

# Corruption Prevention Model Based on Mobile Banking

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Received April 8 2018, Accepted July 1 2019, Published November 30 2019

DOI 10.15294/jg.v16i1.18711

## Abstract

The advancement of internet technology and the rapid sales of smartphones in Indonesia become the third highest in the Pacific after China and India also have an impact on increasing mobile banking usage by 80% of bank customers in Indonesia. Kenya which is a poor and corrupt country in the world has made changes to the banking system, namely using an electronic platform called M-Pesa. M Pesa provides mobile-based payment and transfer services that can reduce corruption in the public sector. In Africa, Mobile phone signals and reach determine the success of corruption prevention using mobile banking. This study aims to obtain a corruption prevention model using mobile banking. This research is descriptive qualitative. The approach of this research is sociolegal study which is a study of law by using a legal science approach and social sciences. Data collection techniques using virtually research and library research The validity technique of the data used is data triangulation. Data analysis techniques in using technical qualitative analysis interactive models. The conclusion of this study is that the government must be able to take advantage of technological advances to combat corruption even though technology cannot replace a valid and evidence-based anti-corruption strategy, but technology can be used to help reduce corruption through mobile banking transactions.

**Keyword:** mbanking, mobile banking, corruption, transparency

## INTRODUCTION

The advancement of internet technology and the rapid sales of smartphones in Indonesia become the third highest in the Pacific after China and India (eMarketer, 2019) also have an impact on increasing mobile banking usage by 80% of bank customers in Indonesia (mefmobile.org). Kenya which is a poor and corrupt country in the world has made changes to the banking system, Kenya using an electronic platform called M-Pesa (Mobile Money). M Pesa provides mobile-based payment and transfer services that can reduce corruption in the public sector (Isabel, 2014). In Africa, Mobile phone signals and coverage determine the success of corruption prevention using mobile banking (Catie, 2009). The aims of this research is to obtain a corruption prevention model using mobile banking.

## The Notion of Corruption

Corruption is often defined as an activity carried out by bureaucrats in using their positions to gain personal benefits. This does not only happen to bureaucrats, but the private and non-profit sectors can also experience corruption, the definition must include illegal sales in these sectors as well. In general, every criminal behavior has several aspects including social, economic, racial, psychological, political, legal, moral, religious, sexual, and medical. It is generally agreed that free market competition and democracy will bring peace and prosperity. However, bringing competition in traditional societies in poor countries is not easy. Corruption and unfair law enforcement are very detrimental to honest entrepreneurs. Equality of opportunity for all ent-

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preneurs and good governance is needed so that true competition can take root (Vinod, 1999). Corruption is seen as a social phenomenon in traditional economic theory. According to the public choice approach and the neo-institutional model, the lack of transparency and information is a major factor in economic crime such as bribery and grants (Morawczynski and Pickens: 2009).

Corruption is a broad and complex term and a widespread phenomenon in the world, especially in developing countries. Evidence states that corruption is one of the most dangerous phenomena for the state because corruption influences a country's social, political and economic factors and includes the prevalence of illegal behavior. More specifically, corruption not only stole resources from the population but also undermined economic growth, justice and also reduced trust among the public sector (Lambert, 2007).

Corruption is also defined as a conflict of interest and misuse of entrusted power by authorities, institutions and the government. In particular, corruption includes accepting bribes in terms of payments or gifts for assistance and obtaining unfair benefits or benefits that stand alone for others. This useful service is generally related to position, power, and individual work assignments (SIDA). Corruption is generally classified into three different levels: small and bureaucratic corruption, large and recent political corruption. These divisions are based in part on the size of transactions and the volume of money lost, and some in institutions or sectors where corruption occurs (Hechler, 2011).

Corruption is a complex economic, social and political problem and also one of the most destructive phenomena. Countries characterized by corruption face many different challenges because corruption undermines democratic authority and the financial system (EC, 2008). Poverty and corruption are significantly related. Some countries postpone aid to corrupt countries; assistance is given to improve the conditions and conditions of life of individuals. In addition, corruption reduces foreign investment, limits access to basic public services and increases the cost of shipping services. Furthermore, this in turn can lead to a decline in state growth and human development (Transparency International, 2004).

