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Factors Causing Banking Cyber Crime in Indonesian

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Abstract: The purpose of this study is to assess and analyze the factors causing the occurrence of cyber crime in Indonesian banking and its solution. Research method in this research was social legal research. Data collection techniques were through library and field studies. The data were analyzed by using interactive model proposed by Matthew B. Miles and A. Michael Huberman covering 3 (three) activities, namely data reduction, data presentation and conclusion or verification. The results of research indicate that the factors causing cyber crime in Indonesian banking is not only due to technological development factor, but also caused by other factors such as law, means, society and culture (culture) of course this results in law enforcement against various crimes including cyber crime.

A. INTRODUCTION

Bank is a financial institution that becomes the place for individuals, private business entities state-owned enterprises, even government institutions to save funds owned¹. As with other countries, Indonesia should also pay attention to the advancement of banking technology, one of which is known as Internet Banking or E-Banking as one of the online payment system solutions that are very vulnerable to cyber crime.

Advances in information technology world in the modern world today is certainly related to the issue of criminalization policies related to cybercrime², because information technology has become a necessity and has an important role in the life of a dynamic society in conducting electronic financial transactions on the banking.

Transactions conducted through E-Banking each year have considerable growth in some banks. Based on the data of 13 major banks in Indonesia, the frequency of transactions through E-banking in 2012 amounted to 3.79 billion transactions and with a nominal value of Rp. 4.441 trillion, increased to 4.73

billion transactions with a nominal value of Rp. 5.495 trillion in 2013, in 2014, respectively, to 5.69 billion transactions with a nominal value of Rp. 6.447 trillion.³

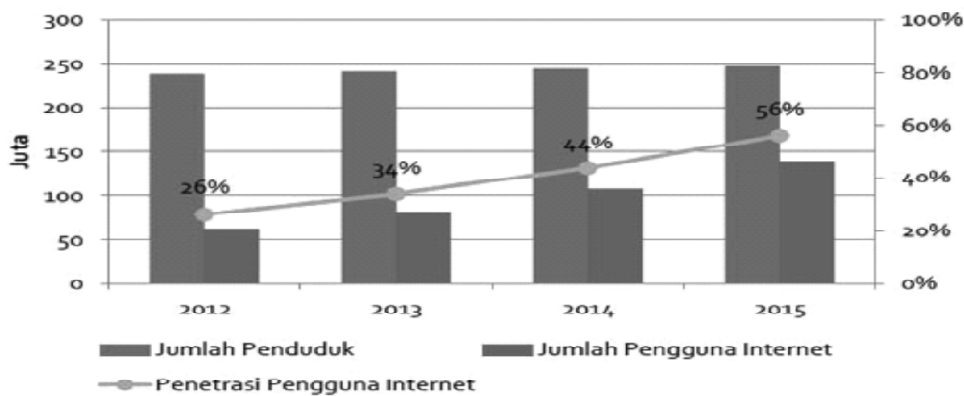
Directorate of Special Economic Crime Criminal Investigation Police noted, based on a report compiled by State of The Internet 2013, Indonesia ranks the second of the top 5 countries of origin of cybercrime attacks. Deputy Director of Special Crime Economy Bareskrim Police Agung Setya said, about 36.6 million cybercrime attack occurred in Indonesia in the last 3 years.⁴

Banking institutions should strengthen the banking system in addition to strengthening the E-Banking regulation of banking crime prevention requires special expertise because it is in the scope of cyber electronics. It would be unlikely that the adage “*het recht hinkt achter defeiten aan* (a law or a written law or law which changes must go through so that procedures cannot be every time done to match the state of lagging behind the event) ”⁵ “still reverberate because along with the advancement of information technology is a crime that occurs also in a variety of crime mode. Throughout history, people in his life always try to meet his needs by developing science and technology⁶. Speaking of information and communication technology, today cannot be released with the crime in cyber space or cybercrime.⁷

E-Banking is one of the bank services that enable customers to obtain information, communicate and perform banking transactions through internet network. E-Banking operators must have a physical and clear existence in a jurisdiction. E-banking is considered bank Indonesia is one of banking services, so the bank must have services like conventional bank.

The implementation of E-banking is strongly influenced by the development of information technology. In reality, on the one hand, making the banking transaction easier, but on the other it makes it even more risky. One of the risks associated with organizing E-banking activities is internet fraud. In the internet fraud this makes the bank or customer as a victim, which can occur due to malicious intentions of someone who has the ability in the field of information technology, or someone who takes advantage of the bank and the customers.

