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**OPERATIONAL RISK MANAGEMENT
AT JOINT STOCK COMMERCIAL BANK
INVESTMENT AND DEVELOPMENT OF VIETNAM**

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PREFACE

1. Urgency of the research topic.

Operational risk is a type of risk related to many factors: people, systems, processes, internal procedures, and even external events. Thus, it can be seen that operational risk exists in most departments of the bank that carry out business transactions, and provide services or risk-taking activities. Operational risks arise due to ineffective information systems, technical errors, violations of internal control, unforeseen events, or other operational problems that can lead to losses. loss to the bank in terms of finance, prestige, and reputation. The scope and duration of operational risks are very large and can occur at any time during the bank's operations. Risk activities cause huge losses but their signs are difficult to identify or predict. This makes risk management difficult, especially during the 4.0 revolution with the introduction of many new financial products. Therefore, the topic of operational risk has attracted the attention of managers as well as scholars around the world to identify, measure, control, and limit operational risks as well as their adverse effects. Accordingly, introducing measures and policies to strengthen operational risk management to limit this risk in the banking sector is an urgent need.

During the development process, BIDV encountered many risks, including operational risks. BIDV has deployed and implemented operational risk management quite closely and achieved many achievements, such as assigning responsibilities in all operational stages, actively handling and preventing losses. due to operational risks, improving the quality of information technology systems and human resources in operational risk management... However, the current status of operational risk management at BIDV still has some shortcomings. reasons such as: inspection and control activities are not comprehensive, do not respond promptly to fluctuations in the economy and banking activities, information technology systems using operational risk management still have many shortcomings. Access, human resources in risk management work are few, professional qualifications are limited... In order for BIDV to develop sustainably and cope with the above situation, the issue of operational risk management is increasingly urgent and important. needs closer attention. That poses enormous challenges in operational risk management at the Bank and towards common world standards.

With the purpose of systematizing and perfecting the theoretical basis of operational risk management of commercial banks, researching operational risk management practices at BIDV, and proposing a system of solutions to improve operational risk management. At BIDV, the author chose the topic: "*Operational risk management at Vietnam Investment and Development Joint Stock Commercial Bank*" for his thesis.

2. Overview of research situation.

2.1. Overview of international research situation.

Operating risk is a type of risk present in almost all banking activities but is the most difficult to measure and control. There have been many theoretical and practical research works as well as experimental models related to operational risk management issues such as (1). Joel Bessis (1998), "Risk Management In Banking" [74]. (2). The Basel Committee on Banking Supervision has conducted many studies and made recommendations on ensuring safety according to Basel I standards (1998), Bassei II Treaty (2004) [69], [71]. (3) Stephan Cowan, Glen Bullivant, and Robert Addlestone (2004) with the research work "Effective credit control & debt recovery handbook - Tottel [80]. (4) Glen Bullivant (2005) in the book "Credit Management" [81]. (5). Bernd Engelmann & Robert Rauhmeier (2011), "The Basel II Risk Parameters Estimation, Validation, Stress Testing with Application to Loan Risk Management". [seventy-three]. (6). H.Greuning & S.Bratonovic (2003), "Analyzing Banking Risk, A Framework for Assessing Corporate Governance and Financial Risk". [82].

2.2. Overview of research situation in the country

2.2.1. Research project on operational risk management of commercial banks.

Operational risk management in the business of commercial banks is an issue of interest to many researchers as well as bank leaders. In Vietnam, there are currently many research projects and scientific conferences providing comments on operational risks, business risks, and operational risk management, business risks. joint. Some research projects can be mentioned: (1). Le Thi Van Khanh (2017), "Risk management system operating at Vietnamese commercial banks" a doctoral thesis in protection economics at National Economics University. [26]. (2). Nguyen Anh Tuan (2012), Risk management in business of Vietnamese commercial banks according to the Bas se l Treaty, doctoral thesis defended at Foreign Trade University. [58]. (3). Tran Thi Ngoc Tram (2016), "Risk management of Joint Stock Commercial Bank for Foreign Trade of Vietnam" - doctoral thesis defended at the Banking Academy. [55] (4). Tran Trong Phong and Cao Viet Thang (2014) "Completing the legal framework on risk management of the commercial banking system in the process of restructuring the commercial banking system", [46] (5). Tran Minh Trang (2014), "Building an effective risk management framework at Vietnamese commercial banks" - article published in Banking Magazine, No. 5/2014. [59] (6). Nguyen Thi Van Anh (2014), "Limiting risks to the banking system through applying Bas el II - viewed from international experience" - article published in the Journal of Monetary and Financial Markets No. 20 (413). [7] (7). Tran Thi Lan and Hoang Thi Bich Ha (2017), "Operational risk management at Vietnamese commercial banks" - Grassroots level scientific research topic [28]

2.2.2. Research work related to Vietnam Investment and Development Joint Stock Commercial Bank

(8). Le Thi Thuy (2020), "Solutions to improve BIDV's business performance", doctoral thesis of Le Thi Thuy defended at the Academy of Finance [54], (9). Tran Khanh Duong (2019), "Solutions to prevent and limit credit risks at BIDV during the crisis" - doctoral thesis defended at the Academy of Finance. [15] (10). Vu Hong Thanh (2020), "Solutions for developing retail banking services at BIDV" - doctoral thesis defended at the Academy of Finance [53] (11).

2.3. Research approach angle of the thesis.

On the basis of synthesizing, analyzing, and evaluating the results - the scientific value of published works achieved, the author finds that research on operational risks and operational risk management at commercial banks still has a gap. limited number. Up to now, there has not been a complete and comprehensive systematic work on operational risk and operational risk management at commercial banks, from theory to surveying the current situation, and on that basis, proposing important points, directions, and solutions. Therefore, there are still many theoretical and practical contents that need to be resolved, requiring deeper research on operational risks and operational risk management of commercial banks in the current context. Based on the awareness of the need to strengthen operational risk management of the commercial banking system in general and BIDV in particular, the author decided to choose this research topic. At BIDV, there is no work that fully addresses the basic theories, current status of operational risk management and fully proposes necessary solutions. In the spirit of inheriting and promoting the issues that have been researched, the thesis will focus on researching basic theoretical issues about operational risks, operational risk management at commercial banks in general and the current state of the industry. Operational risk management, achievements and limitations, and proposed solutions to overcome weaknesses at BIDV in the context that Banks are strongly implementing the digital transformation process. Therefore, it can be confirmed that the topic chosen by the author does not overlap with previously published works.

