



Systematic Literature Review: The Urgency and Effectiveness of Implementing Restorative Justice in the Settlement of Banking Crimes

Suleman Batubara^(✉), Bambang Sugiri, Sukarmi, and Lucky Endrawati

University of Brawijaya, Malang, Indonesia
sul.batubara@gmail.com

Abstract. Today, the application of information technology in banking transactions has changed the paradigm of bank transactions and services to its customers, from conventional to technology-based services and transactions. Along with that, the number and variety of banking crimes continues to grow and increase. This reality has not been accompanied by the development of regulations governing responsive and accommodative settlement of banking crimes outside of court. The purpose of this research is to analyze the urgency and effectiveness of the restorative justice settlement system as a form of banking crime settlement. The research method used was systematic literature review which was assessed based on PRISMA guidelines (preferred reporting items for systematic literature reviews and meta-analyses) with the SPIDER approach (sample, phenomena of interest, design, evaluation, research type). Data searches were carried out through the data base at ScienceDirect, Taylor and Francis and Wiley Library Online from August to September 2022. From the results of research conducted, restorative justice is urgently needed and effective in resolving banking crimes.

Keywords: Pandemic Covid-19 · Banking Crime · Restorative Justice · Systematic Literature Review

1 Introduction

The need for banks to adapt to technological developments in the 4.0 era based on internet of things (IoT) and artificial intelligence (AI) have provided distinct advantages for both banks and their customers [1]. For banks, the use of technology will reduce operational costs and for customers transactions will be faster, easier and cheaper. Technological developments, in addition to providing convenience and efficiency, have also given birth to new types of transactions and digital products [2]. Along with the birth of a variety of digital transactions at banks, a variety of banking crimes also emerged, including; *hacking, skimming, defashing, phishing, social engineering and even business email compromise.*

The above banking crimes are growing and increasing in line with the Covid-19 Pandemic from the end of 2019 until now. The existence of restrictions on direct interaction also has an impact on the increasing digital transactions through the use of technology

in the banking sector. According to data The International Monetary Fund (IMF) estimates that global economic losses in 2020 resulting from cybercrimes in the banking and financial sector are more than Rp. 1.433 trillion. Meanwhile, Stanford University in 2020, said that there were 88% of data leaks and cybercrimes in the banking sector originating from human error and fraud involving internal parties to the bank itself [3].

Referring to the IMF data, banking crimes certainly have the potential to disrupt financial stability and the global economy. This is because banking crimes develop very quickly and can harm all parties (not only banks and their customers), but also the sustainability of the world's economy. Bearing in mind that one of the causes of the development of banking crime is the gap in the ability of banks to apply digital technology both on a local and global scale (limited human resources, capital and mastery of technology itself. On the other hand, developments in banking technology are not in line with developments in laws governing the application of technology in the banking industry, especially the law that regulates the settlement of banking crime cases.

The legal problem is the settlement procedure through the existing and current formal criminal law, which is usually very rigid and procedural, but does not create a deterrent effect, so that crimes are often repeated. This reality is not in line with the characteristics of fast and precise banking practices because it is based on public trust. Therefore, it is necessary to agree on a responsive and accommodative settlement of cases resulting from banking crimes, so that they are faster, more precise, easier and cheaper by involving perpetrators, victims, banks and the public, so as to reduce the impact of banking crimes on the national and global economy. Even though, many countries have opened up space for the settlement of criminal cases through channels outside the court (penal mediation).

Previous research in several countries, both in developed and developing countries, found the same conclusion, that is, the use of bank technology is generally accompanied by the development and increase in banking crime. This reality is not accompanied by legal developments that regulate fast, precise, easy and low-cost settlement of banking crimes. In China, social researchers recommend steps for conventional banks to use technology in bank activities and business, while still ensuring the safety of their customers [4]. In Nigeria, various social, economic and national security problems were found as a result of the use of technology in banks that were not followed by strict and proper regulations [5]. On the other hand, several developed countries such as Germany have made changes to laws, and even China has issued new laws to deal with banking crimes [6]. This research is principally a continuation of previous studies, so that alternative solutions for banking crimes can be analyzed which are most relevant to the development of banking crimes. Therefore, this research aims to analyze the urgency and effectiveness of the restorative justice settlement system as a form of banking crime settlement.

