

Crime prevention in the banking sector: The role of supervisory channels

PhD. Vien The Giang

Faculty of Economic Law,
Ho Chi Minh University of Banking, Vietnam

Abstract

Banking operations are business activities, which are directly related to the achievement of macroeconomic objectives, including the objectives of ensuring the stability of the value of money, controlling inflation and ensuring the safety of banking operations and the system of credit institutions. For the safe and sustainable development of banking operations, risks that threaten the safety of banking operations need to be detected and prevented in a timely manner. Credit institutions in the concept of banking crime are both tools and targets of attacks by criminals, so they can be involved in many different crimes. Criminal acts arising in banking operations may be committed by people of a credit institution or may be outsiders, and it is also not uncommon for cases of collusion between bank employees and outside criminals. In order to effectively prevent crimes arising in banking activities, it is necessary to coordinate between the internal prevention institutions of the credit institutions and strong involvement from the investigating agencies as well as from the competent authority to supervise banking activities. Banking supervision plays an important role in detecting early signs of crime in order to give early warnings to credit institutions to take timely preventive and control measures.

Keywords: *Crime, banking operations, banking supervision, credit institutions, the State Bank of Vietnam.*

Corresponding email: giangvt@buh.edu.vn

1. Introduction

Banking is an indispensable business in the economy of any country. Unlike other business fields, banking operations always face many types of risks that need to be controlled by various tools and measures (Adamowicz, T. 2018, p.37-56). Banking operations always need to ensure safety because they are directly related to the trust of depositors. Once the confidence of depositors in the banking system is not guaranteed, credit institutions face the risk of sudden withdrawal from depositors; and depositors will be more cautious before deciding to deposit money in credit institutions, which were previously considered safe channels (Una Okonkwo Osili, Anna Pauson, 2014, p. 646-660). The reality shows that there is no absolute safety and effective prevention system for banking activities. This is explained by the fact that banking operations are associated with the accumulation and concentration of savings capital of the society and allocation of credit capital to the economy. Facing the risk of capital appropriation due to illegal activities is a risk that threatens not only the safety of each credit institution but also the customers who use banking services. Therefore, sustainable risk management is a decisive factor for the development of the banking system towards stability and soundness (Županović, Ivo, 2014, p.81-100).

Collect, synthesize and analyze information about subjects of banking supervision through the information and reporting system in order to prevent, detect and promptly handle risks that cause unsafety to banking operations, violation of regulations on banking safety and other relevant provisions of law... are banking supervision measures applied in many countries around the world. The purpose of banking supervision is to contribute to ensuring the safe and healthy development of the system of credit institutions and the financial system; protect the legitimate rights and interests of depositors and customers of credit institutions; maintain and improve public confidence in the system of credit institutions; ensure the observance of monetary and banking policies and laws; contribute to improving the efficiency and effectiveness of state management in the monetary and banking sectors. Banking supervision is an activity within the function of the state management agency in charge of money and banking activities, based on supervision standards and conditions prescribed in the Central Bank's operation or the State Bank Law as in the case of Vietnam. Banking supervision is always carried out in a dynamic state, especially in the condition that banking operations are in the process of digital transformation in order to integrate banking operations into digital technology which ensures the security of the financial technology network in providing payment services, it is not only a secret, but a priority that credit institutions must pay due attention when providing digital banking services. (Luigi Wewege, Jeo Lee and Michael C. Thomsett,

2020, p.45). In other words, the factor of information security, ensuring the confidentiality of customer information as well as transactions will directly affect the “perception of ease of use” and the “perception of risk” will determine the customer's choice to use digital banking services. To do this, credit institutions must build a strict and confidential customer information management system. Factors of confusion in transactions, low confidentiality in perception, and high perceived potential risks from customers can negatively affect customers' attitudes towards banking services, thereby leading to reduce or change customers' intention to use digital banking services (Nguyen, N.D., Nguyen, D.V., Nguyen, D.D., 2020, p.90). In this context, digital banking will increase the risk of being attacked by cybercriminals (Sanchi Agrawal, 2016; Singh Rao, H. 2019, p.148-161) and Vietnam is no exception (Hai Van Nguyen. 2019). Fighting and preventing crime in banking is like a “triple” game among the bank owner, the banking supervisory authority and the police or criminal justice agency, but banking supervision which will ineffective without relying on appropriate sanctions will not help prevent bank owners from committing crimes. (Piter Abdullah, 2010, p.215-233). From the perspective that the subject is attacked by the criminal act, the criminal act arises, the banking crime is also related to the crimes of infringing upon property rights, the crime of position, the crime related to economic management, the high-tech crime... Therefore, depending on the nature and offense relating to banking operations is to determine the crime and punishment.