**Rekapitulasi Tindak Pidana Korupsi.** Per 31 Mei 2018, di tahun 2018 KPK melakukan penanganan tindak pidana korupsi dengan rincian: penyelidikan 76 perkara, penyidikan 65 perkara, penuntutan 50 perkara, inkracht 47 perkara, dan eksekusi 48 perkara.

5	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Jumlah
	36	70	70	67	54	78	77	81	80	87	96	123	76	1.047
	27	24	47	37	40	39	48	70	56	57	99	121	85	773
	23	19	35	32	32	40	36	41	50	62	76	103	50	618
	14	19	23	37	34	34	28	40	40	38	71	84	47	519
	13	23	24	37	36	34	32	44	48	38	81	83	48	545

Informasi terkait dengan penanganan tindak pidana korupsi bisa dilihat dalam Kanal Penindakan.

**Figure 1.** Indonesia's Corruption Eradication Commission  
Data source: Indonesia's Corruption Eradication Commission, 2018

Based on the data from Indonesia's Corruption Eradication Commission above, eradicating corruption based on the number of investigations of corruption cases in 2017 from 123 cases decreased 38.2% to 76 cases. In 2018 there was a decrease of 29.8% from 121 to 85 cases. (Luthfia, 2018). Corruption will not be easily lost by eradication. The large impact of corruption has caused the state to reduce its obligation to provide welfare to the people. People who are victims of corruption. For this reason, the role of the community in preventing corruption is a form of social control. The high social control network is expected to be able to reduce of corruption and expand the prevention and handling of corruption.

## Mobile Phone Market in Indonesia

The development of mobile phones in Indonesia

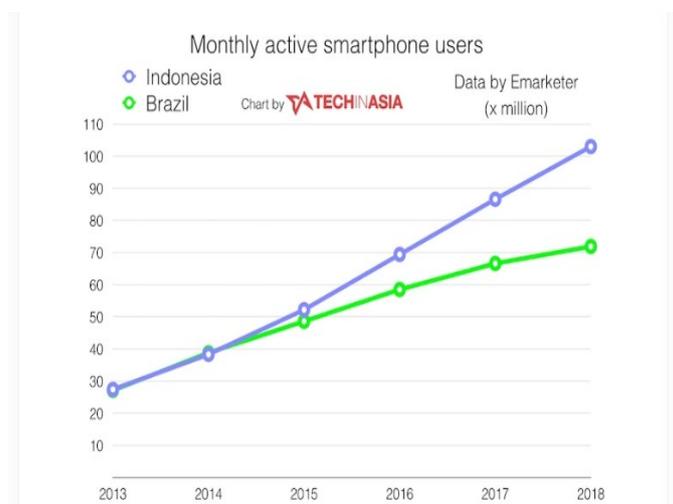
Communication Information Technology (ICT) has played an important role in human life and affects the places, how to work, study, shop, eat, play, live and travel (Moktarian, 2013). Today everyone can enjoy new freedoms in space and time that allow them to carry out activities and interact with ot-

her people using ICT devices, mobile adoption around the world continues to show significant growth. The mobile phone market starts from the need to simplify the business segment (Rim, 2013). In fact, the growth of the mobile phone market is not only to meet the business but the needs of the community. More specifically, mobile phones help access financial services easily. Several opportunities arise in the use of mobile phones to create a platform of ideas, business models and methods of communication (USAID, 2014). In addition, the use of mobile phones as a financial service can have an impact on reducing corruption (US agency, 2012).



**Figure 2.** Active Smartphone User in Indonesia 2019  
Data source: emarketer, 2019

In 2016 smartphone users is two billion and Indonesia is the country that dominates smartphone growth under China and India. Indonesia, India and China have consistently increased smartphone users by 400 million by 2018.