2 Methods

Systematic literature review was compiled based on the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) guidelines with the SPIDER approach which consists of a sample, namely banking crimes, Phenomena of Interest, namely settlement of banking crimes through mediation penal with a restorative justice settlement system, Design, Evaluation, namely analysis of legal products which regulates

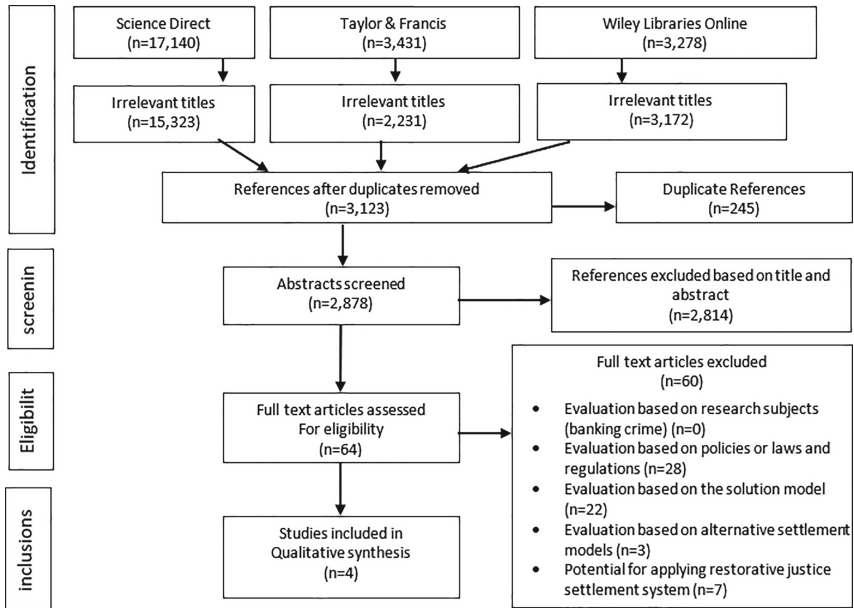


Fig. 1. Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA).

banking crime, Research Type qualitative research. The search uses inclusion criteria (eligibility criteria) for all types of data on research that analyzes banking crimes as a result of the use of technological developments and legal settlements.

A tracing strategy was carried out on data researched in the last 3 years from August to September 2022 on ScienceDirect, Taylor & Francis and Wiley Library Online sites without language restrictions used using the keywords banking crime AND restorative justice settlement AND digital banking. Search through 3 database sites which produced 23,489 data in the form of research articles with the following description: 17,140 data, Taylor & Francis with 3,431 data and Wiley Library Online with 3,278 data. After data filtration, the remaining data is 64 data (see Fig. 1). After selecting a full paper based on the inclusion criteria specified in the eligibility criteria, the relevant data found for analysis in this study were 4 data in the form of research articles.

3 Results and Discussion

The data obtained through the above filtration is extracted in the form of a description, because there is no data that explicitly examines banking crimes that arise as a result of the use of technology and the method of solving said crimes through a responsive and accommodative justice system, so that it can be faster, more precise, simple and cheap. Each of the data found is a separate study between research that focuses on the relationship between the increase in banking crimes due to the use of technology and the concept of legal settlement of banking crimes in accordance with the direction of post-pandemic sustainable development.

The description of the data obtained can be described as follows; First, the data is research on the impasse of international cooperation on cyber security including banking technology in it. In qualitative research by Worku Gedefa Urgesa which was conducted by comparing the concept of cybercrime, especially against banking or financial crimes in western and socialist countries such as China and Russia. This research reveals that there is an impasse that hinders the resolution of cybercrimes in general due to conceptual differences regarding the terms that will be used to define cybersecurity, including the security of digital transactions [7].

