

**REGULATORY FRAMEWORK FOR
MOBILE-MONEY BUSINESS IN INDONESIA**

Protecting The Consumer & Safeguarding The Market



University of Oslo
Faculty of Law

Candidate number: 8010

Supervisor: Maryke Silalahi Nuth

Deadline for submission: 12/01/2010

Number of words: 16,545 (max. 18.000)

29.11.2010

Content

CHAPTER I	3
1. Introduction	3
1.1. E-Money & The Origin of Mobile-Money in Indonesia	3
1.2. Objective	6
1.3. Scope of work	6
1.4. Legal Questions	9
1.5. Previous Study	9
1.6. Methodology	9
CHAPTER II	11
E-MONEY, MOBILE MONEY & THE BUSINESS MODEL	11
2. Legal Definition & Legal Nature of E-Money.	11
2.1. The definition	11
2.2. Legal nature of E-Money	13
2.3. Mobile Money & the Business Model of Mobile Money	17
CHAPTER III	23
PROTECTING THE CONSUMER	23
3.1. Data Protection	24
3.2. Data Security	27
3.3. Protection in case of loss and errors	29
3.3.1. Redeemability	29
3.3.2. Fund Safeguarding	30
CHAPTER IV	34
SAFEGUARDING THE MARKET	34

4.1. Role of MNO	34
4.1.1 MNO as an “Agent” for banks	34
4.1.2. Can MNO be an Agent in Mobile-Money?	36
4.1.3. Can an MNO be used an Agent?	37
4.2. Anti Money Laundering and Terrorist Financing Threats	40
4.2.1. General Approach to Money Laundering Threats in Mobile-Money.	40
4.2.2. The Indonesian effort in combating Money Laundering in Mobile-Money	41
4.2.2.1 The law and the enforcement officials	41
4.2.2.2. The concrete steps	42
4.3. Interoperability	44
<u>CHAPTER V</u>	49
<u>CONCLUSION AND REMARKS</u>	49
<u>REFERENCES</u>	52
LIST OF JUDGEMENTS/DECISIONS	52
TREATIES/STATUTES/LAW	52
<u>Indonesian Legislation</u>	52
<u>European Union & Other Legislation</u>	53
SECONDARY LITERATURE	54
OTHERS	58
<u>ANNEX</u>	B

Chapter I

1. Introduction

1.1. E-Money & The Origin of Mobile-Money in Indonesia

The development of information technology has influenced many aspects of life, including the creation of a new payment system for retail businesses. The existence and growth of Electronic-Money ('E-Money') in the early 1990's has caught the attention of the European Central Bank ('ECB') and other central Banks around the world¹. The usage of E-Money as an alternative non-cash means of payment in some countries shows the potential to limit the growth of banknotes, in particular for retail and micro-payment schemes.

In relation to the above issue, in its 2006 working paper², Bank Indonesia saw E-Money as a solution to a quick, secure and cheap *micro-payment scheme*. In Bank Indonesia's point of view, E-Money fulfills the character of a payment instrument which is designed to handle a small value transactions but contains a high volume with quick processing time³. As the continuation to the study, in mid-2000, Bank Indonesia launched an 'initiative' called 'Towards Cash-Less Society'⁴

1 AR: Revista de Derecho Informático. Electronic Commerce and Electronic Money - Co-operative efforts undertaken at the Bank for International Settlements (BIS). <http://www.alfa-redi.org/rdi-articulo.shtml?x=176> [Visited 14 September 2010] ISSN 1681-5726, In November 1995, the G-10 central bank Governors therefore commissioned a study of the monetary policy and seignorage implications of the development of electronic money, the security aspects of the schemes, the challenges they could pose to law enforcement, the legal and contractual framework for the development of the new services, and issues relating to the different potential categories of providers of such new products.

2 Siti Hidayati...[et al]. (2006) P.3

3 Ahmad Hidayat...[et al]. (2006) P.4

4 The seminar held by Bank Indonesia, Jakarta on 17th and 18th May 2006 stressed that the success of a less-cash society depends on clear legal principles and secure transactions. This will convince the public that using various non-cash payment instruments is simple and reliable. Another issue mentioned was that socio-cultural conditions need to be coaxed towards the use of non-cash instruments. This role is not only the duty of Bank Indonesia, but must encompass all non-cash payment instruments, from the government, the private sector and

to respond to the growth of E-Money as a tool for micro-payment instrument⁵. The initiative was launched in 2006 and aimed to promote the creation of a secure, efficient and reliable payment mechanism for the public with focused on 4 major principles namely *safety, efficiency, equitable access* and *consumer protection*. In 2008, Governor of Bank Indonesia stated that Bank Indonesia was aware of the importance of developing micro-scale non-cash payment instruments to complement the existing payment instruments. Bank Indonesia believed that the most suitable micro-payment instrument to meet the initiative of Cash-Less Society is E-Money⁶.

E-Money arrived a little later in Indonesia than in other countries due to the economic crisis in 1997. It started to gain public interest in mid 2000, when Bank Indonesia launched an 'initiative' called 'Towards Cash-Less Society'⁸. When the initiative was launched in 2006, there was no specific regulation that dealt with E-money business in Indonesia. At the time, E-Money was regulated under Bank Indonesia Regulation No. 7/52/PBI/2005 regarding Payment Mechanism Scheme by Card⁹ ('BI Regulation 7/52/2005').

BI Regulation 7/52/2005 did not comprehensively regulate E-Money business in Indonesia, it regulated only card-based payment scheme which consists of 4 different type of cards, namely credit card, ATM card, debit card and/or prepaid card. At the time, E-money was regulated under BI Regulation 7/52/2005 due to the fact that E-Money product fits the definition of a prepaid card as set out in the

banks as the pioneers of the less-cash society.
http://www.bi.go.id/web/en/Publikasi/Sistem+Pembayaran/Riset+Sistem+Pembayaran/dasp_research4.htm
[visited 5 September 2010]

- 5 According to BI Statistical research, since 2008 to 2009, e-money transaction activity has reached 17,4 million transaction, increased up to 580% from previous year with total volume of 519,2 billion IDR. See. Bank Indonesia (2010) P.33
- 6 Flaming, Mark. Klaus Prochaska, and Stefan Staschen. (2009) P.4
- 7 Bank for International Settlements. (2000).
- 8 Supra note 4.
- 9 In original language : Peraturan Bank Indonesia No.7/52/PBI/2005 tentang Penyelenggaraan Kegiatan Alat Pembayaran Dengan Menggunakan Kartu (Penyelenggaraan Kegiatan APMK).

regulation¹⁰, this also includes E-Money product issued by a Mobile Network Operator (MNO). This explains why in February 2007, Bank Indonesia granted the license to Telkomsel, an MNO that became an issuer of E-Money products. This event can be regarded as the beginning of the birth of Mobile-Money¹¹ in Indonesia. At the time, according to Bank Indonesia, E-Money products were similar to prepaid card products which store the monetary value in a 'chip' or a card.

In 2008 report¹², Bank Indonesia saw the latest development in payment technology where E-Money products were no longer stored in a 'chip' or card, instead it began to be stored in a server based medium. At the time, a chip based E-Money products were offered only by banks, while other issuers such as MNOs preferred to offer a server based E-Money products. As the legal framework for E-Money products only regulated as a card-based product, Bank Indonesia realized that the issue would lead to a serious legal and technical problem¹³; in particular, it would challenge the legal certainty for server-based E-Money products issued by MNO or Mobile-Money¹⁴, and the 'Interoperability' among server-based products and card-based products.

Learning from this situation, Bank Indonesia realized that it was necessary to issue a regulation that could respond to the growth and the development of E-Money. In April 2009, Bank Indonesia issued Peraturan Bank Indonesia¹⁵ number 11/12/2009 concerning electronic money ('BI E-Money Regulation') and Surat Edaran number 11/11/DASP ('BI E-Money Circular Letter')¹⁶. The issuance of BI E-Money Regulation and BI E-Money Circular Letter was based on the consideration that the development of E-Money issued by banks or other institutions has reach a

10 Article 1 point 7, BI Regulation 7/52/2005 defines Prepaid card as card based payment tool which obtain by depositing a certain amount of money to the issuer, directly or through issuer agents, and the monetary value is converted as money value in the card in rupiah or other amount such as pulse or credit, which is used as means of payment by crediting directly the monetary value in the card.

11 In this thesis, the term Mobile-Money refers to E-money services offered by a Mobile Network Operator, for a complete discussion see chapter 2.

12 Bank Indonesia (2008) P.17

13 Bank Indonesia (2008) P.18

14 In this thesis the server-based E-Money products issued by MNO are defined as Mobile-Money, a complete discussion of this issue will be provided in the next chapter.

15 Bank Indonesia Regulation No. 11/12/PBI/2009 Concerning Electronic Money.

16 Bank Indonesia Circular No. 11/11/DASP Concerning Electronic Money.

level of growth where it needs a more complete and comprehensive regulatory approach. Currently, BI E-Money Regulation and BI E-Money Circular are the main legal grounds for E-Money and/or Mobile-Money business.

1.2. Objective

The thesis has two objectives:

First, to assess the Indonesian Law, in particular *Bank Indonesia Regulation No. 11/12/PBI/2009 Concerning Electronic Money* and *Bank Indonesia Circular Letter No. 11/11/DASP Concerning Electronic Money* issued by Bank Indonesia, as the central bank of Republic of Indonesia. Both legal instruments are the legal framework in regulating E-Money business in Indonesia and applied to all E-Money providers either in a form of a bank or other legal entity established pursuant to the laws of Indonesia. The regulation and its circular letter do not provide any explanation regarding “*other legal entity*”; the regulation only states that as long as a legal entity is established under the Indonesian law, in a form of a company, and it fulfills all the requirements set out by the law and receives approval from Bank Indonesia, it is allowed to engage in E-Money business either as a principal, issuer, acquirer, clearing processor and end settlement processor. This implies that the regulation and its circular letter are applicable to all companies including Mobile Network Operators who wish to engage in E-Money business providing Mobile-Money services in Indonesia¹⁷.

Second, to seek and learn from other jurisdictions the practice and regulatory approach in regulating E-Money and/or Mobile-Money services provided by Mobile Network Operators.

1.3. Scope of work

The growth of E-Money in Indonesia is still in the “infant” stage; the issuance of BI E-Money Regulation and BI E-Money Circular Letter is still likely to be evaluated and tested from time to time, especially when dealing with the involvement of MNO

¹⁷ This thesis will limit its discussion only to the role of Mobile Network Operator as a Principal and/or Issuer.

in the business scheme. Learning from the past experience of MNOs in European Union¹⁸, there are at least 4 main issues that will be discussed in this thesis:

a. Consumer Protection

Consumer is always in the weaker position when it comes to enforcement of his or her rights. Bank Indonesia is aware for this situation and considers consumer protection as one of the main issues needing special attention. As has been mentioned earlier, Governor of Bank Indonesia explicitly stated that one of the main principles in the regulation is to protect consumer rights¹⁹. Issues that frequently arise in this area include:

- What significant consumer protection problems are present in Mobile-Money business in general and in Indonesia in particular? The answer to this question would be the issue of Data Protection and Data Security²⁰. In this regard some key questions that correlate with consumer protection would be issues relating to Protection of Loss and Errors and Fund Safeguarding.
- What regulation, if any, is in place? Which types of consumer protection rules—disclosure requirements, fair treatment standards, restrictions on potentially harmful products and practices, mechanisms for recourse, etc.—are best suited to resolve the problems observed? In response to these questions, research²¹ has shown that the issue of Redeemability and Fund Safeguarding²² is the answer; therefore this thesis will limit the discussion only to both issues.
- What non regulatory alternatives—such as industry standards or consumer awareness and financial capability measures—might complement or substitute the new regulation? Article 30 of BI E-Money Regulation, opens the possibility for the establishment of an Industry led-consensus. The consensus might lead as a solution for protection of customer personal data.

18 European Commission (2010)

19 See. Page 2.

20 As defined in R. H. Weber(2010) P.129 for Mobile-Money in general and Ahmad Hidayat...[et.al] (2006) P.38 for Indonesia.

21 See. ECB(1998)P.26, Siti Hidayati...[Et.al]P.37 and R.H.Webber (2010)P.139

22 For a complete discussion of this issue see section 3.3.1 and 3.3.2 of this thesis.

b. Legal certainty for Mobile Network Operators (“MNOs”)

1. The main issue in this section is the role of MNOs, whether they are an Intermediary (either in the form of agents or issuers) or parties in E-money business. Another issue is, how does the law, in particular BI E-Money Regulation and Circular Letter, regulate a semi-banking activity conducted by an MNO, whereas in Indonesia Mobile-Money is only a value added service offered by an MNO²³ ?
2. For a comparative purpose, this discussion will also look at the current practice in EU, either based on the old E-Money Directive 2000/46/EC or the new E-Money Directive 2009/110/EC. This section will also look at the success story of E-Money business in Japan and the recent mobile transfer payment system in Kenya, in particular M-Pesa.

c. Anti Money laundering and Terrorist Financing Threats (AML/TFT).

The main issue in this section would be to examine how BI E-Money Regulation and BI E-Circular Letter deal with AML/TFT threats faced by MNOs. In a banking regulatory environment *Know Your Customer*²⁴, principle (‘KYC’) is the main regulation to deal with AML/TFT, however, an MNO cannot be classified as a bank or a financial institution. In that regard, how do we address this issue as to MNOs without affecting their line of business?

d. Interoperability

Interoperability deals with universal standards among issuers and service provider of E-Money business. While the nature of business of MNOs and financial institutions are different, it is interesting to see how to settle this interoperability issue. In a general term Interoperability means how a system with one programming language works or is “inter-operable” with other systems that have a different programming language. The main question of this section would be what

23 Athanassiou, Phoebus and Mas-Guix, 7(2008). P.34 in the EU its called hybrid issuer, The term, employed by the Commission in its Guidance Note on MNOs (and, more recently, in its StWorking Document), is intended to describe service providers who issue E-Money in a manner which is online incidental to their core business, i.e. institutions whose principal line of business is not the issuance of E-Money (e.g. public transport companies and MNOs)

24 For complete discussion see section 4.2..

type of standards should be developed, and who should develop these standards: should the business parties do it or should it be regulated by law through the government. As a comparative analysis, it is interesting to see how the EU regulates this issue, especially to reach the goal of protecting consumer and guarantee of equal playing field.

1.4. Legal Questions

- Does the adoption and implementation of Bank Indonesia Regulation No. 11/12/PBI/2009 and its Circular Letter No. 11/11/DASP Concerning Electronic Money to Mobile Network Operators guarantee the certainty for all parties in particular when it comes to the issues of Consumer's Protection, Legal Certainty for Mobile Network Operators, Anti Money Laundering, and Interoperability in a perspective of legal comparative & normative approach?
- What can be learned from other jurisdiction to improve the current law?

1.5. Previous Study

A number of articles have been published on the issue of electronic money & mobile money in European Union, Japan, and other jurisdiction around the world but none of them have specifically discussed the legal perspective of Mobile-Money business in Indonesia. A research paper that deals with Indonesian legislation on E-Money will be included as a reference in this thesis. Nevertheless, the articles will be used in this thesis in so far as they can provide a general comparison and a ground base for this research.