From the practice of investigating, prosecuting and adjudicating banking crimes, it shows that the crime of violating regulations on banking operations and other activities related to banking operations is a common crime. Besides, there are groups of position crimes, the group of the property rights violation crimes with the nature of appropriation and fraud, groups of crimes infringing upon administrative order, in which criminals use high technology to attack banks, forge papers and documents of organizations and institutions are typical crimes. Therefore, banking supervision plays an important role to grasp the situation, identify the risk of being attacked by criminals in order to take early warning measures in the direction and signs of crimes arising in banking activities, which needs to be detected and the prompt intervention of the investigating agency. Moreover, the fight against crime in banking activities is not only based on professional knowledge but also needs to know the mode of crime because banking activities are affected by many different types of crimes. Therefore, the Banking Supervision Agency must not only be given certain powers to conduct investigations, but also establish an effective coordination mechanism with criminal investigation authorities to clarify criminal acts, especially in order to detect the organized nature, criminals using technology, falsifying records and documents to appropriate the bank's assets. As a result, they can fully promote the role and effectiveness of banking supervision activities.

2. Research methods

This study is a legal study that is understood as the rules and standards existing in society, regulating social relations related to crime identification in the banking sector, and banking supervision activities of state management agency on banking operations. The source of law used for analysis in this study includes not only regulations on the organization and operation of state management agencies on banking operations, but also regulations on crimes and penalties prescribed by law in the Criminal Code. Therefore, the main method used in this study is normative legal research (Pham, D.N. 2014) that sees the law as a rule or the text of the legislation (law in the books). Law sources used for analysis in this study when referring to the case of Vietnam includes: Law on State Bank of Vietnam No. 46/2010/QH12 dated June 16, 2010; Criminal Code No. 100/2015/QH13 dated November 27, 2015, as amended and supplemented by Law No. 12/2017/QH14 dated June 20, 2017. Additionally, this study is deployed based on the analytical - descriptive research method to clarify the legal content, the relationship of bank supervision and the requirements for crime prevention in banking activities to meet the requirements of ensuring the safety and soundness of banking operations. The practical statistical method of adjudicating the banking crimes at the people's courts helps to identify the offenders, criminal acts, crimes and penalties, etc., thereby assessing the nature and danger of crimes in the banking sector, especially the damage caused. The people's courts have heard the judgments of criminal cases related to banking activities from 2012 to present. The comparative method of jurisprudence is also used to conduct this study in order to clarify the ways in which banking supervision is carried out in different countries in the fight against banking crime.

Moreover, the article uses a system of general research methods of the social sciences, including system, structure - function, history, logic (Anol Bhattacharjee, 2012) to evaluate researches on crime, punishment, banking operations, banking supervision published in specialized scientific journals to clarify scientific arguments and legal conditions for effective crime prevention in banking activities by promoting the role of the State Bank of Vietnam in banking supervision.

3. Research results and discussion

3.1. *Banking supervision*

Banking supervision is becoming a global issue when the effects of the global financial crisis have revealed the weaknesses of the supervision of obligation performance of financial institutions (Kevin L. Young., 2012, p.663-688). In order to improve the effectiveness of banking supervision, raising public awareness of banking supervision is essential to practice prudent financial behavior (Carin van der Crujisen, Jakob de Haan,

David-Jan Jansen, Robert Mosch, 2013, p.219-229), as well as secure the capital for economic growth goals (Kyriakos C.Neanidis, 2019). Currently, there are many international banking supervision standards established by international financial institutions. This shows that efforts towards the safety goal when performing financial transactions are an important factor contributing to ensuring the achievement of the safety goal of banking operations and the system of credit institutions. In order to improve the quality and reliability of banking supervision, there are many applications to risk assessment in banks, focusing on supervision, because there is more and more evidence revealing that techniques (Machine Learning) can enhance data analysis and decision-making in the banking industry (Guerra, P., & Castelli, M. 2021). Furthermore, banking supervision is also of particular interest in providing current digital banking service, because, in digital banking, systemic risks, infringing on customers' rights, infiltrating and disabling the banking security system will disrupt banking operations and reduce public confidence in the banking system. The core of banking supervision is to detect signs of potential risks to have timely warnings or measures in order to avoid great damage to the bank.

