is readiness% #LCR_regulation_obstacle_challenge_local_industry_readiness , tick-time to engage with the local party, that may give slight impact to the market% #LCR_regulation_obstacle_challenge_tick-time_to_engage_with_local_company	
Noly	:	What are the difficulties, challenges or obstacles to establish the cooperation with local companies? For example, the communication, or raw materials unavailability?	4a

Respo ndent	:	Now, the local companies are mature (slightly). There are some products of Huawei that have engage with the local partners, also some premium products# huawei_engages_with_local_company_to_produce_premium_product . By doing so, we have fulfilled with the LCR threshold, and Huawei get used to adapt with such 30% of LCR threshold# huawei_adopts_30%_LCR_treshold	
Noly	:	So, is the local industries ready to corporate with foreign company?	
Respo ndent	:	Yes, they already start cooperating with foreign company# local_company_starts_being_ready_to_corporate_with_foreign_company	
Noly	:	Among 3 (three) mechanisms of cooperation, manufacture, software (R&D), and investment, how does Huawei satisfy this LCR regulation?	5a
Respo ndent	:	Actually, those 3 (three) mechanisms of cooperation are not applied to all types of industry. Local talent or employee is different with products/devices mechanism. The calculation of LCR threshold cannot be generalized. For example, in one type of industry, 80% for local employees is possible. But Huawei has business in telecommunication and infrastructure sector, therefore we comply mainly with the manufacture# huawei_complies_mainly_in_manufacture . This make knowledge transfer becomes conditional. Huawei's devices for end user also can comply with the product local# huawei_devices_can_comply_with_local_product .	
Noly	:	So, does Huawei prefer to choose hardware/ manufacture mechanism?	
Respo ndent	:	What do you mean with manufacture?	
Noly	:	Assembly	
Respo ndent	:	It depends on the case. we have the business on ICT infrastructure, E2E product solution, device, and network solution. There are many business sectors/products# LCR_compliance_depends_on_the_business_sector . So, each business sectors/products will have different formula or treatment to comply with the LCR regulation. It can be on investment basis, local talent in which we promote the knowledge transfer, and for devices there is another formulation	
Noly	:	Do you think the LCR regulation influence the innovation for Indonesia's industry? And How does Huawei promote this innovation?	7a
Respo ndent	:	I think yes# LCR_regulation_promote_innovation . For Huawei, there are many ways to do so. One of them is "City Future", This program is like roadshow.# promote_innovation_through_road_show	

Noly	:	Is it more like capacity building?	
Respo ndent	:	There is one capacity building program. #promote_innovation_through_capacity_building . We also invite students for training in China. #promote_innovation_through_training_in_china . There, they can observe our factory and facility. The programs will be different every year. It depends on the needs. #promote_innovation_program_can_be_different_depends_on_needs	
Noly	:	is it regular? Are the programs different in every year?	
Respo ndent	:	Every year we have program that focus to educate our local talents #huawei_has_program_every_year_for_local_talent_education	
Noly	:	For smartphone, has Huawei established the cooperation with local software company?	
Respo ndent	:	Yes #huawei_establishes_cooperation_with_local_software_company_in_smartphone_production , but I don't know which one. Because the requirements for software mechanism are many. If I am not mistaken, the total of subscriber of the software has to be up to 1 million subscribers. There is calculation mechanism on the regulation	
Noly	:	Yesterday, I have interviewed with the representative of ASPILUKI, he said that the mechanism to know the number of subscriber can be seen from the number of downloader. He also said that the software cooperation mechanism is not that attractive for foreign companies. They tend to invest in manufacture cooperation. Still, they concern about the future innovation to bundle the local applications into their devices	
Respo ndent	:	Yes, because we are heading to the digitalization era, in which the application will be ubiquitous. Talking about software is related to local enterprises/developers. It means the more people download the application, the nearer economy digital era will be.	
Noly	:	So far, what kind of investment that has been conducted by Huawei? Application, academy?	
Respo ndent	:	In what terms?	
Noly	:	For instance, like 4G LTE mobile phone production?	
Respo ndent	:	Actually, the strategy will be different from one company with other companies. Again, the formula to comply with 30% of LCR threshold are provided with several options. Each option has different mechanism that we can use to comply with this regulation. The important is that we can fulfill this 30% of LCR threshold #LCR_mechanisms_are_applied_based_on_the_business_sector	
Noly	:	Does Huawei have factory? For assembly?	5a

Respo ndent	:	We have assembly cooperation with third party (local company) #huawei_has_assembly_cooperation_with_local_comp any	
Noly	:	In Tangerang?	
Respo ndent	:	in Surabaya	
Noly	:	Can you tell me the local companies that have established the cooperation with Huawei?	
Respo ndent	:	Sorry, I could not tell you, because it's about our business and commercial.	
Noly	:	In 2000, could Huawei import directly its products?	
Respo ndent	:	Yes #import_for_final_product_could_be_conducted_freely_befor e_LCR_implementation	
Noly	:	So, now with the existence of this LCR regulation, does it affect the export-import of Huawei's products to Indonesia? Does the import of products decrease?	6a
Respo ndent	:	Talking about import, we also talk about custom that has its own regulation. I am not sure if there is correlation with local content regulation. I think that there is indirect correlation	
Noly	:	Based on the discussion in WTO, especially discussion about LCR regulation, they assume that the implementation of this LCR regulation will undermine and limit the importation	
Respo ndent	:	If I am not mistaken, import has correlation with license or certificate #import_value_correlates_with_certificate . So, if we want to import product, we need to obtain the certificate. There are 2 (two) kinds of certificate, one is issued by the Ministry of Industry, and the other one is issued by MCIT. Certificate issued by MCTI is the certificate for technological feasibility assessment. While certificate issued by Ministry of Industry is LCR certificate. These 2 certificates are correlated each other. #two_kinds_of_certificate	
Noly	:	Because based on the statistical data, from 2008 until 2017, the import value decreases dramatically, I think due to the existence of this regulation	
Respo ndent	:	I am not sure	
Noly	:	Is that so?	

Respondent	:	The declining number of import may be affected by some factors #import_value_can_be_affected_by_some_factors . One of them can be due to the existence of this regulation #import_value_can_be_affected_by_LCR_regulation . But we need to look at carefully on how many percentage is the decrease, and what are the parameters that make it happen. Maybe it is also because the demand is low #import_value_can_be_affected_by_demands , the industry trend is down #import_value_can_be_affected_by_industry_trend , or maybe the investment from the foreign company is declined #import_value_can_be_affected_by_declining_investment
Noly	:	The data is only about the telecommunication and ICT products using the 4G LTE technology
Respondent	:	Oo mobile phone?
Noly	:	Yes, mobile phone
Respondent	:	Whose mobile phone? I see it also from shipping volume #import_value_can_be_affected_by_shipping_volume . Each company has its own shipping volume. Volume is related to demand. People in Indonesia, usually change their mobile phones generally once in 4 or 6 months #import_value_can_be_affected_by_customer_habit . But it depends of which segment/type of mobile phone it is. Also, the changes period of technology is different #import_value_can_be_affected_by-technology_change , for instance from 3G to 4G is fast. But from 4G to 5G we have not known yet. And it may influence the demand. I think there is correlation with the implementation of this regulation, but we need to consider other factors.
Noly	:	Okay, Japan and US raised this issue in WTO because they see that this regulation limits the import quota. Does the implementation of this regulation affect the Huawei's import?
Respondent	:	I should see this objectively, and it also depends on demand #import_value_can_be_affected_by_demand
Noly	:	From 2008 to 2015, the import value was still high that promptly result in trade deficit, then in 2015, the LCR regulation was issued by MCIT, from then the number of import dramatically decrease
Respondent	:	I don't know that precisely. Because in 2015 many telecommunication companies came to Indonesia. I think that the reason behind the decrease of import value involves many factors. Does the statistic say that import decline due to this regulation?
Noly	:	I just have statistic data
Respondent	:	Is it because LCR regulation?
Noly	:	This research want to assess the correlation of existence of this regulation to import and export value