1.6. Methodology

The point of departure for this thesis will be the prevailing Indonesian law on E-Money business, in particular the BI E-Money Regulation and BI E-Money Circular Letter. In the case where the law is silent on an issue, preference will be given to the EU Law and its practice as an example of how that issue is implemented in other jurisdictions as well as a measuring stick for best practice conduct. This preference is given mainly because far before E-Money product arrived in Indonesia, the EU through ECB and/or European Monetary Institution has conducted an extensive research and analysis on E-Money; this research has also

been taken as a reference for Bank Indonesia's research project on E-Money²⁵. It is not the objective of this thesis to conduct a comparative study between Indonesia and EU, and it will also look for the best practices in other regions around the world, including the best practices and success stories of E-Money and its variation called Mobile-Money in Japan and Kenya.

The research will be conducted by using traditional legal method i.e. by focusing primarily on laws, regulations, *travaux preparatoires*, case law and other sources. The research will rely on the normative framework regulating electronic-money in Indonesia which is based on national legislation. For a comparative purpose, non-binding instruments from other jurisdiction, and also opinions and comments from many research agencies such as CGAP and World Bank will be considered as a supplementary resource. All these documents will be useful in providing supplementary approach to the prevailing E-Money regulation for Mobile Network Operators in Indonesia. Moreover, knowledge that is presently available will be gathered and examined.

25 European Central Bank(1998)

Chapter II

E-Money, Mobile Money & the Business Model

2. Legal Definition & Legal Nature of E-Money.

This chapter deals with the general understanding about E-Money, Mobile-Money and the business model for mobile money financial services. In order to gain a deeper understanding of the legal status of Mobile-Money it is necessary to start the discussion by looking into the general point of view on the legal definition and nature of E-Money payment products.

2.1. The definition

As the technology develops, the form of money as a payment method also develops, from a simple form of coins and papers to digital information stored in a card or in servers and accounts.²⁶ The European Central Bank (“**ECB**”), defines the form of money stored electronically in a medium as E-Money, to be precise ECB defines E-Money in plain language²⁷ as

“Any amount of monetary value represented by a claim issued on a prepaid basis, stored in an electronic medium and accepted as a means of payment by undertakings other than the issuer, predominantly for small-value transactions.”

The definition makes it clear that E-Money is very much similar to physical money for daily life purposes in terms of payment for transactions. In the European Union (“**EU**”), for the purpose of legal certainty and to provide fairness and also to foster real and effective competition, there is a single definition of E-Money which is used as a guideline. Under Directive 2009/110/EC (“**E-Money Directive**”). The term E-Money is defined as

26 Khan, Ali,(1999). P.333

27 Athanassiou, Phoebus and Mas-Guix, Natalia. 7(2008). P.36

“Electronically, including magnetically, stored monetary value as represented by a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions as defined in point 5 of Article 4 of Directive 2007/64/EC, and which is accepted by a natural or legal person other than the electronic money issuer;”²⁸

According to Recital 7 of the directive, the definition is aimed to be **technologically neutral and to provide a simpler definition of "electronic money"** and in order to ensure legal certainty, it is also targeted to cover all situations where the payment service provider (an E-Money institution or a credit institution) issues a prepaid stored value in exchange of funds, which also covers a multipurpose prepaid mobile payment solution.²⁹

In Indonesia, the definition of E-Money can be found in Point 3 Article 1 of BI E-Money Regulation, which states:

“Electronic Money” is a payment instrument, which fulfills the following criteria:

- a. Issued based on nominal value of money, which had been deposited by the Holder to the Issuer*
- b. The nominal value of the money is stored electronically in a media, such as server or chip,*
- c. Serves as a payment instrument for Merchant which is not the Issuer of the Electronic Money, and*
- d. The value of the Electronic Money that had been deposited by the holder and managed by the issuer is not categorized as saving, as defined by Banking Regulation.*

The definition shows that Bank Indonesia also shares the same view with the European Union: it tries to be technologically neutral without mentioning any particular technology in the definition and thus it attempts to cover the future developments of E-Money.

28 OJ L 267/11, 10.10.2009, This directive is trying to keep up the consistency with the Payment Service Directive (Directive 2007/46/EC on Payment Service in the Internal Market), which can be seen also from the definition of E-Money for making "payment transaction" as defined point 5 of article 4 of the Payment Service Directive which constitutes payment transaction as an act, initiated by the payer or by the payee, of placing, transferring or withdrawing funds, irrespective of any underlying obligations between the payer and the payee.

29 One of the main reasons for amendments is to provide legal certainty for Mobile Network Operators that offers E-Money services (see : http://ec.europa.eu/internal_market/payments/docs/emoney/2004-05-consultation_en.pdf).

Mobile money essentially is similar to other E-Money products, the thing that makes it different is the fact that mobile money product is distributed by the Mobile Network Operator using mobile telecommunication network service.

2.2. Legal nature of E-Money

As can be seen from the above definitions, we may conclude that in a legal perspective, the term E-Money consist of 4 major elements:

a. **Issued based on nominal *monetary value***, this implies that schemes such as store reward points will not apply to this definition. The E-Money Directive is silent regarding the definition of E-Money *monetary value* but the directive states that it does not apply to monetary value stored on specific prepaid instruments that can be used only in a limited way, and also it does not apply to monetary value that is used to purchase digital goods or services ³⁰.

While the E-Money Directive is silent regarding the definition of E-Money monetary value, in Indonesia BI E-Money Regulation is more specific in that it defines monetary value of E-Money as equal to the nominal value of the money that has been stored electronically in an exchangeable media for the purpose of payment transactions and or money transfers³¹. This shows that one of the characteristics of an E-Money product beside that it is meant for the purpose of payment is that it is also transferable³².

b. **Stored electronically in a media**, this means that the value must be stored by an electronic method, or in other words, it can be stored in an electronic device which is possessed by the holder or on a remote server. Regarding the issue, in the E-Money directive did not mention any particular technology; instead it is left wide open for the purpose of avoiding the hampering of technology innovation

30 Recital 5 and 6 of E-Money Directive.

31 Point 4 Article 1 BI E-Money Regulation.

32 E-Money Directive does not mention whether E-Money is transferable or not because, because it is already regulated in Point 5 Article 4 of EU Payment Service Directive. (details will be discusses in a different point below)

and to cover future technology³³. In line with the EU, although it is not said explicitly, BI E-Money Regulation also took the same approach. The regulation only mentions that it should be stored electronically without going into detail regarding any particular technology. Because neither law is limited to any particular storage technology, it implies that E-Money can be stored on any type of storage media as long it is stored electronically.

As a result of not restricting to any particular type of technology in the law, regulators have opened the door to the innovation of technology of E-Money. The issuance of Mobile-Money technology is the example of how the law has made it possible for E-Money to be stored in a mobile phone or SIM³⁴ (Subscriber Identifier Module) card and be used as a payment method either by swiping it to a Point of Sales terminal³⁵ or even by using the wireless and cellular network³⁶. This type of technology in some way is considered advantageous for reducing poverty and spreading financial services to those who previously did not have access to a legitimate financial service.³⁷

c. It is used as a means of payment by undertakings other than the issuer.

Just like bank notes and coins, E-Money is 'fiduciary money' which is understood as no more than the result of an exchange, and is merely used for making payment transaction to other natural or legal persons. This also implies that funds received by the E-Money issuer must be exchanged for E-Money *immediately*³⁸ without delay, and at a par value on the receipt of funds³⁹. In other words, E-Money is a digital form of money.

33 Recital 8 of E-Money Directive

34 For a general understanding of SIM card module see. Jansen, Wayne & Rick Ayers(2006).

35 This technology is called Near Field Communication (NFC) based on Radio Frequency Identification (RFID), for a brief explanation of the technology see : Ondrus, J. & Pigneur, Y.:(2007) P.43

36 A brief explanation of Mobile-Money technology see Varshney, U.(2002) P.120-121

37 For a detail discussion regarding the issue see. R. Lyman .Timothy, Mark Pickens and David Porteous. (2008).

38 Kohlbach(2004).

39 See. Recital 13, point 3 Article 6, Article 11 of E-Money Directive and Article 13 and Explanatory notes on Article 20 of BI E-Money Regulation. Similar approach taken by EU and Bank Indonesia.

Because E-Money is a digital form of money, ideally the characteristics of money should also exist in E-Money, meaning that it should be *anonymous, reusable, indefinite* and *widely accepted*⁴⁰. Anonymous means that E-Money is not linkable or traceable to the person, while reusable means that it should be possible to reuse the case with the same degree of anonymity. Indefinite and widely accepted is similar to universality, meaning that E-Money must be able to be used in many different places without any limitation of time validity or places and merchants.

The difference between E-Money and bank notes and coins is that E-Money is redeemable. E-Money must be redeemable at par value, in cash or by credit transfer and it should be free of charges except when it is necessary to process the redemption and such fee must be informed to the holder prior to be bound by the contract of offer. Similar to the converting of funds to E-Money value, redeeming the E-Money value back to funds or even cash must also be in immediate process⁴¹. When it comes to redeeming or refunding the E-Money value the holder must have the ability to chose freely where to transfer or locate the funds⁴². Important aspect to remember when it comes to redeemability is that the process shall not grant any interest or credit, so that it will not be regarded as deposit taking activity.

The characteristic of *widely accepted, definite and reusable* is reflected in the provision of interoperability in article 27 of BI E-Money Regulation⁴³ while the E-Money Directive is silent regarding the issue. As for anonymity, it seems due to the intention of combating money laundering and terrorist financing threats, E-Money is no longer totally anonymous; MNOs and other E-Money issuers are subject to the provision of KYC principle. But BI E-Money regulation and EU E-Money directive has a similar view regarding redeemability. It is seen as a necessary requirement to gain confidence of the E-Money Holder, which is why this clause is included in EU E-Money Directive and BI E-Money regulation.

40 Nuth, Maryke Silalahi (2007). P.70

41 Recital 18 stressed out that redeemability is necessary to gain the confidence of the E-Money holder, a similar view taken by Bank Indonesia see also Siti Hidayati...[et.al]. P.33

42 For the purpose of this activity, In Indonesia it is necessary that the E-Money Issuer must also obtain license to act as Money Remittance service provider, pursuant to Article 16 of BI E-Money Regulation.

43 A complete discussion of interoperability is discussed in point 6 chapter 4.

d. **The deposited value is not a saving pursuant to the banking regulation⁴⁴.**

As it has been discussed above, the role of E-Money is only a tool for payment of goods and services, and it is not intended for the *creation of money*⁴⁵; as a result, Article 12 of E-Money Directive and BI E-Money Regulation state that granting of interest is prohibited during the possession of E-Money. BI E-Money regulation further states that because E-Money is not classified as a deposit, it is not protected by the Indonesian deposit insurance, and to ensure safeguarding of consumer protection principles this must be communicated to E-Money holder⁴⁶.

From the above 4 major elements, it can be understood that the source of law of E-Money lies between public and private law. E-Money is a product issued by private institutions as a means of payment or settlement of debts between parties in participating stores that are bound by a contractual relationship⁴⁷, at this point the provision in civil and commercial code as a *lex generalis* also applies to E-Money. Although it is a contract based product, because it may also affect the monetary stability especially when dealing with anti money laundering and terrorist financing issue⁴⁸, it also touches the field of public law whereas provision of penal law also applies to the situation.

44 As the new E-Money Directive is trying to provide full consistency with the Payment Service Directive, this wording is no longer exist in the new definition of E-Money, but it is part of specific provision in point 3 Article 6 of the new E-Money Directive,.

45 Athanassiou, Phoebus and Mas-Guix, Natalia,(2008)Page 20, In the EU such approach is taken to hinder uncontrolled credit creation by E-Money institution, which may lead to the increase of scriptural money in circulation with inflationary implications. BI E-Money Regulation also took the similar approach, in explanatory notes Article 13, it also states that the purpose of such provision is to protect consumers interest.

46 Article 18 of BI E-Money Regulation in conjunction with Point I.2.a of BI E-Money Circular Letter.

47 For a complete discussion of E-Money contractual relationship see. Sugiura, Nobuhiko, (2009), pp. 511-524, according to Professor Sugiura, the definition of Electronic Money is “ the amount information which is issued having received the electromagnetic record amount as consideration, and that is based on a contractual relationship with the recording entity, the transfer of which has the effect settling a range or monetary obligations as authorized by contract.”

48 See. Athanassiou, Phoebus and Mas-Guix, Natalia,(2008)Page 20.

2.3. Mobile Money & the Business Model of Mobile Money

2.3.1. What is Mobile-Money?

As discussed earlier, Mobile-Money is a new financial service resulting from a technologically neutral approach of the law on E-Money⁴⁹. In the simplest terms Mobile-Money is a form of E-Money⁵⁰. More generally, Mobile-Money exists when the mobile phone with or without the help of a Mobile Network Operator acts either as an 'E-money access device' or as the hardware on which e-monetary value is stored (i.e. it acts as a Stored Value Card)⁵¹. A complete definition for Mobile-Money would be "services that connect consumers financially through mobile phones. Mobile-Money allows for any mobile phone subscriber – whether banked or un-banked to deposit value into their mobile account, send value via a simple handset to another mobile subscriber and allow the recipient to turn that value back into cash easily and cheaply."⁵²

2.3.2. Mobile-Money Business Model

In order to assess the law, it is necessary to understand how the business model works as well as the relationship among the parties engaging to this type of service. At this point, discussion in this section will be divided into 2 major issues: namely, general approach to Mobile-Money business model and the implementation in a particular jurisdiction, namely Indonesia.