**Figure 3.** Active Smartphone User in Indonesia 2018  
Data source: emarketer, 2018

Smartphone sales increase in Indonesia is a positive indicator for e-commerce growth, which is mostly accessed via smartphones. Indonesia is expected to surpass Brazil in terms of sales and smartphone use in the next few years.

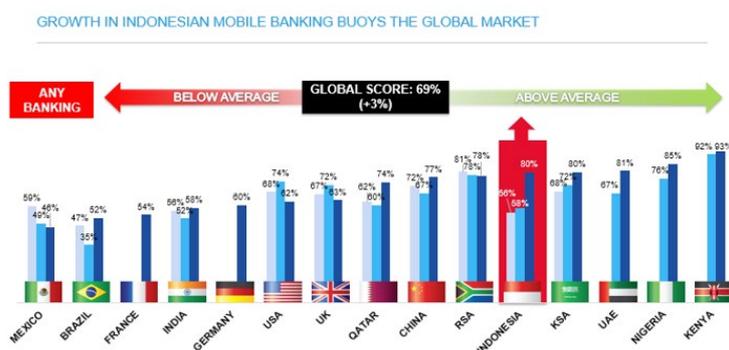
### Regulation of mobile Banking in Indonesia

Banking is one sector that cannot be separated from internet usage. Customers with self service facilities provided by banks through the internet provide easy transactions. The self service currently also provides mobile facilities or often called Mobile banking. Mobile banking or commonly called M-banking is a banking service provided by banks to support the smoothness and ease of banking activities. As well as the effectiveness and efficiency of customers to carry out various transactions.

Mobile banking is a banking service using mobile communication devices such as cellphones, with faci-

lities to transact banking through applications on mobile phones. The mobile banking services include conducting banking transactions, transfers between accounts, bill payments and top up. Mobile banking is divided into three, among others (Novita and Nadya, 2017):

1. Informational. Mobile banking system that only contains information about products and services owned by a bank. The risk of this system is low, because this system is not at all connected to the main server and bank network, but only connected to the site hosting server. The risk that might occur is changing the contents of the site on the internet (or often known as deface). It does not endanger the entire system of the bank, but will be able to disrupt the information on the site of the bank concerned.
2. Communicative. This system allows interaction between customers and the bank system. The interaction can be in the form of balance information, transaction reports, changes in the customer's personal data, or service membership forms from the bank concerned. The risk of this system is greater than the informative type. This is due to the relationship between the customer and several servers on the network at the bank.
3. Transactional. In this system, customers are able to make transactions directly. Because this system has a direct line to the main server and the network in the bank, the risk of this system is large. Transactions that can be carried out in this system include direct access to bank accounts, such as balance information or recent transactions, bill payments, fund transfers, credit top-ups, and so on.



**Figure 4.** Growth in Indonesia Mobile Banking Buoy the Global Market  
Data source: mefmobile.org, 2018

Based on the data above, 80% of respondents in Indonesia stated that they had used mobile banking facilities. In 2013, mobile banking usage reached 58% and was only used to check balances and transfer funds. Mobile banking users only reach 70 million or a quarter of the population, meaning that residents who are not bank customers still dominate. The program held by Bank Indonesia to increase customers spread across various islands in Indonesia is to use branchless banking and mobile banking to accommodate the needs of modern society.

From previous research examining mobile banking in Indonesia, some researchers only conducted research on certain banks or universally covered all of Indonesia. Like research conducted by Lin (2011) who examined customers using mobile banking. Similarly, research conducted by Hanafizadeh et al. (2014) which examined mobile banking users in Iran. Each customer has their own reasons in deciding to use the mobile banking service facilities provided by the bank. The reasons for each customer will be different or can be the same with each other. Due to the many different factors that can affect customers in using mobile banking services, several categories of factors are needed in order to see which factors will become the majority as the main influence of customers using mobile banking services.