Respo ndent	:	Is it only for telecommunication device or industry in general?	
Noly	:	It's only for telecommunication devices	
Respo ndent	:	Headset?	
Noly	:	It's not headset, it's only for mobile phone, gadget, and handled computer (devices using 4G LTE technology)	
Respo ndent	:	Oh, hand-held computer	
Noly	:	yes	
Respo ndent	:	It makes sense. Because when the LCR regulation was issued, industry needed to adapt with it. Since we cannot import our product unless we have complied with this regulation, then time to market our products is delayed. There is also increase on LCR threshold from 20% to 30% #import_value_can_be_affected_by_the_obligation_set_out_on_LCR_regulation , #import_value_can_be_affected_by_LCR_threshold_increase	6a
Noly	:	Yes, from 20 to 30	
Respo ndent	:	Because at that time, to fulfill 10% was difficult. It makes sense I think ##LCR_regulation_ostacle_challenge_to_comply	
Noly	:	With the existence of this LCR regulation, does it bring benefit for Huawei?	6a
Respo ndent	:	Who will get the benefit?	
Noly	:	For Huawei, itself	
Respo ndent	:	Actually, profit can be measured or calculated based on many things	
Noly	:	Yes, there are many factors, but in general?	
Respo ndent	:	Actually, in a company, to know the profit, we can say that less order/demand means less profit #huawei's_profit_based_on_demand	
Noly	:	So, does not this regulation affect negatively to Huawei's business?	6a
Respo ndent	:	If we are talking about profit, there are many factors, because the Huawei's business sector is vast #many_factors_for_generating_profits	
Noly	:	Yes, it's very broad	

Respo ndent	:	We cannot say that the implementation of this regulation affected us# LCR_compliance_does_not_really_affect_huawei . For instance, we are not sure with the impact of compliance with 20% of LCR threshold. The thing is, this regulation increases our cooperation with local industries# LCR_compliance_increase_cooperation_with_local_in_dustry	
Noly	:	Based on your explanation, can I assume that Huawei is supportive and welcome to this regulation? Importation condition can be affected by some factor that you have mentioned. Profit or loss depends on demand and volume, and for the companies that have many business products/sectors such as Huawei, the implementation of LCR regulation does not really affect the companies' business?	6a
Respo ndent	:	Yes# LCR_regulation_doesn_not_really_affect_companies_with_many_business_sectors , actually, if a company has many business sectors/products, it needs to carry out the cross subsidies in order to survive its business# huawei_conducts_cross_subsidies_to_survive_the_bus_iness	
Noly	:	I once read an article, it claimed that the LCR regulation can prevent the opportunities of technology diffusion or knowledge transfer, do you agree with this? Because you have mentioned that the LCR can promote the knowledge transfer	
Respo ndent	:	Local content? Again, when we are talking about local content, does this LCR regulation block the new technology dissemination? if it does, automatically we cannot deliver and explain the new technology to local industry	
Noly	:	So, do you mean that it does not make sense?	
Respo ndent	:	Yes, I mean, if the new technology dissemination is halted, so that it cannot enter to Indonesia, then we cannot carry out the knowledge transfer of this new technology	
Noly	:	It has no correlation then, for instance, according this LCR regulation, the mechanism of cooperation with local industry is improved from voluntary to obligatory basis. Its aim is to promote the knowledge transfer to local industry	
Respo ndent	:	Knowledge transfer can be delivered in various ways. Knowledge transfer does mean only about technology. The instruction to use the devise or machine can be a part of knowledge transfer. For producing headset, I think we don't need to carry out knowledge transfer, because I believe local industry can do so. Relatively the technology transfer is small on LCR, and knowledge transfer also depends on the situation, because mostly the local companies already have the knowledge# knowledge_transfer_depends_on_situation	

Noly	:	So, are there local skilled-labor who are involved in technology development or blueprint of Huawei?	
Respondent	:	Many# local_skilled-labour_involve_in_huawei's_technology_development	
Noly	:	Wow, it's cool. Last month I meet with Mr. Ismail (Director General of Standardization and Frequency Resources of MCIT) in WTO. He said that Samsung has built factory in Tangerang if I am not mistaken. Tomorrow I have appointment to interview Samsung	
Respondent	:	Yes, I think	
Noly	:	Yes, it has built a factory. Is there correlation with the customer satisfaction?	6c
Respondent	:	Customer satisfaction?	
Noly	:	Yes, maybe the company can be more responsive to the market demand, faster in introducing the new products in Indonesia. What do you think from Huawei perspective?	
Respondent	:	I think it's one of marketing strategies, one of the ways to campaign the products# less_correlation_between_local_factory_establishment_and_customer_satisfaction . Each company has its own strategy, and it depends on its business core# customer_satisfaction_more_on_business_strategy . Samsung is telecommunication device company/vendor. Since Huawei has broad business sectors, for instance E2E technology, and which part of E2E technology provides the highest contribution then we will focus there. Actually, talking about customer satisfaction is about channel, how we can make people get experience of our products, such as through exhibition, close engagement with distributor# close_engagement_with_distributor_strategy_for_customer_satisfaction	
Noly	:	Okay, is that the strategy?	
Respondent	:	I think almost all companies do the same	
Noly	:	Can you tell me explicitly the Huawei's strategy to market the products?	
Respondent	:	I think all companies take the similar strategy to promote their products, and make the customers feel the experience of their products, then approval. Huawei takes these strategy# huawei's_business_and_marketing_strategy	
Noly	:	Okay, now we assess the government performance while processing the LCR certificate, what do you think about the government performance related to LCR certificate processing? Has it been satisfactory in delivering the service?	8a

Respo ndent	:	If I am not mistaken, it has been an effort from MCIT through mechanism of global band or Self-Declaration of Conformity (SDOC), so we don't need to carry out the test, if I am not mistaken# breakthrough_on_bureaucracy_process	
Noly	:	Okay. It's right	
Respo ndent	:	This global band (SDOC) is very helpful. Processing to obtain the certificate or license is required a long-time. This long-time is related to bureaucracy and approval system. So, it's about time. So, if the time to process the license or certificated can be shortened, it's much better# breakthrough_on_bureaucracy_process_shorthen_time_to_get_license	
Noly	:	So, with this policy (SDOC), is it better?	
Respo ndent	:	Yes, it's better# SDOC_process_is_better	
Noly	:	Have the performance of PT. Surveyor Indonesia and Sucofindo as the independent surveyor to calculate the achievement of LCR threshold been optimal?	
Respo ndent	:	Yes. it's important to have the bureau/office that can guide us to understand the formula# the_importance_of_existence_of_independent_surveyor	
Noly	:	Yes, its' true. How many markets/countries that Huawei runs its business?	
Respo ndent	:	Yes, 170 countries	
Noly	:	Do all countries in which Huawei runs its business, apply the LCR regulation?	
Respo ndent	:	I don't know	
Noly	:	Okay	
Respo ndent	:	Because it's local government's policy	
Noly	:	With the existence of the Indonesia's LCR regulation, will it affect to the Huawei's business in other countries?	9a
Respo ndent	:	The correlation with goods/products come in to and go out from particular country # business_depends_on_demands	
Noly	:	I mean in each country where Huawei runs its business	
Respo ndent	:	It has own cost and brand in each country # each_country_each_huawei_company_subsidiary	
Noly	:	Oh, I see	
Respo ndent	:	Each country has Huawei's brand itself# each_country_each_huawei_company_brand	

Noly	:	Oh okay, so there is no correlation?	
Respondent	:	Yes, also each government has its own regulation	
Noly	:	Based on our discussion, do you understand that the importance of the implementation of this LCR regulation for Indonesia's national industry? And does Huawei still welcome with this?	
Respondent	:	Of course, we follow and support the government's regulation #huawei_supports_the_LCR_regulation_implementation	
Noly	:	I read the newspaper and web portal, the objective of the implementation of this regulation, according to Mr. Rudiantara (Minister of MCIT), Indonesia will not only be a market. Companies who want to invest in Indonesia also need to hire local talent/skilled-labor, and promote knowledge transfer so that the local industry will be mature. Based on that objectives, do you think that the implementation of this regulation has provided win-win solution?	10a
Respondent	:	I think that it's relative #win-win_solution_is_relative . Again, we consider that the intention of the government to apply this regulation is good and positive #huawei_considers_LCR_has_positive_objectives . If we are doing business, there should be win-win solution. If this regulation does provide win-win solution, we will not invest here #LCR_regulation_seems_providing_win-win_solution . So, until this time we still run the business here, and cooperate with the local industry, we are fine with this regulation	
Noly	:	So far, are there any inputs to improve this LCR regulation, such as revise some part of articles?	11a
Respondent	:	I don't really remember any provision or article on this regulation	
Noly	:	For instance, should the LCR threshold been reduced? Or the requirement related to total of subscriber should be decreased?	
Respondent	:	Actually, as long as we can comply and adapt to the situation, we will follow #huawei_supports_as_long_as_the_LCR_regulation_is_feasible_to_comply . If you ask me to bargain the threshold of LCR, many companies want to get the smaller threshold #LCR_threshold_can_be_declined	
Noly	:	Huawei is the China's company, is there coordination with China's government?	
Respondent	:	Yes #huawei_has_coordination_with_china_government	
Noly	:	Does the China's industry realize that Indonesia has the LCR regulation?	