2.3.2.1. General Approach

In today's digitally advanced era, MNOs hold a significant part in a payment systems mechanism in that they no longer act solely as providers of telecommunication services but also as providers and operators of *mobile payment system* ("*m-payment*")⁵³. As mentioned earlier, Mobile-Money is a specialized form

49 See point 2b

50 Alampay, Erwin. (2010)

51 Greenwood-Nimmo, M.J. (2009).

52 GSMWorld (2009). P.7 see also Alampay, Erwin. (2010)

53 S. Karnouskos,(2004)pp. 45, Karnouskos defines the context of mobile payment system as "any payment where a mobile device is used in order to initiate, activate, and/or confirm this payment can be considered a mobile payment."

of E-Money payment system performed with the involvement of MNO among other parties involved in the system. Understanding the role of each parties and how they interact to each other in the system is important to meet the objective of assessing certain Mobile-Money legislation in a particular jurisdiction and also to seek the best practice to improve the prevailing legislation. Overviews which describe the relationship between the major participants in a mobile money payment scheme, we may look the following simple m-payment scenario:

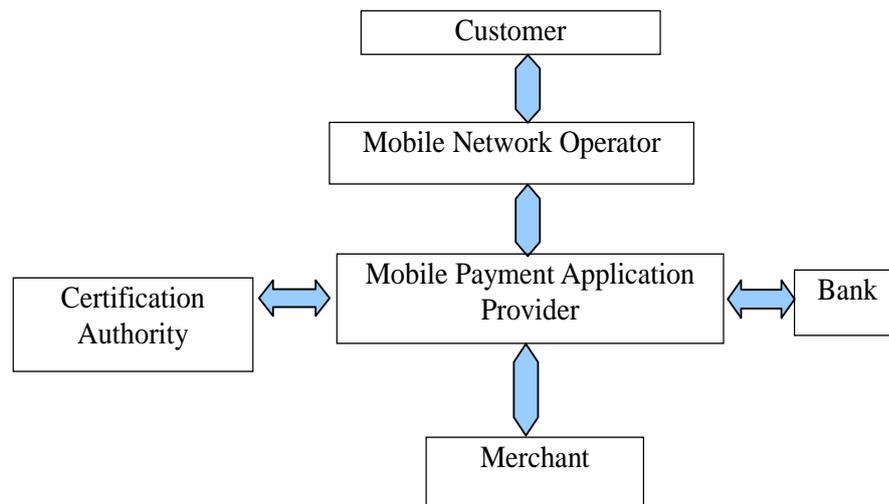


Table 1.1. Mobile – Money business scheme

The scheme above shows that there is customer and merchant who want to use the mobile payment service. The M-Payment Application Provider (MAP) provides the technology (hardware and software) facilitating m-payments and performs the role as intermediary between the financial institutions and MNO. The MAP registers users who would like to avail themselves of the m-payment service. Customers and merchants need to be registered with the MAP before using the service, where it collects personal data such as bank account details (or credit card details) together with their valid digital certificates. Client m-payment applications (Mobile-Money) are provided to the users, residing either on their mobile phones or in the SIM card. This application can be provided by MNOs using their network. The application will initiate the communication with the MAP server. Customer using their mobile phone communicates with a merchant and makes an economic transaction (e.g., purchasing public transportation ticket through the phone). The merchant collects the phone number of the customer and initiates the m-payment transaction process by stating the amount that needs to be paid. The customer confirms the amount and authorizes payment. The MAP will then receive the authorization and start verifies the customer. The MAP then debits the customer

account and credits the merchant account by interacting with the bank. Once the fund transfer succeeded, a confirmation message is sent to the customer and the merchant advising them of the debit and credit. In this process the role of the Certification Authority is to guarantee the security of the system to the users by supplying digital certificates⁵⁴.

Currently, in the market there are 2 mobile payment system models that exist⁵⁵ :

Acquirer-Centric vs. Issuer-Centric: In the acquirer-centric model the merchant and his agent are in charge of handling the interactions with the mobile device. Such approach usually depends on a mobile-specific protocol and requires specific capabilities from the user (of a mobile device) and the merchant.

Bank-Centric vs. MNO-Centric⁵⁶ : In a bank-dominated mobile payment model, the bank handles the mobile payments while the MNO provides only the network connection between customer and the bank. In the MNO-dominated model the MNO is doing the billing either on the prepaid user account or later on the phone bill for their postpaid users. Another perspective is to distinguish both models based on the contractual relationship between the customer and the service provider⁵⁷; this perspective recognizes that in a bank-centric model, the customer has direct contractual relationship with a prudentially licensed and supervised financial institution, while in a MNO-centric model, customers have no contractual relationship with a prudentially licensed and supervised financial institution, instead the customer exchanges cash with a retail agent for an electronic record of value. This virtual account is stored on the server of a nonbank, such as a mobile operator or an issuer of stored-value cards.

Although such distinctions exist, research has shown that recently the market is moving towards a win-win model solution⁵⁸, meaning that MNO's and banks harmoniously co-operate in a non-exclusive scenario, and each business partner

54 A more advanced details see. Mahil, Carr(2007).

55 Kournoskos (2004)p.47

56 A similar classification also taken by CGAP, Lyman(2008) p.3 see. also Ramezani(2008).

57 Tarazi, Michael and Paul Breloff (2010) and Ramezani(2008).

58 Kournoskos(2008) p.48 and Lyman(2008) p.3.

pursues core businesses and tries to increase revenue by providing core services together. Research⁵⁹ also shows that the advantage of this system for MNOs is that m-commerce will offset the reliance on prepaid mobile airtime/service (which tends to reduce Average Revenue Per User (ARPU), while for banks the best argument is that it is expensive to develop a common platform for m-payments from the scratch. A promising model integrates new technologies at the infrastructure level, which makes possible the inter-operable cooperation between multiple banks, MNOs, and merchants.

2.3.2.2. Implementing the business model, the case of Indonesia.

As it has been discussed in point 1 above, currently Mobile-Money market is moving towards a combination of the major business model. Due to different approach from regulatory point of view and the social-economic conditions, some countries have chosen to take one particular business model as their preference. Although some jurisdictions have chosen to take a particular business model, research shows that their counterpart still holds an active role⁶⁰, in other words mobile network operators and financial institutions still need to cooperate in providing mobile money services.

In most jurisdiction, MNO's view E-Money as a mere value-added service to hold customer loyalty⁶¹, not as the main business or generate revenue. One study⁶² shows that MNOs prefer to market payments services rather than the ability to store value, because payments services are a closer fit with their traditional revenue model. This is unlikely to change, as *E-Money issuers will not be able to generate income from the stored value the way banks employ their deposits*, because MNO's will be required to sequester the stored value in a bank⁶³.

Referring to the characteristic of Mobile-Money above, it can be assumed that the way customers experience E-Money would be far less flexibly than bank accounts.

59 Ramezani (2008).

60 Tarazi, Michael and Paul Breloff (2010)

61 Tarazi, Michael and Paul Breloff (2010)

62 Ivatury, Gautam, and Ignacio Mas. (2008).P.3

63 Alexandre, Claire. (2010)

Mobile-Money can be traded with other E-Money holders on the same mobile network and with the merchants that MNO's have acquired, although other means of connectivity with the payment system are not available. But in a MNO-based model, customer cannot access their account through ATMs or using merchant Point of Sales (POS) machines, and E-Money is not transferable to other bank accounts. Currently, stored value from International remittances cannot be converted and stored as E-Money and even if they could, there is maximum transaction cap, whereas domestic Person-2-Person (P2P) transfers are limited by less cash out points. This can be overcome using the bank-based model considering that this is a bank's core business⁶⁴.

The situation appears to be the same in Indonesia where mobile network operators are experimenting with E-Money services by linking E-Money to subscribers' mobile phone accounts. Currently two largest Mobile Network Operators in Indonesia, Telkomsel and Indosat, each have developed an E-Money service for their mobile phone customer⁶⁵. Telkomsel launched T-Cash and Indosat launched Dompetku, both of which offer Mobile-Money service and are in cooperation with Banks in offering their service. At the early stage of the service, the established mobile commerce ecosystem for T-cash includes **Telkomsel** as a Service Provider; Bank Indonesia as regulator; Indomaret and Modern Foto as Merchants; Bank Negara Indonesia (BNI), Bank Rakyat Indonesia (BRI) and Bank Mandiri as the Financial Service Providers; Department of National Education as academic content provider; and Finnet as switching provider⁶⁶. As for Dompetku, Indosat has signed an agreement with Bank Mandiri, Abhitama Citra Abadi, WIN, PVSTAR and Artajasa. These services are competing with bank-based services which offer customers more comprehensive mobile banking activities including payment transactions through their mobile phones.

Currently, it is uncertain how the cooperation business model will fare, and it is not

64 Ivatury, Gautam and Mas (2008) Page 3

65 Beside Telkomsel and Indosat, almost every MNO in Indonesia offers financial service to their customer, but based on research by CGAP in 2009, only Telkomsel and Indosat holds the license to provide E-Money services to their customer, although by the time this thesis is being written, another MNO named AXIS is in progress in receiving license as an E-Money operator from BI.

66 RFID Asia. (2008)

certain how the optimal value proposition will come from bank and MNO partnerships that store value in banks, whether it would allow banks to outsource customer acquisition or expand cash in/out transactions to the MNO distribution channel, and let account holders to perform transaction through the entire payment system. Current payment system technologies are capable of real-time processing to bank account transactions by any channel. It would be interesting to see whether business model would take advantage of the system. The next chapter will try to find appropriate risk management especially in dealing with and safeguarding consumer protection principles.

Chapter III

Protecting the Consumer

Innovation in technology and payment mechanisms is the catalyst and challenge to the development of an electronic payment system. This creates challenges for regulators in adjusting the law to the development of technology, in particular to payment system technology. This chapter will focus only on consumer protection as indicated by the title of the chapter. There are two main issues addressed in this chapter: the first issue is to recognize the challenges and problems that arise in the implementation of BI E-Money Regulation and BI E-Money Circular Letter to MNO and the second issue is how to overcome the first issue using the legal normative approach.

As mentioned earlier, in assessing regulatory protection for E-Money as a developing payment transaction system in Indonesia, Bank Indonesia focuses on 4 major principles namely *safety, efficiency, equitable access* and *consumer protection*⁶⁷. Safety deals with how to manage risks that occurs as the result of the usage of the technology, efficiency deals with decreasing cost without ignoring the security of the system, equitable access deals with the balance of rights and obligations of all parties involved in the system, either to the service provider or the user. The fourth principle, consumer protection is the combination of the previous three principles, in that safety, efficiency and equitable access would lead to consumer's acceptance and comfort since they would feel secure and protected from fraud and be assured that they are involved in a reliable business.

In providing protection to the consumer, the first thing to do is to seek which problems are present in Mobile-Money business. Research⁶⁸ has shown that in a technology-driven financial service such as Mobile-Money and Mobile Banking, two forms of consumer

67 See Page 2

68 Mann, Ronald.(2003) P.690.

protection are relevant, namely information privacy and protection from losses related to fraud or errors⁶⁹.

3.1. Data Protection

The development of information technology, electronic commerce and finance creates new threats to data protection; it opens opportunities for unauthorized access and manipulation of personal data. A high-level standard of data protection rules which protects personal data is necessary to gain consumer's confidence, especially in the financial service business.

Consumer data derived from financial transactions either using networks from an MNO or Internet cable contains a broad spectrum of information, as a result, consumers are very concerned about the confidentiality of certain personal data, for example, data on income or spending patterns which might be used unlawfully by direct marketers. In relation to the Mobile-Money business, MNOs hold the responsibility to conduct prevention of unauthorized access that might lead to misuse of personal data, which also is an obligation for MNOs to provide a secure and reliable system using the best technical and organizational measures against accidental or unlawful destruction. It is also important for an MNO as a financial service provider, under normal circumstances not disclose personal data to third parties⁷⁰.

Referring to the above statement, assessment to data protection issue must start by looking what is 'personal data' and how does the prevailing regulation covers it. Issue regarding data protection is intertwined with the rights of privacy⁷¹ and raise a big concern within the EU. Directive 95/46/EC⁷² on the protection of individuals with regard to the processing of personal data and on the free movement of such data, defines a broad range of personal data of an individual by making reference to any *identification number or to one or more factors specific to his/her physical,*

69 R. H. Weber(2010) P.129. The author introduces three issues namely Data Security, Customer's Identification, and Consumer Protection

70 R. H. Weber(2010) P.129.

71 This thesis focus will limit its discussion only to data protection issues, for the legal grounds how both issues are connected to each other, see. Recital 2 of Directive 95/46/EC.

72 O. J L 281 , 23/11/1995 P. 0031 – 0050. Also known as Data Protection Directive

*physiological, mental, economic, cultural or social identity*⁷³. The Directive also sets up a complete set of rules so that each Member State of the EU must provide data protection to individuals. Although it is an extensive set of rules, in general it tries to ensure that personal data is collected and processed fairly and lawfully for purposes set out in the directive. Individuals have the right to access the data that pertain to them. The directive imposes a requirement to those who hold and process personal information to notify individuals of releases of their personal data and, under certain circumstances, to obtain their consent before releasing the data. In the case of protection of personal data in Mobile-Money business, MNO as a financial service provider are also obliged to the provision of the directive.

In contrast to its European counterparts, Indonesia has no specialized law that focuses on protection of personal data. Instead, the legal provisions that deal with protection of personal data and privacy are spread out in various laws. Specific protection of personal data in information and technology perspective is regulated under point 1 article 26 Law No. 11 of 2008 regarding Information and Electronic Transaction (ITE Law), which states: *“Unless provided otherwise by Laws and Regulations, use of any information through electronic media that involves personal data of a Person must be made with the consent of the person concerned.”*⁷⁴ Furthermore, the elucidation of the law states that in the usage of information technology, personal data shall be a part of the privacy rights⁷⁵ to be protected, which covers the right to enjoy personal life and be free from any invasion, the right to communicate with other persons without any unapproved surveillance, and *the right to control access to information about personal life of and data subject*. The discussions describe measures to protect personal data in information and technology perspective, but what constitutes ‘personal data’, there is no clear definition regarding the issue.

A clear definition of ‘personal data’ can be found in the banking industry legislation. Bank Indonesia Regulation No. 7/6/PBI/2005 (‘BI Regulation 7/6/PBI/2005’)

73 Article 2(a) of Data Protection Directive

74 In original language : Undang-Undang No 11 tahun 2008 tentang Informasi dan Transaksi Elektronik

75 The rights to privacy under Indonesian law is regulated article 21 Law No. 39 of 1999 which basically focus on the right to integrity of the individual and not become the object of any research without his approval In original language ; Undang – Undang no 39 tahun 1999 tentang Hak Asasi Manusia, for unofficial translation : <http://hrli.alrc.net/mainfile.php/indonleg/133/> [visited : 10 October 2010]

concerning Transparency in Bank Product and Use of Customer Personal Data defines *personal data as identification customarily provided by a customer to a bank for conducting financial transactions with the bank*. According to the explanatory remarks of the regulation, the aim of the regulation is to prevent misconduct of customers' personal data only in banking industry.

In terms of protection of customer's personal data, BI E-Money Regulation and BI E-Money Circular Letter are silent regarding definition and measures to protect personal data. Using a broad interpretation, in E-Money business, BI Regulation 7/6/PBI/2005 goes as a supplementary provision of BI E-Money Regulation for banks offering E-Money products to their customer. This means that personal data in E-money product issued by banks are protected and covered by a clear regulation. The fact that BI Regulation 7/6/PBI/2005 is only intended to protect personal data in banking industry and the absence of a provision for protection of customer personal data in BI E-Money Regulation and BI Circular Letter leaves a vulnerability to customers' personal data in E-Money products issued by other issuer such as MNO. As in the case of Mobile-Money business, it can be said that BI E-Money Regulation and BI E-Money Circular Letter fails to provide protection to customers' personal data. A reliable solution is needed to protect customer's personal data.

Referring to the above situation, there are two possible solutions. **The first solution would be to provide protection under the general provision of article 26 ITE Law and perhaps sector specific regulation.** In Indonesia, MNOs are required to register and store data relating to their customers pursuant to the telecommunication regulation⁷⁶ for at least the lifetime of the subscription and 90 days upon the termination of subscription contract. The regulation also imposes a further obligation for MNOs to keep the confidentiality of such data in respect of privacy rights values. As for the Mobile-Money business, because Mobile-Money is a business resulting from convergence of telecommunication, finance and technology, laws that relate to the telecommunication business as a core business of an MNO, could also be extended to protect the customer of value added services provided by an MNO. This type of protection may not be the best solution

76 Article 5 Regulation of Ministry of Information and Communication No. 23/M.KOMINFO/10/2005

since it still fails to define what constitute 'personal data', but at least it provides some protection for the consumer.