2.4. Research gaps and questions.

2.4.1. Research gaps and issues of inheritance and development

Domestic and foreign research projects have built a fairly complete theoretical and practical foundation on operational risk management at commercial banks. The specific results of the above works are to mention the theoretical basis for the thesis topic which is commercial banks, business activities of commercial banks, operational risks of commercial banks and the focus content is operational risk management. NHTM's actions. At the same time, those projects have evaluated some aspects of the current situation and proposed solutions for operational risk management at a number of commercial banks abroad and domestically.

However, the above research works generally only stop at analyzing operational risk theory, assessing the current situation, and proposing some solutions within a specific bank or bank branch in the country. a certain period of time. Although there have been quite a few research topics related to the thesis topic, these research projects still have certain limitations - unresearched gaps, specifically as follows:

First, overseas research projects are conducted in highly developed economies and banking industries. There, market conditions, management models, legal corridors, economic operations, internal conditions, and management technology of commercial banks have developed at a high level. Therefore, with the characteristics of the current Vietnamese economy and commercial banking system, it is not appropriate.

Second, the studies have raised basic theories on issues related to operational risks and operational risk management of commercial banks. However, each study only mentioned one area of theory related to the topic of that study; no study has fully synthesized the theories on operational risk management of commercial banks in the context of commercial banks. Currently. At the same time, up to now, there has been no unified theoretical framework for operational risk management of commercial banks because of the large differences between countries around the world. In this research, the author will synthesize, supplement, and arrange the theoretical system to best suit the chosen topic.

Third, most of the published works approach from a direct perspective, quickly handling inadequacies that arise in operational risks. That is the entire operational risk management process, from risk identification and measurement; to classifying and handling risks. In the new research, the thesis sets out to fully and scientifically determine operational risk measurement criteria, apply international standards according to the Bassel Treaty to the content of operational risk management, and select appropriate operational risk management model, building and promulgating strategies, policies, and strict operational risk management processes, organizing the operational risk management apparatus to implement all content of the risk management process operating at commercial banks under specific conditions.

Fourth, most domestic research projects on operational risk management in particular and business risk management in general at commercial banks were carried out in the previous period, with old information and data. Meanwhile, the business environment, legal policies, and management level have changed. Although past research was very elaborate, serious, and had practical value during the time the topic was published, it may not be completely suitable for the current context. Especially in the field of operation of the commercial banking system, there have been many changes, which has caused the topicality of previous projects to decrease significantly. The requirement in thesis

research is to update modern knowledge, the latest information, and data about BIDV and the business environment.

Fifth, in general, according to the author's assessment, research projects, especially domestic research projects, propose solutions to improve and strengthen operational risk management of the entire commercial banking system or a bank branch. Furthermore, the research projects are not associated with BIDV, so the author chose to research them, so they are not consistent with the evolution of operational risks, operational risk management at BIDV, and subjective and objective factors. impact on operational risk management. In this study, PhD students rely on the theoretical basis, the theoretical framework that has been confirmed, and the practical basis that has been comprehensively and fully evaluated to propose the most reasonable solutions and recommendations.

2.4.2 Research questions.

To address the gaps in research, inherit the value of published works and develop to further perfect the central contents of the thesis, it is necessary to answer the following research questions: (i) Standard concept of operational risk management? Basic theoretical framework for operational risk management? What tools for operational risk management? Content of operational risk management? Which model to use ? What factors affect commercial banks' operational risk management? (ii) Current status of operational risks at BIDV? Current status of operational risk management at BIDV: compliance with Bas s el standards and regulations of the State Bank of Vietnam on application of Bas s el II standards, management processes and content Operational risks, main results, limitations, problems and causes in recent times? (iii) What solutions does BIDV need to implement? What recommendations should state management agencies for the banking system handle to create the most favorable conditions for BIDV to enhance operational risk management in the coming time?

3. Research objectives

The research objective of the thesis is to propose a solution system to enhance operational risk management at BIDV until 2030.

To achieve the above research goals, the thesis will analyze, explain and clarify some of the following issues:

Firstly, synthesize, analyze and clarify theoretical issues about operational risks and operational risk management at commercial banks.

Second, research experience in operational risk management at domestic and foreign commercial banks, thereby drawing lessons for operational risk management at BIDV in the future.

Third, systematically analyze the current status of operational risk management at BIDV in recent years. The analysis will allow a general assessment of the achieved

results and the limitations and existing areas in operational risk management at BIDV. These limitations will be analyzed and considered meticulously on the basis of understanding the causes (both objective and subjective causes).

Fourth, based on mentioning the advantages and difficulties and challenges in and strategic orientation of BIDV's operational risk management until 2030 as well as perspectives on operational risk management, the topic will focus on Trung proposed a number of solutions and recommendations to strengthen operational risk management at BIDV in the coming years.

4. Object and scope of research.

4.1 Research subjects

The thesis focuses on researching issues of operational risk and operational risk management at commercial banks. Specifically, the thesis delves into the following issues: basic theory, theoretical framework, types of operational risks, operational risk management models at commercial banks; Analyze and evaluate the current status of operational risk management at some commercial banks (in the world and Vietnam) and BIDV. On that basis, the thesis proposes a system of solutions and recommendations to strengthen operational risk management at BIDV for the coming period.

4.2 Scope of research

- Regarding scientific content: The thesis researches operational risks and operational risk management of commercial banks.
- About space: Research thesis on BIDV.
- Regarding time: Current status of operational risk management at BIDV from 2018 - 2022, proposed directions and solutions for implementation until 2030.