Financial transactions via E-Banking is a practical payment point, as seen from the value of internet banking transactions in Indonesia has reached Rp 3.642 trillion, the amount exceeded the value of ATM + debit transactions at Rp 3.476 trillion during 2012. Internet banking growth is driven by Internet users who grow enough rapidly as follows:



*Berdasar data pengguna dari 6 bank besar di Indonesia, 2012

Sumber: Sharing Vision, dari berbagai sumber, 2013

B. METHOD

This research used social legal research approach, Tamahana stated that socio-legal studies are addressed to Law and Society Studies⁸. According to F.X. Adji Samekto, Social legal studies conceptualize law as the norm and simultaneously as reality. The reviewer in socio-legal studies demands the mastery of the doctrines of law which have been established within the jurisprudence itself (as a priori and not free of sciences), and the examination of the theories of the operation of the law, as a consequence which sees law as reality⁹. Primary data collection techniques were conducted with deep observation and interviews with key informants that have been determined by researchers based on research characteristics.¹⁰ Lincoln and Guba put forward the purpose of the interview, which is constructing about people, events, activities, organizations, feelings, motivations, demands, concerns, and others roundness; reconstruct such roundness as experienced by the past, verify, change and extend information obtained from others¹¹. Technique of data analysis to primary data was done by using technical analysis of data type Strauss and J. Corbin, that is by analyzing data since researcher is in field (field). Furthermore, researchers do the preparation, categorization of data in the pattern / theme. After the data is validated, the researcher performs reconstruction and analysis qualitatively inductively to be able to answer the problem. The data will be analyzed using interactive model proposed by Matthew B. Miles and A. Michael Huberman¹² covering 3 (three) activities, ie data reduction, data presentation and conclusion or verification.

C. RESEARCH RESULT AND DISCUSSION

1. Development of Science and Technology

The development of crime cannot be separated from the development of society. Initially, only conventional crime was considered a real crime, but in its development along with the rapid growth of corporations in the field of economics in the field of banking.¹³

Cicero says “*yam societas ibi ius*”, where there is society there is a law. This statement illustrates that in every society there must be a law and the development of that society will affect the growth of the law. One of the factors that influence the development and change of law in people’s lives is the development of science and technology. Communities will shift from traditional life to new life, when the community has interacted with the science and technology.¹⁴

Science and technology that developed today is known by the abbreviation IPTEK. In Big Indonesian Dictionary which is meant by knowledge is knowledge or skill about worldly matter, hereafter, birth, mind, and so on. On the other hand, what is meant by knowledge is everything that is known with regard to the subjects¹⁵. Knowledge fall into the category of science if there are five elements of the orderly (regular), has object, has method, generally accepted, and has system.¹⁶ The definition of technology is the science to apply science that is composed in a certain systematic way of an observation and examination or experimental study.¹⁷

The impact of technological sophistication, of course, when accompanied by the preparation of the legal system will be very fair because according to Aristotle’s theory, justice will be felt when the relevant system in the basic structures of a well-ordered society, political, economic and social institutions are satisfactory in relation with the concept of stability and balance. The sense of community justice can also

be found in the implementation of law enforcement through the judge's judgment. Fairness is generally defined as a fair deed or treatment.

The development of science in human beings occurs on two drives, namely first: a practical impulse, that is human beings who can think, be virtuous, feel and always try to make life safer and clever higher, this encouragement at the end of the science applied or technology. Second: the non practical or theoretical impulse, that is, the human being has an inquisitive nature and understands even the object. It is this encouragement that creates knowledge called pure science or science.¹⁸ Human capital to develop knowledge is, first: human beings have a language that is able to communicate the information and the way of thinking that lies behind the information. Second: human beings have the ability to think according to a particular framework of thinking called reasoning.¹⁹

Science and technology can have a positive (beneficial) and negative (bad) impact on mankind. In relation to the foregoing matters, here will be discussed about the relation of science and technology with law in the aspect of law change, why science and technology can change the law, the extent to which technology with law can change the law, to what extent technology can act as a modifying aspect law and how the process of legal change takes place as a result of the development of science and technology today. Problems related to this problem is the birth of high technology, the rapid flow of globalization, global influence in the field of technology and the development of internet sites, and so forth.²⁰

Science and technology has provided ease in meeting the needs of life that continues to grow indefinitely. Human who not only survive, but also to develop the culture, give meaning to life and humanize humans, encourage people to continue to research, deepen knowledge. Various developments in science and technology have changed the life style of the community, including in terms of legal life. The following will describe some legal changes caused by the discovery and development of science and technology.²¹

As stated above, according to the authors that the development of science and technology today cannot be dammed and even tend to be a necessity, so that the human philosophy of this era changed from the necessities of life into a lifestyle. Based on a survey conducted by the Association of Internet Network Providers Indonesia (APJII), it revealed that more than half of Indonesia's population has now been connected to the internet.²²

The survey, conducted during 2016, found that 132.7 million Indonesians were connected to the internet. As for the total population of Indonesia is as much as 256.2 million people. This indicates a 51.8 percent increase compared to the number of internet users in 2014 ago. Surveys conducted APJII in 2014 there are only 88 million Internet users. Chairman of APJII Jamalul Izza on the sidelines of the Indonesian Internet User Research 2016 reveals that "The cause is the development of infrastructure and easy to get a smartphone or handheld device", "If only a few vendors and handheld devices, now the number of lots and cheap".²³

Survey data also revealed that the average internet users in Indonesia use handheld devices. The statistics are as follows:

- a) 67.2 million people or 50.7 percent access via handheld devices and computers.
- b) 63.1 million people or 47.6 percent access from smartphones.
- c) 2.2 million people or 1.7 percent access only from computers.

