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THE EFFECT OF RISK MANAGEMENT ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS: A CASE STUDY OF BANGKOK BANK

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Abstract: Banks have been facing various risks in recent years, such as credit risk, market risk, operational risk, etc. In this context, it is very important to study the risk management of Bangkok Bank. At the same time, it promotes the healthy development of the entire financial system. Therefore, this study aims to explore the impact of Bangkok Bank's risk management practices on financial performance (ROA). The specific research objectives were: 1) To analyze the impact of credit risk on Bangkok Bank's financial performance.2) To determine the impact of market risk on Bangkok Bank's financial performance.

This study adopts a quantitative research method, combined with the design of relevant questionnaires and official website data, a total of 104 samples were used for descriptive statistical analysis and correlation analysis. The results found that: the relationship between credit risk, liquidity risk and financial performance (ROA) of Bangkok Bank is revealed. The descriptive statistical results show that the means of credit risk and liquidity risk are high, and their standard deviations are small, indicating that these risk management practices have less variation among banks. The correlation analysis further shows that there is a significant positive correlation between ROA and credit risk and liquidity risk (correlation coefficients are 0.43 and 0.61, respectively, $p < 0.01$), indicating that higher credit risk and liquidity risk may be associated with higher ROA. In addition, there is a significant positive correlation between credit risk and liquidity risk (correlation coefficient is 0.47**, $p < 0.01$), indicating that these two risk management practices are somewhat interrelated in Bangkok Bank. These findings highlight the importance of effective risk management practices to bank financial performance and provide empirical evidence for further optimizing bank risk management strategies.

Keywords: Risk Management, Bangkok Bank, Risk Strategies

Introduction

All over the world, the banking industry is one of the most important pillars of any country's economy (Yin et al., 2020). Generally speaking, when surplus funds are deposited in banks, deficit units will obtain loans (Dao, 2020). Although the concept may be simple, the actual transaction is designed, constructed and managed to ensure the ultimate ownership of funds by all parties, especially depositors. Usually, banks must guarantee the repayment of deposits (Jiravichai & Banomyong, 2022). However, sometimes loan repayment becomes impossible. Some borrowers do not repay the bank's loan despite being bound by the loan contract. Therefore, banks have potential losses in the loan business. Credit risk management can establish process standards and division of responsibilities (Gunarapong et al., 2022). Credit risk basically depends on the potential risk caused by the borrower's ability to repay the borrowed funds. Liquidity risk refers to the risk that a company or bank may not be able to meet short-term financial needs (Kortana, 2019). This is usually caused by the inability to convert securities or tangible assets into cash without losing capital and/or earnings.

In the current fast-evolving business environment, banks face several risks: credit risk, liquidity risk, market risk, operational risk, etc. Due to the various risks faced, effective risk management is required. Managing risks is a basic task that must be performed after the risks are identified and understood. Good risk management focuses on identifying and handling risks (Jiravichai & Banomyong, 2022). According to Islam et al. (2020), banks face risks of various sizes and levels, the main of which are financial risks, which affect the progress of banks.

Bangkok Bank is one of the largest commercial banks in Thailand, and its risk management is crucial to maintaining financial stability and protecting the interests of customers. With the increasing competition in the financial field and the increasing uncertainty in the financial market, banks are facing various risks, such as credit risk, market risk, operational risk, etc. In this context, it is very important to study the risk management of Bangkok Bank. Through the study of Bangkok Bank's risk management, it can help banks better identify and manage various risks, thereby improving the efficiency and effectiveness of their risk management (Kortana, 2019). Therefore, the study of Bangkok Bank's risk management is mainly to promote the sustainable development and sound operation of Bangkok Bank and the entire financial industry by deeply understanding its risk management mechanism and practical experience and putting forward effective suggestions and improvement suggestions.

