

# OPERATIONAL RISK CONTROL WITH BASEL II IN INDONESIAN BANKING

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## Abstract

We examine how the importance of operational risk control in a bank is an important feature of management practices in the modern money market. Serious operational risks include damage to internal control and corporate governance, which can result in financial losses through fraud, misconduct, and failure of performance of an institution. The design of this study uses a literature review approach on operational risk control with Basel II. The methodology is carried out with a concise review of some previous research, so that it can be concluded in a concise and detailed manner without conducting data testing. The results of the literature review show that the Basel Committee on Banking Supervision has proposed three cutting-edge approaches in dealing with operational risks, namely basic indicator approach, standardized approach, and advanced measurement approach. The improvement of operational risk control in banks is regulated in the Framework of Basel II, a new capital adequacy regulation proposed by the Basel Committee on Banking Supervision. (BCBS). Basel II will apply to internationally active banks and to all banks and investment firms in Indonesia through the transposition of the new Directive into national regulations. By implementing this Basel II approach, banks will be able to reduce operational risks, which will help them in a better intermediation process. The Framework of Basel II has been adopted by Bank Indonesia through regulation No. 5/8/PBI/2003 concerning the Application of Risk Management for Commercial Banks so that Indonesian banks can operate more carefully and their implementation is adjusted to the objectives, business policies, size and complexity of business and the bank's capabilities in terms of finance, supporting infrastructure and human resources. With this provision, the bank is expected to be able to carry out all its activities in an integrated manner in an accurate and comprehensive risk management system.

**Keywords:** Operational Risk Control, Bank for International Settlement and Basel II

**JEL Classification Codes:** E51, G24

## 1. INTRODUCTION

The development of the banking industry in Indonesia is currently faced with increasing complex risks due to various bank business activities experiencing rapid development, thus requiring banks to increase the need for operational risk implementation to minimize the risks associated with banking business activities (Lubis et al., 2018). The implementation of operational risk at banks in Indonesia is directed in line with the new global standards issued by the Bank for International Settlement (BIS) with a new capital concept where the capital calculation framework is more risk sensitive and provides incentives to improve the quality of operational risk in banks. or better known as Basel II.

Through the implementation of Basel II, Bank Indonesia is expected to increase the operational risk aspect so that the bank is more resistant to changes that occur both domestically, regionally and internationally (Bank Indonesia, 2003). Bank Indonesia it also

demands that the board of commissioners and directors of each bank must understand the set of procedures and methodologies used to identify, measure, monitor and control risks arising from the bank's business activities. This is so that Indonesian banks avoid excessive liquidity risks or crises in banks that can cause Indonesia's economic and banking systems to become unstable.

Operational risk practices in banking can use a variety of alternative risk profile assessments. The Basel II standard uses several alternative approaches of various risks in calculating capital requirements that correspond to the risk profile of banks (Goyal, 2010). Adopting the Basel II Standard, Bank Indonesia uses 8 alternative types of risk profile assessments that must be managed and reported by banks in Indonesia, namely by assessing credit risk, market risk, operational risk, liquidity risk, legal risk, strategic risk, reputational risk and compliance risk.

The application of operational risks in addition has become a necessity for the banking world in improving the bank's business performance; it is also a necessity according to the provisions of Bank Indonesia in Bank Indonesia Circular Letter Number 5/2/DPNP/2003. Managing the risk profile in the process of implementing operational risks in Indonesian banking is certainly not easy to do. The problem that arises is how to manage operational risks in banks so that the banking intermediary function remains consistent and integrated.

The implementation of the Basel II Standard by focusing more on improving the quality of operational risk in each risk profile is considered good for banking risk control (Bank for International Settlement, 2005). But it does not eliminate the possibility that various obstacles will be faced by Indonesian banks either directly or indirectly will have an impact on the effectiveness of implementing these operational risks.

## **2. LLITERATURE RREVIEW**

### **2.1 Operational risk**

Operational risk is a process of anticipating risks so that losses do not occur to the organization (Firmansyah, 2010). According to Bank Indonesia Regulation No. 11/25/PBI/2010 concerning Amendments to PBI No. 5/8/PBI/2003 concerning the Application of Operational Risks, Risk is the potential loss due to the occurrence of a particular event (events) and Operational risk is a series of methodologies and procedures used to identify, measure, monitor and control risks arising from all bank business activities.