Second possible solution is through the industry led consensus, based on the provision of Article 30 BI E-Money Regulation, parties involved in E-Money business and/or Mobile-Money are permitted to establish a Self-Regulatory Organization ('SRO'). Through the SRO, a complete set of internal guidelines that defines personal data and measures to protect such data can be established. Point 3 of Article 30 further imposed an obligation for parties to follow and bind to the consensus. A recent research note from CGAP also shows that such an approach benefits consumer protection⁷⁷.

3.2. Data Security

The issue relating to data security is intertwined with data protection issue, however even though both issues are closely related they will be discussed using a different point of view. Data protection discussion above deals with protection of customer personal data, while in this section the data security discussion deals with the legal approach to the technology that protects customer's data.

When assessing the appropriate methods for securing data for consumer data security, BI E-Money Circular Letter and BI E-Money regulation as the legal grounds for Mobile-Money business stress the importance of have a prevention, detection and containment security measures, which should also be combined with a good Business Continuity Plan "BCP" that covers backup and recovery database of E-Money. BCP should be documented and tested periodically to make sure systems run smoothly even if disturbance occurs. In regard to the issue securing the infrastructure and customer's data in particular, BI E-Money circular letter imposes an obligation on bank or nonbank issuers, including MNO's to:

1. Improve E-Money technology security in order to mitigate crime rate and misuse of E-Money, and simultaneously improve public confidence towards E-Money as a means for payment.
2. Improvement of security referred to in figure 1, should be conducted to all technological infrastructure relevant with E-Money implementation, it includes

⁷⁷ Brix, Laura, and Katherine McKee. (2010)

securing E-Money storage media all systems used for processing E-Money transactions.

3. Improvement of security aspects in figure 2, proven technology at least covers compliance with the following aspects:
 - a. Availability of technological security systems that is pursuant to the following principles:
 - 1) Data confidentiality;
 - 2) Systems and data integrity;
 - 3) Systems and data authentication;
 - 4) Prevention against non-repudiation of transactions; and
 - 5) Systems availability,
 - b. Availability of systems and procedures to perform audit trail;
 - c. Availability of internal policies and procedures for Human Resource (HR) system; and
 - d. Availability of Business Continuity Plan (BCP) that can guarantee continuity of Electronic Money implementation. BCP includes preventive action as well as contingency plan (including provision of back-up facility) if there is an emergency situation or disruption resulting in inability to use the main system for Electronic Money implementation.

The above requirements show that BI is using a similar approach to ECB in their 1998 report⁷⁸. This clearly shows that BI is trying to enforce “clear jobs and description of persons involved in the scheme.” as stated in ECB report.

When dealing with security measures to prevent crime and protecting consumers in a technology driven financial service, technology and regulation must go side by side to protect consumer's rights. Similar to the EU legislation on E-Money, BI E-Money Regulation and BI E-Money Circular Letter are technologically neutral; the regulation does not mention any particular technology in the legislation so that it can embrace a future developed technology. Such approach might be beneficial in terms of adapting to the technology, but still it requires a level of certainty so that it can provide an adequate level of protection for consumer. Regarding this issue, BI has taken the approach to leave it to a general consensus in the form of “*Interoperability*” from parties involved in the business pursuant to article 27 of BI

78 European Central Bank (1998)p.26

E-Money Regulation. A complete discussion of the issue will be discussed in a separate section below.

3.3. Protection in case of loss and errors

3.3.1. Redeemability

Redeemability is meant to be a guarantee or certainty of an owner's electronic value, either to the holder of the card or the merchant, which they are capable at any time to redeem or refund stored electronic value to a form of physical monetary value or a transfer to the holder's bank account. This is also a crucial issue to safeguard consumer's trust to the product. In E-Money business, the obligation to fulfill redeemability belongs to the issuer, so if the issuer is an MNO as in Mobile-Money business, then the MNO would have an obligation to provide redeemability pursuant to the prevailing law.

In the EU, the redeemability clause caused a serious problem to MNOs when Directive 2000/46/EC was enacted. At the time MNOs argued that it is a well known fact that prepaid phone credit is not redeemable as the value of unused credit will not be returned to the customer; in relation to the redeemability obligation of E-Money value, MNOs would have to implement a two way payment mechanism⁷⁹, as they are unable to split out pre-paid funds for mobile services from E-Money funds (for payments for third party goods and services)⁸⁰. This issue has caused long discussion and consultations between the EU commission with MNOs and association of mobile businesses⁸¹. The issue was finally solved with the issuance of the new E-Money directive. Under the new E-Money Directive, the solution given in the new directive was the clarification of the status of MNO's existing business models⁸², as stated in Recital 6 of the new EMD:

“where a mobile phone or other digital network subscriber pays the network operator directly and there is neither a direct relationship nor a direct debtor-

79 Mansour(2007) P. 3

80 At Section 4.3 of the UK Treasury Consultation on the revision of the E-Money Directive and implementation of the EU Regulation on cross-border payments in Euro, January 2009, available at http://www.hm-treasury.gov.uk/d/consult_emd_200109.pdf.

81 Complete discussion and documents related to it can be seen here : <<http://ec.europa.eu/internal_market/payments/emoney/archive_en.htm>>

82 Harpin, Ruth & Roksana Moore, (2009) P. 563-568.

creditor relationship between the network subscriber and any third party supplier of goods or services [...].”

In other words it also implies that, if there is a non-direct debtor and creditor relationship between a network subscriber and a third party supplier of goods or services, where an MNO serves as an intermediary between the subscriber and the third party supplier, the directive would apply to the MNO as an issuer of E-Money service.

Referring to the EU experience above, such problems might also happen in Indonesia, assuming that MNOs in Indonesia also have the problem of separating E-Money stored value and prepaid credit for regular mobile phone services. In that event, BI E-Money Regulation and BI E-Money Circular Letter as the ground rules for E-Money business will also be a subject of evaluation and changes. But referring to the current condition in Indonesia, it seems redeemability is not a major problem for MNOs. Currently two major MNOs that offer Mobile-Money services are capable of redeeming customer's E-Money value through their merchants or point of sales without affecting customer's prepaid credit phone, this implies that MNOs are able to separate funds for customer's E-Money value and prepaid credit phone⁸³.

3.3.2. Fund Safeguarding

While redeemability is meant to be a guarantee to customer's electronic value, fund safeguarding is meant to be a financial risk management aimed to ensure and protect consumer's funds in case they demand redemption of their money⁸⁴. Research has shown that in countries that have permitted non-bank issuance of E-Money, which includes MNOs that offer Mobile-Money services, regulatory institutions have typically addressed fund safeguarding by requiring issuers to maintain liquid assets equivalent to the value of customers' funds collected⁸⁵.

83 DOMPETKU and T-CASH, currently E-Money services offered by 2 MNO in Indonesia namely Indosat and Telkomsel provide a service where customer's can recharge their prepaid credit phone through their E-Money service this gives a strong indication that MNO stored customer's E-Money fund separated from their customer's prepaid credit fund.

84 Point 3 Article 17 of BI E-Money Regulation.

85 Tarazi, Michael, and Paul Breloff. (2010).

In Indonesia, prior to the issuance of BI E-Money Circular Letter and BI E-Money Regulation in a preparation study⁸⁶ Bank Indonesia was considering to combine 2 different methods to protect the consumer's deposited funds, namely:

- a. Minimum Reserve Requirement, in a case where the issuer is a non-bank institution (such as, an MNO), there should be clear provisions relating to the issue, including:
 - minimum requirements to be maintained from time to time
 - the form of minimum requirements and institution that maintained the fund.
 - Supervisory mechanism by supervising authorities relating to non-banks issuer fulfillment of minimum requirements.
 - The necessity on insurance over floating funds maintained by non-bank issuer in the case of insolvency.
- b. risk management in float management to anticipate failure to the fulfillment of claims (credit risk), regarding this issue it is necessary to regulate the types of investment allowed to maintained the float funds.

It appears, in the E-Money regulation, Bank Indonesia took the approach of imposing an obligation that MNOs are required to safeguard Float Fund by placing the fund with a Commercial Bank *in the form of a deposit account consisting of savings account, current account, and/or time deposit account*⁸⁷. Further BI E-Money circular letter states that the Float Funds placed at a Commercial Bank are 100% from Float Funds derived from sales proceeds of Electronic Money that represent the Issuer's liability towards Holders and Traders⁸⁸. Research⁸⁹ shows a similar approach is taken by regulators in Malaysia⁹⁰, Philippines⁹¹, Afghanistan where MNOs are permitted to issue Mobile-Money services, while in Kenya where the legal grounds for E-Money are still being drafted, Safaricom⁹² float fund is held

86 Bank Indonesia (2006) P.34

87 Also recognize as floating funds or liquidity funds see. BI E-Money Circular Letter section VII H.1.

88 BI E-Money Circular Letter section VII. H. 2

89 Tarazi, Michael and Paul Breloff (2010).

90 Tarazi, Michael and Paul Breloff (2010).

91 Section 5d of Circular 649 of 2009 issued by Bangko Sentral ng Pilipinas, for unofficial english translation see <http://www.cgap.org/gm/document-1.9.44821/Circular%20649.pdf>. [visited : 30 October 2010]

92 A MNO that offers Mobile-Money services in kenya, for a quick reference see <http://www.safaricom.co.ke/index.php?id=250> last accessed : 30 Oktober 2010. [visited : 10 October 2010]

by M-PESA Trust Company Limited⁹³ in trust accounts with two commercial banks that pool client funds in reference to the agreement with Central Bank of Kenya⁹⁴.

In the EU, general guidelines regarding the safeguarding requirements are set out in Article 7 of E-Money Directive. Regarding which method is to be taken by each Member State is left to the competent authorities pursuant to their own national legislation. In respect to the safeguarding measure in the EU, pursuant to Article 9.1(c) EU Directive 2007/64/EC in conjunction with Article 7.1 of EU Directive 2009/110/EC, safeguarding through insurance scheme is permitted, the main grounds of this mechanism is insurance in the event that MNO's are unable to meet their financial obligations for redeemability.

Safeguarding consumer's funds would not be effective without any enforcement. In Indonesia, Bank Indonesia imposes an obligation restricting MNO's in using the float funds for *financing activities beyond the liabilities toward the respective holders such as financing issuer operations; the funds may only be used in the interest of fulfilling the liability to E-Money holders*⁹⁵. Research shows a similar approach is taken by regulatory institutions in other countries as well, in particular in Malaysia, Philippines and Afghanistan⁹⁶ and it appears this kind of protection is effective for safeguarding of customer's funds.

Restriction of use and liquidity requirements might be an effective way to safeguard consumer's funds, but research⁹⁷ shows that collective "consumer funds"⁹⁸ being pooled in a bank on behalf of MNO might cause another problem for the consumer especially when it comes to the issue on claim of bankruptcy by third party creditors⁹⁹. For example in Indonesia, although BI E-Money Circular Letter and BI E-Money Regulation mandate safeguarding measures for MNO's by placing the float fund in a deposit account in a bank, the account holder's name is still on

93 See. M-Pesa Terms and Conditions agreement

94 CGAP, (2010)

95 BI E-Money Circular Letter section VII. H.3

96 Tarazi, Michael and Paul Breloff (2010).

97 Tarazi, Michael and Paul Breloff (2010).

98 In the form of Float funds

99 This also leave a problem regarding the status and role of MNO, where collecting money from the public falls into the category of deposit.

behalf of the MNO. This is understandable since it is a way to combat Anti Money Laundering or Terrorist Financing¹⁰⁰ (an important issue pursuant to the *Know Your Customer* (KYC) principle in the prevailing banking regulation¹⁰¹) but it also leaves vulnerability to consumer when it comes to bankruptcy claim issues by other secured creditors¹⁰².

A possible solution for the issue would be by following examples for what happened in Kenya, where M-Pesa customer's funds are isolated from creditor claims and other ownership threats by using a trust account administered by a third-party trustee¹⁰³. In Kenya, M-Pesa customer's fund are held and managed by a separate entity namely M-Pesa Tanzania Limited, as mentioned in the terms and conditions agreement:

“Trustee” means M-Pesa Tanzania Limited which holds the aggregate of all Payments and sums equivalent to all transfers of E-Money into your M-PESA Account from other Customers on trust for you in the Trustee Account. “Trustee Account” means the Bank Account maintained by the Trustee into which all Payments are made and held by the Trustee on behalf of Customers.

Although this kind of mechanism is not always effective in every case and it depends on the jurisdictional approach in every country, nevertheless by providing a separate account to manage customer's account, it minimizes the risk for customers when dealing with MNO's bankruptcy issues.

100 See section 4.2.

101 Bank Indonesia Regulation No. 3/10/PBI/2001 in conjunction with Bank Indonesia Regulation No. 3/23/PBI/2001 and 5/21/PBI/2003

102 In Indonesia, pursuant to the Bankruptcy Law and Civil Code, customer is regarded as unsecured creditors, in a recent case of Polis Insurance holders PT Asuransi Jiwa Namura Tatalife, 17/Pailit/2001/Pn.Niaga/Jkt.Pst Panel of Judge of Commercial Court declines request from insurance holders to be recognize as a preference creditors.

103 M-Pesa Terms and Conditions agreement <http://www.vodacom.co.tz/docs/docredir.asp?docid=3548#top> [visited : 10 October 2010]

Chapter IV

Safeguarding the Market

4.1. Role of MNO

4.1.1 MNO as an “Agent” for banks

In the current research study¹⁰⁴, an MNO through its Mobile-Money scheme plays an important role in providing financial access to those who are poor and don't have access to financial services¹⁰⁵. Further, the use of information and communication technologies and non-bank retail channels have proven to be successful to reduce costs of delivering financial services to customers beyond the reach of traditional banking. Noticing the success of Mobile-Money service, banks realized that teaming up with a mobile operator to launch a Mobile-Money service would allow them to reach many customers. Technically speaking a great part of these Mobile-Money schemes belongs to the mobile payment system, but because the scheme reaches many customers who do not use banks, it is considered as a means of making banking services available to broader range of people.

Referring to the statement above, it is clear that an MNO may act as a payment service provider offering to open a prepaid account to facilitate mobile payments. As a result, they collect funds from the public in large amounts. An activity of collecting funds from the public is arguably considered “deposit-taking” and if the fund collecting activity keeps growing, there would be a need to establish clear criteria to determine whether the service constitutes banking activities or not¹⁰⁶. In a case where an MNO is in a coalition with a Bank offering the Mobile-Money scheme, then it can be said that the MNO is acting as the “agent” of the bank, whereby the banking regulation must also extend to that MNO.

104 Timothy R. Lyman, Mark Pickens and David Porteus (2008).

105 In Kenya, the M-Pesa mobile wallet service offered by safaricom attracted 1 million registered users in 10 months (in a country where fewer 4 million people have bank accounts.) see supra note. 33.

106 R. H. Weber (2010).

In Indonesia, pursuant to the banking regulation, collecting funds from the public essentially is an activity reserved to banks. Such activity is highly supervised under the auspices of Bank Indonesia. Elucidation¹⁰⁷ of the banking law, explains that the tight supervision by Bank Indonesia happens because such activity involves the interest of the public whose funds are deposited at the bank. In this regard, the law emphasizes that the activity of collecting funds in the form of Deposits may only be undertaken by a party after it has obtained an operating license in the form of a bank.