5. Research methods

To achieve the research goals, the author uses a combination of the following methods:

(first). *The method of dialectical materialism and historical materialism of Marxism-Leninism:* Is a general and popular methodology in economic scientific research activities.

+ The dialectical materialist method is a method of considering things and phenomena in their interconnectedness, in a certain space and time, in constant movement and development.

+ The historical materialist method is associated with material production and service business activities in the unified relationship between production forces, service providers at a certain level and production relations. respectively and within a certain period of time.

Applying the above method in thesis research: in the theoretical chapter, the author examines operational risks and operational risk management of commercial banks in the

movement and development of relationships with things. Another phenomenon - the movement of service activities in relationships with customers and partners receiving those services. From there, propose operational risk management models, criteria for evaluating operational risk management, and factors affecting operational risk management of commercial banks. When researching on a practical basis, the author analyzes and evaluates BIDV's operational risk management over a certain period of time, based on the proposed set of criteria and the impact level of the factors. Factors and causes that create results, giving rise to limitations and shortcomings in operational risk management at BIDV. Based on the perspective of dialectical materialism and historical materialism, the author proposes solutions and recommendations related to the service provider: BIDV, service delivery customers, commercial banks, credit institutions, other financial intermediaries and state management agencies of the banking system.

(2). *Method of explaining and synthesizing theory*: Is a method of capturing information and basic scientific content of the topic through books, newspapers, and documents with the aim of selecting basic concepts and ideas as the basis. theoretical basis of the topic, forming scientific hypotheses, predicting the properties of the research object, building theoretical and experimental models. In particular, the interpretation method is a method of researching different documents by classifying and arranging information collected from different sources into aspects, parts, and historical relationships. time to discover and exploit different aspects of the theory, thereby selecting the necessary information to serve the research topic. The synthesis method is to link each aspect and each part of information that has been interpreted and analyzed to create a more complete and profound theoretical system about the research object.

In the thesis, the author researched documents on topics related to operational risk, operational risk management at commercial banks, models and factors affecting the effectiveness of risk management. activities in chapter 2. On that basis, the author synthesizes and evaluates information collected from the research perspectives of many different authors to form a theoretical framework that serves the right target and audience. research object of the thesis.

(3). *Data collection and processing method*: This is the method of collecting and processing secondary data. Secondary data is data that is already available, it has been published so it is easy to collect. This type of data is very rich, diverse and comes from many different sources. In the thesis research, secondary data was collected by the author from books, newspapers, scientific reports, and domestic and foreign research works related to operational risks and operational risk management. of commercial banks and BIDV systems.

In addition, other important secondary data sources serving the thesis research are current legal documents of International Banking and Financial Organizations (such as

the Bas s el Treaty), Vietnam and BIDV is involved in risk and risk management in business in general, operational risk and operational risk management at commercial banks. This is a useful data source providing important information about current international and Vietnamese regulations.

In addition, to serve the research process, the thesis conducts statistics and studies documents such as the Annual Report of the State Bank of Vietnam, Summary reports of relevant ministries, and the General Department of Vietnam. statistics, summary reports, business results reports of Vietnamese commercial banks and BIDV.

(4). Descriptive statistical method: Statistics is a system of methods including collecting, synthesizing, presenting data, and calculating characteristics of research objects to serve the process of analysis, prediction, and decision-making. decision. Based on the statistics of the collected data and figures, the author interprets the data on the basis of description and points out the most basic characteristics of the collected data source.

During the research process, reporting information on BIDV's business performance was collected by the author in the form of general reports published by the bank. In which the content is about operational sales of all types of services, revenue, costs, and profits of BIDV and related commercial banks. The data were selected and included in the study by the author in the form of tables and figures.

(5). Methods of analysis, synthesis, and comparison: Analysis is the study of documents, situations, and data tables collected by analyzing them into parts to learn deeply about the research object. Synthesis is to link each aspect and each part of analyzed information to create a complete and profound system.

In the thesis, the author uses collected data sources, analyzes, synthesizes, and compares values between periods, specifically for each year, compares the next year with the previous year, and compares targets, and market share with other commercial banks. From there, to have a comprehensive and complete assessment of the current status of operational risk management at BIDV.

(6). Logical reasoning method: Includes deductive and inductive methods. While deduction is a method of reasoning from the general to the particular, the inductive method goes from the particular to the general. In chapter 2 of the thesis, the author flexibly applied both deductive and inductive methods when explaining basic theory. Especially in Chapter 3, the author thoroughly applies deductive and inductive methods when analyzing the current status of operational risk management and factors affecting the effectiveness of operational risk management at BIDV. Starting from previous research works, the author builds hypotheses about the direction of impact of each factor. Next, the author uses secondary data sets to test the hypothesis and reach the final conclusion. In Chapter 3, from the study of basic theories, and operational risk

management experience of a number of domestic and foreign commercial banks, the current situation of operational risk management at BIDV, is considered as the basis for the proposal. Proposing solutions and orientations to strengthen operational risk management at BIDV in the coming time.

5. New conclusions of the thesis:

* Theoretically:

- Full and in-depth research on operational risk theory and operational risk management of commercial banks, experience in enhancing operational risk management of domestic and foreign commercial banks, especially in the trend of the 4.0 industrial revolution, the explosion of new financial technologies, on that basis, the thesis makes new contributions on concepts, classification, and causes of operational risk. From there, it is the premise to build a set of criteria for measuring the operational risk of commercial banks.

- The thesis has built operational risk management models, operational risk management tools, and operational risk management processes and contents of commercial banks to serve as a basis for assessing the current situation of operational risk management at Joint Stock Commercial Banks. Invest and develop Vietnam in the most complete way.

* About practice:

- The thesis uses methods to comprehensively and fully evaluate the current state of operational risk management of the Joint Stock Commercial Bank for Investment and Development of Vietnam through scientific analysis. The two methods are: (i) Assessing the current state of operational risk through risk classification and criteria, and (ii) Analyzing and evaluating the content of operational risk management. The results of that assessment show the level of operational risk, the effectiveness of operational risk management, and the successes and shortcomings in BIDV's operational risk management during the period of studying the current situation (2018 - 2022).