Respo ndent	:	Huawei is not the only China's company that runs the business in Indonesia, and it's not only telecommunication company. There are companies that produce refrigerator, or other electronic devices. Absolutely, all types of companies will be imposed with the LCR regulation, with different formulation. That's why, the China's governments are aware #china_government_aware_LCR_regulation_implementation
Noly	:	And is it okay so far? From the government side?
Respo ndent	:	Yes, it's okay #china_government_is_fine_with_indonesia_LCR_regulation
Noly	:	As your information, Japan actually, does not have telecommunication company in Indonesia. Let's say Sony. The business trend of Sony is decreasing, and not that popular comparing to other brands. Therefore, the implementation of this LCR regulation does not impact directly to Japan's company in Indonesia. However, Japan raised this issue in WTO. Samsung, as Korea's company, has coordinated to its government, and they support Indonesia to implement this regulation. That's make me confused. So, if China's governments are also aware, should this regulation not be harmful to the China's company in Indonesia?
Respo ndent	:	I don't really know about that. The point is, as long as we can comply to this regulation, why not. We will support this #huawei_supports_LCR_regulatin_as_long_as_they_can_comply
Noly	:	So, is Huawei flexible to response the implementation of this LCR regulation?
Respo ndent	:	It's not that flexible, we understand our position here. We are running the business here, therefore Huawei should support the government program #huawei_understands_its_position_to_comply_with_LCR_regulati on
Noly	:	Do you mean that Huawei has the market here, so Huawei should accept and comply with the regulation in Indonesia?
Respo ndent	:	Yes, of course we accept, otherwise we cannot sustain our business here. If there are other brands marketing their products here, it's just business competition
Noly	:	So far, as long as there is win-win solution, feasibility, flexibility to comply with this regulation, like you just said, Huawei will welcome and support the implementation of this regulation?
Respo ndent	:	Yes, we welcome and support. There is process of hearing (with companies) conducted by the government to hear the inspiration from industry, and the government does not apply tip-down instruction directly.

Noly	:	Is there any bilateral meeting with the government conducted by Huawei? B2G with directorate of MCIT to give facility to Huawei in complying with this regulation?	
Respondent	:	Do you mean lobby?	
Noly	:	Yes, lobby	
Respondent	:	It's more like FGD, not lobby. Because lobby wording is sensitive, it's related to business ethic compliance. Lobby is also a business risk, and can be harmful to Huawei's business	

ANNEX 14. Coding of Interview with AGI

Actors		Questions	no
Noly	:	Good afternoon. Would you introduce yourself first?	
Respondent	:	I am AGI Operating manager, I have joined AGI for almost 1 year.	
Noly	:	Would you please tell us about AGI along with its vision and mission?	
Respondent	:	AGI is a platform for local games developer. So, all Indonesian games industry is under AGI. However, we are currently on the process of downsizing our membership, so we are more focus on Game Studio, although we also engage other game supporting ecosystem. #AGI_focus	
Noly	:	Would you please explain more about other ecosystem in game industry, beside Game Studio?	
Respondent	:	In AGI, we have 2 game industries which become our main factors, Game Studio and Publisher #game_ecosystem . There is also the supporting ecosystem for game such as digital platform #game_platform , for example Duniaku, Otak Game and many other media games. We also have Payment Gateway and other stuffs.	
Noly	:	Does Game Studio contain common games that we found and can download from PlayStore and Appstore?	
Respondent	:	Yes, the products are games that can be downloaded from PlayStore. #game_studio_products	
Noly	:	Such as Mobile Legend and other games?	
Respondent	:	Yes, just like Mobile Legend #game_studio_products . In PlayStore, the most downloaded product is Minimu, sorry, no, it's called Mini Raising. It is the Game Studio which is called Minimu #game_studio_local_developer . The studio is located in Pati (Central Java). And they only consist of 2 (two) people although their products have been downloaded for 20 million somethings.	
Noly	:	What are the example of Publisher?	

Respo ndent	:	Local Publisher that we have currently is Toge Production# game_local_publisher . Almost 2 weeks ago, they have just launched their new game, Ultra Flash Brow, in Nintendo Switch. That's the first game in Indonesia which can be played in Nintendo Switch.	
Noly	:	The various types of games in mobile phone, PC or console, are they the same type?	
Respo ndent	:	Yes. Platform is the only thing that differs them. There are 3 (three) main platforms# three_main_game_platforms , (1) PC, usually (2) Mobile, this can be played in mobile phone and games are usually downloaded via PlayStore and Appstore, and (3) Console, this include Sony, and others.	
Noly	:	So, does AGI also have function of coordination? Facilitating cooperation with...	
Respo ndent	:	Yes, to increase cooperation among games industries in Indonesia. #AGI_function	
Noly	:	So, AGI also provides trainings?	
Respo ndent	:	Currently, we don't provide trainings. However, ion the future we are planning to do that. But, at the moment, we are more focus on how to raise local developers to increase their revenues and marketing in global scale.	
Noly	:	So, most of game developers are start-ups?	
Respo ndent	:	Mostly start-ups, approximately almost 70% start-ups, and they don't have legal entity. This is because most of them only have 2-3 people in 1 studio.	
Noly	:	Generally, are they still on college or recent graduates?	
Respo ndent	:	Generally, they are already graduated from college, although there are several developers who already build games since college. However, the product from graduates is more mature when they start building games after graduated and build their own game studio.	
Noly	:	How AGI tries to increase local game industry then? For example, in terms of investment, does AGI also helps to look for foreign or local investors?	
Respo ndent	:	In terms of funding or investment, AGI does not help or support game industry directly. We usually help them indirectly by establishing cooperation with BEKRAF (Bureau of Creative Economy) #AGI_help_game_developer_by_bridging_the_cooperation . The most recent cooperation with BEKRAF is cooperation to join game connection event# AGI_facilitating_cooperation_for_local_game-developer in the US which took place 8 months ago. Game connection was B2B event which became our most prestigious event that we participated so far that was aimed at bringing our local game developer to get investor and marketplace from the US. Thankfully, a product called Ghost Stanit, from Lentera Studio-Bandung managed to get global publisher. This product will be published in prominent consoles.	

Noly	:	So, AGI has close connection with BEKRAF so far?	
Respondent	:	Yes, we do. The visit to the US was collaboration between Deputy 4 and Deputy 3 of BEKRAF. #AGI-has close connection with government	
Noly	:	Okay, what do you think about the implementation of the LCR regulation? Do you know that during investment process there is a regulation concerning Local Content Requirement?	1c
Respondent	:	We have not really focus on socializing Local Content Requirement to our local developer. We think that there are many other ways that are more effective than Local Content Requirement. This regulation is compulsory, instead of obliging people to comply with Local Content Requirement, we think that voluntary basis is more effective, so we don't make people to do things. #LCR_regulation_is_not_effective_in_game_industry, #game_industry_prefer_voluntary_basis_cooperation	
Noly	:	Would you tell us more other effective mechanism that Local Content Requirement?	
Respondent	:	Several other ways that proved to be effective is crowd-funding #effective_alternative_of_LCR_regulation_crow_funding , especially using platform starter. However, there are many debates using Kick-Starter, because Kick-Starter does not consider Indonesia to be eligible to use this platform #obstacle-of-using_crowd_funding . So, several studios have to establish company in Singapore first, to act as a bridging, so that they can use Kick-Starter. There are several products which has benefitted from crowd-funding. Another mechanism is direct investment #effective_alternative_of_LCR_regulation_direct-investment . There is 1 studio, called Joysit #foreign_game_investor , if I am not mistaken. They get investor from Australia, but I forget the name of the investor. There is also other local investor, called DNC, stands for Discovery Nusantara Capital #local_game_investor . They have started to invest to several game studio and local publisher in Indonesia.	
Noly	:	When was AGI established?	
Respondent	:	We are established from 2013. However, we had been inactive for quite some time. Then, we started to be active and engage more developers in our activities.	
Noly	:	Would you explain more on AGI organizational structure?	
Respondent	:	Currently, the highest position is held by General Manager. Under that position, we have Secretary and Treasury.	
Noly	:	How is the role of government in supporting the growth of local game industry? And does this LCR regulation significantly grow the local game industry?	2c