Referring to the above statement, it is safe to assume that in Indonesia where in a Mobile-Money scheme MNO also collects funds from the public, offers a prepaid account similar to a deposit in a banking activities, and deposits the collected fund in a bank, that a MNO must be considered subject to prudential supervision under the banking law based on the fact that the MNO acts as if it is an “agent” of a bank. This issue may cause difficulties for clearly identifying an account as a prepaid account since the segregation line between prepaid and deposit accounts are becoming increasingly blurred¹⁰⁸. It requires clarification since the application of banking regulation to MNO would cause uncertainty to their role in the Mobile-Money scheme, regarding whether they are an E-Money issuer or a bank.

Learning from the EU experience in dealing with E-Money, GSMWorld¹⁰⁹ sets out two important guidelines to solve the issue. **First in terms of activity**, deposit taking by a bank in general terms can be defined as: accepting funds from the public with a view **to deploy them by way of lending or investment**.¹¹⁰ From a customer’s perspective, this constitutes a savings account. As for E-Money, it is an electronic value surrogate for coins and banknotes, stored on an electronic device and intended for making payments of limited amounts. Different to bank deposit, the electronic value is exchanged immediately for E-money, which remains with the customer to use at any time; from a customer perspective, this is similar to a purse or ‘wallet’. **Second, in terms of risk** Banks accept money from the public and hold

107 Article 16 of Banking law. The law further explains that nevertheless ,other types of entities exist in society, which also collect funds from the public in the form of Deposits or types of Deposits, for example, as performed by the post office, pension funds, or by insurance companies, such entities shall be provided in a separate act.

108 Tarazi, Michael and Paul Breloff (2010).

109 GSMWorld (2009).

110 GSMWorld (2009).

deposits which they use for a variety of risk-taking activities. While E-Money institutions such as MNOs encounter less risk than a bank, because the volume of money flow that the E-Money institution is dealing with is very low compared to a bank (discrepancy between a purse and a savings account) E-Money institutions are prohibited to use float funds collected from customers to finance its payment activities, for example lending the collected E-Money as credit. The customers' float funds are backed by high liquidity assets. This means the E-Money circulated within customers is corresponding to the amount in a secured and liquid float¹¹¹.

Relating to the above paragraph in a Mobile-Money activity in Indonesia, BI E-Money Regulation and BI E-Money circular letter stipulate that stored value funds must be redeemable at any time¹¹² and the total amount collected or a *float fund* by an MNO must be deposited as liquid assets in a commercial bank, the usage of the fund is limited to fulfill the obligation to customers and merchants. The provision of the regulation also applies to an MNO as a payment service provider for Mobile-Money business. Following the guidelines provided by GSM Association, it is safe to assume that MNOs although they act as if they are 'quasi-agent' to banks, are exempt from the banking law provision. This statement is also in line with the definition of E-Money as a core business of Mobile-Money that stored value money which is being *deposited* by holders and/or *managed* by issuers is not considered a deposit pursuant to banking regulations¹¹³.

4.1.2. Can MNO be an Agent in Mobile-Money?

As explained above, in Mobile-Money business scheme, an MNO is not an "agent" of banks for collecting funds from the public. But looking at the business scheme of Mobile-Money, where basically Mobile-Money is another form of E-Money using mobile communication infrastructure that facilitates payment service from purchaser to merchant, the role of an MNO could also be considered an "agent"¹¹⁴ that facilitates financial service between customers and merchants.¹¹⁵ Such

111 GSMWorld (2009).

112 Article 13 of BI E-Money Regulation

113 Law no 7/1992 in conjunction with Law no 10/1998 regarding Banks.

114 It is important to note here, that the law of agency is not applicable in this case, because it is only an intermediary and not really an agent.

115 See. Chapter 2 .

conclusion is derived from the basic concept of E-Money where it can be used only as surrogate to coins and bank notes, and it must be used as a means of payment to the merchant, which is not the issuer. This indicates the presence of an intermediary who facilitates payment from customer to merchant, in a Mobile-Money business scheme MNO is the intermediary.

The EU clarifies the presence of an MNO as an intermediary in Recital 6 of the New E-Money Directive, it clearly states:

It is also appropriate that this Directive not apply to monetary value that is used to purchase digital goods or services, where, by virtue of the nature of the good or service, the operator adds intrinsic value to it, e.g. in the form of access, search or distribution facilities, provided that the good or service in question can be used only through a digital device, such as a mobile phone or a computer, and provided that the telecommunication, digital or information technology operator does not act only as an intermediary between the payment service user and the supplier of the goods and services. This is a situation where a mobile phone or other digital network subscriber pays the network operator directly and there is neither a direct payment relationship nor a direct debtor-creditor relationship between the network subscriber and any third-party supplier of goods or services delivered as part of the transaction.

In other words, it means that service providers e.g. an MNO engaged in the mobile payment business fulfills an intermediary function between buyers and sellers by facilitating the purchase of goods or services with the help of mobile devices. Further, it also implies that if a mobile operator charges customers through their phone bill in the process of collecting a payment for a provider of goods or services, the mobile operator acts as a mere intermediary. The operator takes the risk inherent in the particular transaction as far as the aspect of proper execution is concerned; furthermore, remuneration may depend on a scheme of sharing a part of the gain with the content provider¹¹⁶. However, the key function of the MNO is to make the financial transaction between merchant and the customer possible without being directly involved in the deposit-taking business. In Indonesia, this approach is also taken for the role of MNOs in Mobile E-Money business.

4.1.3. Can an MNO be used an Agent?

116 R. Weber (2010).

As explained in the previous chapter, one important character of E-Money product is that it is transferable. This implies that financial service providers who offer E-Money products as a means of payment also have the possibility to offer money remittance services, so long as they hold the license and permit to do so. This service is believed to be necessary in reaching mobile subscribers who are inaccessible to existing traditional bank branches where mobile subscribers can use Mobile-Money transfer services without being dependent on bank branches¹¹⁷. Simplicity for mobile subscribers increased if there are additional options of redemption/refund for Mobile-Money transfer services. As an alternative to bank branches customers can go to MNO retailers and are not forced to deposit or to refund their remittances at bank branches¹¹⁸. This allows the MNO to be the first in line dealing with the consumer for the Mobile-Money transfer service and it increases the access of financial to those without easy access to bank branches.

In Indonesia, money transfer services are regulated by BI Money Transfer Regulation¹¹⁹ of 2006. BI Money Transfer Regulation regulates the provision of money transfer services by nonbanks and impose obligation to non bank financial service provider to obtain a remittance license in offering Person-to-Person (P2P) transfers (both domestic and international). The Money Transfer Regulation distinguishes between administrators¹²⁰ and operators. Pursuant to the regulation "Administrator" is the individual, entity or legal entity which acts as sending or receiving agent (remittance), while the "operator" is the individual or entity that provides the facility, including systems used for the money transfer and/or performs the act of receiving and forwarding data and/or related information between administrators¹²¹.

The Money Transfer Regulation permits administrators to conduct money transfer activities either through their own network or operator's network; it excludes the

117 Tarazi, Michael and Paul Breloff (2010).

118 GSMAssociation. What is the regulatory situation in my country http://216.239.213.7/mmt/downloads/Chapter%203_Regulatory%20Section%20Download.pdf. [visited : 10 October 2010]

119 Bank Indonesia Regulation 8/28/PBI/2006.

120 Article 1.3 of Money Transfer Regulation.

121 Article 1.9 of Money Transfer Regulation.

possibility to offer their services through a network of agents¹²². The E-Money Circular Letter explicitly mentions the possibility of E-Money issuers using agents to recharge E-Money accounts. Money transfers and cash withdrawal is permitted through cooperation with money remittance license holders. Similarly the Money Transfer Regulation forbids money remitters to conduct transactions through network of agents. Research¹²³ shows that an MNO holding both an E-Money license and a money transfer license currently *cannot leverage its usually vast distribution network to serve as a cash-out point for remittances and withdrawals from a mobile money*, the research further implies that current regulations would require every MNO to apply individually for a remittance license, unless the MNO is a branch office of a money remittance license holder¹²⁴.

Pursuant to Circular Letter 10/49/DASP¹²⁵ application for money remittance license must also attach additional documents such as (i) notaries statement declaring the applicant's (a) responsibility in the event of misconduct of funds and (b) administrative capacity to differentiate transferred funds from the business or individual assets, (ii) documentation of risk management mechanism, and (ii) document stating tools and infrastructure operational readiness. This mechanism and procedure for performing the transfers would most likely discourage a significant number of MNOs from applying in the first place¹²⁶.

In summary to the above analysis, BI would be dealing with a bunch of applications either as agents or operator for the service from small dealers. This also creates another task to supervise them. Permitting MNOs to leverage their distribution network would also increase the percentage of formal remittances by making informal channels¹²⁷ unattractive, since it is believed that informal channels are vulnerable to certain types of crime such as money laundering. A complete discussion about money laundering will be discussed in the next point.

122 Article 3 of Money Transfer Regulation

123 CGAP (2009),. P.4

124 CGAP (2009),. P.4

125 BI Circular letter 10/49/DASP dated December 24, 2008 regarding The Licensing of Money Remittance Activities for Individuals and Non Bank Institutions.

126 CGAP(2009) P.5.

127 Hernández-Coss, Raúl. [...et.al]. 2006. P.45

4.2. Anti Money Laundering and Terrorist Financing Threats

4.2.1. General Approach to Money Laundering Threats in Mobile-Money.

As the information technology develops, the type of crime specific to this area also tends to develop, often before the regulatory instruments are implemented. Mobile money services also face the same problem because they are vulnerable to abuse by criminals. A recent research paper¹²⁸ indicates that the vulnerability of the service can be analyzed through the following characteristics: *anonymity*, *elusiveness*, *rapidity* and *lack of oversight*. Anonymity means the product is untraceable, although comparing to hard-cash, Mobile-Money is likely traceable since it is linked to a unique mobile number and transactions are recorded and traceable compared to cash where user unique identifier and payment record is absent. This also relates with the elusiveness to the product. In terms of rapidity, there is a bigger risk factor for mobile money services than cash, especially in the absence of automated internal controls, because criminals are provided with efficient means to launder the money or financing terrorist activity. Lack of oversight deals with confusion between two regimes that must regulate the product. The burden should be either on financial regulators or telecoms regulator. Although such confusion exists, a MNO offering Mobile-Money services is usually regulated in 2 ways, indirectly through a partnership with a bank (where financial service authority supervise of the bank's Mobile-Money activity within the partnership) or directly through E-Money license holder. This analysis leads to a conclusion that although Mobile-Money is vulnerable to Money Laundering and Terrorist Financing crimes it is a much better alternative to hard cash.

But a bigger question still remains, how vulnerable is Mobile – Money to money laundering and terrorist financing? A global description is given by a study from the World Bank¹²⁹ which describes the process as using multiple Mobile-Money accounts that facilitates untraceable transactions; criminals can make use of

128 Chatain, Laurent-Pierre. Raúl Hernández-Coss, Kamil Borowik and Andrew Zerzan. (2008).

129 Chatain, Laurent-Pierre. Raúl Hernández-Coss, Kamil Borowik and Andrew Zerzan. (2008).

several Mobile-Money accounts to cover the origin of funds. This way it allows an enormous money transfer being split into smaller amounts, so the transfer is hard to detect and appears less suspicious to MNO and authorities. Another problem would be using an international remittance that opens the potential for criminals to layer transactions¹³⁰. Due to barriers caused by international law enforcement coordination, criminals may use international remittances to be untraceable. The complexity of International money remittance transfers can conceal the origin or destination of funds¹³¹.

4.2.2. The Indonesian effort in combating Money Laundering in Mobile-Money

4.2.2.1 The law and the enforcement officials

Before going into details of how the Indonesian legislation assesses combating money laundering in Mobile-Money business, it is necessary to start the discussion by defining money laundering, the relevant regulatory agency and what issues arise in this area and how to resolve them. Under the Indonesian Law, money laundering is defined;

“The act of placing, transferring, pay, spend, grant, donate, entrust, carrying out of the country, exchange, or other acts of property known or reasonably suspected to constitute proceeds of crime with intent to conceal, obscure, or disguising the origin, property thus seems to be a legitimate property.”¹³²

The law further specifies the types of crimes that would be most common in this area, *Corruption; Bribery; Smuggling of Goods; Labor Smuggling; Immigrant Smuggling; In the banking sector; In the field of capital markets; In the field of insurance; Narcotics; Psychotropic; Human trafficking; Illegal arms trade; Abduction; terrorism; theft; embezzlement; fraud; counterfeiting currency; gambling; prostitution; in the field of taxation; in the field of forestry; in the environmental field; in the field of marine; and other offenses punishable by imprisonment of 4 (four) years or more, who committed in the territory of the*

130 Hernández-Coss (2006). The report also concerns about the condition where due to the fact there 2 mechanism for money remittance namely formal and informal, it opens a bigger chance for money laundering crime.

131 See. CGAP(2009) P.4 and Hernandez-Coss(2006) P.45 for discussion in Indonesia.

132 Law No. 15 of 2002 in conjunction with Law No. 25 of 2003

*Republic of Indonesia or outside the territory of the Republic of Indonesia and the offense is also a crime under Indonesian law.*¹³³

To achieve the goal and be in line with the effort to address and combat Money Laundering, the Government together with the House of Representatives felt the need to establish a special agency dealing with money laundering. It established an independent institution under the government. The agency is called the Indonesian Financial Transaction Analysis Reporting Center or abbreviated INTRAC¹³⁴. INTRAC has the authority¹³⁵ to:

- Request and receive reports from Financial Service Provider.
- Request information on the progress of investigation or prosecution of money laundering that has been reported in the investigator or prosecutor.
- Conducting an audit of Financial Service Providers on compliance with obligations in accordance with the provisions of this law and guidelines for reporting on financial transactions.
- Provide exception to reporting obligations on financial transactions made in cash as referred to in Article 13 paragraph (1) letter b.

In relation to the effort of combating money laundering crime for non-bank financial service providers, INTRAC issued Guidelines for Identification of Suspicious Financial Transactions for Foreign Currency Traders and Money Transfer Service Business (Decision of the Head of INTRAC No: 2/5/KEP. PPATK/2003) and Guideline Procedures for Suspicious Transaction Reporting of Foreign Exchange Traders and Money Transfer Service Business (Decree of the Head INTRAC No: 2/7/KEP. PPATK/2003). These guidelines impose an obligation for Foreign Exchange Traders and Money Transfer Service businesses to obtain costumers data, through a mechanism similar to KYC principle in banking environment.

4.2.2.2. The concrete steps

133 Article 3 of Law no. 15 of 2002

134 In its original language : Pusat Pelaporan dan Analysis Tindak Pidana Pencucian Uang or PPATK.

135 Contained in Article 27 paragraph (1) Act No. 15 of 2002

The Money Laundering Law¹³⁶ establishes the general obligation on any provider of financial services to achieve complete and accurate identity of its customer. In line with the discussion of elusiveness above, a series of measures targeting consumers and retailers has been developed to reduce elusiveness. In Indonesia, BI E-Money Circular letter distinguishes between registered and unregistered E-Money and establishes a higher value limit for unregistered E-Money. In order to create a registered E-Money account, issuers must record the customer's identity data¹³⁷. Issuers are required to record customer's data by providing a completed application form by the customer together with a copy of identification. Taking the definition from the world bank report, it shows that BI E-Money Circular Letter *consumer-oriented* measure is complementary to the developed banking services while *retailer-oriented measures* are targeted particularly at protecting legitimate the service from criminal interference. Further on, according to World Bank, international money transfers entail advanced KYC and due diligence requirements¹³⁸.