- Proposing new solutions:

- + Complete the operational risk management model, when the Bank builds and perfects an organizational structure that has a strong impact on strengthening operational risk management.

- + Complete and use a variety of operational risk management tools, this group of solutions is the choice to apply advanced risk management tools in the market economy, by management conditions. Operational risk value at Vietnam Investment and Development Joint Stock Commercial Bank.

- + Complete the management information system and strengthen technology risk management and network security. Implementing this group of solutions is the basis and condition for effective operational risk management.

The above three solutions are based on a complete scientific theoretical and practical basis and are very suitable for the fluctuations of the market economy and the fierce competition of commercial banks, their mechanisms, and policies. State regulations for commercial banks and BIDV's development conditions in the current period should be highly feasible compared to other published projects on the same topic.

7. Scientific and practical significance of the thesis topic

- The thesis systematizes and clarifies basic theoretical issues about operational risks and operational risk management of commercial banks. Operational risk is the theoretical basis for the topic, with the following issues: concepts, classification, and measurement criteria. Operational risk management is the central content, the thesis explains the issues: concepts, tools, models, content and influencing factors. From there, it contributes to perfecting the basic theoretical issues of the topic.

- Analyze and evaluate the current state of operational risk and operational risk management at BIDV in the period 2018 - 2022. Through that content, the thesis points out the achieved results and remaining limitations. Reasons why operational risk management at BIDV is not really effective and ensures safety in business.

- From the theoretical basis and current situation mentioned above, the thesis proposes directions, solutions, and recommendations aimed at improving and strengthening operational risk management at BIDV until 2030.

8. Thesis structure.

In addition to the introduction, conclusion, list of references, list of tables and figures, the main content of the thesis is structured into 3 chapters:

Chapter 1 Basic theory of operational risk management at commercial banks.

Chapter 2 Current status of operational risk management at BIDV.

Chapter 3 Solutions to enhance operational risk management at BIDV

CHAPTER 1

BASIC THEORY OF OPERATIONAL RISK MANAGEMENT AT COMMERCIAL BANKS

1.1. OVERVIEW OF COMMERCIAL BANKS AND OPERATIONAL RISKS OF COMMERCIAL BANKS

1.1.1. Overview of commercial banks.

In the opinion of the author of the thesis: "A commercial bank is a monetary business organization, whose main and regular activities are to receive deposits from customers, use that money to lend, discount and carry out all other activities. banking services for customers in the economy"

Business activities of commercial banks: (i). Capital mobilization activities, (ii). Credit activities, (iii). Non-credit service activities.

Characteristics of commercial banks' business activities: (i) Commercial banks are an enterprise that trades currency to make profits, (ii) Commercial banks' activities are associated with many customers in the economy, (iii) products are Products provided by commercial banks have unique characteristics compared to other business activities, (iv) commercial banking activities are a high-risk form of business, (v) commercial banks are typical financial intermediaries, (vi)) Commercial banks' activities are subject to close and regular supervision by agencies with macro management functions.

1.1.2. Operational risks of commercial banks.

“Operational risk is a risk that can be caused by human errors, human resource management, poor operation of processes and systems, and force majeure events. Operational risk is a concept that covers all aspects of daily operations of commercial banks, can occur at any time, and is difficult to control and measure.

The thesis classifies operational risks as follows:

- * Based on impact factors, operational risks are divided into internal risks and external risks

- * Based on the cause, operational risks are divided into: Risks due to the bank's regulations and operational processes, Risks caused by bank officials, Risks due to the support system, Risk due to external factors

- * Based on the scope of damage, operational risks are divided into: risks causing direct damage and risks causing indirect damage.

- * Based on the predictability of risk occurrence, operational risks are divided into: predictable and unpredictable operational risks.

- * Based on the frequency of risks and damage from risks, operational risks are divided into two types of risk frequency: high and low. There are two types of risk damage: heavy and light

Causes of commercial banks' operational risks: Risks due to human factors; Process risks; Risk due to system/technology; Risks due to external influences; Risks due to other issues.

To measure the operational risk of commercial banks, the following criteria can be used: (1). Amount of fraud and sources of fraud, (2). Number of customer complaints and disputes, (3). Number of vacant positions, (4). Number of errors and omissions, (5). Number of violations of regulations, (6). Property loss, (7). Loss of reputation.

Operational risks impact (adversely affect) relevant actors and all sectors of the economy. That is, for commercial banks, for customers and for the socio-economy.

1.2. OPERATIONAL RISK MANAGEMENT AT COMMERCIAL BANKS

1.2.1 Concepts.

“Operational risk management (Operational risk management) is the process by which commercial banks conduct activities that affect operational risks, including

identifying, measuring, evaluating, monitoring and controlling risks to ensure the level of risk. The level of loss caused by operational risks is controlled at an appropriate level, achieving a reasonable correlation between acceptable operational risk and the operational risk that the bank wants to minimize.

Operational risk management is one of the key contents in the overall risk management of each commercial bank, including credit risk management, operational risk management and liquidity risk management.

1.2.2. Operational risk management model of commercial banks.

The operational risk management model must stand on many different levels and should be considered at all levels. The organizational structure of operational risk management includes senior management and implementation departments, demonstrated through the 3-circle operational risk management model.

1.2.3. Operational risk management tools at commercial banks

To manage operational risk, commercial banks can use the following tools: risk and control self-assessment (RCSA); loss data collection (LDC), key operational risk indicators (KRIs), scenario analysis, new product review and approval, operational risk maps. The first four tools are commonly used when implementing operational risk management at commercial banks.

1.2.4. Process and content of operational risk management at commercial banks

The process and content of operational risk management of commercial banks include:

Step 1: Identify operational risks

Step 2: Measure operational risk

Step 3: Control operational risks

Step 4: Report operational risks

This is an important content - theoretical framework for operational risk management at commercial banks.

1.2.5. Factors affecting operational risk management of commercial banks

Subjective factors: (i) the board's strategic vision on operational risk management and the "culture" of control in the bank, (ii) the organizational structure, (iii) the quality amount of resources, (iv) financial resources, (v) information technology systems...