Respo ndent	:	Currently, there is a government program, especially from BEKRAF, called BIP, that stands for Bantuan Insentif Pemerintah (Government Incentive Grant) #government_support_to_local_game_industry . This program gives grant to eligible start-ups, which also include games start-ups, for as much as 200 million IDR to help them accelerate their start-up development) #government_support_to_accelerate_start-up_development . Thankfully, there were 2 start-ups from AGI last year that received incentive from the government. Therefore, this year we disseminate information on this program to other AGI members so that start-ups who need supports can get incentive from the government. This year there are several members of AGI who apply for this program. Whereas, the cooperation through LCR regulation, we have not seen significant impact to local game industry #LCR_regulation_less_impact_to_game_industry . And we don't see that LCR regulation is effective way for game industry. #LCR_regulation_is_not_effective_to_game_industry	
Noly	:	Does AGI have data on Top 10 Local Game, for example based on download rate?	
Respo ndent	:	Officially, we don't have data on the most downloaded local games. We only have sources who claims the number of download for their games. Like I said, Mini Racing is now the most popular game, because it has been downloaded for more than 10 million. However, we don't have data for other games.	
Noly	:	So, every time the game is downloaded, the download rate goes to the developer?	
Respo ndent	:	Yes, automatically that can be done. Since we use online platform, like PlayStore and Appstore, the developer can see how many people have downloaded the app and how much revenue they get. Actually there are many business model for marketing or revenue making from game. For example: freemium business model that allows people to download the game for free, but inside the service, there are many game item that are offered in the marketplace. The example of freemium business model can be seen from Mobile Legend game, which can be played for free, but you have to pay for the character. That's freemium, and that's the most common business model in PlayStore. Business model for PC is different from Mobile. Most of them use premium, where people have to pay to download the app, but after that there is no other payment during the game. However, there is no correlation between the download rate and the high revenue.	
Noly	:	How far does game industry understand about Local Content Requirement regulation?	

Respo ndent	:	I am not sure that game developers understand completely about Local Content Requirement regulation# game_industry_lack_of_LCR_regulation_awareness , because I think vendors are more interested with hardware mechanism rather than software requirement mechanism# assumption_vendors_prefer_manufacture_mechanism . We, from AGI, also do not really suggest enforcing LCR regulation because we have unfortunate experiences. #reason_AGI_not_to_apply_LCR_regulation_in_game_industry	
Noly	:	Would you tell me more what kind of experience is that?	
Respo ndent	:	I am not sure when this happened exactly, but there was 1 game studio which, was offered by or offer to, I am not sure who initiated it, vendor for bundling in order to comply with LCR regulation. apparently, this game studio needed to pay to vendor# local_game-developers_inconvenient_experience_with_vendor #vendors_ask_game_developer_to_pay_them .	
Noly	:	Do you mean telecommunication device vendor?	
Respo ndent	:	Yes. This vendor, instead of thinking that he is complying to LCR regulation, he thought that this was the way for game developer to market their products. So, vendor asked for game developer to pay to vendor for 2000 or 20.000 IDR, I am not sure exactly the price, per device. #vendors'_mindset_of_having_power_in_market , #vendors_don't_realize_the_LCR_compliance_through_application_mechanism This is definitely less interesting for game developers. #reason_not_to_apply_LCR_regulation_in_game_industry	
Noly	:	Without mentioning the brand, is it big vendor?	
Respo ndent	:	Yes, that was big vendor,	
Noly	:	Can you tell me how close the cooperation between local game developers and vendors before the existence of LCR regulation?	3c
Respo ndent	:	I don't think that we have close cooperation with vendors, because mostly, game developers sell their products/games directly in game platform, such as Appstore, or Playstore. #no_close_cooperation_with_vendors	
Noly	:	Actually, in order to comply with LCR regulation, there are 3 mechanisms: (1) First, through hardware/ manufacture, (2) second, through application which we are discussing currently, and (3) Three, through direct investment which can be in various forms, for example Apple Academy. Apple company invest and cooperate with one university to establish training program and application and game development. Does AGI see this as an opportunity to develop their local game industry?	

Respo ndent	:	If Apple Academy is interested in collaborating with us, we are also very interested# interest_of_establishing_cooperation_with_Apple_academy . Because our initial goal is to increase our local game developer# AGI_goals . And if Apple Academy existence can help us to achieve our goal then we would like to have cooperation with them. But up until now, we have no cooperation with them. #no_existing_cooperation_with_Apple	
Noly	:	Do you have contact person from Apple who are in charge of partnership?	
Respo ndent	:	No, most of our contact person for partnership are more from software industry, like Unity of Unreal. While for vendor itself, we have cooperation with Samsung (maybe). But, not with Apple or other vendors.	
Noly	:	Have you ever offered partnership with Samsung to comply with LCR regulation through application mechanism?	
Respo ndent	:	Not yet. We know that Samsung has big brand in Indonesia and they have many factories here. So, Samsung prioritize more on hardware rather than software# local_game_developers_mindset_over_vendors . Although maybe in the future they will try to open-up for partnership with software. #local_game_developers_have_intention_to_build_cooperation_with_vendors	
Noly	:	I think in order to comply with LCR regulation, establishing partnership through hardware mechanism is much cheaper rather than through software mechanism. Do you think that maybe you can make an approach to build partnership with vendors?	
Respo ndent	:	Yes, sure. There are several people in the Committee Board who have close connection with employees from Samsung. Maybe, we will look at options to build partnership with them, and this should be discussed in the board of AGI meeting.	
Noly	:	So far, is there any game developer who have built cooperation with Samsung, Apple and Huawei?	
Respo ndent	:	To our (AGI) understanding, not yet# no_cooperation_with_vendors . This is because of all the problems that I have mentioned earlier.	
Noly	:	So, is there already an impact from the implementation of LCR regulation through cooperation mechanism in the field of application to local game industry, such as promotion of the knowledge transfer and diffusion technology?	5c

Respo ndent	:	There is not yet direct impact# LCR regulation has not made impact . Local game developers prefer to market their products directly through established platform, like PlayStore and Appstore or platform for PC game, like Steam. But, if there is cooperation between local game developer and foreign company, I think it is possible to promote the knowledge transfer. #the_possibility_of_knowledge_transfer_through_LCR_regulation	
	:	Complying with LCR regulation tends to be complicated, and developers likes simple stuffs #reason_not_to_apply_LCR_regulation , #game_industry_prefer_simple_mechanism #LCR_mechanism_is_considered_complex_process . When they want to comply with regulation, they need to fill out lots of documents and have to make accountability report. This proves to be more complicated than directly publishing their product online through established platforms, like PlayStore and Appstore.	
Noly	:	If they publish their products in those platforms, do they need to pay?	
Respo ndent	:	For Steam, I think, they cut 30% from revenue for publication fee. So, for example, if the price per game is 100.000 (one hundred thousand) IDR, Steam will take 30.000 IDR per downloader. Steam also have another revenue cut for tax. Google also have their own calculation, but I don't know their calculation because they always change the rule.	
Noly	:	For freemium game, how does the payment system?	
Respo ndent	:	If the game is free and there is marketplace inside, the payment is cut from each transaction in the game marketplace. So, for example if the game item is sold for 20.000 IDR, there will be 10-15% cut for each platform provider, like PlayStore.	
Noly	:	Is there any data of investors who invest in local game developers?	
Respo ndent	:	Officially, we have no data on investors. Until now, we got data from other organization, for example there is website called "Youzu" who have data on our market size. This year, AGI will conduct mapping of local game developers systematically, including data on foreign and local investors. So, essentially, this LCR regulation has not really regarded by AGI or local game developers for marketing and cooperation to develop our local game developers, especially after the unfortunate experience where one game studio was made to pay for the bundling with vendor.	
Noly	:	Okay, what do you think, how far LCR regulation accommodates the interest of the local game industry?	4c

Respo ndent	:	I think the provisions on the LCR regulation has accommodated game industry's interest# LCR_regulation_provision_already_support_game_industry_interest . But, the question is how to make vendors realize that the cooperation with game industry is also to help them to comply with this LCR regulation. So, that game developers will not experience to pay certain amount of money to vendors.# challenge_to_shift_the_vendors_mindset_to_establish_cooperation_with_game_industry	
Noly	:	Okay, last question, do you have suggestion or inputs for revision of this LCR regulation?	6c
Respo ndent	:	Hmm, from the game developer perspective, we prefer for the simple mechanism in the implementation of LCR regulation. the bureaucracy procedure, and document required can be simplified# LCR_recommendation_for_mechanism_to_be_simplified . For the provision, I think is okay.	
Noly	:	Okay, Jan, thank you for today	
Respo ndent	:	Okay	