However, internet penetration is still in the majority of the island of Java. From the survey presented by APJII it was noted that about 86.3 million people or 65 percent of the total number of internet users this year are in Java Island. Whereas the rest are as follows:

- a) 20.7 million or 15.7 percent in Sumatra.
- b) 8.4 million or 6.3 percent in Sulawesi.
- c) 7.6 million or 5.8 percent in Kalimantan.
- d) 6.1 million or 4.7 percent in Bali and NTB.
- e) 3.3 million or 2.5 percent in Maluku and Papua.²⁴

2. Electronic Commerce Development

The development of science and technology has become more advanced and development becomes more advanced and its growth becomes faster. A scientific discovery has accelerated the development from phase to next phase²⁵. Amri H. Siregar argues that the phases of the growth of science can occur in several phases, among others:²⁶

First: The pre-organic phase, in this phase the process of mastery of nature has not taken shape, human life is the result of giving nature.

Second: The agrarian phase, in this phase, humans begin to recognize natural cultivation by making tools such as wheels, waterwheels and various other tools that can help farming, there has been an attempt to cultivate livestock for food reserves and for transportation.

Third: Industrial Phase, in this phase of human being has prospered his life and has found the steam engine as a driving force, has been born information technology and science and technology has begun to develop to perfection, automatically equipped with robotization, genetic engineering has entered the stage of revolution and the growth of environmentally friendly technology .

From what is stated above the researcher argues that technological advances and science as well as technology today has entered the category that can be said as the phase of modern knowledge because it is practical and near perfect because no longer interaction head to head between humans as users of the technology. Technological and technological developments that are now nearing perfect change the pattern of behavior of people's lives to the traditional traits into properties that want transactions practical, easy and fast as currently used by the world community, especially transactions that use payment through Indonesian banking.

Trend in the use of technology such as the internet has deposed Indonesia as a 6 (six) world ranking, this is stated according to market research institute e-Marketer, netter homeland population reached 83.7 million people in 2014. Effort eMarketer Monica Peart put forward as follows:

“Mobile phones and affordable mobile broadband connections are driving the growth of Internet access in countries that cannot rely on fixed line, either because of infrastructure or cost issues,” said senior eMarketer Monica Peart.

Number that applies to every person who access the internet at least once every month put Indonesia in the world's 6th largest in terms of the number of internet users. By 2017, eMarketer estimates netter

Indonesia will reach 112 million people, beating Japan in the rank- 5 which its growth in the number of Internet users is slower. Above Indonesia, for now the top five internet users in the world are sequentially occupied by China, the United States, India, Brazil, and Japan. The number of internet users in China currently stands at 643 million, more than double the netter population in United States amounted to 252 million²⁷. Overall, the number of internet users worldwide is projected to reach 3 billion people by 2015. Three years later, by 2018, an estimated 3.6 billion people on Earth will access the internet at least once every month.²⁸

Nowadays with the rapid development of technology and internet in Indonesia, has had a great impact on business changes. That is starting from how to advertise, how to buy and sell, how to interact between humans, and so forth. Examples of e-commerce in Indonesia that has been popular is like www.bhineka.com, www.blibli.com, www.gramedia.com, lazada.com, tokopedia.com and so forth.

E-commerce is an internet service that is used for buying and selling. With e-commerce has changed a lot in the process of buying and selling. If in a buyer-seller and buyers meet, but if with-commerce they do not need to meet, they interact with the Internet or by telephone communication. In this process trust is the main capital. Since without the trust of both parties, the process of buying and selling e-commerce will not happen.

The rapid growth of e-commerce market in Indonesia is no doubt. With the number of internet users reaching the number 82 million people or about 30% of the total population in Indonesia, the e-commerce market into a gold mine is very tempting for some people who can see the potential for the future. This growth is supported by data from the Minister of Communication and Information which states that the value of e-commerce transactions in 2013 reached Rp130 trillion.²⁹

However, with the rapid development, many online stores/e-commerce is popping up. They are using blogs, social media or websites. With this rapidly, it ease easier in buying and selling.

In its current development with many emerging online stores. There are many people who take advance personally by committing fraud. At the beginning of 2010-2011, there were many emerging fake online stores either through the website or social networking. They promise at a much cheaper price than normal prices. In practice they usually ask for 50% transfer at the beginning. And promised to send the goods immediately, but the next day they ask for repayment on the grounds there is a problem in customs or administration. And promise to send it as soon as possible. However, after repayment occurs by the buyer. So the seller immediately disables the phone number used to connect with the buyer earlier. By looking at the number of cases above then should the government to regulate or rules about online stores. This can be done with registration or online store data collection with special rules.