Second, research conducted by Mohammed Aamir Ali and friends on efforts to minimize the incidence of victims due to the increasing variety of digital transactions carried out by the community, but on the other hand this research also reveals the low role of national regulations in many countries that regulate crimes committed arising from various digital transactions that are increasingly developing. Meanwhile, criminals continue to innovate in pursuit of the development of the security system used in the digital transaction in question [8].

Third, research on the penetration of information technology developments which includes banking technology which has an impact on the emergence of disturbances to cyber security including security in banking transactions. This research begins to focus on efforts to apply law to technological developments that previously seemed “norm-free or laissez faire”. According to this research, the development of digital crime, including banking crime, can be regulated through the development of cross-border cultural values and cross-border regulations, so that online heterogeneity will be the main capital for building commitment to establishing global digital space governance regulations [9].

Fourth, the research conducted by Roger Brownsword and Han Somsen is very transcendental and philosophical. The relationship between law and technology that continues to develop in this study is referred to as Law 3.0 or technology-driven regulation. The effectiveness of regulations on technological developments, the problem of legal basis authority that was born in a stable period is not the same as the reality at this time so that it requires re-evaluation so that the court is not only the relative weight of the law and the interests revealed in court [10].

Referring to the data described above, the main problem in overcoming the impact of the use of technology on banking services is the lack of integration of banking regulations in various countries with laws governing banking crimes and how global cooperation can overcome banking crimes that are cross-country.

For developing countries that continue to move forward, the rule of law regarding banking crimes is urgently needed not only to reduce the losses that arise, but also to overcome the vulnerability to the use of the intended technological developments in bank services. This is because the use of technology in banking services in developing countries is a “force” to survive in the midst of competition and efforts to maintain business continuity. Therefore, the basic problem is that these banks are often not in a position to have the same ability to use technology in serving their customers. The limitations in question include limited capital to innovate [11]. In such conditions, the settlement of banking crimes that is needed is a responsive and accommodative settlement, not a procedural partial settlement.

Seeing also that in developing countries the settlement of criminal cases involving banking and financial crimes will greatly affect the level of confidence of foreign investors who invest in the country. The formal procedural criminal justice system will be seen as a nuisance and does not provide legal certainty, because of the long turnaround time [11].

The criminal justice system that generally applies in ex-colonial countries in Asia is generally a criminal justice system that is imposed as a legal policy from the ruling group. Therefore it always creates resistance, does not have a deterrent effect and does not succeed in creating harmony, on the contrary it creates distrust, because it is often seen as unfair [12]. The biggest universal criticism of the criminal justice system is that there are attempts to retaliate against perpetrators, thus encouraging the settlement of criminal cases through penal mediation which is approved as an effort to penal reform. Alternative settlement of cases through mediation that focuses more on the victim, not only on the perpetrators and the enforceability of the law. This legal rule is binding on all European Union countries regulated through the Council Framework Decision 2001/220/JHA [13]. The nature of its application is binding, by not making specific determinations against certain crimes. Settlement of cases through penal mediation is finally applied through the concept of restorative justice.

Globally, the settlement of criminal cases outside the court has emerged since the 9th UN Congress in 1999 and the 10th UN Congress in 2000 concerning the prevention of crime and the treatment of offenders. Mediation procedures in settling criminal cases through restorative justice are described in The UN Principles 2002 concerning Basic Principles on The Use of Restorative Justice Programs in Criminal Matters [14].

In terms of the application of the Restorative Justice Settlement System to resolve criminal cases, it is still under in-depth study in various countries. The intended study is primarily to see its effectiveness in resolving criminal acts in a more responsive, accommodative, fast and precise manner. Restorative justice is a concept of a justice system that focuses on the loss of victims and communities or people who have been harmed and the perpetrators who have harmed, so that the participation of all parties is needed to resolve the problems that arise as a result of these detrimental actions. Therefore, the application of restorative justice does not need to be limited by strict rules, rigid processes [12].