The risks covered are set 8 kinds, namely credit risk, market, liquidity, operations, law, reputation, strategy and compliance. The initial stage is expected that all banks have carried out credit, market, liquidity and operational risk management (Sinaga et al., 2020). Given the extent and complexity of each of these risks, in this study, operational risks were selected to prioritize the assessment. This is based on operational risk has a greater probability of occurring, although the impact (severity) that occurs is not always large.

First credit risk, according to Bank Indonesia (2003) credit risk is a risk arising from the failure of debtors and / or other parties in fulfilling obligations to the Bank. In Basel II, 2

(two) methods for measuring credit risk are established, by means of Standard Approach which uses the risk weight of the external rating and Internal Rating Based (IRB) which allows the bank to determine its own measurement parameters such as probability of default, loss given default, recovery rate adjusted to its credit portfolio (Bank for International Settlement, 2005).

Second, market risk is the risk to the balance sheet position and administrative accounts including derivative transactions, due to changes in overall market conditions, including the risk of changes in option prices (Bank Indonesia, 2003). Market risk can be measured value at risk (VaR) where the estimated probability of portfolio losses is based on statistical analysis of historical price trends and volatility (Korma Risk Management, 2010). This risk arises due to market prices moving in an adverse direction. This risk is a combined risk formed due to changes in interest rates, changes in exchange rates and other things that affect the market prices of stocks, equities and commodities. There are two types of market risk, namely specific market risk where the risk that occurs as a result of price changes in a particular security and general market risk where the risk that occurs as a result of changes in the price of a particular monetary instrument (Kasidi, 2010: 66).

Third, liquidity risk is the risk due to the Bank's inability to meet maturing obligations from cash flow funding sources and/or from high quality liquid assets that can be used without disrupting the bank's activities and financial condition (Bank Indonesia, 2003). Liquidity risk is divided into two types, namely asset liquidity risk (market liquidity risk) where a transaction cannot be carried out at market prices due to the large value of the transaction relative to the size of the market and the risk of funding liquidity (cash flow risk) which is the risk of inability to meet maturity obligations resulting in liquidation..

Fourth, according to Bank Indonesia (2003) operational risk is a risk due to inadequacy and/or malfunction of internal processes, human error, system failure, or external problems that affect bank operations. Operational risk management for operational risks aims to minimize the possible negative impacts of malfunctioning internal processes, human error, system failures and/or external events (Allen dan Bali, 2007, Nasution et al., 2020).

Fifth is legal risk, according to Bank Indonesia (2003) legal risk is a risk due to lawsuits and / or weaknesses of juridical aspects. The weakness of the juridical aspect is due to lawsuits, the absence of laws and regulations that support or weaknesses in the alliance such as the non-fulfilment of the legal requirements of a contract. This risk occurs because the bank is unwilling to comply or unwilling to implement the laws and regulations and other applicable provisions.

Sixth, reputational risk is a risk due to a decrease in the level of stakeholder trust that stems from negative perceptions of banks. Reputation operational risk management aims to anticipate and minimize the impact of losses from bank reputational risks (Bank Indonesia, 2011).

Seventh, strategic risk is the risk due to inaccuracy in the making and/or implementation of a strategic decision and failure in anticipating changes in the business environment (Bank

Indonesia, 2003). Strategic operational risk management aims to ensure operational risk processes can minimize the possible negative impact of strategic decision-making inaccuracies.

Eighth is the type of compliance risk, according to Bank Indonesia (2003) compliance risk is a risk due to banks not complying or not implementing applicable laws and regulations. Operational risk management compliance aims to ensure operational risk processes can minimize the possibility of negative impacts of bank behaviour that deviates or violates generally applicable standards and/or legislation.

The Bank urgently needs to take systematic steps to manage the risks arising from its business activities which include the 8 risks that have been set by the BI so that the bank can carry out its business activities with good corporate governance. In Basel II, the type of operational risk measurement is described in pillar 1 where to determine the minimum capital requirement is credit risk, market risk and operational risk (Bank for International Settlement, 2005).