Banks definitions according to Article 1 of Act Number 7 of 1992 concerning Banking as amended by Act Number 10 of 1998 (Bank Indonesia, 2013) is:

*“Banks are business entities that collect funds from the public in the form of deposits, and distribute them to the community in the form of credit and other forms in order to improve the standard of living of the people “.*

Legal Basis for using Mobile Banking is a Bank Indonesia Decree, No. 27/164 / Kep / Dir dated March 31, 1995 concerning the use of the Information Technology system by the Bank. Fill in the letter regarding the obligation to report by the bank to Bank Indonesia, if the bank concerned uses or develops information system

technology. Bank Indonesia undertook various programs to support supervision of bank activities, including activities that utilize information technology, including intensive surveillance programs (special surveillance) and On-site Supervisor Presence (OSP) in several banks that have a considerable influence on the economy. (Syahril, 2001).

## RESEARCH METHOD

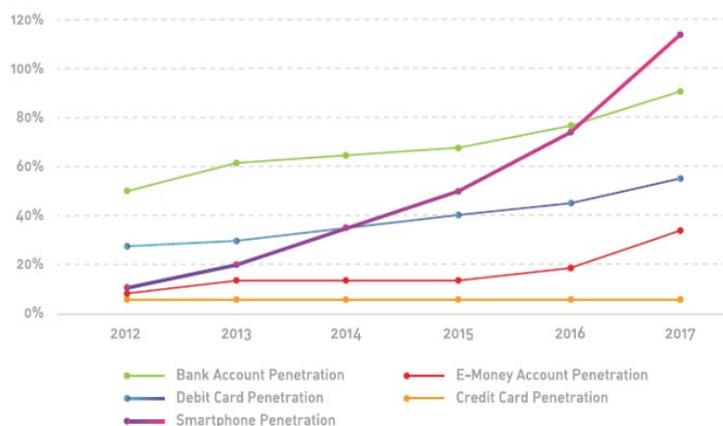
This research is descriptive qualitative. Descriptive research is a method of researching groups of people, objects, conditions, a system of thought or events in the present. Descriptive research aims to make a description, describe systematically, factually and accurately of the facts, the characteristics and relationships between phenomena investigated.

The approach of this research is empirically used to analyze the law not merely as a set of normative legislation, but to see the law more towards the behavior of the people in people's lives, always interacting and dealing with social aspects such as politics, economics, social, and culture (Maria, 1997).

Data collection techniques use virtually research, technical library research and questionnaires given to bank customers who use mobile banking in transactions. The sampling technique used is judgment sampling. the validity of the data in this study is data triangulation. Data analysis techniques in using technical qualitative analysis interactive models (Sutopo, 2002).

### Corruption Prevention Model Based on Mobile Banking

Small and large scale corruption causes financial losses to the state (Plummer and Cross, 2006; AICD, 2010). Practices such as bribery, theft and collusion continue to develop without adequate mechanisms to identify and reduce illegal activities. Increased cellular telephone penetration and cellular networks in Indonesia support the potential of this technology to be used in dealing with corruption.



**Figure 5.** Smartphone Subscription Penetration Versus Electronic Banking Platform Penetration

Mobile banking penetration because it is supported by the need to use mobile payments that are often used by customers in the highest GO-PAY and Tcash transactions. Other services that are beginning to get significant user growth are PayPro and OVO. These players have many users because of the wider range of services. This condition is optimistic that mobile banking technology can be used to help reduce corruption.

The penetration of mobile banking in Tanzania has begun since Dar es Salaam, launching the first mobile-capable payment system for urban water services in 2009. The application of this cellular communication technology, and especially new payment instruments for water bill transactions, includes proof of transactions recorded on the mobile system banking. This transaction has helped reduce corruption during the water collection and payment process (Mwanza, 2005). In a study of water sellers throughout Dar es Salaam, Tanzania - the focus of this study - Kjellen (2000) suggests that political interference and poor collection and collection systems are the main contributors to corruption. Incorporating cellular technology and innovations related to water service provision is a growing trend that has produced significant optimism to suppress corruption (Georgiadou et al., 2011; Hope et al., 2012; Foster et al., 2012; Hutchings et al., 2012).