In relation to the settlement of banking crimes arising from the application of technology, in general the main target of crime in banks has a comparative scale of 300 times higher than the crime rate in other sectors. This condition is happening globally in relation to bank digitization [5]. This research tries to build a concept to apply the concept restorative justice settlement system to resolve banking crimes. Given the nature of the bank's business which prioritizes accuracy, speed, efficiency and reputation (image) which is based on public trust.

3.1 Application Urgency Restorative Justice

In recent decades, the concept of restorative justice has gained a place in the process of reforming the global justice and criminal system which was previously oriented towards retaliation against perpetrators, is now more oriented towards resolving conflicts quickly, precisely and accommodatively to the interests of various parties involved in an act

criminal [15]. Even in some countries, restorative justice is claimed to have been tested to be applied in resolving cases of violations of human rights, settlement of environmental cases, health cases and economic cases and/or white collar crime (except corruption) [15].

In 1990, John Braiwaite (Criminologist at Australian National University), introduced restorative justice for the first time. The concept of restorative justice that was introduced is a development of the reintegrative shaming concept that was previously introduced by John Braiwaite himself. In principle, both of these concepts provide equal attention to perpetrators, victims and the community for a conflict or criminal act that occurs [16].

This idea was born as an effort to provide equal space in a balanced way for perpetrators, victims and the community in resolving a conflict or criminal act. From the victim's point of view, the focus of attention is recovery of losses, physical suffering, security, dignity and satisfaction because of the realization of justice. Meanwhile for perpetrators the focus is to create a deterrent effect through giving shame without stigmatizing the perpetrators and re-acceptance of society towards the perpetrators [17].

The concept of restorative justice became a trend again in 2008, even though the concept has not shifted much from John Braiwaite's ideas. The justice that will be realized in the concept of restorative justice is not justice based on law or procedural justice, but substantial justice. In short, restorative justice is a concept of conflict or crime resolution that is oriented towards restoring the situation and the interests of all parties as quickly as possible [18].

Referring to the paragraph above, based on its development, restorative justice can be applied in the handling and settlement of criminal acts in general. Except for crimes that cannot be resolved through mediation, conciliation, restitution and because it is felt that it is not enough to provide justice to victims and affected communities and cannot restore conditions to normal in a short time [19]. Banking crimes or criminal acts that arise in bank activities and business, whether related to the application of technology at the bank or not. Banking crimes require responsive, fast and appropriate solutions, so as not to reduce the bank's reputation which will affect the bank's health system, so that it can have a systemic impact.

In the practice of resolving various banking crimes that occur, usually the bank will first offer its customers an out-of-court settlement process. Or, if the customer is not satisfied, the bank will facilitate the customer to take legal action. For example, in cases of ATM card forgery, illegal withdrawal of funds, transfer errors or cases originating from the bank's carelessness in the bank's operational processes involving bank internal parties.

The fact is that the formal justice process will be carried out through complicated evidence, but does not involve the participation of the victim in resolving the case in question. This condition will certainly lead to gaps because the basis of banking crime is the losses that arise. In addition, the parties, both perpetrators and victims, have the right to object to decisions at every level of justice, so that the settlement process will take a long time. Seeing this complicated settlement procedure, there is a very strong suspicion that there will be a decline in the soundness of the bank. The implementation of the Restorative Justice Settlement System is urgently needed in overcoming various

deadlocks that occur in the settlement of banking crimes. Especially against banking crimes that originate from the limitations of banks in applying technology.

This also requires the world community's perspective to be the same for solving banking crimes, because of the nature of crimes that can cross national borders. Especially the world community's perspective on solving criminal cases through the application of restorative justice is very urgent as an alternative to solving banking crimes. It is time to replace retributive justice for the perpetrators of crimes with the fulfillment of more humane restorative justice.