In Vietnam, banking supervision was born along with the transition from a one-tier banking model to a two-tier banking model. It means that banking supervision is not clearly defined and is often consistent with inspection and the administrative interventions to achieve the goal of ensuring the safety of banking operations. Banking supervision was legalized for the first time in the Law on the State Bank in 2010, which clearly stipulated the objectives, principles, competence, subjects and forms of banking supervision. Due to the peculiarity of following other countries in order to implement commitments when joining the World Trade Organization on opening the banking services, Vietnam's regulations on banking supervision have absorbed best experiences and regulations for banking supervision (James R. Barth, Gerard Caprio, Jr. and Ross Levine, 2002). Over the past time, banking supervision in Vietnam has played a good role in detecting risks in the banking activities of credit institutions as well as systemic risks, thereby making an important contribution to the application of measures to restructure credit institutions, contributing to stabilizing the banking operations and the system of credit institutions. In the current period, the analysis and assessment of banking supervision as a necessary and indispensable activity in ensuring the safe and healthy development of banking operations in both terms of promoting economic development, ensuring safety and security of banking transactions as well as the control of banking risks need to be considered comprehensively from the legal regulations to the implementation of banking supervision in institutional aspects (such as the activities of central banks, commercial banks, banking associations) as well as from the perspective of individual banking service users (Hirtle, Beverly J. 2020). In other words, banking supervision becomes an important tool for early detection of potential risks, including legal violations

and potential crimes in banking transactions as an important measure to protect the interests of banking service users (Gunarto., Sitompul, I. & Mahmutarom, H.R. 2018, p.105-117).

3.2. Banking operations and the risk of being attacked by criminal acts

Banking operations are business activities. Depending on each country, the scope of banking operations is identified differently. In Vietnam, legal banking operations include accepting deposits, providing credit and providing payment services through accounts. A banking transaction is a legal relationship arising between a credit institution and a customer. Receiving deposit is a banking operation. Accordingly, a credit institution receives money from organizations and individuals in the form of demand deposits, time deposits, savings deposits, and issuance of certificates of deposit, promissory notes, bills of exchange and other forms of deposit receipt on the principle of full repayment of principal and interest to depositors as agreed. Granting credit is an agreement for an organization or individual to use an amount of money or a commitment to allow the use of an amount of money on the principle of repayment. Credit operations include lending, discounting, finance leasing, factoring, bank guarantee and other credit granting operations. Providing payment services through accounts or business operations in which credit institutions provide means of payment; perform check payment services, payment orders, collection of payments, collection orders, bank cards, letters of credit and other payment services to customers through their accounts. Banking operations are directly related to the right to decide to grant credit, manage the receipt of deposits as well as provide payment services through accounts. Therefore, banking operations are always facing the risk of being attacked by criminal acts. Crimes affect credit relationships and are considered extrinsic factors that increase the risk to the business due to extortion or organized crime, as well as increase losses due to default, bankruptcy, fraud (Bonaccorsi di Patti, Emilia., 2009). To combat illegal activities in banking operations, including criminal acts, it is necessary to rely on information provided by reliable state agencies about the method and subject of the crime (Shcherbakova D.V., Firsov O.A., 2020, p.336-345). Protecting banks against criminal acts is Ukraine's choice by regulating socially dangerous behaviors that are considered crimes in banking operations including illegal lending; deliberately evading payment of payables; improper performance of the terms of the bank deposit contract; abuse of positions and powers in the banking sector; fraud with e-banking payments (Alyona Klochko, Gennady Timchenko, Andriy Gulyk, 2017, p.114-120). Crime in the banking sector includes all types of violations of the law related to banking business, which are carried out by the bank or its employees, or people outside the bank, independently or in association with each other. Banks in the concept of crime in the banking sector are either a means of committing crimes (such as fraud, requesting money transfer via orders in the name of a

bank against a customer) or the bank is the target of a criminal attack such as fraud to obtain assets, using technology to infiltrate or disable the bank's network security system (Iffaty Nasyiah, 2021, p.128-133). Crime, whether using a bank as a means of crime or an attack target, will bring negative consequences not only for the bank itself but also for depositors, the ability to provide capital for the economy in order to meet growth targets and the more severe consequence is to threaten the macroeconomic safety goals of the economy. Safeguarding banking operations against the attack of criminals will help banks perform well the function of financial intermediation and the stability of capital flows in the economy. Signs to identify criminals in banking operations include:

3.2.1. Crime subjects

Banking crimes can be often carried out by people outside the bank or by bank employees or by links between insiders and outsiders of banks. There are two characteristics of crime subjects in the banking sector. Those are an organized nature and is carried out by people with expertise, profession in banking or successful people in society, usually businessman.

The organized nature of crime in the banking sector is reflected in the collusion between bank employees and outsiders, which is also a common crime method and often referred to as organized crime (Nguyen, K.H., 2013, p.30-43). The organized nature is one of the points to note when researching and clarifying banking crime. The organized nature of banking crime is demonstrated through the fact that individuals and commercial legal entities link together in a stable or flexible structure to carry out criminal activities to achieve the purpose of appropriating assets of the bank or of customers with deposits at the bank. According to Nguyen, S.M.N., Nguyen, X.T. (2013, p.28-30), in Vietnam, the method of carrying out banking crimes often has a close association among the offenders. People in banks often have the characteristics of good understanding, taking advantage of banking operations to embezzle, defraud or forge seals, abuse business processes to commit crimes. For example, in the case of Tran Thi Kim Chi and accomplices, they took advantage of their assigned positions and powers to receive savings deposits from customers but did not record them into the management system; finalized a false payment, made a false documents of a customer's savings card mortgage loan; issued savings cards outside the system to 27 customers to appropriate the Ocean Commercial Joint Stock Bank with a total amount of more than VND 400 billion; at the same time, causing more than VND 9 billion loss for this bank (Le, T. 2020).