Objective factors: (i) Economic environment, (ii) Legal environment, (iii) Social environment, (iv) Technical and technological environment

1.3. EXPERIENCE IN OPERATIONAL RISK MANAGEMENT OF SOME COMMERCIAL BANKS AND LESSONS LEARNED FOR JOINT STOCK COMMERCIAL BANKS FOR INVESTMENT AND DEVELOPMENT OF VIETNAM

In this content, the researcher researches the operational risk management experience of a number of foreign commercial banks (Lehman Brothers Bank - USA, Barings Bank - England) and domestic ones (Vietnam Joint Stock Commercial Bank for Industry and Trade, Vietnam Maritime Commercial Joint Stock Bank and NHTNHHMTV Dai Duong) to draw 5 lessons learned on operational risk management and analyze the ability to apply lessons at BIDV.

CONCLUSION OF CHAPTER 1

Chapter 1 has generalized the basic contents of commercial banks and operational risks of commercial banks, concretizing the nature of operational risks, classifying them, and giving causes and criteria. measure operational risk. The issue of operational risk management mentioned is an extremely important content. The author has clarified the concept of operational risk management, models, tools, and content of operational risk management including identifying operational risks, measuring operational risks, and responding to operational risks. operate, control, and handle operational risks. In addition, chapter 1 also mentions the operational risk management experience of some commercial banks and draws lessons for BIDV. That is the theoretical basis for researching and evaluating the current status of operational risk management at the Joint Stock Commercial Bank for Investment and Development of Vietnam in Chapter 2.

CHAPTER 2

CURRENT STATUS OF OPERATIONAL RISK MANAGEMENT AT VIETNAM JOINT STOCK COMMERCIAL BANK FOR INVESTMENT AND DEVELOPMENT

2.1. OVERVIEW OF VIETNAM JOINT STOCK COMMERCIAL BANK FOR INVESTMENT AND DEVELOPMENT

In this content, after studying the formation and development process, organizational structure and operations of BIDV, the thesis deeply analyzes BIDV's business results in the period 2018 - 2022.

In the period 2018 - 2022, BIDV will have outstanding growth in the scale of total assets and equity. In 2018, BIDV's total assets were 1,202,283 billion VND, but by the end of 2022, it had increased to 1,761,696 billion VND, equivalent to an increase of 147%. Similarly, there is a remarkable increase in equity, from VND 48,834 billion in 2018 to VND 86,329 billion in 2022.

2.2. CURRENT STATUS OF OPERATIONAL RISK MANAGEMENT AT VIETNAM JOINT STOCK COMMERCIAL BANK FOR INVESTMENT AND DEVELOPMENT

2.2.1. Current status of operational risks at Vietnam Investment and Development Joint Stock Commercial Bank

In actual operations at BIDV, many operational risks have arisen. Risks occur in most stages and areas of operations at any time and in any situation. BIDV has taken measures to prevent and limit operational risks, but in recent times they have not been really effective. Types of operational risks that have arisen at BIDV in recent times have arisen from within BIDV or from outside.

2.2.2. Current status of operational risk management at Vietnam Investment and Development Joint Stock Commercial Bank.

2.2.2.1. Operational risk management model at Vietnam Investment and Development Joint Stock Commercial Bank.

BIDV establishes and maintains an operational risk management organizational structure that complies with the principle of 3 lines of defense of the internal control system, the risk management model system at BIDV ensures management according to 3 rounds of control. Policies, regulations, tools and technology solutions, products, and databases are centrally managed at the Head Office, thereby providing positive solutions in case of risks. The operational risk management model at BIDV Head Office is built on a large scale, according to risk management standards, this is a solid premise to limit losses and impacts of operational risks during operations. of the entire banking system.

2.2.2.2. Operational risk management policy at Vietnam Joint Stock Commercial Bank for Investment and Development.

Based on the Business Strategy, BIDV has built a risk "appetite" in operations. Regarding operational risk, BIDV determines its appetite " Do not accept any operations whose net risk score in the RCSA process falls into a high risk level".

2.2.2.3. Operational risk management process at Vietnam Joint Stock Commercial Bank for Investment and Development.

(1) *Current status of identifying operational risks at BIDV:* To identify operational risks, BIDV complies with the general direction and direction of the State, the Government and the State Bank of Vietnam and the issued operational risk management policy. BIDV has built a regular and periodic reporting system to serve the identification of operational risks occurring at BIDV. The Bank identifies operational risks at BIDV through four groups of causes: (i) human factors; (ii) internal processes are incomplete or have errors; (iii) system errors and problems; (iv) external factors.

(2) *Current status of operational risk measurement at BIDV:* To measure operational risk, BIDV deploys a system of operational risk management tools including:

* Self-assessment of risks and controls: Is the process by which banks conduct inspections and assessments of operational risk portfolios, and check points to make plans to prevent and minimize risks.

* Key risk index (KRI): KRI used are statistical indicators to monitor changes in the risk of arising operational risks.

* Operational risk management for new products and operations in new markets: Researching and analyzing possible operational risks for new products and operations in new markets helps BIDV measure anticipate possible operational risks, thereby building tools to measure, identify, prevent and handle these new risks.

* Develop a plan to ensure business continuity: Business continuity is the activities and measures to maintain the unit's operations before, during and after a disaster, ensuring BIDV's operations are smooth at a high level. appropriate degree.

* Determine the minimum required capital for operational risks according to the method specified in Article 16, Circular No. 41/2016/TT - State Bank dated December 30, 2016 and documents amending and supplementing.

(3) *Status of controlling and responding to operational risks at BIDV*: BIDV monitors the implementation of operational risk management in departments/divisions under BIDV to ensure regular and continuous implementation. At the same time, implement and evaluate the results of implementing risk prevention and mitigation plans in historical operations, from which there are lessons learned in handling BIDV's current operational risks. The Risk Management Department is responsible for monitoring risk signs with high levels of risk, the level of risk fluctuations of each type of operational risk, thereby proposing measures and reporting promptly to avoid risk incidents. risk occurs. On the other hand, BIDV urges relevant departments/divisions associated with risk management to send reports to the risk management department at BIDV, and at the same time, BIDV promptly synthesizes and reports to the Head Office for optimal solutions.