## **2.2. Operational Risk Control with Basel II**

Operational risk management at banks can be done with several operational risk processes, namely by the process of identification, measurement, monitoring, risk control and operational risk information systems. Risk identification includes understanding the various risks; all bank activities are carried out to analyze the sources and causes of the emergence of risks and their impacts (Goyal, 2010, Ritonga et al., 2020). Furthermore, banks need to take risk measurements according to the characteristics and complexity of business activities. In addition, the effectiveness of implementing operational risks needs to be supported by risk control by considering the results of measurement and monitoring of risks (Bank Indonesia, 2011).

The management of all functional aspects of the bank must be maximized to be integrated in an accurate and comprehensive risk management system and process, so that Bank Indonesia considers the need for the creation of preconditions and risk management infrastructure. This was initially confirmed by Bank Indonesia through a regulation letter Bank Indonesia nomor 5/8/PBI/2003 May 19, 2003 (which has been revoked by the Regulations Bank Indonesia nomor 11/25/PBI/2009 1, 2009 and was last revoked by law Otoritas Jasa Keuangan nomor 18/POJK.03/2016) regarding the Application of Operational Risks for Commercial Banks. The provision stipulates that the application of operational risks at least includes:

- a. active supervision of the Board of Commissioners and Board of Directors;  
Adequacy of operational risk policies and procedures and the determination of risk limits;
- b. adequacy of the process of identification, measurement, monitoring and control of risks and operational risk information systems; and
- c. Comprehensive internal control system.

### 2.3. Operational Risk Control

Daily banking activities are commonly known as credit giving, fund storage and liquidity management between credit giving and depositing funds. Each of these activities is accompanied by banking operations, so sometimes it is difficult to classify an event (event) it belongs to which subject matter (Ginting et al., 2020) . For example, an official gives a decision to give credit that causes credit to become problematic and harms the bank. Whether this is related to credit risk or operational risk. The conditions under which an event falls into some risk category are referred to as boundary events. The sharing of credit, market, liquidity and operational risks has provided a better definition of operational risk, although sometimes boundary event problems still arise as well.

Crouhy, Galay and Robert (2006), mendefinisikan risiko operational sebagai risiko yang relating to business operations, which include 2 risk components; First, the risk of operational failure or internal risk consisting of risks sourced from human resources, processes and technology. Second, operational strategy risks or external risks derived from factors such as politics, taxes, regulation, society and competition (Sutaryono, 2003).

Operational risk is a risk that arises, among others, due to insufficient or malfunctioning internal processes, human error, system failure or external problems affecting bank operations (Bank for International Settlements, 2001). Operational risk losses can have a direct or indirect impact (in the form of potential losses or loss of opportunities to gain profits) on finances. This definition excludes strategic and reputational risks (not included) with the aim of achieving the fulfilment of the minimum capital imposition obligations for operational risks. The two definitions of operational risk are, in essence, no different. Recorded in the mass media several events that are cases of banking operational risks, such as the break-in of the ATM terminal (even the last up to the taking of the box where the money is stored), double payment of a remittance (including with an email address model that resembles), bank draft / travellers cheque taken by an unauthorized person, deposit on call / letter of credit / bank guarantee is genuine but fake, teller/staff errors enter data, system and communication failures or programming errors. The cases conclude that the scope of operational risk is so broad that knowledge of operational risks has high benefits, although it is difficult to implement in day-to-day banking activities. The Financial Services Authority found a breach of the State Savings Bank related to a case of fake deposit bilyet that occurred at the end of 2016 (Setyowati, 2017).

### 3. DESIGN METHODOLOGY

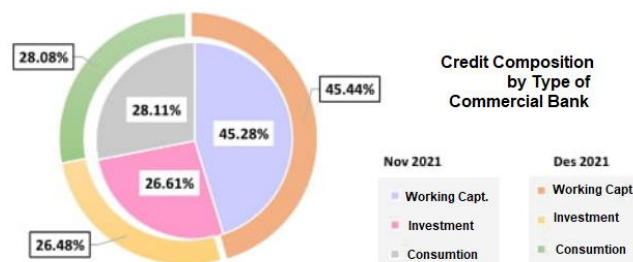
The design of this study uses a literature review approach on operational risk control with Basel II. The methodology is carried out with a concise review of some previous research, so that it can be concluded in a concise and detailed manner without conducting data testing. We collect data and articles from a variety of sources summarized into a qualitative analysis overview.