In addition to the organized nature, criminals in the banking sector are often people with full legal capacity. They are a part of people belonging to a caste, a class at the top of society, being educated, having professional qualifications, high expertise; engineers, economists who are good at operations; talented managers who are knowledgeable in law,

know legal loopholes, thoroughly and subtly take advantage of loopholes in the law for self-seeking purposes (Nguyen, X.Y. 2001, p.130) and they are often referred to as a white-collar crime. The level of danger of these criminal subjects is often unclear, so it seems that they do not feel or suspect its seriousness due to the reputation and trust of this group of subjects in society and the bank. However, the increase and popularity of people with expertise, profession and success in the banking sector cause the damage (in terms of material and reputation) of the bank to increase; at the same time, public confidence in the bank's internal control system also declined. The practice of adjudicating cases on banking crimes over the past time has shown that there are many offenders who are in the position of manager and executives in the bank. They are considered successful people, have status and prestige in the society (See Table 1). This requires credit institutions to establish a good internal control system to control abuses of power by managers and executives of the credit institution. Moreover, it is necessary to establish a process and mechanism for screening customer, inspection and monitoring of business processes to detect early signs of connection between bank employees and customers to commit crimes. This is very important, because bank employees, when forced to comply with the orders of managers and executives of a credit institution to commit violations, are actually abetting criminals; and of course, the bankers also find ways to hide in order to protect themselves. As a result, it is also more difficult to detect the criminal acts, and the consequences for the bank and society are also much greater.

Table 1. Some bank managers and executives have been prosecuted for criminal liability from 2012 up to now

Ordinal number	Full name	Bank	The crime charged and the sentence pronounced by the court
1	Tran Xuan Gia	Former Chairman of the Board of ACB Joint Stock Commercial Bank	Crime of intentionally violating state regulations, causing serious consequences. On May 20, 2014, at the first-instance court, Judge Nguyen Huu Chinh, who presided over the court, announced the decision of the Trial Panel on temporarily suspending the case against defendant Tran Xuan Gia for the health reasons. This suspension has continued to this day.
2	Ly Xuan Hai	Former General Director of ACB Joint Stock Commercial Bank	Crime of intentionally violating the State's regulations on economic management, causing serious consequences

3	Pham Cong Danh	Former Chairman of the Board of Vietnam Construction Joint Stock Commercial Bank	<ul style="list-style-type: none"> - Crime of violating regulations on lending in operations of credit institutions. - Crime of intentionally violating the State's regulations on economic management, causing serious consequences. - The sentence is 30 years in prison.
4	Phan Thanh Mai	Former General Director of Vietnam Construction Joint Stock Commercial Bank	<ul style="list-style-type: none"> - Crime of violating regulations on lending in activities of credit institutions. - Crime of intentionally violating the State's regulations on economic management, causing serious consequences. - The sentence is 22 years in prison.
5	Pham Thanh Tan	Former General Director of Vietnam Bank of Agriculture and Rural Development	<ul style="list-style-type: none"> - Crime of abusing positions and powers while performing official duties. - Crime of irresponsibility, causing serious consequences - The sentence is 22 years in prison.
6	Ha Van Tham	Chairman of the Board of Ocean Commercial Joint Stock Bank	<ul style="list-style-type: none"> - Crime of violating regulations on lending in activities of credit institutions. - Crime of abusing positions and powers when performing official duties. - Crime of intentionally violating the State's regulations on economic management, causing serious consequences. - The sentence is life imprisonment.
7	Nguyen Xuan Son	Former General Director of Ocean Commercial Joint Stock Bank	<ul style="list-style-type: none"> - Crime of abusing positions and powers while performing official duties. - Crime of intentionally violating the State's regulations on economic management, causing serious consequences. - The sentence is death.