Risk control activities at BIDV are divided into each level. Based on measuring the risk level according to the operational risk management matrix, for each different risk level, BIDV will have appropriate control and handling measures, minimizing the losses that occur.

To respond to operational risks, it is necessary to quantify and estimate capital costs for operational risks, and have plans and scenarios to respond when risks occur. Currently, BIDV has not made risk provisions for operational risks but only calculates the minimum required capital for general operational risks to calculate the minimum capital adequacy ratio CAR according to Basel II. This is a limitation in BIDV's operational risk management; it has not been able to calculate specific costs to set up operational risk provisions in particular. In case of risk, BIDV uses profit after tax to compensate for losses.

BIDV has developed a risk response plan: BIDV established a Risk Management Team with core staff and an attached list. When a risk is detected, team members will

voluntarily gather, come up with plans and solutions, and after completing the task, the risk handling team will automatically disperse. At the same time, BIDV organizes training and exercises to handle situations that arise from operational risks in transactions and operations, and at the same time has a profit distribution plan in case risks need to be handled. At the same time, periodically, BIDV holds meetings to discuss improving plans to suit BIDV's actual operating situation and keep up with developments in the market.

BIDV regularly builds self-inspections, evaluates and corrects errors that cause risks to minimize losses: Quarterly, BIDV's board of directors has built review sessions and established each team. Cross-checking operations to limit errors. At the same time, on that basis, the operations department gathers error-checking minutes prepared by the inspection and review teams and reports to the board of directors. BIDV will meet and develop a response plan, forecast risk cases, and anticipate and have a plan to overcome risk damage to have timely directions in operating BIDV's business activities. Future.

* Use of insurance tools: At BIDV, the Board of Directors decides on investment policies and purchases of insurance tools for operational risks for high/serious risk areas. In the period 2018 - 2022, BIDV has deployed various types of insurance contracts in operational risk management: Anti-fraud insurance - Anti-electronic fraud insurance (compensating for losses arising from fraudulent acts of employees, bank customers or third parties) and Liability insurance for members of the Board of Directors and management (compensating for all individuals involved) Participate in the management and organizational monitoring of financial losses and liability for compensation claims).

In the period 2018 - 2022, through BIDV's statistical data and synthesis of actual results at BIDV - operational risk management at BIDV has promoted remarkable results, minimizing risks. risk occurrence, prevention and limitation of operational risk losses within a controllable level. BIDV's business operations take place safely, bringing high profit efficiency.

(i). Based on the criteria of frequency of risk occurrence.

(ii). Based on risk level criteria: In 2022, the total number of high-risk errors is 10 errors, down 18% compared to 2021, down 25% compared to 2020. Demonstrates operational risk management implemented quite effectively by BIDV, high-impact risks are well controlled and gradually reduced over the years.

(iii). Based on the criteria of losses occurring: In the period 2018 - 2022, BIDV's loss value over the years is low, on average about 30-40 million VND/year, in some years there is no stable loss. failure in operation. Besides. The unreasonable arrangement and rotation of some staff resulted in BIDV losing a number of core staff with solid professional experience. At the same time, BIDV lost recruitment and training costs for new staff.

For errors in the operational process leading to loss of assets and reputation of BIDV. Specifically, in 2022, the amount of group II debt will increase significantly, reducing income mainly due to pre-, during and post-lending appraisal. At the same time, BIDV's credit and capital mobilization decreased slightly due to some cases of incorrectly entering interest rates or applying interest rates not in accordance with regulations issued by the Head Office. BIDV's reputation with customers is affected, in many cases customers are dissatisfied due to mistakes in transactions.

BIDV must pay the costs of fulfilling legal obligations in handling assets in cases where customers do not repay debt on time.

In addition, through inspections to detect errors, BIDV spends a significant amount of money to complete and fix errors/risk signs.

At the same time, operational risks that have occurred in recent times at BIDV have affected the working environment and staff psychology, thereby deeply affecting the overall operating situation of BIDV in recent times.

Overall, operational risk management at BIDV has been truly effective, helping BIDV prevent and limit operational risk losses. Risk management at BIDV has achieved encouraging results, however, there are still limitations that affect the efficiency of BIDV's production and business activities. Therefore, in the coming time, BIDV needs to continue to promote the achieved results, find out the causes of problems, and thereby improve the quality of operational risk management.

(4) Operational risk report

BIDV's operational risk reporting system includes Internal Report and Report to the State Bank. Reports are made periodically/unscheduled, meeting the requirements of the State Bank and internal regulations in each period. As for operational risk management in technology applications, BIDV separates information technology risks as a key type of risk and is managed independently. Accordingly, BIDV has issued the Information Technology Risk Management Policy and fully implemented the following contents: organizational structure according to 3 lines of defense, strategy, taste, limits, identification - measurement - process. Monitor and control information technology risks and deploy appropriate systems of tools and measurement methods.

** Report errors, errors and Report suspicious transactions*

Errors and errors are detected from 2 main sources: from the results of reviewing suspicious transactions (suspected transactions are transactions that need to be reviewed to detect, overcome, and prevent risks and errors and errors) and self-monitored and discovered by the unit (statistical results, monitoring at the units, announcements from the Head Office, conclusions of the inspection team, internal audit...). Every day, the officers/focal sections of operational risk management at the units review errors and errors from sources; Send to relevant departments to check, review, monitor and

supervise the processing and remediation process of the departments and summarize reports to the Board of Directors.

* *Operational risk matrix report*: The operational risk matrix is a table that describes the frequency of occurrence and level of impact of errors and errors. At BIDV, there are 3 types of matrices: system-wide risk matrix for each operation; Monitor all operations and each unit; corresponding to 3 levels of risk: high risk; medium risk and low risk.