## 4. RESULT AND DISCUSSION

### 4.1. RESULT

Daily banking activities are commonly known as credit giving, fund storage and liquidity management between credit giving and depositing funds. Each of these activities is accompanied by banking operations, so sometimes it is difficult to classify an event as included in which subject matter. The results of the author's review by highlighting the operational risks of commercial banks in Indonesia through statistical data released by Bank Indonesia during 2021.

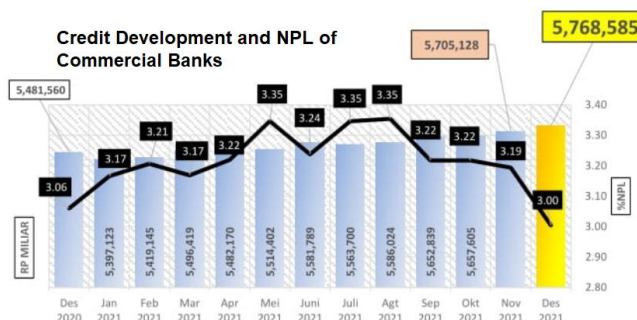
**Fig.1: Credit Composition by Type of Commercial Bank**



Source: Statistic Bank Indonesia, 2021

The bank's operational performances during 2021 shown in figure 1 show that the largest performance composition is still dominated by working capital loans that have the potential to improve performance. Seeing this, the implementation of operational risks is very important to re-manage the risks contained in banking, especially managing operational risks to protect consumers. With the implementation of bank operational risks, customers feel more protected and it is hoped that cases such as Bank Century about consumer protection can be minimized.

**Fig.2. Credit Development and NPL of Commercial Banks**



Source: Statistic Bank Indonesia, 2021

The graph shown in figure 2 shows that there was a movement of commercial bank risk in Indonesia throughout 2021, where there was the largest spike in the May 2021 period. This

condition requires that every bank must be able to manage its operational risks properly and correctly. Operational risk management by means of risk monitoring at banks must be done by preparing a back-up system and effective procedures to prevent interference in the risk monitoring process and carrying out periodic checks on the back-up system. In risk monitoring, banks are required to implement monitoring procedures that include the amount of risk exposure, risk tolerance and stress test results (Bank Indonesia, 2011).

**Tabel 1. Commercial Banks Performance)**  
**Nilai Kinerja dalam Miliar Rp (Billion Rp) dan Rasio Kinerja (%)**

Indikator / Indicator		2021		
		Okt	Nov	Des
<b>Capital Adequacy Ratio (%)</b>		<b>25,30</b>	<b>25,59</b>	<b>25,67</b>
-	Capital	1.528.782	1.549.412	1.569.939
-	ATMR / Risk Weighted Assets	6.042.416	6.054.315	6.116.974
<b>Core Capital Ratio to ATMR (%)</b>		<b>23,72</b>	<b>23,99</b>	<b>24,07</b>
-	Core Capital (Tier I)	1.433.092	1.452.599	1.472.240
-	ATMR / Risk Weighted Assets	6.042.416	6.054.315	6.116.974
<b>Return On Assets Ratio (%)</b>		<b>1,92</b>	<b>1,91</b>	<b>1,84</b>
-	Profit	179.570	180.006	174.271
-	Average total assets	9.369.374	9.419.584	9.476.690
<b>Operating Expenses/Operating Income (%)</b>		<b>83,14</b>	<b>82,97</b>	<b>83,58</b>
-	Operating Expenses	739.449	805.500	889.655
-	Operating Income	889.362	970.827	1.064.432
<b>Net Operation Margin Ratio (%)</b>		<b>4,52</b>	<b>4,51</b>	<b>4,51</b>
-	Interest income net	409.453	410.908	413.942
-	Average total earning assets	9.065.134	9.116.300	9.170.121
<b>Financing to Deposits Ratio (%)</b>		<b>78,09</b>	<b>77,90</b>	<b>77,13</b>
-	Total Credit to third party	5.657.605	5.705.128	5.768.585
-	Total Third Party Funds	7.244.983	7.323.356	7.479.463
<b>Liquid Assets Ratio (%)</b>		<b>20,53</b>	<b>20,46</b>	<b>19,57</b>
-	Primary Liquid Asset	1.234.931	1.231.212	1.208.213
-	Secondary Liquid assets	781.814	796.712	771.178
-	Total Assets	9.824.498	9.913.669	10.112.304

Source: Statistic Bank Indonesia, 2021

This analysis is related to mapping operational risk events, which can be grouped into four types of events based on the frequency and impact of operational risks, namely:

- 1) Low Frequency/High Impact (LFHI);
- 2) High Frequency/High Impact (HFHI);
- 3) Low Frequency/ Low Impact (LFLI);
- 4) High Frequency/Low Impact (HFLI)

Operational risk management with an adequate risk control process must be implemented by each bank, referring to policies and procedures that have been implemented, adjusted to the risk exposure and the level of risk to be taken. Through the attachment of circular letter number 13/23/DPNP, Bank Indonesia (2011) states that risk control can be carried out by banks by means of hedging mechanisms, increasing bank capital to reduce potential losses and mitigation methods such as issuing guarantees, asset securities, derivative credits.

Operational risk management is inseparable from the banking risk profile which according to the Institute of Risk Management (2005), a good way of managing the risk profile is needed as a basis for implementing operational risk in the banking industry. First, the management of credit operational risk in banking which includes providing a credit risk profile that can be sourced from various bank activities, including credit provision, derivative transactions, trading other financial instruments and other bank activities recorded in the banking book and trading book (Owojori et. al, 2011).

Bank Indonesia (2012) noted that the development of bank expansion on credit is getting bigger and bigger, in 2009 the expansion of banking credit amounted to Rp 133,100.4 (in rupiah), in 2010 the expansion of banking credit rose to Rp 334,673.1 (in rupiah) and in 2011 the expansion of banking credit reached Rp 457,672.1 (in billion rupiah). The greater the expansion of credit and other banking activities per year certainly directly impacts the risk of large bank credit as well, such as the risk of bad loans that are very likely to cause banks to experience losses. Therefore, in line with the implementation of the Basel II standard in global banking, Bank Indonesia (2010) published changes to the old regulations on the application of operational risks for commercial banks to be more complex than the previous regulations, in the way that each bank is required to manage its credit risks, especially operational risks, especially credit operational risks and must report it in the bank's annual report, so that with the management of credit operational risks, opportunities for bad loans can be suppressed or become minimal.

Second, market operational risk management, where market operational risk management aims to minimize the possibility of negative impacts due to changes in market conditions on assets and bank capital. Market operational risk management includes the management of interest rate risk, exchange rate risk, equity risk and commodity risk. Management of market operational risk is very necessary for banks in Indonesia, to be able to anticipate these problems by continuously developing the model that has been used in accordance with Bank Indonesia regulations with the development of interest rate risk measurement using a gap report measurement model where this model presents asset proposes, liabilities and administrative accounts that are interest rate sensitive to be mapped into a time scale. Certain (Bank Indonesia, 2011). Operational risk management for liquidity risk aims to minimize the possibility of banks' inability to obtain sources of cash flow funding.

Based on the analysis of Bank Indonesia (2001) a large liquidity risk had occurred in the banking world in Indonesia, where the global financial crisis triggered by subprime mort age that unexpectedly has brought liquidity risk to be the most important issue in banking authorities. The financial crisis that occurred in 2007 became one of the worst crises and the



impact of losses for financial institutions and the global economy. Therefore, it is necessary to identify liquidity operational risks in the best practice in all banks. In addition, there is a need to improve the regulatory framework and supervision / monitoring of liquidity operational risks that pay attention to the development of best practices and international standards in order to strengthen the implementation of operational risks and respond to the global financial crisis. Thus, managing operational risks for liquidity risk can minimize the bank's inability to obtain sources of funding.

The fourth is how to manage operational risk over operations. Operational risk problems cannot be separated from human resources (HR), internal processes, systems and infrastructure, as well as external events where from these sources of risk can cause events that have a negative impact on bank operations. Operational risk issues such as internal fraud, external fraud, labour practices and work environment safety, customer protection, product and business implementation, physical asset damage, disruption of business activities and system failures and process and execution errors. To overcome this problem, Bank Indonesia (2011) through its circular letter attachment on operational risk implementation guidelines generally explained that banks must identify and measure parameters that affect operational risk exposure, including operational risk events / problems by developing a database. In measuring operational risk parameters, methods that can be used by banks include Risk Control Self Assessment (RCSA), risk mapping, Key Risk Indicator (KRI), scorecards, event analysis, frequency matrix, quantitative methodology and qualitative methodology. In addition, the bank must monitor the bank's operational risks on an ongoing basis against all operational risk exposures by implementing an internal control system and providing periodic reports on losses caused by operational risks and implementing operational risk control by developing programs to mitigate operational risks by securing information technology, insurance and outsourcing processes in some activities. Bank operations.