ANNEX 15. Coding of Interview with ASPILUKI

Actors	Questions	no	
Noly	:	Would you please provide a brief explanation about ASPILUKI and its mission?	
ASPILUKI	:	<p>I joined ASPILUKI since 2008. ASPILUKI has its own mission, and people work voluntary here to promote Indonesia software industry. ASPILUKII is a software association which is recognized by the government. We recruited members before we established ASPILUKI. We often gave many contributions to the government and provide inputs with regard to market, and others opinion. We are also invited by the government for round-table discussion and policy review so that the policies issued by the government can achieve its objectives effectively.</p> <p>I see big potential for software development in Indonesia to compete with other foreign software developers, and it has not been optimized yet. The government needs a lot of input, and as a Vice President for Government Relations of ASPILUKI, I am often invited to discuss with the government regularly about various topics, including Local Content Requirements (LCRs) regulation, international convention, and other issues related to software.</p>	

		<p>However, recently the definition of software is ambiguous and expanded, so the coverage of ASPILUKI's works extended. Maybe in the future, there will be more associations that focus in particular interests, like game, IOT, e-commerce (IDEA, this one has been established), and social digital. But, since ASPILUKII has been long established, so we are regarded as a referral and often invited by the government to analyse latest development (of software industry) for policy making. LCR regulation is one of the issues.</p>	
Noly	:	So, what do you think about the implementation of this LCR regulation? Is it good for national industry?	1c
ASPILUKI	:	<p>Very good and we really hope many things from this regulation #LCR_regulation_implementation_perception_is_good. The requirement of LCR hardware to include local software as one of requirement can be driver to facilitate the cooperation between local software developers with foreign vendors #LCR_regulation_advantage_to_local-software_developer. This regulation is a good driver to promote their partnerships. Until now, there is no partnership between them #no_existing_partnership_between_local_software_industry_and_vendors. If I am a manufacture and I need software, then I will develop the software by my company. If we combine the software and manufacture, it will be good combination, there will be long investment and big investment #LCR_regulation_advantage_can_bring_long_and_big_investment. It's very interesting. Therefore, the investment in software can be started by hardware producers/manufacturers, and not only by capital venture (money).</p>	

	<p>However, it's not easy to do so. There are many gaps that are needed to be bridged. I have not got any update on the implementation of this combination. I just know that last year there was no money transaction, just barter/trade-off. #LCR_regulation_implementation_obstacle_to_bridge_cooperation_between_vendors_and_software_developer, #vendors-software_developer_only_trade-off_cooperation_basis</p> <p>Of course, I hope more than that (trade-off). I really hope that there will be real investments from hardware companies to develop local software, so that local software developers will grow their business massively. #investment_can_grow_local_software_industry. The capital venture is not promoted by the regulations, it is not obliged by any regulations that investment should be done in certain amount and at certain time. Whereas, in the LCR regulation mechanism, the companies already have the import quota, they need to comply with this regulation otherwise they cannot do import/the import quota will not be given. #LCR_regulation_implication_to_vendors'_import_activity. Capital venture mechanism and regular investor is different with the mechanism of LCR regulation in driving the growth of software industry. Capital venture or regular investor only invest when they think it is profitable to invest, or if they are interested in certain software application. But in LCR regulation mechanism, it does not matter if companies are interested or not, they must comply with this regulation. For instance, 10 million production of mobile phone this year.</p>	
Noly	: As far as you know from the local companies/developers that join ASPILUKI, does this LCR regulation significantly grow the local industry or national industry?	2c

ASPILUKI	: Not yet# LCR_regulation_has_not_brought_significant_impact_to_national-software_industry . There is 1 industry who wants to invest in the field of print-tech. This company did not only want to get investment form foreign company but this company also want to invest with its own capital so that it could grow its business. However, it seems that it needs more efforts to build cooperation with smartphone manufacturers, like LG. LG, during POC (Proof of Concept), requires high quality of software as its standard# local_software_industry_challenge_high_quality_required_by_vendors . However, the perspective of application companies, it will be difficult to satisfy with their standard, especially on QA (Quality Assurance) and test scenario. Technically, these requirements have been burdensome# local_software_industry_challenge_high_technical_standard , and the transaction occurred is through trade-off scheme. Mobile phone manufacturers still regard themselves as powerful player in the industry and software just depends on them# local_software_industry_challenge_vendors'_powerful_position_in_market . I think that this mind-set still exists. The software developers should change this negative mind-set. Now, for example, which mobile phone that has no Facebook app on its device? Can this mobile phone be sold to the market?	
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	<p>If it does not have Facebook application; its product is likely not going to be popular in the market.</p> <p>I am very worry that we have not had application like Facebook that has high position in their bargaining position with the mobile phone manufacturers. Maybe, applications like “Bukalapak” and “Tokopedia” starting to have its grip on the market. Now, if people don’t purchase something in one week, they feel something weird/worry (consumptive habit). I think with their strong bargaining position, one day these 2 (two) local applications can turn the condition #local_software_industry_challenge_increase_bargaining_position_over_vendors_in_market. And when it happens, it shows that software industry has developed.</p> <p>However, there is only 1 or 2 applications that popular and many people are dependent on them. I think people really rely on e-commerce (application), but the application that people really rely on are those that focus on the daily-activities application, such as e-mail software or messaging services. If there are local software application that are as great as WhatsApp, and choose not to have cooperation with hardware manufacturer that are not profitable for them, then their bargaining positions become very strong. And this can be followed by the beginner software developers.</p>	
Noly	: From voluntary to obligatory, this regulation obliges the cooperation of foreign company with the local company, do you think that maybe it only takes effect for 1 year?	

ASPILUKI	:	<p>There is an obligation to include 10% of software in hardware in January 2017. Last year, I have tried to analyse, and I don't think that there is already any impact#there_is_no_impact_yet_of_the_implementetation_of_LCR_regulation_for_software_industry. I think the penalty for companies that don't comply with this regulation is still uncertain. There are many government regulations (with uncertain penalty for non-compliance), such as regulation issued by <i>Puslitbangprof MCIT (centre of human resource and Profession)</i> with its SKKNI (Indonesian National Work Competency Standard), but industries do not think that they are obliged to implement it, up until now. So, the regulations call for the company to comply with these regulations, it is then difficult to impose the penalty or sanction.#regulation_lack_of_sanction</p> <p>We also need to admit that the smartphone manufacturers have strong political power#local_software_industry_challenge_vendors_have_political_power, we need to pay attention to it. So, the willingness to implement "strong" regulation is likely to be avoided by government officials who have had long-term relation with smartphone manufacturers, such as Samsung.</p>	
Noly	:	Do you think that SKKNI (Indonesian National Work Competency Standard) needs to be upgraded from voluntary to obligatory?	
ASPILUKI	:	<p>I think we have a set of complete regulation on this issue, we only need to put more efforts on the implementation of this regulation. For example, we should oblige all industries under KADIN (Board of Commerce) to only accept or hire people who hold this SKKNI (Indonesian National Work Competency Standard). However, practically, it's difficult to implement. The best practice of SKKNI application is still not feasible yet.</p> <p>I have checked to association members, and I asked them, who are among them that have put SKKNI as priority requirement to hire employees. And no one has implemented this. In the implementation of LCR regulation, I don't know precisely how to check it.</p>	
Noly	:	May I know why they haven't implemented it?	

ASPILUKI	:	So, if I suggest that this SKKNI certification standard to be entrance requirement for employee to work in certain company, or employees who are sent by company to get SKKNI certificate, then these employees will ask the company to increase their salaries, as standard. The other reason, why the companies don't apply SKKNI is that they cannot freely hire the people with other capabilities, integrity and academic backgrounds in accordance with the company's needs. It is the advantage and disadvantage of the SKKI application. Actually, the government has responded to this issue, however the implementation of this is still uncertain.	
Noly	:	So, before this LCR regulation exists, How close the cooperation between local and foreign vendors?	3c
ASPILUKI	:	I never heard about this cooperation among them#no_cooperation_between_local_software_developer_and_vendors. I think the cooperation is only for the market leader#Market_leader_Local_software_developer-vendors_cooperation. For example: Detik is quite happy if it is bundled as firmware#cooperation_as_firmware, so when a product (device) has been produced, then it is distributed, the software is already included in device. However, the local software applications that are bundled in the hardware through this mechanism is very limited. #local_software_bundled_in_device_is_few I think, after LCR regulation is applied, at least the firmware mechanism can be possibly applied #LCR_regulation_function_may_increase_the_cooperation_local_software_developer_and_vendors_through_firmware_mechanism	
Noly	:	If I am not mistaken, they can choose 2 firmware or 8 games.	
ASPILUKI	:	The equivalence is that there should be 8 games installed. And there is active user requirement.#LCR_regulation_development_and_application_mechanism_requirement	
Noly	:	So far, do you know which Indonesian software which is bundled with smartphone, for instance, which local application is bundled by Samsung?	
ASPILUKI	:	I haven't checked. Maybe it's time for ASPILUKI to collect and review this data. Then, in accordance with this data, ASPILUKI gives feedback to government. The problem is, each association is busy with its own business.	
Noly	:	How far does LCR regulation accommodate the local interest?	4c