Additional mitigation measures include limitation to number of accounts by each customer, utilizing a centralized registry of account holders (preventing misconduct by users with Mobile-Money accounts), and mandating authorization of retail points at which Mobile-Money can be converted to bank-notes¹³⁹. Such measures have been incorporated in prevailing BI E-Money Regulation and BI E-Money Circular Letter. When it comes to limiting number of accounts per customer, in conjunction with the telecommunication regulation¹⁴⁰, there is a limitation for the value stored in the electronic medium and obligation to register for the activation of the SIM card and Mobile-Money service. As for the retail points, BI E-Money regulation imposes an obligation for retailers to obtain a license from BI before starting their business.

The wording of Article VII. A of BI E-Money Circular letter opens the possibility for agents to conduct KYC on behalf of MNOs, however BI E-Money Circular Letter

136 Law no 15/2002 in conjunction with Law no 25/2003 in conjunction with Decision of the Head of INTRAC No: 2/5/KEP. PPATK/2003 and Decree of the Head INTRAC No: 2/7/KEP. PPATK/2003.

137 Point VII. A BI E-Money circular letter.

138 Chatain, Laurent-Pierre (2008) P.56

139 Chatain, Laurent-Pierre (2008) P.56.

140 Regulation of Ministry of Information and Communication No. 23/M.KOMINFO/10/2005

requires a copy of the ID card to be sent when opening an account this prevent the opening of remote account over the phone. A system that can record the funds transfer from the sender to the recipient is obligatory to be used by MNOs who hold P2P transfers license and offer the service. When it comes to AML provisions, compliance to BI E-Money Regulation and BI E-Money Circular together with provisions in Money Transfer Regulation¹⁴¹ is obligatory for MNO offering P2P transfers

The Money Transfer Regulation imposed obligations for money transfer businesses performed by non-banks. Individuals, legal entities, and non-legal entities applying for a money transfer license are required to provide documents describing risk management mechanism, attached with the application of Know Your Customers 'KYC' principles. KYC procedures need to include at least the following:

- a) Identification and verification of sender and/or recipient identities at the time of the funds transfer through government-issued ID card, driver's license, or passport.
- b) Re-identification of the sender and/or recipient if:
 - i. The transfer exceeds of the amount of IDR 100,000,000,
 - ii. Indication of suspicious transactions exist, or
 - iii. Any doubt regarding the legality of the information provided by the sender or recipient.

In addition to KYC procedures, an MNO must (i) request information on the origins of funds and the aim of the transfer, (ii) monitor transactions, and (iii) possess an information system which is capable in identifying, analyzing and monitoring senders, recipients and the transactions.

4.3. Interoperability

Another issue that needs to be addressed regarding the safeguard of the market is the issue of Interoperability. It was one of major issues addressed by Bank Indonesia during the preparation studies for of BI E-Money Regulation and BI E-Money Circular Letter. Referring to the discussion on Mobile-Money business

141 Article 3 of Money Transfer Regulation

model¹⁴², where in a current development the business model of Mobile-Money leads to cooperation between banks and MNOs and the fact that the players in the market consist of various parties with different systems, it is necessary to determine what kind of regulatory framework is appropriate for the current development in Mobile-Money.

The issue of interoperability in Mobile-Money business deals with how different systems are connected to each other using the same “language”. In plain language, the term “Interoperability” is a “*property of a product or system, whose interfaces are completely understood, to work with other products or systems, present or future, without any restricted access or implementation*”.¹⁴³ Following to the definition, the term access in the definition leads to an important issue namely Interconnection. Regarding this issue, the European Commission states that :

“Interconnection covers the physical and logical linking of networks, and is an essential element in any multi-network environment. It allows the users on one network to communicate with users on other networks, or to access services provided on other networks. In a newly liberalized market, terms and conditions for interconnection to the incumbent operators network are critical for successful market opening.”

While in relation to the issue of Inter-operability, according to Recital 10 of Software Protection Directive,

“The parts of the program which provide for interconnection and interaction between elements of software and hardware are generally known as ‘interfaces’ such functional interconnection and interaction resulting is generally known as ‘interoperability’; such interoperability can be defined as the ability to exchange information and mutually to use the information which has been exchanged”¹⁴⁴.

142 See. Chapter 2

143 Layman definition see <http://interoperability-definition.info/en/>, As Interoperability deals with the issue of access and connecting two different system that has two different language, it also lead to the issue of intraoperability. Both issue also deals with access to a different system with a different language, but it leads to a different understanding. European Committee on Interoperable Systems (ECIS) explains the issue by saying : “any two pieces of software a consumer selects are guaranteed to work together as well as any two others. One of the providers might well have a superior market position, but this reflects only consumer preference, not control over the conditions of connectivity. software succeeds because the application or service is faster, more reliable, more secure, more scalable, has a better user interface, and more generally provides a better quality of service. It does not succeed just because it has better connectivity with a dominant system, or vice versa. fairly and accurately describe for market participants the case where a single vendor or software provider makes it easier to connect primarily to his or her software. This is more properly called intraoperability”. See. http://www.ecis.eu/inter/interoperability_v_intraoperability.html

144 OJ L111 of 5.5.2009 Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs .

In a Mobile-Money business, MNO's role in the m-payment system is essentially to deliver the service from customers to merchants. Depending on the type of m-payment, in the case of digital goods such as ringtones or mobile wallpapers, it might also act as an intermediary of the purchased digital goods. Interconnection happens when an entity separate from MNO sells the mobile applications, as the separate entity (i.e. merchant) requires MNO network connection to send the application to customer.

Interconnection is also required in redeeming procedures as partner banks or other agents are given access to a person's Mobile-Money account. For Mobile-Money transfers, interconnection among E-money products facilitate the internetwork fund transfer.

In relation to the above explanation, in a diverse E-Money and/or Mobile-Money business market like Indonesia, the issue of interoperability and interconnection is crucial in assuring that MNO's infrastructure is in compliance with the banking protocols. With such compliance and inter-operable system, it can be assumed that it will provide easy access to the customer, wider network for merchants and cost efficiency for issuers whereas they share infrastructure that supports the system. This leads us to another question: how to set up an interoperable system between the market players with a general consensus, especially in an environment with a different payment system?

Learning from the experience of MNO's in Africa¹⁴⁵, it can be said that

“Interoperability of different payment systems is primarily a question of market structure and regulation. It arises initially only in markets where there is an existing payment infrastructure with which new providers can inter-operate. Without interoperability, the fixed costs of deploying financial infrastructure may be much harder to recover, since usage per item of proprietary infrastructure will fall. Clearly, one solution may be to give regulators the power to require interoperability; however, it may be sufficient to encourage the identification of appropriate standard upfront. This could take place via support to regulators or industry bodies, where these exist.”¹⁴⁶

The statement supports the assumption above that with interoperability the cost for deploying financial infrastructure would be easier to recover, but it also gives a

145 Porteous, & Wishart. (2006).

146 Porteus & Wishart (2006).

solution to enhance interoperability by giving the power to regulators requiring interoperability to the market players, while leaving the standard to the market player itself. A recent research note from CGAP also shows that such an approach benefits consumer protection¹⁴⁷

It seems this is the type of approach that was taken by BI. Article 27 of the BI E-Money Regulation which stipulates that E-Money service providers are required to provide systems that are inter-operable to other E-Money systems; the elucidation of the article further states that the obligation to provide an inter-operable system is meant to increase the efficiency of E-Money businesses. Article X of the E-Money Circular letter reiterates the intention of article 27 that in the context of improving higher efficiency, smoothness and providing advantages to E-Money users, there must be efforts to develop an interoperable simplified system. According to BI, such efficiency besides giving benefits to holder and/or issuer of E-Money it would also benefit the acquirer. In order to develop a simplified and interoperable system, BI holds the authority to oblige the parties to follow and adjust its systems pursuant to the criteria and/or requirements set out by industry led-consensus.

As an implementation to the regulation, according to BI's progress report on the development of payment system in Indonesia¹⁴⁸, BI has initiated a discussion and meetings with all issuers and industry related participants including government authorities¹⁴⁹ and stakeholders in the transportation industry. BI also initiated the establishment of E-Money interoperability task force, that consists of all issuers of E-Money including MNOs. As a result of the initiative and a response to the meeting, in its progress report regarding the interoperability issue, BI gave the following recommendation:

147 Brix, Laura, and Katherine McKee. (2010) .According to the author, industry led-initiatives such as Self Regulatory Standards, in providers point of view may maintain their own standards to catch emerging problems early and reduce the likelihood of supervisor sanctions, while for customers it might be possible that the standards are better than the prevailing regulation.

148 Bank Indonesia (2009) P. 25.

149 Joint Decree Ministry of Information and Communication and Governor of Bank Indonesia No. 35/KEP/M.KOMINFO and 8.28/KEP.GBI/2006 regarding Establishment of Coordinating Team regarding Harmonization of Electronic Payment Transaction and Card Payment Device , and Fund Transfer Service also Public Information Management.

1. Having the fact that E-Money system in Indonesia consists of 2 different systems, namely *server-based* and *chip-based* interoperability. The form of system interoperability will be directed to multi purpose interoperability where a certain product can be used for many types of transaction in many merchants.
2. A technical specification standard for each E-Money technology including server-based and chip-based system, the standard will be design following the process of ATM/debit card standardization process, started by establishing Task Force team that consist issuers of E-Money products, stakeholders and related government authorities.
3. Independent agency to administered public key and certification (Trusted Service Manager or Certification Authority). It is advisable that the one who will be acting as the agency is similar with the one who is doing it for ATM/debit card.
4. A clearing agency or settlement agency is required once Interoperability is achieved.
5. It is necessary to state a transition time once E-Money standard has been achieved. In order not to give additional pressure to the industry, during the period of transition the old E-Money system must be available to be used, while for new participants to the market must comply with the new E-Money system as agreed by the industry.

Chapter V

Conclusion and Remarks

Learning from other jurisdictions, Mobile – Money shows a great potential in providing financial access to those who are unreachable of traditional financial service. In Indonesia Mobile – Money is no longer an idea. Currently, MNOs are interested in developing the Mobile – Money system. Telkomsel and Indosat are the best examples. It is contended, they are in the early stage of evolution in providing financial service to their customer, and together with banks, they offer a new way and advancement of shaping the society into a cashless society.

It is argued further that, in order to reach the goal of a cashless society, consumer trust resulting from a prudent and well regulated financial service that protects consumer interest is a necessary. In other words, issues that relate to consumer protection must be taken into account as a priority issue. In a business scheme resulting from the convergence of technology and finance, it is argued that the most important thing when it comes to protecting the consumer is issues related with data protection and data security.

When it comes to data protection in Mobile - Money, BI E-Money Regulation and BI E-Money Circular Letter is silent regarding definition and measures to protect personal data, this leads to vulnerability to misconduct of customer personal data. This thesis offers two solution, first to provide protection of personal data in Mobile-Money service using a separate regulation, namely under the telecommunication regulation in particular under Regulation of Ministry of Information and Communication No. 23/M.KOMINFO/10/2005 and Law no 11 of 2008. Second solution is through an industry led consensus standard issued by a separate Self Regulatory Organization which can produce a standard that consist a broad range of protection to personal data. Protection of personal data is intertwined with data security whereas this issue deals with technology that protects the data. Regarding the issue, because the BI E-Money Regulation is technologically neutral, as a regulator, BI has decided to take the approach of leaving the standard of technology to an industry – led consensus. Such an approach is also taken by BI regarding Interoperability issues. It is believed that by leaving to the consensus, a mutual system understanding would provide higher efficiency, smoothness and advantage to E-Money users.

Consumer protection also deals with how to safeguard consumer's funds. It appears in assessing the issue, BI took the approach of providing a redeemability clause to consumers and obligations for MNO to place float funds in a liquid asset or deposited in a Bank. Aside mandating issuers of E-Money to place the float funds in liquid assets or deposited in a bank, for future consideration BI could also take the approach of safeguarding the funds through Insurance scheme, similar to EU Community approach.

Another important thing to be taken into consideration besides safeguarding consumer funds is the fact that MNOs collecting funds from the public is similar to deposit-taking activity. When MNOs are in a partnership with banks, this could give the impression that MNO acts as if they are agent to a bank. A clear distinction is needed to determine the position of MNO. BI E-Money regulation solves the issue by stressing out that e-money products must not be qualified as a deposit and it is meant only as a tool for payment. A similar approach is taken by the EU Community and other jurisdictions, further through the recital of E-Money Directive; the EU community states that in e-money business the role of MNO only as an Intermediary of between customer and merchant. As for the chance for MNO to use an agent in providing money transfer services, In Indonesia MNO are prohibited in using its vast distribution network to serve as a cash-out point for remittances and withdrawals from a Mobile-Money; according to BI this is a way of minimizing the possibility of money laundering.

When dealing with money laundering, BI E-money Regulation together with the Money Transfer Regulation imposes a high standard for MNO in obtaining customers data pursuant to the KYC principle. Another mitigation approach taken by BI is by limiting the stored value to prevent bulk storage of the value.

All in all, mobile-money in Indonesia is still in the infant stage, further development of the business also depends on the regulatory framework that could safeguard the interest of all parties involved in the business. Currently, BI as a regulator has taken an advance approach towards the development of Mobile Money. Through the discussion in this thesis, BI E-Money Regulation and BI E-Money Circular Letter tends to be 'adaptive' to the growth and development of E-Money. Issues such as consumer protection in general, agents' involvement, prevention of money laundering and interoperability among systems has been regulated comprehensively. As a final remark, In the future BI must also be 'sensitive' in reading the consumers appreciation to the business without imposing a high regulatory burden to other parties such as MNO. Issues such as protection to consumer

personal data and interoperability among systems in the parties are likely to be discussed and regulated more comprehensive in the future.