8	Tran Phuong Binh	Former General Director of Dong A Commercial Joint Stock Bank	<p>Crime of violating regulations on lending in operations of credit institutions.</p> <ul style="list-style-type: none"> - Crime of abusing positions and powers to appropriate property. - The sentence is life imprisonment.
9	Tran Luc Lang	Former Deputy General Director of Joint Stock Commercial Bank for Investment and Development of Vietnam	<ul style="list-style-type: none"> - Crime of violating regulations on banking activities and other activities related to banking activities. - The sentence is 8 years in prison.
10	Doan Anh Sang	Former Deputy General Director of Joint Stock Commercial Bank for Investment and Development of Vietnam	<ul style="list-style-type: none"> - Crime of violating regulations on banking activities and other activities related to banking activities. <p>The sentence is 6 years and 6 months in prison.</p>
11	Huynh Thi Huyen Nhu	Former Acting Manager of Dien Bien Phu Transaction Office, Vietinbank, Ho Chi Minh City Branch	<ul style="list-style-type: none"> - Crime of fraud and appropriation of property. - Crime of forging seals and documents of agencies and organizations. - The sentence is life imprisonment.

Source: The author synthesizes from cases that have been tried in Vietnam from 2012 up to now.

3.2.2. Damages

Identifying and measuring the damage caused by criminal acts in the banking sector help to identify and assess the nature and degree of danger of this behavior to socio-economic life. Damages caused by crime in the banking sector include:

Firstly, the physical damage can be measured. Damage caused by crime in the banking sector is often large. Most criminal cases involving crimes in the banking sector involve the lending decisions, which are often ineligible or circumvent regulations due to large loan value. In many cases, the defendants have links with subsidiaries or affiliated companies to commit fraud or abuse credit to appropriate the bank's assets. From the actual damages that are publicly disclosed in the trials of banking crimes, it is possible to describe the number of damages that can be measured in some cases as follows:

- During the period 2011 - 2016, Mr. Tran Bac Ha took advantage of the position of Chairman of the Board of Directors of the Joint Stock Commercial Bank for Investment and Development of Vietnam to ask his subordinates to provide loans to Binh Ha Company to implement a cow raising project in Ha Tinh with a total investment of VND 4,230 billion even though Binh Ha Company is not eligible for credit.
- In the case of Pham Cong Danh and his accomplices, the People's Court of Ho Chi Minh City identified that Pham Cong Danh made a loss of more than 9,000 billion VND at the Vietnam Construction Bank in the two years 2012-2014 with the offense of : preparing false documents to implement the project of upgrading the Corebanking system, signing false contracts to rent premises, directing subordinates to prepare documents to issue 2,500 bonds of Thien Thanh Group, signing false contracts for purchase and sale of raw materials.
- In the case of Huynh Thi Huyen Nhu, she cheated and appropriated nearly 4000 billion VND. In addition to the material damage, Huynh Thi Huyen Nhu's case also seriously affected the reputation of Vietnam Joint Stock Commercial Bank for Industry and Trade and its partners.

Secondly, non-material damage cannot be measured and often takes a very long time to be remedied, especially affecting the reputation, brand, public confidence in the banking system in general, banks that are victims of attacks or whose people are criminals in particular...are typical damages. It takes a lot of time, efforts, and human resources for banks to regain the public's trust and it also takes years to overcome the material consequences of criminal acts. Having to take part of the profits earned every year to compensate for the material damages caused by the crime will reduce the attractiveness of bank shares on the stock market.

Thirdly, reducing the effectiveness of the banking restructuring policy in the past time. During the banking restructuring period 2011-2015, in addition to the success in stabilizing the banking market and banking operations, there were also high-ranking civil servants of the State Bank who were prosecuted for criminal liability due to failure to comply with the direction of the Government and the State Bank in restructuring with the crime of irresponsibility, causing serious consequences. Specifically:

- Defendant Dang Thanh Binh, former deputy governor of the State Bank of Vietnam, is accused of failing to properly perform his functions and duties; and failing to properly implement the restructuring plan of the Vietnam Construction Joint Stock Commercial Bank submitted by the The State Bank of Vietnam to the Prime Minister. He also did not comply with the direction of the Prime Minister, but still decided to let Pham Cong Danh manage, hold dominant shares to run the Vietnam Construction Joint Stock Commercial Bank. This is considered to create conditions for Pham Cong Danh to easily commit criminal acts; thus causing great damage to the Vietnam Construction Joint Stock

Commercial Bank. Defendant Dang Thanh Binh's behavior was sentenced to 3 years in prison by the Trial Panel.

- Supervisory team members include: Ha Tan Phuoc, Head of Supervisory Team, Former Deputy Director of State Bank of Long An Branch; Pham The Tuan, Deputy Head of Supervisory Team, Former Deputy Director of Joint Stock Commercial Bank for Foreign Trade of Vietnam, Ho Chi Minh City branch); Le Van Thanh, former Chief Inspector of the State Bank of Long An Province); Ngo Van Thanh (member of the supervision team, former deputy head of the compliance inspection and supervision department of Joint Stock Commercial Bank for Foreign Trade of Vietnam, Long An branch) are accused of failing to perform, or improperly performing the assigned tasks in the supervision. Consequently, Pham Cong Danh withdraw more than VND 18,000 billion, of which VND 15,670 billion could not be recovered. This was the main cause and directly led to the consequences that occurred at the Vietnam Construction Joint Stock Commercial Bank. The investigation process determined that there were also responsibilities of the State Bank of Vietnam, the Banking Inspection and Supervision Agency, the State Bank of Vietnam branch in Long An province, the inter-sectoral steering committee in the process of directing the restructuring of TrustBank in determining financial capacity and approving Pham Cong Danh to become the chairman of the Board of Directors of this bank. The defendants were sentenced to 1 to 2 years in prison.