ASPILUKI	:	<p>Actually, under this LCR regulation, the software cooperation mechanism has requirements that cover protection of copyrights and the Intellectual Property Rights that those rights must belong to local developers #LCR_regulation_function_protection_copyright_and_IPRs_of_local_developer, the requirement to hire local human resources, to have local certification, and local servers #LCR_regulation_function_promoting_local_people_employment, #LCR_regulation_function_requiring_local_server_localization</p> <p>We formulated the regulation so that local industries can get benefit from it, like human resources, developers, industries, hosting provider, will get the most benefits #LCR_regulation_function_bringing_benefits_for_local_industry. We have formulated it in 1 package. However, hardware manufacturers feel that their businesses are made complicated. Until Mr. Putu came and negotiate, until the issue has been taken over by Mr. Ismail. But, again, the reshuffle of leader in the related government body make this is likely difficult to implement.</p>	
Noly	:	Oh, yes, Mr. Ismail. I met him in Geneva during TRIMS-WTO meeting last month. LCR issue was being discussed in WTO.	
ASPILUKI	:	Yes. Can I ask you, why do ATA and CPC are being reviewed by Directorate General of Application Information, instead of under International Affairs Centre?	
Noly	:	Actually, the International Affairs Centre is only negotiator team and Directorate General of Application and Information is in charge of the material of the issue	
ASPILUKI	:	So, the issue/substance can be anything, including LCR, because the discussion of LCR involves inter-organization, Directorate General (DG) of Application and Information, Directorate General of Post and Informatics Resources, Ministry of Industry and Ministry of Trade, in which each government body has different perspective and its own concept. #LCR_regulation_is_an_issue_inter_sectoral	
Noly	:	With the implementation of this LCR regulation, can transfer of knowledge and diffusion of technology from foreign vendor to local industry be transmitted or carried out?	5c
ASPILUKI	:	Yes, it's the objective of this LCR regulation, hopefully it can. Most likely transfer of technology can happen. #LCR_regulation_function_facilitating_knowledge_transfer	
Noly	:	So far, Is the technology transfer still minim or low?	

<p>ASPILUKI</p>	<p>:</p> <p>I haven't received update on transfer of technology for LCR and I haven't checked on my colleagues. But, generally, I haven't felt much progress #knowledge_transfer_is_still_low_in_software_industry. I will check again, and inform you later.</p> <p>There was actually gap that I have identified, but there was no follow-up after that. The LCR hardware team consists of people who was also the team of LCR software, including PT. Surveyor Indonesia, and Sucofindo (independent surveyor) as verification body. I think they should build a new team especially for software. #the_requirement_to_have_new_local_team_to_promote_software_industry</p> <p>It is because the action plan (on software) is so detail. We have defined this action plan together with University of Indonesia, we have excel-calculator for the assessment which was totally different with hardware. ASPILUKI should be an organization to conduct the pre-certification to assess the software credibility, whether they are decent to be surveyed.</p>	
<p>Noly</p>	<p>:</p> <p>You used to discuss this Mrs. Selly?</p>	
<p>ASPILUKI</p>	<p>:</p> <p>Yes, and she is already moved to Creative Economy Bureau (BEKRAF).</p> <p>I also dealt with online public transportation issue discussed with Ministry of Transportation and Indonesian Telecommunication Society (MASTEL), I am also one of the Executive Board of MASTEL.</p> <p>One of the biggest issues of this online public transportation is application license that is issued by Ministry of Industry. I have discussed this issue with Mr. Hamatin of DG of Application and Information (MCIT) and team from Ministry of Industry. Ministerial Regulation of Ministry of Industry Number 64, together with Investment Coordinating Bureau make it possible for application license to be submitted through one-door policy system. Foreign company can develop local application after they receive this minister approval. #local_software_industry_challenge_the_license_for_foreign_software_company</p>	

		<p>Actually, these foreign companies only develop application for hotel, restaurant and transportation. I don't know why nobody concerns of this. I mean that once situation becomes tough, the government will then start to discuss this. But when these foreign companies can settle the license/approval quickly to develop application that make the existing developer (local) eroded #problem_of_software_license_given_to_foreign_company. Then it would be chaotic again. There is no anticipative action from government on this.</p>	
Noly	:	<p>Do you have suggestion or inputs for revision of this LCR regulation, especially for software cooperation mechanism so that the regulation can benefit local software company/developer? Should the threshold be increase or decrease?</p>	6c
ASPILUKI	:	<p>Maybe, the government and ASPILUKI can promote and facilitate the communication and collaboration between local software developers and vendors #recommendation_promote_the_collaboration_between_local_software_developer_and_vendors. At that time, we have proposed the requirement for software cooperation mechanism that the active user must be 250 thousand users once a month. We consider it may difficult to satisfy with this requirement #LCR_regulation_development_and_application_difficult_requirement. The active user can be identified and assumed from the percentage or total of downloader. Only software owner/developer has the active user data.</p> <p>We once agreed that if the software owners/developers published their active user data, we assumed that the data would be subjective. Therefore, the government should be a</p>	

		<p>verificator for this active user data, and provide solutive application in which the software developers have right to access these verified active user data. It is important to avoid the conflict or dispute among the software developers. For example, one software developer claim that it has active user of 250 thousand, while the other said it has 500 thousand per month, and they will argue each other to claim that they have the valid data. One developer can accuse other developers to fake the data. So, I think LCR regulation has this effect, the problem that we have predicted will emerge.</p> <p>We have some notes, if the vendors are required to cooperate with local software owner/developer, then they will try to attract the vendors' attention by publishing their active user data, such as Tokopedia has competitor Bukalapak. Hopefully they can compete fairly, and such issue will never appear.</p> <p>I think this is my indicators, also like I said, can we trust Sucofindo and Surveyor Indonesia to verify the software cooperation mechanism, I don't mean to doubt their performance, but all this time, Sucofindo is busy to verify the LCR threshold of the vendors who choose the manufacture (hardware) cooperation mechanism. Also I wonder, why there is no other discussions conducted to get the idea from software industry. I believe that Sucofindo is competent to verify and monitor the impelemntation of LCR regulation, and it gets used to do it. However, the discussion with software industry to get input from our perspectives should be conducted regularly.</p>	
Noly	:	Is it hard to look for software developer data? Or is the data being held by each local company?	
ASPILUKI	:	The data of software developer or related to LCR? For LCR on software data, I don't have, because it's held by each company	
Noly	:	How about general data of the growth of software developer in Indonesia from the year 2000 until now?	

ASPILUKI	<p>: That's the most frequent question that we are asked, but our team has not collected the data. The last data we collected is in 2015, there was 264 local software developers#in_2015_total_software-developer. This data is not official, because we gather the information from on-line/internet. We want to release this data but we still need other things/data.</p> <p>In 2015, we didn't make any segmentation on software of mobile device or non-mobile devices, because we didn't predict that mobile devices will be dominant like now.</p> <p>However, in 2017, we built small team to collect data and found approximately 130 local mobile application which are quite dominant in the market#in_2017_local_mobile_application_is_130_apps. But, we can't collect their internal data because not all of them are our members. So, we only collected data that are scattered around the internet, for example the download rate and customer satisfaction rate. We could not get more access to other data, because then we need more efforts and make official census. I think working with the government for data collection is more appropriate.</p>	
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ANNEX 16. Coding of Interview with WTO

Noly	:	local content maybe is inconsistent with WTO?
Markus	:	Within national treatment obligation under GATS
Noly	:	Article 3?
Markus	:	<p>No, GATS. For services, it would be in article 17. So u can also have local content requirement for services#LCR_regulation_can_be_applied_in_services_sector. For example, you can require that certain constructions are used only domestic construction companies or domestic architect or domestic surveyor or domestic inputs. Under the GATS, what's important to note is that national treatment is an obligation that applies only where member has laid specific commitments, where there is a degree of liberalisation in a sector#make_specific_commitment_to_implement_LCR_in_services_sector. If a country has lot instinct with my examples, if a country has lot made commitment on construction services or an architectural services, that country then would requires for construction to use certain construction of certain values or complexities to use local architects, there would be no violation of national treatment because the national treatment obligation has not applied. It applies only where commitment has been laid. That is an important point to register that is different from</p>