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Annex

BANK INDONESIA REGULATION
No. 11/12/PBI/2009
CONCERNING
ELECTRONIC MONEY

GOVERNOR OF BANK INDONESIA

Considering:

- a. Whereas the development of Electronic Money as payment instrument, which previously has been regulated as prepaid card, has taken new forms other than prepaid card
- b. Whereas the advancement of information technology and telecommunication technology, payment instrument in the form of Electronic Money has increasingly been issued by both Banks and Non-Bank Institutions
- c. Whereas to increase the security and ensure smooth utilization of Electronic Money for all stakeholders, a set of comprehensive governing regulation is deemed necessary
- d. Whereas based on consideration as referred to in letter a and letter b, and letter c, there are a clear need to regulate the legal provisions concerning Electronic Money in the form of Bank Indonesia Regulation

In view of:

1. Act No 7 of 1992 concerning Banking (State Gazette of the Republic of Indonesia Number 31 of 1992, Supplement to the State Gazette of the Republic of Indonesia Number 3472), as amended by Act Number 10 of 1998 (State Gazette of the Republic of Indonesia Number 182 of 1998, Supplement to the State Gazette of the Republic of Indonesia Number 3790)
2. Act Number 23 of 1999 concerning Bank Indonesia (State Gazette of the Republic of Indonesia Number 66 of 1999, Supplement to the State Gazette of the Republic of Indonesia Number 3842) as amended by Act Number 3 of 2004 (State Gazette of the Republic of Indonesia Number 7 of 2004, Supplement to the State Gazette of the Republic of Indonesia Number 4357);
3. Act No 15 of 1999 concerning Bank Indonesia (State Gazette of the Republic of Indonesia Number 30 of 2002, Supplement State Gazette of the Republic of Indonesia No 4191), as amended by Act Number 25 of 2003 (State Gazette of the Republic of Indonesia No 108 of 2003, Supplement State Gazette of the Republic of Indonesia No 4756);
4. Act No 40 of 2007 concerning Perseroan Terbatas/Limited Liability Company (State Gazette No 106 of 2007, Supplement State Gazette of the Republic of Indonesia No

4756);

5. Act No 21 of 2008 concerning Syariah Banking (State Gazette No 94 of 2008, Supplement State Gazette of the Republic of Indonesia No 4867);

HAS DECREED:

The Enactment of:

THE BANK INDONESIA REGULATION CONCERNING ELECTRONIC MONEY

CHAPTER 1

GENERAL PROVISIONS

Article 1

The terminology used in this Bank Indonesia Regulations has the following meaning:

1. "Bank" is Commercial Banks and Rural Banks as defined in Act Number 7 of 1992 concerning Banking, as amended by Act Number 10 of 1998, also including any branch offices of a Foreign Bank and Syariah Bank and Syariah Rural Bank, as defined in Act Number 21 of 2008 concerning Syariah Banking
2. "Non Bank Institution" is a non banking legal entity established pursuant to the laws of Indonesia
3. "Electronic Money" is a payment instrument, which fulfills the following criteria:
 - a. Issued based on nominal value of money, which had been deposited by the Holder to the Issuer
 - b. The nominal value of the money is stored electronically in a media, such as server or chip,
 - c. Serves as a payment instrument for Merchant which is not the Issuer of the Electronic Money, and
 - d. The value of the Electronic Money that had been deposited by the holder and managed by the issuer is not categorized as saving, as defined by Banking Regulation
4. "The Value of Electronic Money" is equal to the nominal value of the money that has been stored electronically in a transferrable media for the purpose of payment transactions and / or money transfers
5. "Principal" is a Bank or Non-Bank Institution that has taken the responsibility to manages the system and/or member network, both issuing members, and/or acquiring members, of the Electronic Money transaction, based on a mutual written agreement among its members
6. "Issuer" is Bank or Non-Bank institution issuing the Electronic Money
7. "Acquirer" is Bank or Non-Bank institution that enters into cooperation agreement with

- merchants, and which then can process the Electronic Money data of other Issuers
8. "Holder" is the entity that are using the Electronic Money
 9. "Merchant" is the seller of goods / services, which then received payment transaction from the Holder
 10. "Recharge" is defined as the addition of Electronic Money's value toward Electronic Money
 11. "Float" is defined as the sum value of all Electronic Money which received by Issuer as proceeds from Electronic Money issuance, and/or Recharge which is still defined as liability of Issuer against Holders and Merchants
 12. "Cash Advance" is the cash withdrawal facility of the Electronic Money at nominal value, which can be conducted at any time by the holders
 13. "Clearing Processor" is Bank or Non-Bank institution that conducts the calculation of both the rights and the liabilities of each Issuer and/or Acquirer involved in Electronic Money transactions
 14. "End Settlement Processor" is Bank or Non-Bank institution that conduct and responsible for the End Settlement process of both the financial rights and the financial liabilities of each Issuer and/or Acquirer based on the calculation statement that was produced by the Clearing Processor

CHAPTER II

PRINCIPAL, ISSUER, ACQUIRER, CLEARING PROCESSOR AND/OR END SETTLEMENT PROCESSOR

Part One

Approval Documents

Paragraph 1

Principal

Article 2

- (1) Principal operational activities can be performed by Bank or Non-Bank Institution
- (2) Bank or Non-Bank Institution that performs the Principal role as referred to point (1) is subject to Bank Indonesia approval of Principal License
- (3) Further provisions concerning requirements and procedures to apply for the Principal's license shall be stipulated in a Bank Indonesia Circular Letter

Article 3

- (1) While performing its activities, Principal has the obligation to:
 - a. Sets forth a set of objective and transparent procedures and requirements; and
 - b. Monitors the security and reliability of the system and/or network, Towards all Issuers and/or Issuers members pertaining to the Principal

- (2) The monitoring toward the security and the reliability of the system and/or network as referred by Article(1) letter b, should also be conducted by the Principal toward other parties that are in a cooperation agreement with the Issuers and/or Acquirer

Article 4

- (1) Principal has the obligation to cease its cooperation agreement with the Issuer and/or Acquirer if Bank Indonesia imposes revocation sanctions of the license that has previously been granted to the Issuer and/or Acquirer as governed by this Bank Indonesia Regulation.
- (2) The cease of cooperation agreement as referred by the point (1) has to be completed by the Principal no later than the next business day after the receiving date of written formal notification from the Bank Indonesia regarding the license revocation of the Issuer and or Acquirer
- (3) The act of ceasing the cooperation agreement as referred to by the point (2) must be submitted in writing by the Principal and must be received by the Bank Indonesia no later than 10 (ten) working days after the commencement of the cease of operation agreement's date

Paragraph 2

Issuer

Article 5

- (1) Issuance activities can be performed by Bank or Non-Bank Institution
- (2) Bank that performs the role as an Issuer as referred by point (1) is subject to Bank Indonesia's approval of Issuer License
- (3) For Non Bank Institute that performs the role as an Issuer as referred to point (1) is required to obtain the issuer license from Bank Indonesia, if:
 - a. The amount of the Float under management **has reached** certain a level; or
 - b. The amount of the Float is **projected to reach** a certain level
- (4) Other provision regarding the requirements and procedures to obtain the license as an Issuer as referred to by the point (2) and point (3), including the provisions concerning the value of the float as referred by point (3) shall be stipulated in Bank Indonesia Circular Letter

Paragraph 3

Acquirer

Article 6

- (1) Acquiring activities can be performed by Bank or Non-Bank Institution
- (2) For Bank that performs the role as Acquirer as referred to by point (1) is subject to Bank Indonesia's approval of Acquirer License
- (3) Other provisions regarding requirements and procedures to obtain the license as an Acquirer as referred to by point (2) shall be stipulated in a Bank Indonesia Circular Letter

Article 7

- (1) Acquirer has the obligation to educate and administer the Merchants that are in a cooperating agreement with the Acquirer
- (2) Acquirer has the obligation to terminate the agreement with Merchant that committing delinquency acts
- (3) Acquirer is allowed to perform information or data exchange with other Acquirers pertaining to Sellers that committing delinquency acts and has the right to recommend the submission of the name of the Merchant into a merchant black list
- (4) Other provisions regarding minimum clauses which has to be included within the agreement between Acquirer and Merchant shall be stipulated in a Bank Indonesia Circular Letter

Paragraph 4

Clearing Processor and End Settlement Processor

Article 8

- (1) Bank or Non Bank Institution that performs the role as Clearing Processor and / or End Settlement Processor is subject to Bank Indonesia approval of Clearing Processor and/or End Settlement Processor license
- (2) For Bank or Non Bank Institution that perform the role as Clearing Processor and or End Settlement Processor, shall be obliged to obtain separate license as referred to by point (1) for each type of aforementioned activities
- (3) Other provisions regarding requirements and procedures to obtain Clearing Processor license and or End Settlement Processor as referred to by point (1) shall be stipulated in a Bank Indonesia Circular Letter

Part Two

Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor Activity

Article 9

- (1) Bank or Non Bank Institution that has obtain the license from Bank Indonesia as Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor is under an obligation to commence its operations within the specific time frame that has been determined by Bank Indonesia
- (2) Bank or Non Bank Institution has the obligation to submit written notice to Bank Indonesia, as referred to the point (1), in the case that the Bank or Non Bank Institution is unable to start commencing its operations within the specific time frame
- (3) The specific time frame as referred to by point (1) and the procedures to submitting the written notice as referred to by point (2) shall be stipulated by Bank Indonesia Circular Letter

Part Three

Entity Legal Form and Cooperation Agreement

Article 10

Non Bank Institution that intend to commence operations as Principal, Issuer, Acquirer, Clearing Processor and / or End Settlement Process that operates within the jurisdiction of the Republic of Indonesia shall be incorporated as Limited Liability Company that abides to the laws of Indonesia

Article 11

Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor that has obtained license from Bank Indonesia can only enter into cooperation agreement with Principal, Issuer, Acquirer, Clearing Processor and / or End Settlement Processor that has also obtained proper license from Bank Indonesia

Article 12

- (1) In the event that Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor is cooperating with any other entities, the Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor has the obligation to:
- a. Submits a report on the plan to enter into an agreement and the realization of such agreement to Bank Indonesia;
 - b. Possesses evidence concerning the reliability and the security of the system that are being used by other parties in Electronic Money transaction, which need to be proven through, inter-alia, the followings:
 1. The result of information technology audit performed by independent auditor; and
 2. Certification result that are performed by the Principal, if so is being required by the Principal
 - c. Ensures that the other party that is involved in the Electronic Money operations to maintain the security of the data
- (2) Other provisions in regards the reporting of the plan to enter into Principal, Issuer, Acquirer, Clearing Processor and/or End-Settlement Processor's agreement and the realization of such agreement as referred by point (1) shall be stipulated further by Bank Indonesia Circular Letter.

CHAPTER III

OPERATIONS

Part One

Issuing and Risk Management

Article 13

Issuer is prohibited to issue Electronic Money with higher or lower value as compared to the

nominal value that had deposited by the Holder to the Issuer.

Article 14

- (1) Bank Indonesia reserve the right to determine the upper ceiling of the Electronic Money's value that are being stored on electronic media as well as the permitted total value of Electronic Money's transaction that can be conducted within specific time period
- (2) Issuer are bound to comply with the maximum limits as referred by point (1)
- (3) Other provisions in regards to the maximum limits as referred to by point (1) shall be stipulated further by Bank Indonesia Circular Letter.

Article 15

In the event that the Electronic Money's media has a expiry date, the Issuer is prohibited to delete or clean out the value of the Electronic Money upon expiration.

Article 16

- (1) Non Bank Institution that has obtained license as Issuer and will procure fund transfer facility through Electronic Money is required to obtain remittance license.
- (2) Cash Advance Facility can only be given by a issuer that provides fund transfer facility through Electronic Money
- (3) In the event that Issuer that provides fund transfer facility as referred to point (2) has an agreement with other parties to provide Cash Advance Facility, the issuer is bound to cooperate only with other party that has a valid remittance license.
- (4) In the event that Issuer provides fund transfer facility through Electronic Money, the Issuer is subject to a liability to maintain the identity of the Holder.
- (5) The fund transfer facility through Electronic Money that abides to this regulation shall also abides to other relevant regulations.
- (6) Other provision in regards to fund Transfer facility and Cash Advance through Electronic Money as referred by point (1) and point (2) shall be stipulated further with Bank Indonesia Circular Letter.

Article 17

- (1) Issuer has the obligation to maintain all the record and documents pertinent to Merchants that are in cooperation agreement with the Issuer.
- (2) Issuer has the obligation to apply operations risk management and financial risk procedures.
- (3) For the purpose of implementation of the financial risk management as referred by point (2), Issuer has the obligation to:
 - a. Place the Float as a safe and liquid asset;
 - b. Use the Float, as referred by point a, exclusively for fulfilling its liability toward Holder and Merchant, and
 - c. Fulfill liability to Holder and Merchant in timely manner
- (4) Other provisions in regards to the applications of operational risk management as referred to by Point (2) and Float placement as referred to by Point (3) shall be stipulated further in a Bank Indonesia Circular Letter.

Article 18

- (1) Issuer has the obligation to disclose written information to Holder pertaining to its issuance of Electronic Money
- (2) Other provisions in regards to the disclosure of the written information as referred to by point (1) shall be stipulated further in a Bank Indonesia Circular Letter.

Article 19

- (1) In the event that Issuer has obtained license from Bank Indonesia to issue Electronic Money with different type and brand name and/or with addition of new facilities, the issuance of such product is subject to written reporting requirement to Bank Indonesia
- (2) In minimum, the written reports as referred to the point (1) must include the following information:
 - a. Business Plan; and
 - b. Characteristic description on the different type or brand name, or the new facility addition to the Electronic Money
- (3) Other provisions in regards to the written report submission procedures as referred to the Point (1) shall be stipulated further in Bank Indonesia Circular Letter.

Part Two

Usage of Rupiah

Article 20

- (1) The Electronic Money issued is subject to the usage of Rupiah as the currency
- (2) The Electronic Money that are being used within the territory of Republic of Indonesia is subject to usage of Rupiah as the currency

CHAPTER IV

ELECTRONIC MONEY'S ACTIVITY LICENSE TRANSFER

Article 21

- (1) The transfer of license as Principal, Issuer, Acquirer, Clearing Processor and/or End-Settlement Processor to other party can only be conducted by Bank or Non Bank Institution for the purpose of merger, liquidation, and divestation.
- (2) The transfer of activity license as Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor as referred to by point (1) is subject to prior approval from Bank Indonesia
- (3) In the event of acquisition, Bank or Non Bank Institution that has obtained license as Principal, Issuer, Acquirer, Clearing Processor and / or End-Settlement Processor is required to submit a written report to Bank Indonesia

- (4) Other provisions in regards to the requirements and procedures to obtain license as referred to by point (2) and the submission of written report as referred to by point (3) shall be stipulated further by Bank Indonesia Circular Letter.

CHAPTER V

SUPERVISION

Article 22

- (1) Bank Indonesia conducts supervision toward Principal, Issuer, Acquirer, Clearing Processor and / or End-Settlement Processor
- (2) For the purpose of conducting such supervision as referred to by point (1), Bank Indonesia conduct consultative meeting with Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor.
- (3) For the purpose of conducting such supervision as referred to by point (1), Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor has the obligation to:
 - a. Submits written and/or online report to Bank Indonesia pertaining the Electronic Money activities;
 - b. Provides description and/or relevant data pertaining to the Electronic Money activities as requires by Bank Indonesia;
 - c. Provides opportunities to Bank Indonesia to conduct on-site visit to obtain relevant information pertaining to the operations of Electronic Money;
- (4) Bank Indonesia has the right to requires other parties that are in a agreement with Principal, Issuer, Acquirer, Clearing Processor, End Settlement Processor, as referred to by Article 12 point (1), to submit written report pertaining specific information
- (5) Based on the result of the supervision as referred to by point (1), Bank Indonesia reserves the right to conduct further actions deemed necessary to resolve the issues and/or impose administrative sanction.
- (6) Other provisions regarding the submission's procedures and the type of written and / or online reports as referred to by point (3) letter a shall be stipulated further in Bank Indonesia Circular Letter

Article 23

Bank Indonesia reserves the right to appoint other party to and on behalf of Bank Indonesia, conduct on site visit as referred to by Article 22 point (3) letter c.