3.2.3. Using technology as a tool

In the current period, criminals using technology to attack banking operations have also become common, but it has been quite difficult to detect. Besides, criminals have caused more damage in a modern information technology world, where virtual and real systems have been integrated through a worldwide network of internet connections (Trinh, T.V. 2021, 1-16). High-tech crime in banking operations is the act of using cyberspace, information technology or electronic means...to access users' personal data (payment card data, login information,...), secrets of the central bank, commercial banks, financial companies...in order to appropriate property or serve other wrong purposes, including: Identity Theft, illegal access to websites, using fake emails to get personal information, ransomware attacks, DDoS attacks, spyware attacks, credit card fraud, taking advantage of the Swift payment system, fraud in online purchase and sale between businesses - B2B (Business to Business), fraud in buying and selling goods between businesses and customers - B2C (Business to customer), taking advantage of multi-level selling. In addition, cyber-criminals have a number of other tricks, such as impersonating investigative agencies; impersonating a relative asking for money transfer; faking bank messages with links to fake websites; sending notices of gifts from abroad; providing digital content, faking messages of winning;... (Nguyen, N. 2020). Therefore, strengthening measures to prevent high-tech crimes in banking operations must be carried

out continuously, including ensuring network security in banking service provision and raising awareness about technology for users of banking services along with continuing to improve the law to fight and prevent this crime more effectively (Olha Kovalova, Vasyl Kovalov, 2021, p.149-154; Wada, F., Odulaja, G.O. 2012, p.69-82). In addition, the profound transformation with artificial intelligence and decision-making is the basis for raise the issue of criminal prosecution for entities with artificial intelligence when the Criminal Code of many countries, including Vietnam, also stipulates criminal liability for “abstract entity” which is a legal entity (Trinh, T.V. 2019, p.1-19). This way of posing this problem is completely grounded and needs to be explained clearly, especially in the context that our country's banking system is in the process of strong digital transformation to provide better banking services. This becomes more difficult and complicated when Vietnam still lacks policies on human resources and professional technology. The effectiveness of law enforcement in combating cyber-crime, including cyber-criminals in cyberspace, depends heavily on the harmony and integration between the legislative system itself and state agencies with law enforcement authority as well as international cooperation in combating this type of crime (Luong et al, 2019, p.290-308).

3.2.4. *Motives for the crime*

Researching and clarifying the causes of crime are very important, as it helps to identify the motivations behind the offender's criminal acts. Practice shows that, when a criminal act is committed, the proceedings-conducting agency, the proceedings-conducting person and the society begin to analyze and evaluate the offender's personality in order to find out why do people commit crimes and are placed in different conditions. Factors such as age, education and upbringing environment, temperament, and lifestyle are also identified and carefully considered to find out the connection to the crime. Theoretically, the cause of crime is all negative phenomena of social life combined with psychological factors, biological factors and situations according to certain dialectic mechanisms that give rise to crime, support, promote or inhibit its existence and development (Nguyen, K.H. 2021, p.56). One of the issues that need to be discussed with respect to banking crimes is the motives of the offenders to commit crimes.

The current popular studies show that the motives for crime in banking operations are diverse, in which the mercenary motive is mentioned more. However, the reality of crime research in the banking sector, based only on mercenary purposes, will not be able to clarify the true nature of the crime, especially in cases where the offender is bank's managers, executives - people who are rich, have high position and prestige in banking operations as well as in society. Therefore, many scientists have mentioned placing the criminal acts in banking operations in correlation with ethical behaviors. According to Per - Olof H. Wikström (2010, p.211-239) ethics rarely became a major topic in criminological theory and research. However, in relation to the analysis of what



constitutes crime and what motivates people to engage in criminal acts, questions about individual morality and the moral context in which people live play a central role in explaining the criminal acts.

Based on situational action theory, Jennifer Barton-Crosby (2020) argues that morality is the key to defining crime and explaining why and how criminal action occurs, but it must be placed in certain contexts where self-interest is not necessarily the primary motive behind criminal acts. Shaina Herman & Greg Pogarsky (2020) argued that, an individual's moral identity reflected their level of awareness, commitment to moral and social ideals; the outward expression of a particular moral attitude or the evaluation of wrongness of specific acts. Thus, banking crimes can be explained in a general theory of moral action. Therefore, environment, psychosocial processes, opportunities for moral education become is the important factors in explaining criminal acts (Mark Lokanan.2018, p.901-938).