	<p>trading goods. For article 3 applies across the board, to any products that have entered the customs territory. So that's the important difference.</p> <p>Secondly, the question of which sector... hmmm national treatment of course... Violation of national treatment in services exists if the condition of competition of foreign services or service supplies have been modified in favour of local services. So, the stance with construction example, if your country or (A) country has commitment on architectural services, but for certain projects only local architects can be used, one would be able to argue that there is a modification of conditions of competition in favour of local architects. So, in that sense yes, there would be local content requirement that would be inconsistent with national treatment</p> <p>#inconsistency_in_services_happen_only_if_there_is_modification_to_favor_local_companies.</p>
Noly	: If I refer to GATS, can you explain to me, because I just read GATT article, the trade in goods and tariff.
Markus	<p>GATT, I don't have, I brought you a set of documents, if you want to keep it, but only trade in services documents. But on the GATT, I don't have the documents. But the idea under GATT is that you can not, it's a century old some modified conditions for competition for goods that have cleared customs. That's why we have some requirements that if you want to invest, you can not be forced. If you're investing in a country, you can not be forced to use inputs of local goods</p> <p>#the_enforcement_to_use_local_inputs/good_is_prohibited_during_investment. That's the legal situations in trading services, of course, because national treatment is negotiable. And members can be freed to provide in their schedule of commitment and limitations that says that local content requirement can be applied</p> <p>#limitation_can_be_set_in_services_sector. In trading goods, it's not possible</p> <p>#LCR_is_not_possible_in_trading_goods. In the services, it's possible, it can be included in a schedule.</p>
Noly	: Are you familiar with 4 exceptions? In which the country can derogate from WTO principles? Like general exception, security exceptions, safeguard and also waiver?
Markus	: <p>Ya, I mean. If you read GATS agreement and general exceptions. Well, maybe to start, in services world, the agreement is incredibly flexible in terms of eleven of obligations that members assume. Because certain principles state a hard principles in trading goods, such as no import quotas, or no national treatment violation</p> <p>#import_quotas_and_national_treatment_principle_must_not_be_violated_in_trading_goods. They're negotiable under services. It means, these principles only apply where the sectors have been included in a schedule of a member, and on average most members have about like 160 different services sectors in the classification, and the average of commitment is like less than half of that. So many many sectors are escaping in national treatment. So, that's important to notice.</p>

		In addition, even if it's not included in a schedule, you can still list any type of exception or reservations that you want to take. So even if you have on telecommunication, or even if you liberalise in telecommunication by including it in the schedule, you can still maintain limitations on the number of suppliers. Say, like i'll give only 3 mobile licenses with local components, may the best applicant wins. #limitation_and_reservation_is_possible_in_trading_services
Noly	:	It's possible to make it right?
Markus	:	Yes. That is possible to do. Or you can say, that you prescribe that's the minimum investment threshold or maximum investment threshold, maximum foreign capital sheer. If you want to have a new license, you need to have joint venture with local suppliers. So, all possible to inscribe them in the schedule.
Noly	:	And, it will not be considered as the market access limitation, right?
Markus	:	It is a market access limitation, but you can safeguard yourself by inscribing them in your schedule as liberation. So, in other word, these principles of market access limitation and national treatment, they only apply to the extent that you wish them to apply. If you provide a safeguard against it, by inscribing limitation, they don't apply as defined in the limitation. #mechanism_to_apply_limitation_in_trading_services
Noly	:	So, in GATS, which article that regulates?
Markus	:	16 and 17. Similarly, the MFN Principle that you know, in goods, it's a principle that applies across the boards. So, in services, there is an addition of flexibility by which any member at the time when they enter into WTO, were they able to submit the list of measures that are not consistent with MFN, and which are safeguard, so that's article 2 and article 2 of MFN exemption provided wide in the principle. Maintenance measures inconsistent with the principle provided with the measures as listed as the conditions of the MFN.
Noly	:	So, comparing with GATT, GATS is more flexible
Markus	:	Much more flexible #GATS_is_more_flexible_than_GATT . Nevertheless, also the GATS has exception clauses very similarly structured as in the GATT. So, it's the same as in trading goods. As long as you don't apply measures in unjustified way, and for this reason is necessary for public order, necessary for human health bla bla bla.. So as long as you take any measures that is inconsistent with any of your obligation of commitment and you justified for this reason, you can still depart from your WTO obligation.

		<p>Within the security exception or maybe becomes more relevant, and then you have certain possibilities, Mr. Trump facing an exception or new terrace on security exception , here they ask for certain And then you have possibility as you mention, like possibility of a waiver. Waiver is not specifically regulated in the GATS, they're regulated in the WTO agreement. For all, if you need a derogation of a temporary nature, it's always temporary. They always meant to addresses specific situation #derogation_measure_is_always_temporary. In that case you can go to WTO membership as an individual book of members and ask for derogation. For example, we have , several years ago, Albelia was a country that has acceded to the WTO, almost by certain times to liberalise their telecommunication market, according to certain parameters. But the parliament was not fast enough to promulgate all the necessary regulation, and legislation, so they asked for derogation for 2 years. Basically to defer agreement, so there weren't no violation, but they asked for waiver of the obligation. So, that's the purpose of the waiver. #waiver_for_promulgation_process_of_regulation</p>
Noly	:	So, that was excepted?
Markus	:	That was excepted. But it was not an automatic exception. Up to all members to decide #waiver_approval_needs_to_be_decided_by_all_WTO_members
Noly	:	To negotiate?
Markus	:	<p>For waivers, there is no reciprocity. So you're not giving anything anywhere else. It's more to demonstrate your difficulty and so, members will say but you have to show how you can implement it, so take all necessary steps so that you can implement it as soon as possible. #waiver_is_only_for_urgent_condition_and_not_reciprocal_basis</p> <p>And then we have least-developed countries. In services, we have different type of waiver. It's kind of a class-action kind of waiver. In a way, it means that. I've explained to you, article 2 before right, the MFN. If a member of the WTO wants to give a preference to LDC better than to others. in principle that member would be inconsistent with the MFN principle, which says you have to treat service and service supplies from all origins the same way.</p>
Noly	:	Equal ya
Markus	:	Equally. But for LDCs, the way the allows members to derogate from article 2 for LDCs in favour of LDC's services and service supplies. So, they can get better market access than others. #special_treatment_is_likely_can_be_adopted_for_LDC
Noly	:	Only for LDC?
Markus	:	Only for LDCs
Noly	:	Not for developing country like Indonesia?
Markus	:	No #Indonesia_can_not_get_the_LDC'_privilage
Noly	:	Do you have any documents example of the waiver that you say?

Markus	:	We have access to documents of the WTO, right? The document number is WT/L/847. So, I'll give you the document AFTERWARDS. It's in there ya.
Noly	:	In context of security exception. Is it okay, if the servers for the application like Google, Facebook, should be located locally in Indonesia for example. For the security measures. It can be excepted or not?
Markus	:	You would first, before you come to the security exceptions. You would first need to, can that be required of the servers supply to have your servers in the country which you supply the service. Because you don't need to resort an exception if it's already possible under the legal framework.
Noly	:	Under which legal framework?
Markus	:	<p>If it's already possible. Essentially, other than what the WTO agreement requires members to do, for example where you have commitment not to impose quotas or not to discriminate on the basis of nationality, members free to regulate public space as they wish on the basis of If you want to have requirements like this, it doesn't mean that it's necessarily inconsistent with WTO agreement.</p> <p>#the_domestic_regulation_is_likely_to_be_accepted_if_it_do_not_impose_to_quotas_and_discrimination</p> <p>But again, the question would be, does such requirement discriminate between foreign and local suppliers. That's the question. And sometimes, foreign suppliers or global suppliers would say we have our services everywhere in the world, and they all connected, so the data flows and we need to do the whole processes to have the servers only at exclusively in that country and it cannot communicate and transfer the data, that is for us very very costly. So they would argue that there is a national treatment implication there. It would modify their condition of competition compare to local suppliers who only operate locally and dont have any interests there. It's a big legal question that depending on your answer, yes it's a national treatment or not, it's not national treatment. Then you would have to justify. If you look at what a security exception implies, prevent any action which is considered necessary for the protection of the central security interests as related to supplies of services as carried out directly or indirectly for the purpose of the provising of military statement , that would not be applicable, relating to visionably fusionable material, no not applicable, taking to the time of war or emergency international relation, possibly not applicable here, it's not the type of security here. By security we mean kind of international conflict, not your own security.</p> <p>It could be necessary to maintain public order, prevention of deceptive fraud practices, protection of privacy of individuals, in terms of process or dissemination process of data. You could use these elements to maybe build the case</p>
Noly	:	Or justification?