CHAPTER VI

ENHANCEMENT OF SECURITY TECHNOLOGY

Article 24

- (1) Principal, Issuer, Acquirer, Clearing Processor and / or End Settlement Processor, has

the obligation to:

- a. Utilizes a reliable and secure system
 - b. Maintains and enhances Electronic Money security technology
 - c. Possesses written standard operating procedures pertaining Electronic Money activity; and
 - d. Maintain the security and confidentiality of the data.
- (2) For the purpose of fulfilling the obligations as referred to by point (1), Principal, Issuer, Acquirer, Clearing Processor and / or End Settlement Processor is subject conducting periodic information technology audit and reporting the result of such audit to Bank Indonesia
- (3) Further provisions in regards technology's security as referred to point (1), the audit procedures, and the audit result's reporting procedures as referred to point (2), shall be stipulated further with Bank Indonesia Circular Letter.

CHAPTER VII

MISCELANEOUS PROVISIONS

Article 25

Electronic Money activities by by Commercial Banks that conduct business activities based on sharia principle (Sharia Commercial Bank) or by Syariah Business Unit of a Commercial Bank are subject to this Bank Indonesia Regulation, notwithstanding the upholding of applicable sharia principle.

Article 26

- (1) Rural Bank or Syariah Rural Bank may engage in Electronic Money's activities insofar as the relevant regulations do not prohibit the activities.
- (2) In the event that Rural Bank or Syariah Rural Bank as referred to point (1) is engages in Electronic Money, the will be subject to this Bank Indonesia Regulation

Article 27

- (1) Principal, Issuer and/or Acquirer is required to provides system that are connectible to other systems of Electronic Money
- (2) Further provisions in regards to procurement of a connectible system to other system of Electronic Money as referred to point (1) shall be stipulated by Bank Indonesia Circular Letter

Article 28

- (1) In the event of change of name, address, and / or information on certain documents, Principal, Issuer, Acquirer, Clearing Processor and / or End Settlement Processor has the obligation to submit a written notification to Bank Indonesia
- (2) Further provision in regards to notification procedures on change of name, address and/or information on certain documents as referred to the point (1) shall be stipulated further by Bank Indonesia Circular Letter.

Article 29

Every reports, elaborations, and / or data submitted by the Principal, Issuer, Acquirer, Clearing Processor and / or End Settlement Processor has to fulfill the comprehensive, correct and accurate principle.

Article 30

(1) Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor or any other party that involved in the Electronic Money activity can agree upon

forming a forum or institution with the objective performing self governance of technical and micro aspects of the operations, by written notification the establishment of such forum or institution to Bank Indonesia

(2) The rules that are issued by the forum or institution as referred to by point (1) is subject to prior consultation with Bank Indonesia and must not contravening with the Bank Indonesia rules and regulations

(3) Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor and any other parties that has membership in the forum or institution as referred to point (1) is obliged to follow and comply with the rules that were issued by and was agreed upon in the aforementioned forum or the institution.

Article 31

Bank Indonesia will post the list of Bank and Non Bank Institution that has been granted license and has effectively commence the operations as Principal, Issuer, Acquirer, Clearing Processor and /or End Settlement Processor in Bank Indonesia website.

CHAPTER VIII

SANCTIONS

Article 32

Bank or Non Bank Institution that failed to comply as referred to Article 2 point (2), Article 5 point (2), Article 5 point (3), Article 6 point (2), Article 8 point (1), and / or Article 48, shall be imposed administrative sanction as follows:

- a. Termination of Electronic Money activity, for Bank; or
- b. Termination of Electronic Money activity by relevant authority upon request from Bank Indonesia, for Non Bank Institution

Article 33

(1) Principal that failed to fulfill its obligations as referred to Article 3 point (1), Article 4 point (1), Article 4 point (2), and/or Article 4 point (4) shall be imposed upon administrative sanction in the form of written warning notification.

(2) In the event that after 30 (thirty) calendar days since the first written notification date

as referred to by point (1) the Principal is still does not fulfill the regulations referred to Article 2 point (1), Article 4 point (1), Article 4 point (2) and / or Article 4 point (3), the Principal shall be imposed upon second written warning notification.

- (3) In the event that after 30 (thirty) calendar days since the second written warning notification's date as referred to by point (2) the Principal still failed to fulfill Article 3 point (1), Article 4 point (1), Article 4 point (2) and / or Article 4 point (3), the Principal license shall be revoked.

Article 34

- (1) Issuer that are non compliance or failed to fulfill its obligation as referred to Article 13, Article 14 point (2), Article 15, Article 16 point (1), Article 16 point (3), Article 16 point (4), article 16 point (5), Article 17 point (1), Article 17 point (2), Article 17 point (3), Article 18 point (1) and / or Article 20 point (1), shall be imposed upon administrative sanction in the form of written warning notification.
- (2) In the event that after 30 (thirty) calendar days since the first written warning notification's date as referred to by point (1) the Issuer still in non compliance and failed to fulfill its obligations as referred to by Article 13, Article 14 point (2), Article 15, Article 16 point (1), Article 16 point (3), article 16 point (4), Article 16 point (5), Article 17 point (1), Article 17 point (2), Article 17 point (3), Article 18 point (1) and or Article 20 point (1), shall be imposed upon a second written warning notification.
- (3) In the event that after 30 (thirty) calendar days since the second written warning notification's date as referred to by point (2) Issuer still in non compliance and does not fulfill its obligation as referred to by Article 13, Article 14 point (2), Article 15, Article 16 point (1), Article 16 point (2), Article 17 point (3), Article 18 Point (1) and / or Article 20 point (1), the Issuer license shall be revoked.

Article 35

- (1) Acquirer that failed to fulfill obligations as referred to Article 7 point (1) and/or Article 7 point (2) shall be imposed upon administrative sanctions in the form of written warning notification.
- (2) In the event that after 30 (thirty) calendar days after the written warning notification's date as referred to by point (1) the Acquirer does not fulfill Article 7 point (1) and / or Article 7 Point (2), shall be imposed upon second written warning notification.
- (3) In the event that after 30 (thirty) calendar days after the second written warning notification's date as referred to by point (2) Acquirer still does not fulfill Article 7 point (1) and/or Article 2 point (2), the Acquirer license shall be revoked.

Article 36

- (1) Bank or Non Bank Institution that failed to fulfill obligations as referred to Article 9 point (1) and / or Article 9 point (2) shall be imposed upon administrative sanctions in the form of written warning notification.
- (2) In the event that after 30 (thirty) calendar days after the written warning notification's date as referred to by point (1) the Bank or Non Bank Institution does not fulfill Article 9 point (1) and / or Article 9 Point (2), shall be imposed upon second written warning notification.
- (3) In the event that after 30 (thirty) calendar days after the second written warning

notification's date as referred to by point (2) Bank or Non Bank Institution still does not fulfill Article 9 point (1) and/or Article 9 point (2), shall be imposed upon revocation of license as Principal, Issuer, Acquirer, Clearing Processor and / or End Settlement Processor.

Article 37

- (1) Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor that failed to comply with Article 11, shall be imposed upon administrative sanctions in the form of written warning and be given order to terminate its agreement with Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor.
- (2) In the event that after 30 (thirty) calendar days after the written warning notification's date as referred to by point (1) the Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor does not terminate its agreement with other Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor, shall be imposed upon second written warning notification.
- (3) In the event that after 30 (thirty) calendar days after the second written warning notification's date as referred to by point (2) Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor still does not terminate its agreement with other Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor, the Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor license shall be revoked.

Article 38

- (1) Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor that failed to comply with Article 12 point (1), shall be imposed upon administrative sanctions in the form of written warning and be given order to terminate its agreement with other party.
- (2) In the event that after 30 (thirty) calendar days after the written warning notification's date as referred to by point (1) the Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor does not terminate its agreement with other party, shall be imposed upon second written warning notification.
- (3) In the event that after 30 (thirty) calendar days after the second written warning notification's date as referred to by point (2) Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor still does not terminate its agreement with other party, the Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor license shall be revoked.

Article 39

Non compliance of Article 20 point (2), shall be imposed sanctions based on Article 65 Act 23 Year 1999 regarding Bank Indonesia supplement to Act no 6 Year 2009.

Article 40

- (1) Bank or Non Bank Institution that failed to comply or does not fulfill the obligation as

- stated in Article 21 point (1), Article 21 point (2), and/or Article 21 point (3), shall be imposed upon administrative sanctions in the form of written warning.
- (2) In the event that after 30 (thirty) calendar days after the written warning notification's date as referred to by point (1) Bank or Non Bank Institution failed to comply or does not fulfill the obligation as stated Article 21 point (1), Article 21 point (2), and/or Article 21 point (3), shall be imposed upon second written warning notification.
 - (3) In the event that after 30 (thirty) calendar days after the second written warning notification as referred to point (2), Bank or Non Bank Institution that failed to comply and does not fulfill the obligations as stated on Article 21 point (1), Article 21 point (2), and/or Article 21 point (3), its Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor license shall be revoked.

Article 41

- (1) Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor that failed to fulfill the obligation to submit written report as referred to Article 22 point (3) letter a, upon the reporting deadline, shall be imposed an administrative sanctions in the form of written warning notification.
- (2) In the event that after 30 (thirty) calendar days after the written warning notification's date as referred to point (1), Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor failed to comply to Article 22 point (3) letter a, shall be imposed upon second written warning notification.
- (3) In the event that after 30 (thirty) calendar days since the second written warning notification as referred to point (2), Principal, Issuer, Acquirer, Clearing Processor, and or End Settlement Processor is failed to comply with Article 22 point (3) letter a, its Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor's license shall be revoked.
- (4) Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor that failed to furnish its obligation to submit on-line report as referred to by Article 22 point (3) letter a, shall be imposed upon administrative sanction as governed by Bank Indonesia Regulation pertaining Commercial Bank Head Quarter reporting and Bank Indonesia Regulation pertaining Card Based Payment Instrument reporting by Rural Bank and Non Bank Institution.

Article 42

- (1) Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor that failed to fulfill its obligation as referred to Article 22 point (3) letter b, Article 24 point (1) and/or Article 24 point (2), shall be imposed upon administrative sanction in the form or written warning notification.
- (2) In the event that after 30 (thirty) calendar days after the written warning notification's date as referred to by point (1) Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor is failed to fulfill its obligation as referred to by Article 22 point (3) letter b, Article 24 point (1) and/or Article 24 point (2), shall be imposed upon administrative sanction in the form of second written warning notification.
- (3) In the event that after 30 (thirty) calendar days after the second written warning

notification's date as referred to by point (2) Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor does not fulfill its obligation as referred to by Article 22 point (3) letter b, Article 24 point (1), and / or Article 24 point (2), its Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor's license shall be revoked.

Article 43

- (1) Principal, Issuer, Acquirer, Clearing Processor, and/or End Settlement Processor that failed to fulfill obligation as referred to Article 22 point (3) letter c, shall be imposed upon administrative sanctions in the form of written warning notification.
- (2) In the event that within 14 (fourteen) calendar days after the written warning notification's date as referred to by point (1) Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor does not fulfill its obligation as referred to Article 22 point (3) letter c, its Principal, Issuer, Acquirer, Clearing, Processor and / or End Settlement Processor's license shall be revoked.

Article 44

- (1) Principal, Issuer, Acquirer, Clearing Processor and / or End Settlement Processor that failed to fulfill obligations to submit comprehensive, correct and accurate on-line report as referred to Article 29, shall be imposed upon administrative sanctions as governed by Bank Indonesia Regulation pertaining Commercial Bank's Head Quarter Report and Bank Indonesia Report pertaining Card-based Payment Instrument by Rural Bank and Non Bank Institution.
- (2) Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor that failed to fulfill obligation to submit comprehensive, correct and accurate written report as referred to by Article 29, shall be imposed upon administrative sanctions in the form of written warning notification.

Article 45

Bank or Non Bank Institution that does not fulfill obligations as referred to Article 49, shall be imposed sanctions in the form of written warning notification.

Article 46

- (1) Non Bank Institution that failed to fulfill obligation as referred to by Article 50, shall be imposed administrative sanctions in the form of written warning notification.
- (2) In the event that after 30 (thirty) calendar days since the written warning notification's date as referred to point (1), Non Bank Institution does not fulfill obligations as referred by Article 50, shall be imposed upon second written warning notification.
- (3) In the event that after 30 (thirty) calendar days since the second written warning notification's date as referred to by point (2), Non Bank Institution that failed to fulfill obligations as referred to by Article 50, its Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor's license shall be revoked.

CHAPTER IX

TEMPORARY SUSPENSION, CANCELLATION AND REVOKING OF LICENSE

Article 47

In addition to the implementation of sanctions as referred to by Article 32, Article 33, Article 34, Article 35, Article 36, Article 37, Article 38, Article 40, Article 41, Article 42, Article 43 and / or Article 46, Bank Indonesia reserves the right to temporarily suspend, cancel or revoke license that has previously being granted to Bank or Non Bank Institution to operates as Principal, Issuer, Acquirer, Clearing Processor and or End Settlement Processor, based on, inter-alia, the following conditions:

- a. Existence of legal court decision that orders Bank or Non Bank Institution that conducts operations as Principal, Issuer, Acquirer, Clearing Processor, and or End Settlement Processor to terminate its operations.
- b. Existence of recommendation from relevant supervising authority regarding degradation of financial condition and/or lack of risk management standard within the Bank or Non Bank Institution.
- c. Existence of written request or recommendation from relevant supervising authority to Bank Indonesia to temporarily suspend the operations of Principal, Issuer, Acquirer, Settlement Processor and/or End Settlement Processor.
- d. The relevant supervising authority has revoked and or terminate the operations of the Bank or Non Bank Institution that engages as Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor; or
- e. Existence of self cancellation request that submitted by Bank or Non Bank Institution that has previously given license from Bank Indonesia.

CHAPTER X

TRANSITIONAL PROVISIONS

Article 48

Bank or Non Bank Institutions that has commencing operations as Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor prior to the enactment of this Bank Indonesia Regulation and still has not obtained license or clearance from Bank Indonesia, is subject to licensing requirement from Bank Indonesia within the specific time frame that determined by Bank Indonesia.

Article 49

Bank or Non Bank Institution that has commencing operations as Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor prior to the enactment of this Bank Indonesia Regulation and has received license or clearance from Bank Indonesia, is subject to reporting requirement to Bank Indonesia of its activities and is required to complete requirements as Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor as governed by this Bank Indonesia Regulation.

Article 50

Non Bank Institution that has commencing operations as Principal, Issuer, Acquirer, Clearing Processor and/or End Settlement Processor within the territory of Republic of Indonesia prior to the enactment of this Bank Indonesia Regulation and has not incorporated as Limited Liability Company under the law of Indonesia, are subject to incorporate as Limited Liability Company under the law of Indonesia within the specific time frame that determined by Bank Indonesia.

CHAPTER XI

CLOSING PROVISIONS

Article 51

This Bank Indonesia Regulation shall come into force on the date of enactment.

For the awareness of all people, order the entry of this Bank Indonesia Regulation into the State Gazette of the Republic of Indonesia.

Enacted in Jakarta
Dated 13 April 2009

BANK INDONESIA GOVERNOR

BOEDIONO