3.2 Effectiveness of the Restorative Justice Settlement System

As explained above, technological developments have not been accompanied by regulatory developments, especially regarding dispute settlement which is responsive, accommodative, fast, precise and easy. This condition is one of the causes for the accumulation of banking crime cases in law enforcement agencies in several countries of the world, resulting in such a large gap between the number of banking crimes that have been resolved and the number of banking crimes that have arisen in a certain period of time [20]. This reality is still a separate problem for countries in the world even though several previous studies have made banking digitization an effort to reduce inequality due to inequality that occurs in countries where the rule of law in the banking sector is still weak [21].

The restorative justice settlement system is conceptually very effective in resolving banking crimes. It is said so because in solving banking crimes what is prioritized is recovery of the situation, compensation and personal improvement of the perpetrators and victims. The settlement mechanism in restorative justice is persuasive, kinship and humane. This concept is not bound by formal procedural law, but the solution is flexible by taking into account the interests of all parties, making it more dynamic, easier, faster and cheaper. The expected justice in the concept of a restorative justice system is substantive justice (peace), not formal justice (court decisions). Therefore, the concept of a restorative justice settlement is a settlement concept that is able to provide essential justice for the perpetrators, victims and/or the community because the solution is based on an agreement to make peace (peace). Based on the concept of restorative justice, it is not an exaggeration if this concept is said to be the same as the concept of customary law in force in Indonesia, even though this concept has not been formally recognized in Indonesia [22].

The above description shows that in the context of criminal law reform in Indonesia, the concept of the Restorative Justice Settlement System is not a foreign concept in the Indonesian criminal law system. Even today, the Restorative Justice Settlement System has been implemented to settle several types of criminal acts through the discretion of law enforcers, both the police, the prosecutor's office and even the Supreme Court. Another advantage of restorative justice is the responsiveness of this concept in solving banking crimes.

In relation to banking crimes associated with the precautionary principle in the banking world [23]. Hence information about banking crimes and their solutions is very, very difficult to find out. This is because each bank tries to prevent this information

from being known by the public and even the internal bank itself. This effort is aimed at keeping the bank's reputation well maintained.

4 Conclusion

Developments in banking technology must be supported by regulations that are substantially accommodative and responsive to the dynamics and developments in law as a result of the growth of information technology, especially in the banking industry. Quantitatively, banking crime, both the number and variety of crimes, continues to grow and increase in line with the development of information technology. Banking crime requires a fast, precise, flexible and dynamic settlement concept in order to keep pace with the increasing number of banking crimes at banks. The presence of restorative justice as a settlement concept that is oriented towards settlement, restoration of circumstances and the interests of all parties is a concept that is urgently needed in solving banking crimes. The restorative justice settlement system is in line with the technology system, which focuses on speed, efficiency and profit, not formal procedural, but the true interests of all parties. Thus, restorative justice is very effective in solving banking crimes.

Acknowledgments. Thank you to the Study Program Outside the Main Campus (PSKDU) Universitas Brawijaya which has funded this research so that it can be published. Thank you to the Indonesian Publication House for providing assistance in the preparation of this research. Thanks to the team for conducting database searches in collecting data, discussing and assisting during this research.