## **4.2. DISCUSSION**

The fifth management of operational risk implementation is the management of the application of operational risks to legal risks. The application of operational risk to legal risk aims to ensure that operational risk processes can minimize the possible negative impact of juridical aspect weaknesses, the absence and/or changes in laws and regulations and litigation processes (Bank Indonesia, 2011). Legal risk problems that are often faced by banks in Indonesia are weak engagements made by banks, laws and regulations that are not in accordance with business activities and bank transaction processes and litigation processes both arising from third-party lawsuits against banks and banks against third parties. To minimize the problem of legal risk, Bank Indonesia needs to implement operational risks with operational risk management where the bank is obliged to analyze all sources of legal risks from bank activities and ensure that legal risks from bank activities have gone through a viable operational risk process and are carried out periodically. In addition, banks must also monitor and control legal risks by conducting continuous reviews of contracts and agreements between banks and other parties, by reassessing the effectiveness of these contracts and agreements (Bank Indonesia, 2011).

In managing operational risk for strategic risk, banks must identify strategic risk analyses that require a lot of high-risk resources, such as new market share entry strategies, acquisition strategies or diversification strategies in the form of products and services. Banks must also measure strategic risk using indicators/parameters in the form of the level of complexity of the bank's business strategy, the bank's business position in the banking industry and the achievement of the business plan. In addition, banks should also monitor and control the development of strategy implementation periodically by paying more attention to the experience of past losses caused by strategic risks.

Operational risk management of compliance through the process of implementing operational risks. In the management of compliance operational risk, banks must first identify factors that can increase credit exposure. Banks must measure compliance risks using indicators/parameters in the form of types, significance and frequency of violations of applicable provisions or standards. After that, banks are also obliged to monitor and control compliance risks by ensuring that banks have an adequate level of compliance with applicable laws and regulations. In managing the implementation of reputational operational risk, banks must record any events related to reputational risks such as the amount of potential losses resulting from such events. Banks are also obliged to monitor and control bank reputational risks so that weaknesses in control and procedures that trigger bank reputational risks can be overcome.

The application of operational risks to banking in Indonesia provides many benefits and benefits, because it will be very helpful to avoid losses due to various risks that occur. The implementation of operational risks is very important given the huge implications for Indonesian banking. Ryser and Bauer (2002) argue that banking operational risks provide benefits, among others, with the implementation of operational risks in banking, banks have longer asset resilience, banks are able to monitor information easily so as to predict various possibilities such as credit failure and banks can be more maximal to serve customers with monitoring of risks that may occur, Banks can increase their shareholder value, provide bank managers with an idea of possible future bank losses, improve systematic decision-making methods and processes based on the availability of information. The application of operational risks can also be used to assess the risks inherent in the bank's relatively complex business activities and create a robust operational risk infrastructure in order to increase the bank's competitiveness. In addition to the benefits for the bank, the application of operational risks is also beneficial / beneficial for bank supervision authorities which with the application of operational risks to banking will facilitate the assessment of possible losses faced by banks that can affect bank capital and as one of the basis for assessment in establishing the strategy and focus of bank supervision.

In its application to banking in Indonesia, operational risks based on the Basel II standard are certainly not always successfully applied. According to Galorath (2006) there are also several obstacles / obstacles that accompany the implementation of operational risks, including supervision of the application of operational risks in banking is still relatively low, human resource skills that are still not ready to overcome operational risks, internal and external