The rapid growth of e-commerce in Indonesia is no doubt. But unfortunately, along with the trend of e-commerce continues to rise and the market is still wide open, until now there is still no source that provides comprehensive data on e-commerce. Based on survey conducted by MARS Research Company in Indonesia, conducting independent research on e-commerce in Indonesia with the objectives and information to be obtained from this research are as follows:

1. Knowing consumer awareness of e-commerce business in Indonesia;
2. Measuring the penetration of consumers who transact through e-commerce;

3. Knowing the behavior in online shopping;
4. Measure consumer readiness (how many% of consumers are ready to shop online);
5. Knowing the products purchased through e-commerce;
6. Measuring how many e-commerce sales in Indonesia.³⁰

The results of research conducted by MARS in various major cities namely Jabodetabek, Bandung, Semarang, Surabaya, Medan, Makassar, Denpasar and Palembang. The selected samples were 1866 for e-commerce users and 866 non-user e-commerce users with internet access, totaling 2732 samples. The sample is obtained from sampling technique Multistage Random Sampling and Purposive Sampling/Booster with respondent criteria Male/Female 13-55 years domiciled in survey city, have SES ABC that access internet in last 3 months can be expressed as follows:³¹

1. Internet Penetration & Online Shopper

Indonesia's total population of 255.4 million is divided into urban communities as much as 44.1% and rural communities 55.9%. However, the Internet was only used by 35.4% (90.5 million people) of the population with 51.5% urban spatial distribution and 22.7% rural communities. However, not all internet users do online shopping, as only 29% of people (26.3 million of the total internet connection) are using the internet to shop online. In other words, of the entire population of Indonesia, only 39% of urban communities and 11.1% of rural communities do online shopping.

2. Location & Device Internet Connection

From the research results found that the device or the most widely used media to access the internet is Mobile 89.8% percentage, followed by a laptop of 5.5%, PC 3.1% and Tablets 1.6%. Usually they access the internet in a place that provides comfort in browsing; this is evident from the results of research that shows that the house becomes the main choice with 72.1%, followed by places that have internet connection, office, cafe, and others.

3. Social Media Account Ownership

It can be said almost everyone who access the internet has at least one account in social media. But which social media is the most widely used? Apparently Facebook dominates the people of Indonesia with a percentage of 93.5%, Instagram 43.3%, Google+ 44.2%, Twitter 39.2%, Path 19.2%, and LinkedIn 5.6%.

4. Messaging Application Used

Maybe you think BBM (Blackberry Messenger) has been abandoned by the online business to make transactions, but in fact BBM actually occupies the first position of 90.7%, then Whatsapp with 63.4%, 53.5% LINE, 8.2% WeChat, KakaoTalk 3.7% and Facebook Messenger 0.2%.

5. Potential of E-commerce

Based on the characteristics and behavior of consumers, it can be said actually the potential development of e-commerce in Indonesia could be one of the largest in the world. Average consumer survey results by

city, age, and SES indicate that consumers are ready to enter the era of online shopping. Medan people have the highest readiness with a percentage of 92.5%, followed by Bandung, Palembang, and Semarang. Meanwhile, when viewed by age group is consumers aged 22-29 years.

It turns out that online shopping activities have influenced the minds of consumers, because 46.4% of consumers have the perception that online prices are cheaper. This is why many consumers who choose to shop online, in addition to more time saving they can also compare prices. Online shoppers are very price sensitive, because if consumers know that prices on online shopping sites are higher, they will switch to offline shopping.

Certainly, consumers will not leave the store offline, as there is several convenience factors from offline shopping that cannot be found when shopping online. Here are the shortcomings and advantages of online shopping:



6. Social Media and Online Forums

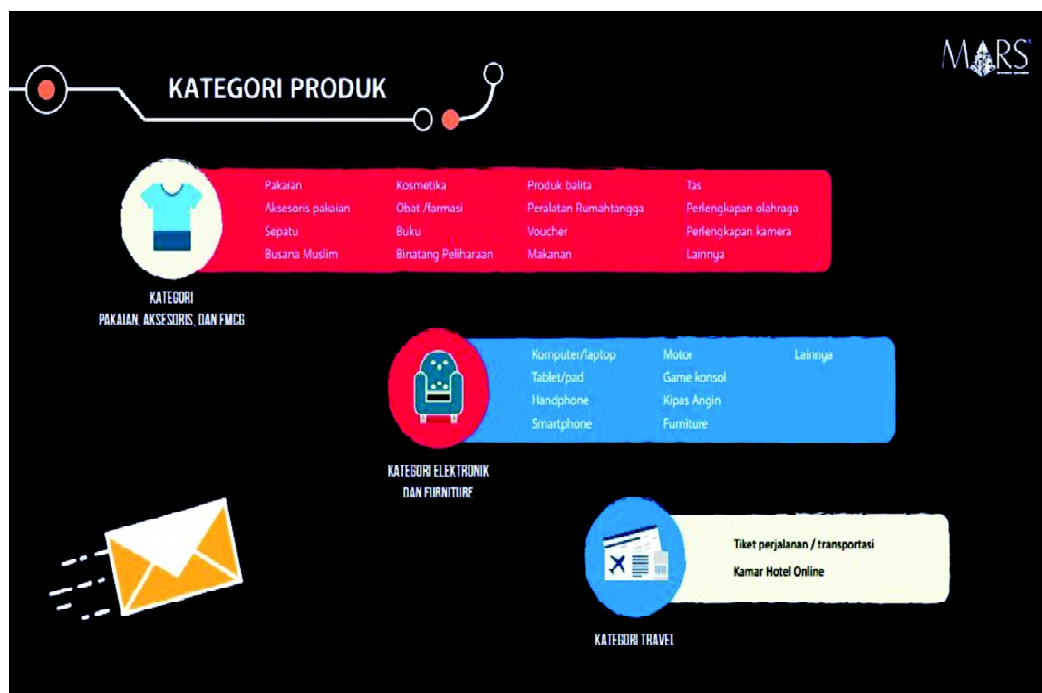
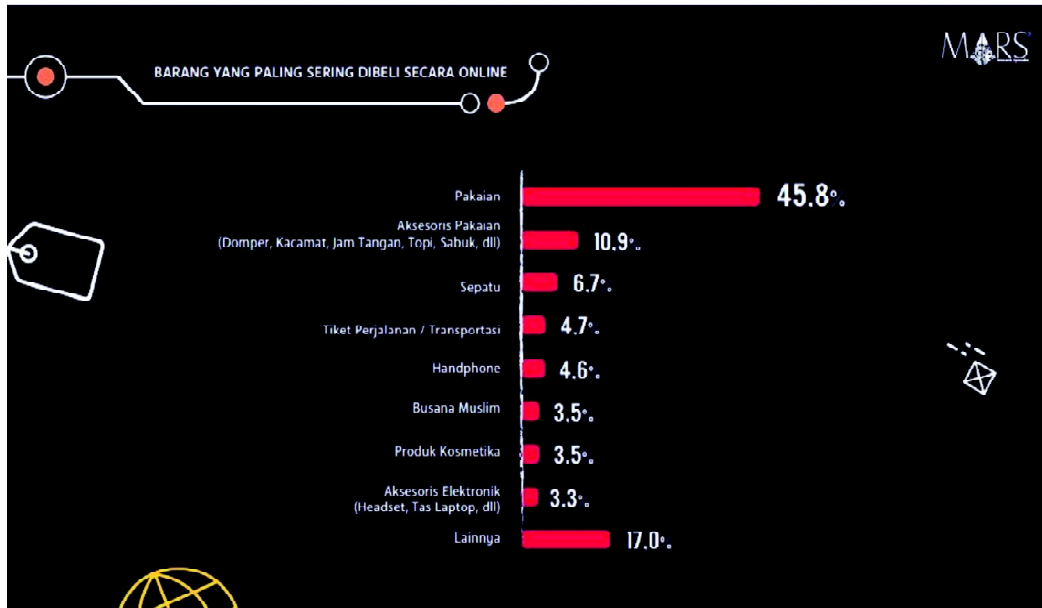
Currently there are many platforms to do the buying-sell, such as marketplace, social media and forums. The most remembered social media as an online buying place is Facebook (52.7%), BBM (19.7%) and Instagram (12.4%). As for online forums are FJB Kaskus (33.2%), Forjumjualbeli.com (31.1%) and Detik Forum (7%).

7. Sources of Information for Online Shopping Sites

Online shoppers get information for online shopping sites from various media such as television commercials, friends / relatives, the internet, print media ads and social media.

8. Goods Most Frequently Purchased Online

This data will be very useful for online sellers who are still unsure of their products or want to add new business.



Based on the above description the following tips to avoid fraud or fake online store are:

1. Make sure by finding info about the truth of the web;
2. Conduct testimony in forums and mail-list about the online store.
3. Ensure that the store has a good reputation, including in after sales / warranty;
4. if the store has the facilities of one or more banks in payment, eg clickpay from bank BCA, or payment by credit card.

So can be sure the store is correct and has a good reputation as well; Advantages in transactions in online stores are:

1. The buyer can easily get the goods without going to the store, and make an offer on a good, because it can directly bid the price of an item before the price occurs in accordance with both parties;
2. Buyers can save time in getting the goods.
3. The seller does not need to rent a store space or outlets strategically located to display the product and to further market our products and have many customers.
4. Seller can display open shop for 7 x 24 hours, because not limited time, and can get customers from anywhere.

Losses in transactions at online stores are:

1. Conformity of goods usually make customers disappointed with the product that has been labeled because it does not match with the items in the photo on the website, this is because buyers cannot see the condition of the goods directly.
2. The warranty process is unclear, and sometimes difficult.
3. Trust becomes the main capital in the transaction, but now there is a crisis of confidence in the people of Indonesia itself.
4. Reputation of bad online store for the territory of Indonesia itself.

3. DEVELOPMENT OF E-BANKING TECHNOLOGY

Het recht hink achter de feiten aan (the law always lags behind the event), the adagium of this law is worthy to remain reverberating in this technological advancement era known as globalization with all the impact of the technological development. According to Solly Lubis said globalization comes from the word “globe” which is the earth where human dwellings³². The term globalization has actually evolved long before the term became a fashion that is a new phenomenon in the international world. The thinkers have not been able to answer clearly and systematically about the dramatic and significant flow of change that this current globalization brings.³³

The development of information and communication technology has influenced many aspects of life in the community, among others in the field of commerce (e-commerce), government (e-government), and even towards the behavior of society (social behavior) that is originally based on paper (paper based) now an electronic system (electronic based).³⁴

The banking industry is one of the major developments in global technology in the field of services that extensively provide services by utilizing electronic media (e-banking). Most banks today rely on Information Technology and electronic media as their service base. So the banking services it offers now offer various facilities that can be utilized by the community anytime and anywhere, not limited by distance, space and time.