References

1. Khanboubi, F., Boulmakoul, A., Tabaa, M.: Impact of digital trends using IoT on banking processes. *Procedia Computer Science*, 151, 77-84 (2019).
2. Ferreira, A., Sandner, P.: Eu search for regulatory answers to crypto assets and their place in the financial markets' infrastructure. *Computer Law & Security Review*, 43, 105632 (2021).
3. Acharya, S., Joshi, S.: Impact of cyber-attacks on banking institutions in India: A study of safety mechanisms and preventive measures. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 4656-4670 (2020).
4. Shu, Z., Tsang, S. Y., Zhao, T.: Digital transformation of traditional Chinese banks. *Open Journal of Business and Management*, 8(1), 68-77 (2019).
5. Wang, V., Nnaji, H., Jung, J.: Internet banking in Nigeria: Cyber security breaches, practices and capability. *International Journal of Law, Crime and Justice*, 62, 100415 (2020).
6. Zhang, T.: A comparative study on sanction system of cyber aider from perspectives of German and Chinese criminal law. *Computer Law & Security Review*, 33(1), 98-102 (2017).
7. Urgessa, W. G.: Multilateral cybersecurity governance: Divergent conceptualizations and its origin. *Computer Law & Security Review*, 36, 105368 (2020).
8. Ali, M. A., Azad, M. A., Centeno, M. P., Hao, F., van Moorsel, A.: Consumer-facing technology fraud: Economics, attack methods and potential solutions. *Future Generation Computer Systems*, 100, 408-427 (2019).
9. Kharlamov, A., Pogrebna, G.: Using human values-based approach to understand cross-cultural commitment toward regulation and governance of cybersecurity. *Regulation & Governance*, 15(3), 709-724 (2021).

10. Brownsword, R., Somsen, H.: Law, innovation and technology: fast forward to 2021. *Law, Innovation and Technology*, 13(1), 1-28 (2021).
11. Lee, H., Biglaiser, G., Staats, J. L.: Legal system pathways to foreign direct investment in the developing world. *Foreign Policy Analysis*, 10(4), 393-411 (2014).
12. Steels, B., Goulding, D., Abbot, K.: Restorative justice in Asia: from the margins and corners to commonplace. In *Contemporary Trends in Asian Criminal Justice: Paving the Way for the Future* (pp. 69–89). Korean Institute of Criminology KyungSung Publishing (2014).
13. Soulou, K.: A brief European overview of restorative justice (RJ) in criminal cases: Current developments and challenges. *Pro Justitia: Ηλεκτρονική Επετηρίδα Νομικής Σχολής ΑΠΘ*, 3(3), 87-96 (2020).
14. Lesmana, T.: Mediasi Penal Sebagai Alternatif Penyelesaian Perkara Pidana dalam Perspektif Pembaharuan Sistem Peradilan Pidana Indonesia. *Jurnal Rechten: Riset Hukum dan Hak Asasi Manusia*, 1, (1), 14 (2019).
15. Ward, T., Langlands, R. L.: Restorative justice and the human rights of offenders: Convergences and divergences. *Aggression and Violent Behavior*, 13(5), 355-372 (2008).
16. Braitwaite, J.: *Restorative Justice in The Handbook of Crime and Punishment*, New York, Oxford, (1998).
17. Mustofa, M.: Hak Asasi Manusia: Diskresi Kepolisian dan Restorative Justice di Indonesia dalam Rangka Penegakan Hukum dan Ketertiban Sosial. *Jurnal Hukum & Pembangunan*, 35(2), 202-216 (2017).
18. Short, J. F.: Criminology (2). *Modern Controversies. Encyclopedia of Crime and Justice*, 2, 556–66 (1983).
19. Naude, B., Prinsloo, J., Ladikos, A.: Restorative justice: a global overview of its functioning and effectiveness. *Acta Criminologica: African Journal of Criminology & Victimology*, 16(5), 1-9 (2003).
20. Úbeda, F., Forcadell, F. J., Aracil, E., Mendez, A.: How sustainable banking fosters the SDG 10 in weak institutional environments. *Journal of Business Research*, 146, 277-287 (2022).
21. Guiso, L., Sapienza, P., Zingales, L.: The role of social capital in financial development. *American economic review*, 94(3), 526-556 (2004).
22. Arief, B.N.: *Mediasi pidana: Penyelesaian perkara di luar pengadilan*. Pustaka Magister, Semarang (2012).
23. Alex, L., David, S., Alex, P.: *Digital Banking Manifesto: The End of Banks?*. Connection Science & Engineering Massachusetts Institute of Technology, MIT Press, Massachusetts (2016).

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