Bank risk management has always been an important topic in the global banking industry, especially in recent years (Gunarapong et al., 2022). With the occurrence of successive financial and banking crises, the risks faced by banks have continued to increase, which has had a significant impact on the global economy. Among them, credit risk is one of the most important risks for banks. However, credit risk management has not received much attention, and bank management has failed to take appropriate measures.

Liquidity is a dynamic challenge faced by enterprises, which depends on changing business and market conditions (Kortana, 2019). When a cash flow crisis occurs, enterprises may face a series of problems, including supply chain disruptions, blocked capital expansion plans, and default on loan contracts. Enterprises with sufficient liquidity are better able to meet their obligations and are also able to improve profitability and financial flexibility to face potential challenges and opportunities. Therefore, it is crucial to effectively manage liquidity risk to ensure that enterprises can respond to market changes and avoid potential financial distress.

Research Objectives

1. To analyze the impact of credit risk on Bangkok Bank's financial performance.
2. To determine the impact of market risk on Bangkok Bank's financial performance.

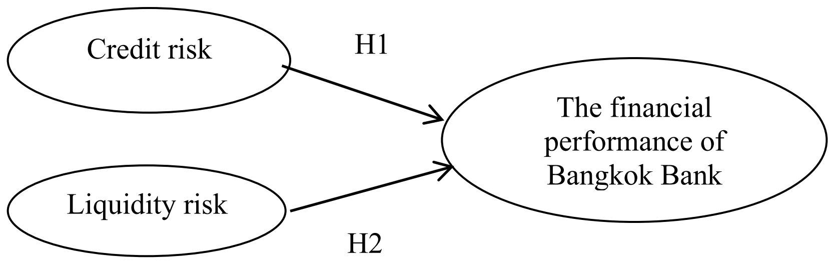
Conceptual Framework

Independent variables:

1. Credit risk: measures the level of credit risk faced by banks, usually using indicators such as non-performing loan ratio and loan loss reserves.

2. Liquidity risk: measures the level of liquidity risk faced by banks, usually using indicators such as liquidity coverage ratio and net stable funding ratio.

Dependent variables: Financial performance: measures the financial health of banks, usually using indicators such as net profit margin, return on assets (ROA), and return on equity (ROE). As shown in Picture 1.



Picture 1: Conceptual Framework

Hypothesis

This study aims to explore the impact of different risk factors on the financial performance of Bangkok Bank and constructs the following two hypotheses:

H1: Significant impact of credit risk on the financial performance of Bangkok Bank

H2: Significant impact of liquidity risk on the financial performance of Bangkok Bank

Literature Review

Risk

Risk should be studied because it varies from person to person (Phan, et al., 2020). Risk exists in various activities, including logistics activities, and when risks increase and affect the entire logistics network, managers need to make great efforts to identify and manage risks. Risk research has become increasingly complex because the meaning of risk can vary depending on personal views, attitudes and experiences Until the 1950s, the concept of risk was limited, specific and qualitative. Once a more comprehensive view was established and risk was considered a measurable phenomenon, companies and financial institutions began to pay attention to risk measurement.

Financial Risk

Risk is defined as a situation that causes significant and direct losses to an institution due to a reduction in revenue sources or a loss of capital (Phan, et al., 2020). A group of economists proposed a broader explanation of the risk phenomenon. They defined risk as an event or situation that may affect the ability of an organization to achieve its goals and limit the organization's activities or capabilities. If we accept this definition of risk, then risk must be considered as an integral part of the market economic system (Debkumar, 2022).This usually includes several major forms such as market risk, credit risk, operational risk and liquidity risk (Sharma et al., 2021). The existence of financial risks affects the operation of financial markets and financial institutions. Financial institutions must deal with various risks and conduct risk management to ensure healthy development and protect the interests of customers.