Basically the Government has an important role for the mobile market in terms of regulations and po-

licies. At present the government support in the use of mobile banking is contained in the Financial Services Authority Regulation Number 19 / POJK.03/2014 concerning Officeless Financial Services in the Context of Inclusive Finance. The OJK rules aim to increase and expand access to financial services, so that they can provide more benefits to all levels of Indonesian society, especially those who do not know, use and / or obtain banking services and other financial services. With the increasingly inclusive financial services, it is expected that it will have an impact on the increasing number of parties involved besides the government and the private sector as well as the community, which can encourage economic growth so that welfare is more evenly distributed throughout Indonesia, and ultimately can play a role in poverty alleviation in Indonesia.

In implementing the Financial Services Authority Regulation Number 19 /POJK.03/2014 concerning Financial Services without Offices in the Context of Inclusive Finance mentioned in Article 10

- (1) Banks that will submit applications for approval to become Laku Pandai operators as referred to in Article 3 must meet the following requirements: a. incorporated in Indonesia; b. has a risk profile rating, operational risk level and compliance risk with a rating of 1, 2, or rank 3; c. has a network of offices in the Eastern Indonesia Region and / or East Nusa Tenggara province; and d. already has supporting infrastructure to provide electronic transaction services for Bank customers in the form of: 1. Short Message Service (SMS) banking or mobile banking, and 2. internet banking or host to host.
- (2) The Financial Services Authority can conduct periodic evaluations related to the requirements of the Bank office network area as referred to in paragraph (1) c.

#### Article 41

- (1) In the event that it is needed, the Financial Services Authority can request reports, information, and / or data, including checking on site supervision of the Agent.
- (2) The Financial Services Authority, based on certain considerations, may order the organizing bank Laku Pandai to terminate cooperation with the Agent.

The rapid growth of the mobile market and the cellular money market should be used to help reduce corruption. Nevertheless the adoption of cellphones for this purpose is relatively slow despite the potential. One example of how mobile banking reduces corruption is people who live in Isiolo, a city in Kenya, where M-Pesa simplifies the process of financial transactions. An agreement with the Kenyan government has been formed to make it easier to pay bills and collect revenues. With this agreement residents in Isiolo can pay their bills using their cellphones. This system includes public transactions, for example when buying or renting land and selling and buying livestock. Before Isiolo implemented the M-Pesa as an alternative method for this service, most transactions in these sectors were marred by corruption, because there was no transparency benefiting individuals dealing under the table and hence committing corruption activities. Through mobile money transactions, the system becomes more transparent in business activities, and when other sectors also start using the platform can also reduce corruption in these sectors (Okpamen, 2012).

In this study a questionnaire was used to gather information to make a model, which was related to mobile banking and its impact on prevention of corruption based on questions related to individuals and society. Questions to some extent are based on questions to measure corruption in Indonesia. Questions related to mobile banking such as how respondents use mobile banking include how often someone uses it and when someone starts using mobile banking. Questions relating to corruption in the community and one's involvement in corruption activities. The questions below this theme concern social trust, loyalty, and also hope.

The results of the study are many opportunities for corruption activities created in various sectors because lack of synchronization of institutional rules and transparency in accounting provides opportunities for corruption. The importance of transparent and integrated financial statements with the banking system is expected to reduce the space for corruption. In addition, the Indonesian government still needs to prepare infrastructure that supports internet-based information systems across the island to support the mobile banking program. Increase the confidence of bank customers to use the mobile banking system. Although the government will later make a mobile banking platform to suppress corruption, if it is not supported by facilities and infrastructure as well as public trust, efforts to suppress corruption will be difficult.

## CONCLUSION

The Government of Indonesia, through several regulations and policies, has given the world a chance to develop transaction methods that can provide convenience to customers. In addition, banking transactions

using mobile are also useful to prevent corruption through transparency and evidence recorded on mobile banking. Indonesia can be optimistic about using the model based on the results of previous studies such as the use of M Pesa in Kenya which has helped the Kenyan government suppress corruption in the country. The Indonesian government must continue to improve and innovate to improve the supporting structure of the use of mobile banking in Indonesia.

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