Markus	:	And come up with the justification. But interesting thing, you're from telecommunication sector, right?
Noly	:	Yes.
Markus	:	If you have an Annex on Telecommunication, not on Telecommunication Services but on Telecommunication. Here. The purpose of this Annex is to ensure that whatever you have made a commitment in services that to supply of these services have access to all the public telecommunication network and services. And one provision then says that 'Each Member shall ensure that service suppliers of any other Member may use public telecommunications transport networks and services for the movement of information within and across borders...'. So, you'll be have a requirement which could be inconsistent with the requirement to maintain all the service local. Because Members would want to use public telecommunication network to move information across borders, so that's another obligation that could come into play maybe.
Noly	:	I think this is to ensure the interconnection, right?
Markus	:	No, this is not about interconnection. This is access to public telecommunication, but not only from telecom supply but also from supply of other services. If you, for example are bank, and you get a banking license and then Indonesian Telecom services says "No, I am not linking this bank to Telecom network and I don't allow them to build their own network" Then obviously the bank cannot operate, right nowadays. So, this Annex has the idea of making sure that service supplies not disadvantaged by being denied access to. In your study, do you have possibility to study the WTO agreements also?
Noly	:	Because, actually, I also deal with this in my Ministry. Because I am working for Ministry of Communication and Information Technology in International Affairs. But my position in Asia Pacific and also ASEAN, but I have my colleague in Multilateral Affairs, and they have the meeting today, TRIMS meeting. Because Indonesia seems to violate with TRIMS agreement related to local content. Oya, I just want to share with you, Markus. What do you think? Actually, in our policy, we require local content but we don't limit the importation process from foreign companies. We just want to encourage them to make the commitment to establish the cooperation between the local company. But we don't limit their access to import their products to Indonesia. It can be violate or not? Because we don't limit their market access to do the exportation.
Markus	:	To what do you limit exactly?
Noly	:	We just want to encourage them to use around 30% our domestic material. We just want to make them more commit to invest in Indonesia, but we don't limit their market access. They can still import or export their products to Indonesia.
Markus	:	What do you mean by encourage them?

Noly	:	Actually we have 3 options, in our regulation we provide 3 options to help them to comply with our regulations. The first one, we make them to cooperate for assembly the hardware, for example. The second one, they make cooperation in software, software creation. And the last one, investment. For example like they agree to invest around 200 million or 200 million something and then they can import or export their products in Indonesia.
Markus	:	For us, it doesn't make any business sense to do this. They face barriers that is inconsistent with TRIMS agreement. And that's for me, the question is if they don't follow the encouragement, are they prohibited from...?
Noly	:	Export? Exportation? if No. I mean, we still give them the access after they comply with the LCR regulation
Markus	:	if No, then. I don't see there's a problem, but in your case, it becomes a problem #LCR_violates_TRIMS
Noly	:	Okay, for example like, if we prohibit that, of course it's violate, right? With TRIMS?
Markus	:	I don't have the TRIMS Agreement here at the moment. But, let's just pull it up on my phone.
Noly	:	Especially for Article 2 I Think.
Markus	:	TRIMS that are inconsistent with national treatment (Article 2) ... (Annex Paragraph 1) through those that are mandatory and enforceable under domestic law or administrative ruling or compliance with which is necessary to obtain advantage or which require (a) the purchase or use or by an enterprise of domestic products from domestic origin or domestic source... (b) that an enterprise's purchases or use of imported products be limited to an amount related to the volume or value of local products ... 2(a) the importation by an enterprise of products used in or related to its local production, generally or to an amount related to the volume or value of local production ... So if you produce amount X, you also have to buy amount X (b) the importation by an enterprise of products used in or related to its local production by restricting its access to foreign exchange... (c) the exportation or sale for export by an enterprise of products, ... in terms of volume or value of products, or in terms of a proportion of volume or value of products... So, these are the key terms measures. If there's a mandatory element among them, then it's no problem. #LCR_violates_TRIMS_because_infringe_these_points
Noly	:	Okay. What do you think, the agreement like this like GATS, GATT and TRIMS or TRIPS, can be amended and revised in the future or not?

Narkus	:	Well, in principle these agreements like these can all be amended. And the works we do on domestic regulation is essentially an attempts to specify in greater details some regulatory obligation some members would have and then that would be integrated into the GATS through the mandate.
Noly	:	If you want to propose, a country want to propose the amendment, what is the procedure? We request first and then we negotiate or...
Markus	:	The amendment procedure in WTO Agreements depends on really what you want to amend. We have the legal texts, the GATS legal texts. I think it's a, you have a bookshop here, they have lots of interesting books. The GATS legal texts is kind of one of them which is.... So, amendment is on Article 10. It's a long article. They don't essentially, the amendment is done on the basis of consensus. So, if you want to amend a provision, you would need to get the consensus of other members# WTO_agreement_amandment_requires_approval_form_all_members_consensus , it would need to be adopted and then it would need to be adopted by the Ministry of Conference, then members would deposit instrument of acceptance. Then they would need to ratify the change domestically, and then if a certain threshold has been reached for ratification, then it would enter into force. So, amendments are very complicated.
Noly	:	If there is one country doesn't agree with the amendment, so it cannot be accepted, right?
Markus	:	Well, in principle, for some amendments of co-provisions, you need consensus, for some provisions, you would need a 2/3 quota majority, but in practice, the WTO has never gone there. There are provisions for taking decisions by qualified majority but WTO has always work on consensus process. So, it's very very unlikely that would... #in_reality_the_decision_in_WTO_must_be_through_consensus
Noly	:	What is the penalty if a country cannot comply with WTO principles? The worst case penalties.

Markus	<p>There are no penalties per se. if you look at many countries law and regulation, you would find for many of them violation of different magnitudes of certain provisions or obligations at certain times, but none of these are necessarily flag. You know, there is a survey mechanism that we have, which is the Trade Policy Review Mechanism #TPRM_reviews_members'_policies_and_regulation_that_may_be_inconsistent_with_WTO_agreement. So, different economies are review in terms of their trade policies in different intervals depending on their size of economy, so maybe for Indonesia it's every 6 years possibly. And then they would look for example at your tariff schedule, I think they would point out if you have a higher national tariff than your bound tariff, but these are kind of very obvious things. And the measures are not so clear-cut, or they are could be justified. But generally all the consequences that you fear could ever happened is that somebody bring you to dispute settlement, you lose a case, you lose an appeal, the appeal recommends you to bring your measures into conformity, you do not act on it. And then another member decide to retaliate against you#other_member_can_do_retaliation_as_consequence_of_fail_in_DS_B, the retaliation would begin from the moment you, it would not be retroactive, it would be from the moment that the everybody has given you time to comply. So, if that happens, it would need to be commenced with the value of trade. So, unlikely an investment, where damages are paid. In WTO, there is no consequence paying damage. If you look at the former US steel safeguard, under President Bush in 2002 or 3, from the beginning many of nervous said that they were very clearly not consistent with safeguard agreement, but they were levied, 35% were levied. And after 2 years, the legal system had run its course and maybe they found it's not consistent. So, the US were forced to change it again. But, whatever benefits they got in these 2/3 years, they could keep. So, in a way the system doesn't, if somebody doesn't or willing to violate the rules, the system is not really not well-equipped for this. There is no policemen in the system. Its build on the basis that everyone, it can only really work if everyone by and large responsible to watch the system, which is a question that we have seen at the moment.</p>
Noly	<p>Related to the question, do you have any example that the country has been lost in Dispute Settlement Body that have the Local Content Requirement?</p>
Markus	<p>I am not really familiar really with all the details of the cases. But do you have contact here in the division that deals with TRIMS?</p>
Noly	<p>No. I don't have. Do you have it?</p>
Markus	<p>But you're leaving tomorrow, no?</p>
Noly	<p>But maybe in the future I can make an appointment or something.</p>

Markus

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But I can certainly put you in touch with somebody from TRIMS. its' for me time wise it's a bit tricky now. Because my meeting would be, I should come up with everything. But I can certainly put you in touch with somebody from TRIMS. And also if it's relates to services, for me it's a very general question, you know like if you have a real-case and you kind of look to the relevant provisions, couldn't find the answer yourself and you still have doubts, that please feel free to come up with concrete questions.