Currently, the utilization of information technology is an important part of almost all community activities. Even in the banking world almost the entire process of payment system implementation is done

electronically. This development of information technology has forced business actors to change their business strategy by putting technology as the main element in the process of product and service innovation. Electronic transaction service through internet banking (e-banking) is one of the new forms of bank service delivery channel that transforms manual transaction service into transaction service by technology.³⁵

In Indonesia internet banking practice was spearheaded by one of the national private banks in mid-1999. Currently there are 7 banks that have held internet banking such as Bank Lippo, BCA, Bank Bali, BII, Universal Bank, Bank Niaga and Citibank. It is already on the transactional stage, it is no longer informational (or just a website) as it is owned by almost all banks. In the future, in line with the increasing number of internet users and the increasingly intense competition of banks, it is expected that more banks will be conducting Internet banking services in Indonesia.³⁶

In line with the development of information technology above, the role of electronic banking increasingly meaningful. Automatic Teller Machine (ATM), credit card and phone banking as it is a must for every bank in Indonesia in seizing market share. Technology-based technological innovation continues to grow in accordance with the wishes of customers. Currently internet banking is a concern where customers can perform banking transactions (non cash) anytime from anywhere with so easily and conveniently just by accessing through computer (internet network). Internet technology is able to eliminate the boundaries of space and time, is global / international even without borders. For the bank itself, internet banking services can reduce operational costs because it can save paper, human labor, and do not need investment of ATM or branch office.

The definition by Cronin in his book *Banking and Finance on the Internet* published by John Wiley & Sons - Canada in 1998 is:

“The financial services application that enables financial institutions to offer traditional banking products and services such as checking, savings and money market accounts and certificates of deposit over the internet”.³⁷

Bank Negara Malaysia, which has established a provision on internet banking, defines it as follows: Internet banking refers to banking services and other intelligent devices In the Indonesian language, free translation of internet banking is a service that allows bank customers perform banking transactions through the internet network. Internet banking is more flexible than service with counter system, because it does not know the time limit and place.

Services offered by e-banking include:

- a) Informational Internet Banking: the bank's services to customers in the form of information through the Internet network and does not execute transactions;
- b) Communicative Internet Banking: the bank's service to the customer in the form of communication or interaction with the bank provider of internet banking services on a limited basis and does not execute the transaction;
- c) Transactional Internet Banking: the bank's service to customers to interact with the bank's internet banking service provider and execute the transaction.

Cyber crime banking from some literatures can be concluded that is a crime arising from business practices, including banking crimes including the example of crime in the business world. ³⁸ Meanwhile, the business is one of the main business activities in supporting economic development. The word “business”

is taken from English “business” which means business activity. The intended business term is a business or commercial, industrial or financial activity connected with production or exchange or service. By placing money from entrepreneurs in certain risks in a particular business with a motive for profit, likewise with the banking business is in the field of services which main purpose to seek profit, so it can be concluded that banking crime is part of business crime.

The yet rapid development of internet banking in Indonesia is mainly due to the following obstacles: (i) thorough and costly preparation and investment with sophisticated technological support, (ii) public confidence in the internet banking security system, (iii) uneven internet banking (iv) the market is limited only to internet users who are generally middle to upper class and educated. In addition to cost savings, there are several benefits expected by banks in the implementation of e-banking, among others:

- a) Increase the number of customers, considering today more and more people use the internet. In addition, customers at these levels usually have considerable financial capability.
- b) Market demands that require paperless, timeless, and borderless services.
- c) Contagion willingness, due to the influence of other banks on the same peer has conducted internet banking.
- d) Build image and increase the level of competition, especially for banks that have not been widely known by the public.
- e) Expanding the service network, which on the basis of economical and geographical analysis are more advantageous and easier to implement internet banking than by opening branch offices.
- f) Information collection, especially information about the desire of the banking market more quickly and up to date is absorbed through internet banking.
- g) Installing internet banking is getting cheaper every day because of the company’s competition among internet service providers.
- h) The absence of prudential regulations governing internet banking in particular, such as about licensing and requirements so that banks feel free to hold internet banking.³⁹

In addition to the risks mentioned above, there are some risks that are very specific for e-banking, such as:⁴⁰

- a) Technology risk: Technology risks related to reliability and security systems. Software and hardware sophistication is crucial to the extent of the technological risks faced by internet banking service providers.
- b) Reputational risk: Reputational risk is closely related to the corporate image of the bank itself. The good name of the bank internet banking operators is the main guarantee (credit worthiness) in the service of internet banking. Failure or failure of the system, technology and applications used in internet banking can make customers reluctant or reluctant to conduct banking transactions via the internet.
- c) Outsourcing risk: In practice, almost all banks that provide internet transactions through the internet use third party services as internet service providers (ISPs) or as data operators in the operation and maintenance of data. In a bank can save significant costs by outsourcing but on

the other side there are risks that may arise with the outsourcing include the closing of the ISP is suddenly due to financial difficulties, the lack of confidentiality of data because ISP is easily hacked by hackers, the lack of capability ISP, etc.