processes of banks and risks to the system of a bank that is still lagging behind or not in accordance with the guidelines for implementing banking operational risks. The implementation of bank operational risks in Indonesia cannot be separated from Indonesia's banking guidelines, namely the Indonesian Banking Architecture (API) implemented in Indonesian banking starting in 2004. The impact of implementing bank operational risks related to the first pillar regarding a healthy banking structure. The bank can be measured and stated that the bank is healthy if it has been able to meet the needs of the community and encourage sustainable national economic development (Rizky dan Majidi, 2008: 94). The healthier the health level of a bank, the smaller the risk that must be managed by the bank, so that the smaller or better the implementation of the bank's operational risks. The better implementation of operational risk in a healthy banking structure can be seen from the Bank Indonesia report (2010) which states that some banks in Indonesia have been no longer reluctant to distribute credit, because the bank's operational risk management capabilities have now progressed after Bank Indonesia implemented the Basel II standard, where banks are not afraid of excessive bad loans that can harm banks, especially can lower the level of banking. Bank health. The impact of implementing bank operational risks related to the implementation of pillars regarding an independent and effective supervision system. Supervision on Indonesian banking carried out by Bank Indonesia is still not optimal and effective (Rizky and Majidi, 2008: 151). Because bank supervision is still not effective and maximal, Bank Indonesia publishes and implements the Indonesian banking architecture to improve the supervisory function of more independence and effectiveness. This can be achieved by improving the competence of bank examiners, improving coordination between supervisory agencies, developing risk-based supervision. In this regard, to further support the function of independent and effective supervision, Bank Indonesia also applies operational risks by focusing more on the active supervision of the Board of Commissioners and Board of Directors at each bank, where the Board of Commissioners and Board of Directors is more responsible for effective supervision and mitigation actively so that an independent and effective supervision system in Indonesian banking can be achieved (Bank Indonesia, 2011).

The impact of implementing bank operational risks related to the implementation of strong banking industry pillars. In implementing a strong industrial structure, there needs to be good corporate governance to monitor the performance of the achievement of a bank's business success goals (Renzo et. al, 2007). The implementation of good corporate governance (GCG) in banks cannot be separated from the implementation of operational risks, where in its implementation operational risks and GCG have the same principles, namely transparency, accountability, responsibility and independence. The application of risk must be fully integrated into bank governance to provide more certainty to the achievement of the bank's business goals. This is because effective management provides more assurance towards achieving organizational goals (Ozdemir, 2018). Therefore, the application of bank operational risks is very influential for the implementation of a strong banking industry, because by applying operational risks can improve bank governance better, more effective and efficient, so that the banking industry will be more solid and stronger in the face of global challenges. The application of risk must be fully integrated into bank governance to provide

more certainty to the achievement of the bank's business goals. This is because effective management provides more assurance towards achieving organizational goals (Ozdemir, 2018). Therefore, the application of bank operational risks is very influential for the implementation of a strong banking industry, because by applying operational risks can improve bank governance better, more effective and efficient, so that the banking industry will be more solid and stronger in the face of global challenges. The impact of implementing bank operational risks related to the implementation of consumer protection pillars. From time to time, the number of bank customers in Indonesia continues to increase. With the increasing number of customers, the use of banking financial products and services continues to increase. Not only that, banking today has also shifted a lot from pure financial institutions to universal banking which not only serves financial products and services but also serves products and services such as securities and insurance. Because the more products and services produced by banks, the risk that must be managed by banks will be greater and the priority of service to customers will be low. The real case that occurred was the case of Bank Century where customers were not / less briefed on weaknesses in the cultivation of bank mutual funds, so that when mutual funds fell, customers became suffering losses, so it can be concluded that the protection of customers is not guaranteed definitively by the bank.

## 5. CONCLUSION

The application of operational risks must be supported by way of management through the Basel II indicator. Operational risk management in banks can be done in four ways, namely identifying, measuring, monitoring and controlling risk. The advantages and benefits of operational risk are that they can increase shareholder value, creating a robust operational risk infrastructure in order to increase the competitiveness of banks. The problem is, supervision of the implementation of operational risks is relatively low and human resources are not ready. The implementation of operational risks cannot be separated from the Indonesian Banking Architecture (API). The impact of implementing operational risks is very influential both related to the implementation of API pillars, where the banking structure becomes healthy, the supervision system becomes independent and effective, the banking industry becomes strong, consumers become protected. The Framework of Basel II has been adopted by Bank Indonesia through regulation No. 5/8/PBI/2003 concerning the Application of Risk Management for Commercial Banks so that Indonesian banks can operate more carefully and their implementation is adjusted to the objectives, business policies, size and complexity of business and the bank's capabilities in terms of finance, supporting infrastructure and human resources. With this provision, the bank is expected to be able to carry out all its activities in an integrated manner in an accurate and comprehensive risk management system.

## REFERENCES

- Allen, L., & Bali, T. G. (2007). Cyclicity in catastrophic and operational risk measurements. *Journal of Banking & Finance*, 31(4), 1191-1235.
- Bank for International Settlements(2005). *Operational Risk: Consultative Document*. Basel Committee on Banking Supervision.