Risk management

Risk management refers to the design and implementation of procedures for managing business risks (Yin et al., 2020). Risk management aims to track business activities that develop with technological advances (Debkumar, 2022). Risk is uncertainty that leads to losses. Risks exist in various activities, including logistics activities, and they increase and affect the entire logistics network. There is a difference between the comprehensive risk management framework at the general micro level and the risk management framework at the macro level recommended for institutions, enterprises and banks (Sharma et al., 2021; Gunarapong et al.,2022). Obviously, risk management with the attitude of the board and managers can help organizations and institutions achieve effective and cost-effective risk management by using more diverse unilateral strategies.

Financial performance

Financial performance is one of the important indicators for evaluating the financial status and stability of commercial banks, and directly affects the long-term development and competitiveness of banks. When studying the factors affecting the financial performance of commercial banks, scholars usually focus on two important factors: credit risk and liquidity risk. Credit risk refers to the possibility of losses caused by the borrower's inability to fulfill its repayment obligations, and liquidity risk refers to the possibility of default.

Methodology

This study was analyzed through quantitative research methods. Quantitative research methods refer to a methodology in which the researcher uses practical methods and activities in the process of implementing the conceptual framework of the research problem. This section discusses the research design, research population, research sampling techniques, research sample size, data collection methods, data analysis methods, research ethics, and conclusion. This study used financial statement data collected from the official website of Bangkok Bank, Thailand for the past few years. Return on assets (RoA) was selected as the dependent variable, current ratio (CR), working capital ratio (OR), profitability ratio (MR), debt ratio (LR) was selected as independent variables, and capital adequacy ratio (CAR) was considered as a mediating variable, while the control variable was bank size. By operationalizing these variables, the study will explore the relationship between the financial performance of Bangkok Bank and various indicators. The data will be processed by collecting financial statement data from the official website and using appropriate data collection and analysis methods.

The research design is the structure of the study, a plan that brings all the elements together for collecting and analyzing data. The definition of research design varies, but generally refers to the arrangement conditions that are intended to combine the research purpose with economics and procedures (Thirapanmethee et al.,2022). Research design is the logical basis for decisions related to data collection, processing, and analysis. In this study, statistical descriptive and explanatory survey methods were used to assess the management of financial risks by commercial banks.

The research population is the focus of the study and is a collection of individuals or objects with common characteristics. Due to the large population size, researchers usually select a sample for research through sampling techniques. The population of this study includes bank employees, internal and external auditors, board members, risk management departments, etc.

Sampling techniques are methods used to select samples from a population (Thirapanmethee et al.,2022). Appropriate sampling methods can reduce bias and reduce collection costs. Commonly used sampling methods include simple random sampling, systematic sampling, stratified sampling, etc. This study used a probability sampling method, that is, random sampling, with a sample size of 103 people, determined according to the sample size calculation of Krejcie and Morgan.

For the aforementioned Bangkok Bank, a structured questionnaire survey was used to collect quantitative data. The questionnaire obtained by all respondents includes Part A and Part B. Part A is personal information. Part B deals with internal factors (credit risk, liquidity risk). There are 15 questions in total, using a 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). The questionnaire content was written in English to ensure that all respondents could understand it. Permission to use the scale developed by the researcher was obtained before the study began.

Results

1) Reliability and Validity Analysis of the Scale

The alpha-value of Cronbach is used to represent the effect of a set of problems in measuring a specific variable. Usually, the higher the correlation between questions, the higher Cronbach's alpha value. Therefore, the items of each variable should have a strong correlation to ensure a high internal consistency of the test. As shown in the table below, the results confirm that the Cronbach's alpha values were above 0.7 for all variables. Therefore, the questionnaire was considered reliable following the recommendations of Annannab et al. (2022).

Table 1: Reliability Analysis

No.	Construct	Cronbach's (α)
1	ROA	0.784
2	Credit Risk Management	0.775
3	Liquidity Risk Management	0.878

The KMO value is 0.753, ranging from 0.7 to 0.8. This research data is applicable for information extraction.