For banking criminals, because banking business transactions are all tied to monetary, and in the process of establishing and performing transactions, the opportunities to appropriate or embezzle the bank's assets seem very easily due to professional gaps, internal control processes as well as supervision by competent state agencies. Therefore, just a nod, a compromise handshake can lead to criminal act. In other words, there are many risks of violating business ethics in banking operations (Vien, T.G, 2011, p.35-40). For example, if managers, executives, bankers as well as customers know how to control their greed, it will make an important contribution to the control of criminal act; it means that, the preponderance of morality before committing crimes that are dangerous to society.

3.3. Early detection of crime in banking operations: the role of monitoring channels

3.3.1. Compliance monitoring to identify signs of banking crime

Measuring the operational risk is always a concern of banking supervision, especially the requirement to ensure capital adequacy (Mignola, G.; Ugoccioni, R. and Cope, E. 2016). Using a mixed model to explore the evaluation criteria for banking supervision, especially those that are still unclear when applied in practice, (Tsai S-B, Chen K-Y, Zhao H, Wei Y-M, Wang C-K, Zheng Y, et al. 2016) is considered the optimal solution for marking of suspicious points related to law violations as well as crimes. Practice shows that, using banks as a tool to carry out crimes such as gambling, criminals have taken advantage of online transactions to illegally trade the bank's credit information. Therefore, predicting and identifying the crime signs and signals is important for early detection and identification (Décarry-Héту, D., Leppänen, A. 2016, p.442-460) so that appropriate

preventive measures can be taken. It is possible to evaluate the regulatory compliance of the monitoring object based on the published supervisory information system to help identify and assess the external factors that are the cause of the bank's failure (Hirtle, Beverly and Kovner, Anna, 2020). For the banking sector, criminal activities are often associated with individual or organizational identities based on information about names, addresses, emails, passports, bank accounts, etc., to commit crimes, if there are no warning signs, it can fall into the trap of criminals (Mohamed, Sidi. 2019, p.154-165). From the reality of crime identification, it is shown that, for the banking sector, because it is associated with professional factors and requires specialized knowledge of banking operations or technology, criminal acts are often easily concealed, sophisticated, and difficult to detect. Compliance monitoring is, therefore, a key factor in shaping “problematic situations” where there may be signs of a hidden crime. Through the supervision, regulations on the limits and ratios to ensure the safety of banking operations are applied in practice. The situation of law violations, the influencing factors, negative trends, and risks causing operational insecurity are gradually discovered as a basis for the Banking Inspection and Supervision Agency to issue warnings on risks leading to violations of monetary and banking laws for each credit institution and the whole system of credit institutions. In case of necessity, the Banking Inspection and Supervision Agency shall continue to monitor and evaluate the observance of regulations on limits and ratios to ensure the safety of banking operations, and other regulations on monetary and banking; instructions and requirements of the State Bank; the implementation of inspection conclusions and recommendations and warnings on banking supervision after implementing supervision. In case there are signs of suspecting a crime, but it is not clear, the Banking Inspection and Supervision Agency will put it into monitoring and warning, and can coordinate with competent state agencies to investigate and clarify. These are the handling measures in banking supervision that have been regulated as follows: propose to competent authorities other measures to handle banking supervision in accordance with law.

In Indonesia, the development of banking security principles (Dhian Indah Astanti et al, 2021, p.4566-4572) is one of the measures applied to detect crimes in banking operations. Another solution used by Bank Indonesia to prevent crimes from arising in banking operations is the Bank Indonesia Whistle Blowing System. This system will report all violations arising in banking operations. However, for this system to work effectively, it is necessary to expand the participation of the public in the process of detecting or reporting criminal acts with effective whistleblower protection mechanisms. (Ida Nurhayati, Rita Farida, Indianik Aminah., 2021, p.809-815).

3.3.2. Monitoring the operational risks to detect vulnerabilities to avoid being exploited by criminals

The reality of banking activities shows that fraud is increasing with more sophisticated and skillful tricks. Despite great efforts to establish the strictest operating environment and business processes, the banking operations of credit institutions cannot operate in a fraud-free and perfect environment. However, proactiveness, such as conducting a risk assessment of procedures and policies, can help credit institutions hedge the risk of potential loss due to fraud (Bhasin, Madan Lal, 2015). Operational risk is the risk arising from the business activities of a credit institution, related to different operations and specialized divisions. This is likely to lead to the risk of loss, reducing equity capital, income, leading to a decrease in capital adequacy ratio or limiting the ability to achieve business goals of credit institutions, foreign bank branches. Among operational risks, credit risk is common. It is often caused by customers' failure to perform or inability to fulfill part or the entire debt repayment obligation under the contract or agreement with the credit institution. In addition to credit risk, credit institutions also face risks due to inadequate or erroneous internal processes, human factors, system failures or due to external factors causing the financial loss, the negative non-financial impacts on credit institutions, foreign bank branches (including legal risks). Operational risk will seriously affect the reputation because customers, partners, shareholders, investors or the public have a negative reaction to reputation as well as reduce the ability to achieve business strategy, goals and profit of credit institutions.