2.3. ASSESSMENT OF THE STATUS OF OPERATIONAL RISK MANAGEMENT AT JOINT STOCK COMMERCIAL BANK FOR INVESTMENT AND DEVELOPMENT OF VIETNAM

2.3.1. These achievements

Studying the current status of operational risk management at BIDV, it can be seen that this area of the Bank's activities has achieved many important results. Specifically:

Firstly, initially establish a culture of risk management in the bank.

Second, effectively apply documents on regulations and procedures of the State Bank and Head Office in operational risk management.

Third, BIDV has focused on improving the efficiency of human resources work and arranging human resources for operational risk management.

Fourth, gradually improve the management information system.

Fifth, operational risk management at BIDV has separation and assignment of responsibilities in all operational stages.

Sixth, BIDV has actively handled and prevented losses caused by operational risks in the period 2018 - 2022.

Seventh, BIDV has implemented inspection, control, and internal self-inspection.

Eighth, BIDV has successfully designed and deployed a number of operational risk management tools

2.3.2. Limitations and existence

Limitations and shortcomings in operational risk management at BIDV:

The first, The risk management model operating at BIDV is not really effective, the risk control culture has only just been initially built and its implementation is not yet widespread throughout the system.

Second, there are few personnel in operational risk management and limited experience.

Tuesday, Internal audit has not yet fully implemented the role of the third line of defense.

Wednesday, BIDV has not officially issued the Operational Risk Strategy and fully declare the risk appetite.

Fifth, BIDV has not built an effective cybersecurity risk management process and lacks a scenario to respond to incidents and risks of information insecurity.

Friday, BIDV's operational risk measurement tools are still quite simple, in the process of being completed, lack modern forecasting and estimation models, and the operational risk database is still limited.

2.3.3. Cause of existence,

2.3.3.1. Objective reasons: The State Bank of Vietnam's guiding document system on operational risk management is incomplete; The legal framework related to electronic banking and digital banking activities still has many shortcomings; due to increasingly fierce competition in commercial banking activities; The bank's partners and customers have not paid attention to the issue of ensuring network security, and do not even have enough capacity and infrastructure for information security; other causes

2.3.3.2. Subjective reasons: Human resources and staff training have not met operational and operational requirements at BIDV; due to pressure on business targets, pressure on work; Because the coordination between departments/departments in the Bank is not really good and effective; The information technology system does not meet operational risk management requirements at BIDV; Investment in resources for operational risk management is still limited

CONCLUSION OF CHAPTER 2

In Chapter 2, the author has generalized the formation and development process of BIDV. Along with that, the author summarizes BIDV's business activities in terms of activities: capital mobilization, credit activities and other business activities in the period 2018 - 2022. The main content in the chapter is research. about the current status of operational risks and operational risk management of BIDV, thereby analyzing the effectiveness of operational risk management, evaluating the achieved results, shortcomings and weaknesses in the company. BIDV's operational risk management. After evaluating and analyzing the achieved results as well as the limitations, the author delves into analyzing the causes leading to the limitations and weaknesses. That is the practical basis for proposing solutions in chapter 3.

CHAPTER 3

SOLUTIONS TO ENHANCE OPERATIONAL RISK MANAGEMENT AT VIETNAM JOINT STOCK COMMERCIAL BANK FOR INVESTMENT AND DEVELOPMENT

3.1. ORIENTATION FOR STRENGTHENING OPERATIONAL RISK MANAGEMENT AT VIETNAM JOINT STOCK COMMERCIAL BANK FOR INVESTMENT AND DEVELOPMENT UNTIL 2030

3.1.1. The context of socio-economic development and the banking market impacts the operations of the Joint Stock Commercial Bank for Investment and Development of Vietnam

In the period 2023 - 2030, BIDV faces many challenges:

- Fierce competition in the banking system.
- Risks in the operation of the commercial banking system increase when the market opens.
- BIDV and Vietnamese commercial banks encounter problems within the bank's internal system.
- The corporate governance capacity of Vietnam in general and the banking system in particular is still very weak, leading to huge risks in operations and in the market.
- The quality of human resources does not meet the bank's actual requirements.
- The incompleteness of the financial market.

3.1.2. Orientation to strengthen operational risk management of Vietnam Joint Stock Commercial Bank for Investment and Development until 2030.

** General goals of BIDV's Development Strategy:*

- Top 20 largest banks in Southeast Asia, top 100 largest banks in Asia Pacific, top 300 largest banks in the world.
- Become a modern international financial corporation.
- Perfecting the banking governance model according to the provisions of law and international practices.
- Diversify the portfolio of high quality products and services.
- Develop information technology synchronously and effectively.

** BIDV's development strategy:*

- Develop and improve the quality of banking operations.
- Continue to achieve the goals set by the State on the environment, society as well as the community.
- Implement 7 priority focuses and 10 major tasks...

** Orientation to strengthen operational risk management at BIDV:*

- (i) Continue to deploy the organizational structure according to the 3-line-of-defense model to ensure compliance with regulations of the authorities, according to practice and in accordance with reality.
- (ii) Review, improve, and reissue the entire system of documents and regulations to ensure consistency.
- (iii) Establish and monitor compliance with operational risk appetite and limits.
- (iv) Deploy operational risk management tools.
- (v) Operational risk management for outsourcing activities; Operational risk management for new products and operations in new markets.
- (vi) Develop, rehearse, report on BCP implementation and respond to events.
- (vii) Calculate and check the required capital tolerance for operational risk.
- (viii) Carry out periodic and extraordinary reports on operational risk management.
- (ix) Develop software programs for operational risk management.

(x) Training and communication on operational risk management throughout the system.

(xi) Proactively approach risk management associations, such as RMA, ORX (Operational Risk Data Exchange Association) to research and apply data and experience in operational risk management. Besides, participating in Risk Management Associations is also an opportunity to promote the bank's image.

3.2. SOLUTIONS TO ENHANCE OPERATIONAL RISK MANAGEMENT AT VIETNAM JOINT STOCK COMMERCIAL BANK FOR INVESTMENT AND DEVELOPMENT.