- Bank Indonesia (2003). Implementation of Risk Management for Commercial Banks. Bank Indonesia Regulations.
- Bank Indonesia (2009). Application of Risk Management for Banks General. Bank Indonesia Regulations.
- Crouhy, M., Galai, D., & Mark, R. (2006). The essentials of risk management (Vol. 1). New York: McGraw-Hill.
- Di Renzo, B., Hillairet, M., Picard, M., Rifaut, A., Bernard, C., Hagen, D., ... & Reinard, D. (2007). Operational risk management in financial institutions: Process assessment in concordance with Basel II. *Software Process: Improvement and Practice*, 12(4), 321-330.
- Financial Services Authority Regulation number 18/POJK.03/2016 dated March 16, 2016) regarding the Implementation of Operational Risk for Commercial Banks.
- Galorath, D. D., & Evans, M. W. (2006). *Software sizing, estimation, and risk management: when performance is measured performance improves*. Auerbach Publications.
- Ginting, S.F.B.R, Lase, R.T.M, (2020). BASEL III Pilar and Internal Capital Adequacy Assessment Process (ICAAP) : Implementing ICAAP in Indonesian Banking Sector. *Turkish Online Journal of Qualitative Inquiry*. 11(4). 735- 740. <https://tojqi.net/index.php/journal/article/view/6715>
- Goyal, A. (2010). Information, direct access to farmers, and rural market performance in central India. *American Economic Journal: Applied Economics*, 2(3), 22-45.
- Kasidi. (2010). *Risk management*. Bogor: Ghalia Indonesia.
- Lubis, P.; Muda, I. & Erlina,. (2018). Analysis of the Factors Affecting the Capital Structure of a Manufacturing Company Listed on the Indonesian Stock Exchange in Moderation by Business Risk. In *Proceedings of the 7th International Conference on Multidisciplinary Research - Volume 1: ICMR*, ISBN 978-989-758-437-4, pages 570-577. DOI: 10.5220/0008890605700577. <https://www.scitepress.org/PublicationsDetail.aspx?ID=EX+DchZjbv0=&t=1>
- Nasution, M.K, Manurung, K.B., (2020). The Relation of COBIT Internal Control and ISO 9001 Quality Management. *Turkish Online Journal of Qualitative Inquiry*. 11(4). 726- 734. <https://tojqi.net/index.php/journal/article/view/6711>
- Ozdemir, B. (2018). Evolution of risk management from risk compliance to strategic risk management: From Basel I to Basel II, III and IFRS 9. *Journal of Risk Management in Financial Institutions*, 11(1), 76-85.
- Ritonga, R, Sinukaban, F.D, (2020). Basel Internal Control As Corporate Governance For Bank. *Turkish Online Journal of Qualitative Inquiry*. 11(4). 712- 717. <https://tojqi.net/index.php/journal/article/view/6712>
- Rizky and Majidi, (2008). Application of risk management in banking in Indonesia. *AKUNESA Journal of Accounting*, 1(1), 1-21.
- Ryser-Degiorgis, M. P., Lutz, H., Bauer, K., Sager, H., Ryser, A., Zimmermann, F., ... & Breitenmoser, U. (2002, May). Veterinary supervision of lynx translocation within the Swiss Alps. In *Proceedings of the 4th scientific meeting of the European Association of Zoo-and Wildlife Veterinarians (EAZWV)* (pp. 8-12).
- Setyowati, D. (2017). OJK Finds 3 BTN Violations Related to Fake Deposit Bilyet Cases. [http://katadata.co.id/berita/2017/03/30/case-bilyet-deposito-palsu-ojk-sebut-sederet Kemerdekaan-btn](http://katadata.co.id/berita/2017/03/30/case-bilyet-deposito-palsu-ojk-sebut-sederet-Kemerdekaan-btn).
- Sinaga, M.B, Muda, A.L ,(2020). New Rules For Audit Committees (Perspective In Sarbox Internal Control). *Turkish Online Journal of Qualitative Inquiry*. 11(4). 707 – 711. <https://tojqi.net/index.php/journal/article/view/6711>
- Sutaryono, P. (2003). Operational Risk Management and Efforts to Overcome Bank Burglary. *Compass*. <http://www.kompas.com/kompas-print/0305/23/>