During the digital transformation period in banking operations, operational risks have a direct impact on the sustainable development goals of credit institutions (Zabala Aguayo, F.; Ślusarczyk, B., 2020) due to the lack of customers' trust in the digital banking service provision infrastructure system. In addition, the risk that cybercriminal attacks will affect the financial integrity of credit institutions and other organizations. This requires credit institutions to be aware of threats in online banking transaction and must consider all measures that can help increase individuals' awareness of security and maintain a sustainable financial business environment (Ali, L. 2019). Therefore, risks arising in the operation of credit institutions, if not detected and prevented, have the risk of creating systemic risks; and then, credit institutions face the risk of loss spreading from the failure of an individual credit institution or foreign bank branch to other credit institutions, foreign bank branches; thereby disrupting the operations of all credit institutions, foreign bank branches and the whole economy. As a result, operational risks are both controlled by the internal control system and placed under the supervision of the State Bank of Vietnam so that vulnerabilities arising in banking operations can be detected quickly and promptly, especially suspicious signs of crime, especially signs of fraud, money laundering, attacking the bank's internal network with malicious code or falsifying records and papers in credit granting, money withdrawal or payment transactions

3.3.3. Establishing a coordination mechanism between the banking regulator and the criminal investigation authority

Like other fields, crime prevention in banking operations also needs to be based on justice platforms where the information system about signs or risks of crime arising from suspicious banking transactions needs to be gathered and shared between banking regulators and criminal investigation authorities through an effective law enforcement mechanism (Marion Oemar et al., 2021, p. 458-464). According to the current law, the State Bank of Vietnam is assigned two functions: the central bank and the state management agency in charge of currency and banking operations. Banking supervision is one of the contents of the state management function performed by the State Bank through the Banking Inspection and Supervision Agency as analyzed above. Stabilizing the value for money; ensuring the safety of banking operations and the system of credit institutions; ensuring the safety and efficiency of the national payment system; contributing to promoting socio-economic development under the socialist orientation...are operational goals of the State Bank of Vietnam. In order to achieve this goal, the State Bank is entitled to decide to apply special handling measures to credit institutions that seriously violate the provisions of the monetary and banking laws, face financial difficulties, potentially cause unsafety to the banking system, including: purchasing shares of credit institutions; suspending, temporarily suspending or dismissing the position of managers or executives of a credit institution; making decision on merger, acquisition or dissolution of credit institutions; putting credit institutions under special control. However, the State Bank of Vietnam is not assigned the task with independently investigating crimes. This will hinder the prevention of criminal acts, collection of evidence, application of preventive measures to minimize the damage caused by criminal acts. Therefore, it is necessary to establish a coordination mechanism between the State Bank of Vietnam and the Ministry of Public Security in investigating banking crimes in order to overcome the shortcomings of investigative competence, and at the same time, strengthen the State Bank's support when detecting signs of crime, but “fuzzy” one, and it needs to be based on investigative skills to clarify.

4. Conclusion

Crime in the banking sector is a dangerous act for society, which can be committed by banks, insiders or outsiders of banks. Bank in the concept of crime in the banking sector is both a means to commit crimes and a target of attack by criminals. Stemming from the position and role of banking operations in the economy, banking operations are always under the close supervision not only of internal control institutions but also supervisory activities of competent state management agency on the basis of specific standards and

methods of supervision. Supervising and ensuring the safety of banking operations, especially in the period of digitizing banking operations and providing digital banking services, not only helps to increase opportunities for convenient access to banking services, but also helps ensure sustainable development of banking operations.

The results of banking supervision help to identify risks that threaten the safety of banking operations and illegal acts as a basis for proposing post-supervision handling measures. Therefore, banking supervision activities will, to a certain extent, identify signs or risks of crimes during the supervision process. Ambiguous or unclear points in the banking supervision process require continuing to monitor and give early warning for credit institutions in order to check internal processes, management gaps as well as signs of crime to report to competent state agencies. Establishing the authority to independently investigate the signs of crime by the banking supervisory agency is a necessary condition for early detection of crimes in banking operations. When there are grounds to prosecute a criminal case, the banking supervisory agency coordinates and shares the supervisory information and criminal information with the criminal investigation agency.

This is an effective solution to help promote the effectiveness of bank supervision in preventing and fighting crime in the banking sector in the current period.

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