3.2.1. Complete solution for operational risk management model.

Organizational structure for operational risk management at the Head Office: To manage operational risk effectively, one of the important requirements for BIDV is to build and complete the organizational structure model. That is, the risk management organizational structure model operates according to the three-round control model of the Basel II Agreement, on a basis consistent with the actual operating situation at BIDV.

The organizational structure of operational risk management at branches needs to be paid attention to and fully allocated human resources for effective implementation.

3.2.2. Strengthen the building of a culture of operational risk control at the Joint Stock Commercial Bank for Investment and Development of Vietnam.

Operational risk management culture is a set of values, awareness, attitudes, procedures and behaviors towards operational risks that are widely recognized and implemented by individuals and banks in the process of working. daily practice. A culture of risk management, including a culture of operational risk management, is established in each bank through ethical codes, professional standards, behavioral standards, and clear reward and discipline mechanisms. consistent with the operational risk management policy and encourage full implementation of the operational risk management policy and responsibilities. The promulgation and dissemination of documents guiding the practice of risk control culture at BIDV has just been implemented at BIDV.

3.2.3. Complete the document system and operational risk management policies.

BIDV needs to improve the system of documents and regulations related to operational risk management at the bank. Policies issued on operational risk management must be consistent with the regulations of the Government and the State Bank; must be complete, synchronous, timely, innovative and always complied with throughout the contract implementation process and must keep up with world trends.

3.2.4. Complete and use a variety of operational risk management tools

BIDV has been quite successful in researching and applying operational risk management tools, incorporating them into the overall operational risk management

process. However, some new tools only stop at creating documents and have not really been implemented in practice. Besides, some tools have not yet been deployed. That reality requires BIDV to have solutions to make risk management tools more effective.

3.2.5. Complete a complete, reliable loss database and enhance loss data collection for operational risk management

Database is a prerequisite for technology solutions of all operations. From customer ranking information, collateral ranking, daily liquidity calculation cash flow, money transfer payment transactions, trading of derivatives and foreign currencies to limit management tools, risk appetite, value at risk, operational safety factors according to regulations of the State Bank... are all directly connected to the database system. Therefore, a complete, highly reliable database is a good premise for developing technology solutions that effectively serve business and effective management.

3.2.6. Strengthen the role of internal control and audit systems

BIDV needs to improve the effectiveness of the internal control and audit system. Periodically, internal control and audit evaluate business activities, focusing on strategic and operational risks, thereby providing recommendations for management to review, identify and resolve.. Requires internal control and audit departments to have a comprehensive understanding of all banking operations, legal and regulatory issues.

3.2.7. Improve the quality of human resources

In the operations of any organization, the human factor is always the number one important factor, it directly determines the success or failure of that organization's operations. In particular, if operational risk management is to be highly effective, it requires staff to have high professional qualifications, skills, and job handling skills because this is a complex job., related to many different processes and operations.

3.2.8. Participate in operational risk insurance

In the step of minimizing operational risks, managers often classify according to the level of control to determine actions to deal with operational risks such as avoiding risks, replacing risks, separating risks or transferring risks. Risk transfer measures are typical measures associated with the role of insurance in supporting risk management.

3.2.9. Complete the management information system and strengthen technology risk management and network security.

BIDV needs to deploy a strategy to ensure overall safety and in-depth protection. Develop security processes and increase education for employees about the need for security as well as the bank's security measures and regulations.

3.3 SOME RECOMMENDATIONS

To be able to implement the above solutions quickly and effectively, the author has a number of recommendations and proposals to the Government, relevant ministries and branches and the State Bank of Vietnam.

CONCLUSION OF CHAPTER 3

Chapter 3 has systematized and selected basic directions to strengthen operational risk management at BIDV until 2030, thereby proposing a number of solutions to enhance this work. In addition, propose a number of recommendations to the Government, relevant ministries, and the State Bank of Vietnam to create favorable conditions for operational risk management at BIDV.

CONCLUDE

Currently, in Vietnam, operational risk management is still new to Vietnamese commercial banks, while this work has become familiar to countries around the world. In recent years, a number of Vietnamese commercial banks in general, and BIDV, in particular, have paid attention to this type of risk and started building the necessary foundations to strengthen operational risk management according to good practices in the world. Besides the initial results achieved, operational risk management at Vietnamese commercial banks and BIDV still has certain limitations. These shortcomings and limitations stem from factors such as: coming from inside and outside the bank. Credit activities are traditional business activities of Vietnamese commercial banks in general and BIDV in particular, with income from credit activities usually accounting for 85% - 87% of the bank's total income. Therefore, operational risks in the banking business tend to focus on credit activities, which can cause severe consequences not only for commercial banks themselves but also for the entire economy. Starting from that reality, the author chose the topic "Operational risk management at BIDV" with the goal of proposing a reasonable solution system for enhancing operational risk management.

- The thesis focused on solving issues related to operational risks and operational risk management.

- The thesis has completed and innovated basic theoretical issues such as methods of measuring operational risks, supplementing the content of operational risk management in conditions of competition and international integration, models of Advanced operational risk management, creative application of operational risk management principles of the Basel 2 treaty...

- Using models and methods to analyze and evaluate the current state of operational risk management has many advantages compared to published works.

- Proposing new solutions, and advanced and modern content to enhance operational risk management at BIDV until 2030 such as: Completing the operational risk management model, Applying information technology in management Managing operational risks and building an early warning system, establishing an operational risk measurement model...

**LIST OF RESEARCH WORKS
RELATED TO THE THESIS OF THE PHD STUDENT**

(1). Dinh Nguyen Bao Anh (2023), Sustainable development of customers credit fund system in globalization conditions, Proceedings of the International Scientific Conference, Academy of Finance - SEDBM 6, article number 77, pages 775 - 785, September 2023.

(2). Dinh Nguyen Bao Anh (2023), The digital transformation at Vietnam commercial banks – the necessary road to develop and sustainable business, Proceedings of the International Scientific Conference, Academy of Finance - SEDBM 6, article number 113, pages 1151 - 1155, September 2023.