- d) Legal risk: Legal issues in internet banking in some ways are still many that are not clear and have not been explicitly regulated. This may pose a major potential problem in the field of civil or criminal law in the event of a future dispute or dispute involving banking transactions conducted through the internet. In addition, cross border issues in internet banking transactions are also mostly related to legal aspects that are not yet clear.
- e) Transaction Risk: Transaction risks represent current and future risks as a result of fraud, error, and inability to supply products and services, maintain a competitive position, and manage information. The transaction risk lies in every product and service offered and includes product development and distribution, transaction processing, system development, system counting, product and service complexity, and internal control. High transaction risk can be contained in internet banking products, especially if not planned, implemented, and monitored appropriately.⁴¹

Social changes and legal changes do not always go together, meaning that in certain circumstances legal development may be left behind by the development of law in the midst of society.⁴² In Indonesia, cyber crime is difficult to declare or categorized because of the principle of legality.⁴³

It is interesting to note that when the tyoposite actors clickbca.com Steven Haryanto managed to perform his “action” by recording 130 user ID and Personal Identification Number (PIN) belonging to Bank Central Asia’s customers, he only apologized to the Bank BCA.⁴⁴

If we look to the problem of cyber crime, Indonesia itself has a new regulation in the form of law related to the use of the Internet in 2008 which is known today with the Law of ITE (Information and Electronic Transactions).

Law Number 11 Year 2008 regarding the Information consists of XIII CHAPTER and 54 Articles. The question is what is the legal rule applied to cyber crime in banking before the birth of the ITE Act? Of course the crime cannot be left alone and also cannot be forced because our criminal law system recognizes “the principle of legality and legal principle is not retroactive”.⁴⁵

As explained on the previous page in enforcing the law against cyber crimes in general and in the banking scope before the birth of the ITE Law is used KUHP and rules outside the Criminal Code such as Law No. 36 of 1999 on Telecommunications. Then in March 2011 as a form of protection against transfers of funds committed electronically can be charged with the Law of RI Number 3 of 2011 on Fund Transfers.

Bank Indonesia Regulation of Bank Indonesia Number: 9/15 / Pbi / 2007 Concerning Application of Risk Management in the Use of Information Technology By Commercial Banks mentioned:

Article 2

- (1) Banks are required to apply risk management effectively in the use of Information Technology.
- (2) The application of risk management as referred to in paragraph (1) shall at least include:
 - (a) active supervision of the Board of Commissioners and the Board of Directors
 - (b) adequacy of policies and procedures for the use of Information Technology

- (c) adequacy of the process of identifying, measuring, monitoring and controlling the risks of use of Information Technology and
 - (d) Internal control system for the use of Information Technology.
- (3) Implementation of risk management shall be carried out in an integrated manner in every stage of the use of Information Technology since the process of planning, procurement, development, operation, maintenance to termination and elimination of Information Technology resources.

Article 8

- (1) Banks are required to have policies and procedures for the use of Information Technology as referred to in Article 2 paragraph (2) letter b.
- (2) Policies and procedures for the use of Information Technology at least cover the following aspects:
- a) Management;
 - b) Development and procurement;
 - c) Information Technology Operations;
 - d) Communication network;
 - e) Information security;
 - f) Business Continuity Plan;
 - g) End user computing;
 - h) Electronic Banking; and
 - i) Use of Information Technology service provider.
- (3) Banks are required to establish tolerable risk limits to ensure that related aspects of Information Technology as referred to in paragraph (2) can run optimally.

Article 9

- (1) Banks are required to have an Information Technology Strategic Plan that supports the Bank's strategic business plan.
- (2) The Information Technology Strategic Plan as referred to in paragraph (1) is described in the Bank Business Plan.

With the existing regulations, Bank Indonesia can do prevention until law enforcement efforts, so that the development of hacking crime in the banking does not negatively impact and harm the people and damage the banking system so that it can be a factor causing cyber crime in banking.

Without certain facilities or facilities, it is impossible law enforcement will take place smoothly. The facilities or facilities include, among others, highly educated and skilled manpower, good organization, adequate equipment, adequate finances, and so on. If these things are not met, then it is impossible for law enforcement to achieve its objectives.⁴⁶

Similarly, with cyber crime in the banking system, if there is no a facility or facilities then technology cannot happen cyber crime. The problem nowadays is the progress of the modernization era is no longer negotiable, therefore the role of Bank Indonesia as the Central Bank of the Government which has adequate facilities in terms of authority, human resources and financial are expected to bear fruit sweet in protecting and strengthening the system so that there is no cyber crime in the banking industry in the present or future in the development of the era of globalization is increasing rapidly.