Table 2: Validity Analysis

Sample a sufficient Kaiser-Meyer-Olkin metric.		0.753
The sphericity test of the Bartlett	Approximate chi square	534.874
	df	120
	Sig.	0.000

In this study, risk management practices were analyzed the following the risk procedure described in the questionnaire. The mean and standard deviation of the variables were also analyzed in order to study the influence of risk management practices on the bank performance in Bangkok. Data are shown in the following table below:

Table 3: Descriptive statistics

Variable	Mean	Standard deviation	N
ROA	3.4812	1.36357	104
Credit Risk	3.713	1.0964	104
Liquidity Risk	3.681	1.2631	104

Table 3 shows the mean value of each risk management practice and the standard deviation of the data points collected from Bangkok banks. The data showed that credit risk and market risk were higher among all the study banks. The smaller standard deviation between credit risk and market risk indicates less variation in these risk management practices.

2). Correlation Analysis

Correlation analysis indicates that ROA, and credit risk: a correlation coefficient of 0.43 ** indicates a significant positive relationship (p <0.01). ROA and liquidity risk: The correlation coefficient was 0.61 **, indicating a significant positive relationship between the two (p <0.01). Credit risk and liquidity risk: The correlation coefficient was 0.47 **, indicating a significant positive relationship (p <0.01). Significant positive associations were found between ROA and credit risk as well as ROA and liquidity risk, indicating that higher credit risk and liquidity risk may be associated with higher ROA. Moreover, there was a significant positive correlation between credit risk and liquidity risk, indicating an interrelationship between the two risk management practices in the Bangkok bank studied.

Table 4: Correlation Analysis of Various Variables

	ROA	Credit Risk	Liquidity Risk
ROA	104		
Credit Risk	0.43**	0.66**	
Liquidity Risk	0.61**	0.47**	0.43**

Note : $*p < 0.05$, $**p < 0.01$.

Discussion

As a large-scale financial institution, Bangkok Bank's risk management is crucial. In the financial industry, risk management is one of the keys to ensure the sound operation of financial institutions. However, with the continuous changes and development of the financial market, the risks faced by banks are also increasing and evolving (Annannab et al., 2022). Therefore, for Bangkok Bank, strengthening risk management and ensuring the timely identification and effective control of risks are of great significance to ensuring its sound operation.

1). First, establish a sound risk management system

In order to effectively identify, assess and control risks, Bangkok Bank should establish a sound risk management system to ensure comprehensive management of various risks.Specifically, Bangkok Bank should set up a special risk management department to be responsible for the comprehensive management of various risks of the bank.Through risk training and education activities, the risk management level of employees can be improved to ensure the smooth progress of risk management work.

2). Second, strengthen the monitoring and response to changes in the external environment

To establish a sound internal risk management system, Bangkok Bank also needs to strengthen the monitoring and response to changes in the external environment and adjust risk management strategies and measures in a timely manner. And establish a flexible risk management mechanism that can adjust and change risk management strategies in a timely manner (Yin et al., 2020). As a large financial institution, risk management is crucial for Bangkok Bank. By establishing a sound risk management system and strengthening the monitoring and response to changes in the external environment and ensure the stability and healthy development of financial institutions.

Conclusions

This study aims to explore the impact of Bangkok Bank's risk management practices on financial performance (ROA). Descriptive statistical analysis and correlation analysis of Bangkok Bank's questionnaire data and official website data show that credit risk and liquidity risk are high in all the studied banks. The standard deviations of credit risk and market risk are small, indicating that the variation of these risk management practices is small. The results of the correlation analysis show that ROA has a significant positive correlation with both credit risk and liquidity risk (correlation coefficients are 0.43 and 0.61, respectively, $p < 0.01$). In addition, there is also a significant positive correlation between credit risk and liquidity risk (correlation coefficient is 0.47**, $p < 0.01$), indicating that these two risk management practices have a certain relationship in the studied Bangkok Bank. These findings emphasize the importance of effective risk management practices to the financial performance of banks and provide empirical evidence for further optimizing banks' risk management strategies.

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