Another important part of the facilities that can also be the cause of cyber crime in banking is the weakness of Human Resources (HR), to prevent it can be done rearrange human resources. According to analysts of banking and capital markets Faculty of Economics Padjadjaran University Aldrin Hernawy stressed the need for stricter regulation of human resources (HR) by Bank Indonesia.

According to him, this regulation is needed to prevent the emergence of crime in banks that take place in some Banks with the majority of perpetrators are people in the Bank whether permanent employees or not. Furthermore, Aldrin Hernawy as the regulator of Bank Indonesia should issue rules related to the mechanism of recruitment of outsourcing contractors because it has the potential to open a gap in the increase in the banking industry.⁴⁷

According to the researcher, resetting human resources is necessary to sustain Bank employees both fixed and contracts considering the potential to become perpetrators of cyber crime in the banking can start from there. It needs to be instilled positive mentality, sense of belonging and sense of care so as not to be affected with so it can cause losses to the banking but also affect the user community of banking services.

It is time for the government to take various measures to prevent the increase of cyber crime, among others by increasing the quantity and quality of law enforcement apparatus that controls information technology (including the Internet), improving supporting infrastructure for cyber crime investigation.⁴⁸

Cultural factors are actually united with the factors of society deliberately distinguished, because in the discussion focuses on the system of values that became the core of spiritual or non-material culture. According to Lawrence M. Friedman, as a system (or subsystem of a civic system), the law includes, structure, substance and culture. The structure includes the container or form of the system which, for example, includes the order of the formal legal institutions, the relationships between such institutions, their rights and obligations, and so on.

The substance includes the content of legal norms along with their formulation as well as events to enforce them applicable to law executors as well as seekers of justice, Culture (system) the law essentially embraces the values underlying the prevailing laws, the values which are abstract conceptions of what which is considered good (so embraced) and what is considered bad (thus avoided). These values typically are pairs of values that reflect two extreme states to be harmonized.⁴⁹

The Indonesian people in particular, have certain opinions about the law. First there are various meanings or meanings given to the law, whose variations are:

- 1) Law is defined as science
- 2) Law is defined as the discipline, the system of doctrine of reality
- 3) Law is defined as a norm or a rule that is a benchmark of desirable behavior that is expected.
- 4) Law is defined as the rule of law (ie the positive written law)
- 5) Law is defined as officers or officials
- 6) Law is defined as a decision of an official or a ruler
- 7) Law is defined as a process of government
- 8) Law is defined as interregional and unique regular behavior

- 9) Law is defined as the value chain
- 10) Law is defined as art⁵⁰

From the meaning of the above law, we certainly expect the intelligent community law, in this case is expected the role of society to participate can anticipate the various modes perpetrated by the perpetrators of crime in carrying out the action. Hence, it is highly recommended that users of banking services to protect themselves by changing the password periodically and not using a password that approximates/ resembles the numbers near the date of birth and so forth.

The role of the next community is to obey the law, the intention is never to intend to become the perpetrators of hacking crime let alone do it. Without legal awareness, cybercrime using this information technology means that it will be more difficult to eradicate in the present and the future that is more developed.

The process of law enforcement is basically the effort to bring about justice and order in the life of society through the criminal justice system and the punishment system. Basically the rights of citizens who are disturbed due to unlawful acts of a person will be rebalanced. It is done to increase understanding and knowledge (lack of information) of the community against the type of cyber crime so as to establish the legal awareness of Indonesian society in response to cyber crime activities.

D. CONCLUSION

Causing factors of the occurrence of cyber crime banking Indonesia is the occurrence of a crime. It is not only because of technological development factors, but also caused by other factors such as law, means, society and culture of course this result to law enforcement against various crimes including cyber crime. Factors causing cyber crime is in the legal aspect of the law number 10 of 1998 on Banking that does not regulate sanctions against cyber crime banking either to be done by the community, staff employees/ex employees, bank officials/ex bank officials is one factor causing e-banking is not revealed even if it is revealed that the rule of law has not been contained in the Banking Act as a special law on banking. In addition to the absence of cyber banking law rules, the rules made by the financial services authority are only internal regulation, circular no. 9/30 / DPNP is Bank Indonesia Regulation Number 9/15 / PBI / 2007 dated November 30, 2007 concerning Application of Risk Management in the Use of Information Technology by Commercial Banks which came into force since 31 March 2008. In addition to the above factors, other factors of facilities, culture and public awareness. Current infrastructure factors can be seen from different human resources, especially on e-banking. Many law enforcement officers do not yet fully understand what cybercrime is, in other words the condition of human resources especially law enforcement officers is still weak due to the availability of funds or budgets for human resource training are so minimal that law enforcement agencies find it difficult to send them training at home and abroad. While cultural factors and public awareness of the legal awareness culture to report cases of cyber crime banking, This is triggered by the reluctance of the community to deal with the law because the image of the judiciary itself which, according to the community is not good, other factors are victims do not want weaknesses in the computer system known by the public, which means it will affect the performance of the company and its web master.

NOTES

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